

Grady Ranch Precise Development Plan

Final Supplement to the Grady Ranch/ Big Rock Ranch Master Plan 1996 Final Environmental Impact Report



State Clearinghouse #95033021

Marin County Community Development Agency
Planning Division
3501 Civic Center Drive
San Rafael, CA 94903

January 2012

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ACRONYMS AND ABBREVIATIONS

| | |
|-------------------|---|
| AB | Assembly Bill |
| ABAG | Association of Bay Area Governments |
| ARB | California Air Resources Board |
| ASF | Age Sensitivity Factors |
| ATCM | California airborne toxics control measures |
| BA | Biological Assessment |
| BAAQMD | Bay Area Air Quality Management District |
| BMPs | best management practices |
| CAA | Clean Air Act |
| CAAQS | California ambient air quality standards |
| CAP | clean air plans or climate action plan |
| CCR | California Code of Regulations |
| CDFG | California Department of Fish and Game |
| CFC | chlorofluorocarbon |
| CH ₄ | methane |
| CO ₂ | carbon dioxide |
| CO ₂ e | carbon dioxide equivalent |
| CSD | Marinwood Community Services District |
| DPS | distinct population segment |
| EPA | U.S. Environmental Protection Agency |
| ESA | federal Endangered Species Act |
| FMMP | Farmland Mapping and Monitoring Program |
| GHG | greenhouse gas |
| GWP | global warming potential |
| HCFC | hydro-chlorofluorocarbon |
| HCP | habitation conservation plan |
| JARPA | Joint Aquatic Resources Permit Application |
| lb/day | pounds per day |
| LGVSD | Los Gallinas Valley Sanitary District |
| MCFD | Marin County Fire Department |
| MEI | maximally exposed individual |
| MMT | million metric tons |
| MMWD | Marin Municipal Water District |
| mph | miles per hour |
| MT/yr | metric tons per year |
| N ₂ O | nitrous oxide |
| NAAQS | national ambient air quality standards |

| | |
|-------------------|--|
| NO _x | oxides of nitrogen |
| OAP | ozone attainment plans |
| OEHHA | Office of Environmental Health and Hazards Assessment |
| PDP | Precise Development Plan |
| PFC's | Perfluorocarbons |
| Plan | Marin Countywide Plan |
| PM | particulate matter |
| PM ₁₀ | particulate matter less than 10 micrometers in diameter |
| PM _{2.5} | particulate matter less than 2.5 micrometers in diameter |
| ROG | reactive organic gases |
| SB | Senate Bill |
| SCAs | stream conservation areas |
| SF ₆ | sulfur hexafluoride |
| SFBAAB | San Francisco Bay Area Air Basin |
| TACs | toxic air contaminants |
| tpy | tons per year |
| USACE | U.S. Army Corps of Engineers |
| USFWS | U.S. Fish and Wildlife Service |
| VOC | volatile organic compounds |
| µg/m ³ | micrograms per cubic meter |

1 INTRODUCTION AND PROJECT HISTORY

Marin County is the lead agency, pursuant to the State Guidelines for the California Environmental Quality Act (CEQA Guidelines Section 15050) for the preparation of a Supplemental Environmental Impact Report (SEIR) to the 1996 *EIR for the Lucasfilm, Ltd. Grady Ranch/Big Rock Ranch Master Plan*, certified in 1996 (1996 Master Plan FEIR). This Supplemental SEIR has been prepared by the County of Marin in accordance with CEQA, the State of California CEQA Guidelines, and the Marin County Environmental Impact Review Guidelines. The 1996 Master Plan FEIR (SCH #95033021) evaluated the effects of the development of approximately 108 acres (52 acres on Grady Ranch and 56 acres on Big Rock Ranch).

1.1 PROJECT BACKGROUND

In 1991, Lucasfilm, Ltd. submitted an application to Marin County of a Countywide Plan Amendment, a rezoning, and a Master Plan approval for the 1,039-acre Grady Ranch. The applicant also prepared a conceptual plan for the adjacent 1,117-acre Big Rock Ranch. In July 1991, County Planning Department staff determined a Program EIR was required for both the proposed Grady Ranch and Big Rock Ranch projects. In 1991, a Notice of Preparation was issued to affected Federal, State, and local public agencies and to all known interested parties to begin the scoping of environmental issues for the EIR. A public scoping session was conducted on December 19, 1991 to identify environmental issues and provide additional opportunity for the public to participate in the development of the scope of the EIR. The Grady Ranch and Big Rock Ranch Draft EIR was circulated for public review for a 45-day period between August 4, 1992 and September 21, 1992. A public hearing was conducted by the Marin County Planning Commission on August 24, 1992, and testimony was received on the adequacy of the 1992 Draft EIR. In September 1992, after the close of the public review period for the 1992 Draft EIR, the project applicant formally notified the County of changes to the project that would require a supplemental or subsequent Draft EIR to address the project revisions. Consequently, the project applicant requested, and the County agreed, to suspend all processing of the project applications and 1992 Draft EIR pending revisions to the project design.

In October 1994, the project applicant submitted a letter to the Marin County Community Development Agency requesting that the County proceed with its Master Plan application, as modified. Lucasfilm, Ltd. submitted an application to Marin County for a Master Plan and Use Permit approval for digital film and multi-media facilities and related uses on the Grady, Big Rock, Loma Alta, and McGuire Ranches. On the basis of the previous 1992 Draft EIR and the project redesign, County staff determined that a new Master Plan Program EIR should be prepared. The 1996 Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan EIR evaluated a full range of impacts, including geology and soils, hydrology and drainage, biological resources, visual and aesthetic quality, archaeological and historical resources, transportation and circulation, and public services and, where significant, proposed measures to mitigate these impacts. The 1996 Master Plan FEIR was certified by the Marin County Board of Supervisors (Ordinance 3237 and Resolution 96-151). As mentioned above, the Master Plan Project was planned as a phased project, and the Master Plan Program EIR analyzed both the Big Rock Ranch and Grady Ranch portions of the project. The Grady Ranch Precise Development Plan (PDP) constitutes a second phase of the implementation program of the Grady Ranch/Big Rock Ranch Master Plan and Use Permit approved by the Marin County Board of Supervisors on October 29, 1996.

1.2 ENVIRONMENTAL REVIEW OF THE PROPOSED PROJECT

As discussed above, the Grady Ranch PDP details a second phase of the implementation of the Grady Ranch/Big Rock Ranch Master Plan and Use Permit, analyzed in the 1996 Master Plan FEIR and approved by the Marin County Board of Supervisors on October 1996. Since the approval of the Master Plan, construction of the

multimedia facility and accessory buildings has occurred on Big Rock Ranch and conservation easements have been established. The PDP includes several changes to the previous project description for Grady Ranch, including a decrease in the proposed Main Building size, decreases in the anticipated grading and subsequent cut and fill amounts, and an increase in the number of proposed bridges over on-site creeks. The changes to the proposed project description that are relevant to environmental review are listed in Table 2-2 of the Project Description. In addition, the development of the Precise Development Plan has incorporated several of the mitigation measures included in the 1996 Master Plan FEIR, including the payment of traffic mitigation fees for roadway improvements, a fee dedication of part of Grady Ranch (in addition to the agricultural conservation easement), and the development of a Stream Conservation Area restoration and enhancement plan.

Because of the changes to the Grady Ranch project, environmental analysis is required under CEQA. The County has determined that a supplement to the 1996 Master Plan EIR is warranted. Pursuant to Section 15163 of the State CEQA Guidelines, the Lead Agency may choose to prepare a supplement to the EIR rather than a subsequent EIR if: 1) any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and 2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation. The following are conditions contained in CEQA Guidelines Section 15162 that would apply to the preparation of a Subsequent EIR:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternative.

This ~~SEIR Supplement to the 1996 Master Plan FEIR will undergo~~ underwent the same kind of notice and public review as is given to a draft EIR under section 15087, per Guidelines Section 15163(c). A supplement to an EIR need contain only the information necessary to make the previous EIR adequate for the project as revised (Guidelines Section 15163(b)).

Upon review of the proposed project, the County has determined that the proposed project is consistent with the criteria for preparation of a supplemental EIR as defined above. This determination is based on the analysis included in Chapter 3, Environmental Checklist, of this SEIR Supplement. The Environmental Checklist evaluates the CEQA checklist categories in terms of any “changed condition” (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a different environmental impact significance conclusion from the certified Master Plan Final EIR. As discussed in Chapter 3, the changes to the Grady Ranch PDP, in combination with other changed conditions would not result in new or more severe significant effects in the following areas: Aesthetics, Agriculture and Forestry Resources, Energy and Natural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, and Utilities. The changed conditions would result in new potentially significant impacts or an increase in the severity of previously identified significant impacts related to Air Quality, Biological Resources, Cultural Resources, and Greenhouse Gas Emissions. New mitigation measures, identified through environmental review, included in this SEIR Supplement would reduce the magnitude of these impacts to less-than-significant levels.

The Draft SEIR to the 1996 Master Plan FEIR will be submitted to the State Clearinghouse and made available to all applicable federal and State regulatory agencies and other interested parties on October 27, 2011. The public review period begins on October 27, 2011 and ends on December 13, 2011. Additionally, the County Planning Commission held a public hearing on the Draft SEIR on December 12, 2011. Following the close of the comment period, written responses were prepared to all comments received. Those comments and the responses are included in Section 4 of this document. Further, the Final SEIR contains the text of the Draft SEIR as revised to reflect staff-initiated text changes and responses to comments received on the Draft SEIR. The revisions to the Draft SEIR text are denoted by double strikeouts for deletions and double underlining for additions.

This Final SEIR to the 1996 Master Plan FEIR will be submitted to the State Clearinghouse and made available to all applicable federal and State regulatory agencies and other interested parties on January 23, 2012. The public review period begins on January 23, 2012 and ends on February 6, 2012. Per Marin County Environmental Impact Review Guidelines, the review of a Final EIR shall exclusively focus on the adequacy of the responses to comments on the Draft EIR. Written comments received on the Final SEIR responses to comments within the review period deadline shall be considered, together with any written or oral response from staff or the EIR preparer, at the time action is taken to certify the SEIR by the Planning Commission.

During the public review period, comments and questions on this Final SEIR Supplement to the 1996 Master Plan FEIR should be submitted to:

Rachel Warner
Marin County Community Development Agency
Planning Division
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Additionally, as noted in the Notice of Availability for the Final SEIR, comments can be sent via email to envplanning@marincounty.org or faxed to the Community Development Agency Office at (415) 499-7880. The SEIR Supplement evaluates the potential impacts of the revised Grady Ranch Project at a project-specific level and affords the public with opportunity to comment on the potential environmental effects of the proposed project. This SEIR Supplement to the 1996 Master Plan FEIR focuses on any new potentially significant impacts and/or increases in the severity of impacts previously analyzed in the 1996 Master Plan FEIR. The changes to the project are described in Chapter 2, Project Description.

The prior EIR is available for review during the hours of 8:00am to 4:00pm, Monday thru Thursday and 8:00 a.m. to 12:00 p.m. on Friday, at the Marin County Community Development Agency at 3501 Civic Center Drive, Room 308, San Rafael, CA 94903 and at the Community Development Agency's website at <http://www.co.marin.ca.us/depts/CD/main/comdev/eir.cfm>
~~<http://www.co.marin.ca.us/depts/CD/main/index.cfm>~~. All documents/volumes comprising the Certified EIR can be obtained for review on request (at the counter or by appointment).

2 PROJECT DESCRIPTION

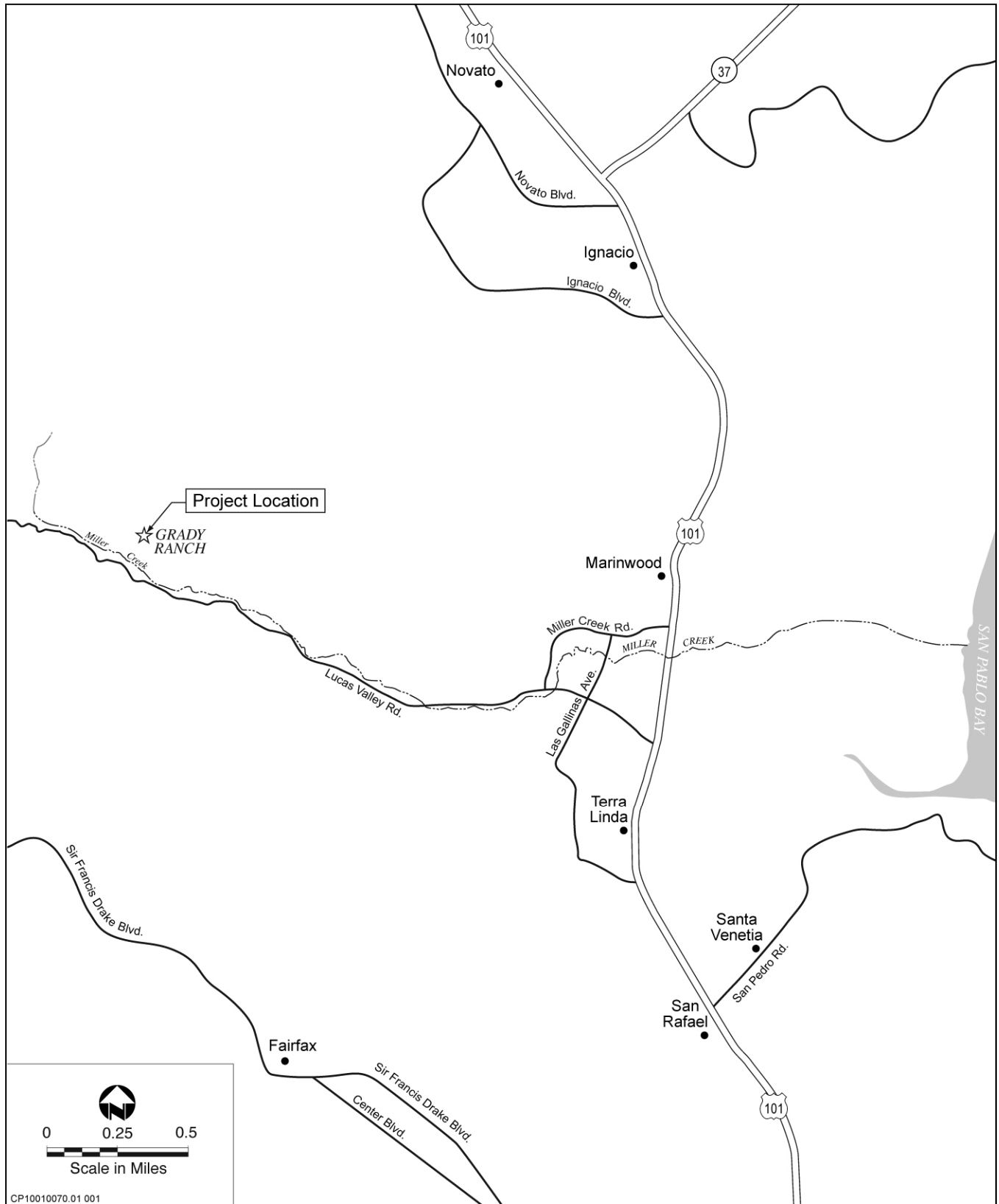
2.1 PROJECT OVERVIEW

The proposed Grady Ranch Precise Development Plan (PDP) details a second phase of the implementation of the Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan and Use Permit approved by the Marin County Board of Supervisors on October 29, 1996. Lucasfilm Ltd. is an entertainment company with offices and facilities in Marin County. The company's headquarters are located at Skywalker Ranch, approximately four miles west of the Grady Ranch PDP site. The previously proposed Master Plan included a project site that was comprised of the Grady, Big Rock, McGuire, and Loma Alta ranches. The Master Plan Project was planned as a phased project that included two office building complexes (one each on Grady and Big Rock Ranch), development of housing for employees and overnight guests, and the preservation of 95 percent of the property as open space under an agricultural conservation easement with public trail access and public open space. Since the approval of the Master Plan, construction of the multimedia facility and accessory buildings has occurred on Big Rock Ranch, and conservation easements have been established. There was also a fee dedication of part of Grady Ranch, in addition to the agricultural conservation easement. Fee title dedication of 800 acres of open space was offered to, and accepted by, the Marin County Open Space District.

The 239-acre Grady Ranch PDP would include construction of the Main Building, Gate House Building, and Main Entry Road; realignment of Lucas Valley Road at the main entrance to the project; improvement of West Fire Road; replacement of the fire access road to the east side of Grady Creek (East Fire Road); realignment of the Upper Fire Road around the Main Building; nine bridges; and other related improvements, such as water tanks (see Site Plan in Exhibit below under Project Characteristics). On-site grading would include excavation of the underground parking beneath the Main Building and the Wine Cave and use of excavated materials for constructing a knoll on the east end of the property and for creek restoration. The Grady Ranch PDP proposes the restoration and enhancement of Miller Creek, Grady Creek, Landmark Creek and other tributaries located on the property. Restoration and enhancement plans would include elevating and reconnecting the Miller Creek stream channel to its active floodplain and improving the habitat functions and values of the Stream Conservation Area (SCA). The project would incorporate Low Impact Development (LID) practices to manage stormwater through a natural system that would be coordinated with SCA restoration and enhancement. Development would be located ~~on 52 acres~~ within the 52-acre development area. The remaining parcel area of 187 acres around the 52-acre development area would be preserved as private open space. The following project description is derived primarily from the project application materials submitted to Marin County. Additional information was obtained from the 1995 Master Plan FEIR, a November 2010 site visit, and available technical reports, which are referenced in the text.

2.2 PROJECT LOCATION

The 239-acre project site is located on the north side of Lucas Valley Road in the ~~Las Gallinas and~~ Lucas Valley area approximately eight miles northwest of the City of San Rafael in Marin County (see Exhibit 2-1). The project site is four miles west of U.S. Highway 101. Access to the project site is provided by Lucas Valley Road, which extends from the U.S. Highway 101/Lucas Valley Road interchange for approximately 10 miles to its western terminus at Nicasio Valley Road. The entrance to Big Rock Ranch is approximately 1.6 miles west of the main entrance at Grady Ranch and the entrance to Skywalker Ranch is an additional 2.4 miles to the west. The Grady Ranch PDP consists of three parcels (Assessor Parcel Numbers 164-310-15, 17, and 19).



Source: Adapted from Marin County Open Space District 2010

Exhibit 2-1

Regional Location

2.3 EXISTING SETTING

2.3.1 GENERAL SETTING

Directly east of Grady Ranch is the Monahan Property, the Lucas Valley Estates residential development and lands of the Marin County Open Space District. Farther east of Lucas Valley Estates is additional residential development. West of Grady Ranch are Big Rock Ranch and Skywalker Ranches (the former Bull Tail Ranch). The area south of Lucas Valley Road is mostly undeveloped, with a few individual residential properties. Grady, Big Rock, and Bull Tail ranches historically were used for grazing until part of Bull Tail Ranch was developed by Lucasfilm into Skywalker Ranch with film and sound production facilities (Marin County Community Development Agency 1996). Historic use of the project site also included a tree farm and a homestead that has been removed. Some remnants of the homestead remain, such as plantings, and retaining wall and drainage remnants.

Elevations on the project site range from approximately 230 to 530 feet above mean sea level (Marin County Community Development Agency, 1996). The majority of the property consists of hillsides with slopes of 30 percent or steeper. Slopes adjacent to Miller and Grady Creek are generally less than five percent. Within the proposed development area, elevations range from approximately 230 to 340 feet. The project site is currently undeveloped, and there are no existing dwelling units or buildings. The existing zoning is RMP (Residential – Multiple Planned District), and the existing General Plan designation is Planned Residential.

Most of the area within and surrounding Grady Ranch is currently open space, except for a low-density residential neighborhood adjacent to the ranch on the east. Mixed oak/bay woodlands exist within shaded, incised drainageways, commonly referred to as Grady and Landmark stream conservation areas SCAs. Non-native annual grassland with a native grassland component dominates the exposed ridgelines and open slopes. A number of maintained dirt roads exist within the project area. Similar topographical conditions and vegetation communities occur to the north of the Grady Ranch property along the south-facing slope of Big Rock Ridge. Dense mixed oak/bay woodland dominates the area south of the project area on the north-facing slope of Lucas Valley. Developed land uses in this area consist of the Lucasfilm facilities, ranches, rural residential development, and the previously mentioned low-density residential neighborhood.

2.3.2 AESTHETICS SETTING

Grady Ranch is undeveloped except for a transmission line and fire access road that traverse the site from Big Rock ~~Ranch~~ Ridge to the valley floor. A second access fire road runs between the fire access and a secondary entrance to Lucas Valley Road, approximately a half mile west of the main entrance, paralleling Miller Creek. The moderate to steeply slopes hillsides of Big Rock Ridge are covered with a combination of grassland, scrub, and chaparral. Woodland trees are concentrated around ridge spurs, ravines, and along stream channels. Existing short-range views to the east over and across the project site consist of trees located on the eastern edge of the Grady Ranch property, grassland, thick tree stands adjacent to Miller Creek and its tributaries, and the natural topography of the Grady Ranch site. Existing long-range views across the Grady Ranch site include additional hills and topography on the western portion of the project site, including views of undeveloped ridgelines in the distance.

2.3.3 AIR QUALITY SETTING

The project site is located within the San Francisco Bay Air Basin, and is within the jurisdiction of the Bay Area Air Quality Management District. Located on the west (and upwind) edge of the air basin, Marin County's air quality is greatly influenced by the Pacific Ocean. The prevailing wind direction is westerly, which carries pollutants

generated in Marin County to other portions of the Bay Area. The Air Quality Management District operates a network of air monitoring sites in the Bay Area. The District's closest monitoring station is located several miles east of the project site in San Rafael.

2.3.4 BIOLOGICAL RESOURCES SETTING

The 1996 Master Plan FEIR considered 25 special-status animal and 35 special-status plant species with potential to occur on the project site, based on the presence of suitable habitat for those species. No fish species were addressed in the analysis. The 1996 Master Plan FEIR reported that no special-status species were known to occur on the project site. The 1996 Master Plan FEIR concluded that populations of two special-status plant species occur on Grady Ranch, outside of proposed development area. Since the 1996 Master Plan FEIR was certified, the Central California Coast distinct population segment (DPS) of steelhead was listed as threatened under the federal Endangered Species Act. The Grady project site occurs within the range of the Central California Coast steelhead DPS, and a steelhead has been documented on the site. One sub-adult steelhead was documented in a perennial pool along the upper reaches of Grady Creek, ~~although — However~~ the quality of spawning habitat in Grady Creek is marginal. Miller Creek provides more suitable spawning habitat, although no perennial pools were observed in Miller Creek on the project site. In addition, based on recent studies, golden eagles have been documented on the Grady Ranch project site, and another 11 animal species have a moderate to high potential to occur there.

Oak-California bay woodland is distributed on hillside slopes and along drainages on the Grady Ranch site. In general, oak woodlands are not considered or tracked as a sensitive habitat by CDFG's California Natural Diversity Database. ~~However, o~~ Oak woodlands are considered sensitive and receive protection in several local jurisdictions (e.g., counties, cities) in California due to their high biological, heritage, and aesthetic value, and threats to oak woodlands statewide from development and sudden oak disease. Oak woodlands receive special consideration for conservation in the Marin Countywide Plan and the County *Native Tree Preservation and Protection Ordinance*, which include policies to protect oak trees and woodlands. Valley or purple needlegrass grassland is a native grassland type present on the project site. Native grasslands are considered sensitive habitats in California.

The Marin Countywide Plan, Natural Systems and Agricultural Element (Marin County 2007), establishes and defines a SCA as a "setback from the bank of a natural watercourse, which is intended to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams." The Countywide Plan includes standards for defining SCAs and establishing development setbacks for different stream types (perennial, intermittent, ephemeral), County-designated environmental corridor types, and parcel sizes; the Countywide Plan also includes several specific implementation policies to protect streams and riparian zones.

2.3.5 GEOLOGY AND SEISMICITY SETTING

The entire San Francisco Bay Area is located in the seismically active region where the Pacific and North American tectonic plates meet. The Pacific Plate consists of most of the Pacific Ocean floor and California coastline, and the North American plate includes the North American continent and parts of the Atlantic Ocean floor. The San Andreas fault forms the primary boundary between the plates, and many smaller faults, including the Hayward, Calaveras, and Greenville faults, branch from and join the northwest trending San Andreas fault zone. Historically, the most damaging earthquakes in California have occurred along the San Andreas fault zone, and damaging earthquakes also have occurred on other active faults in the region which belong to the San Andreas fault system. No active faults are known to be present on the project site, but active and possibly active faults in the vicinity include the active San Andreas fault zone (located about eight miles southwest of the site),

the possibly active Healdsburg-Rodgers Creek fault (located about 11 miles northeast of the project site), and the active Hayward and Calaveras faults (located six and nine miles east of the site, respectively).

The project site is located in the Northern California Coast Ranges of California. The eastern portion of the valley floor at Grady Ranch is relatively flat and consists of the meandering, steep-sided creek bed, flat meadows, and low gentle slopes. The remainder of the site topography is characterized by moderately sloping land along the creeks and drainageways, transitioning to generally moderately steep to steep hillsides. Landslides typically occur as a result of natural on-going erosional processes on steep or undermined slopes with weak slope materials or unfavorable geological structural conditions. Due to the geologic instability of the underlying Franciscan mélangé and its susceptibility to landsliding, as well as that of the fractional sandstone, slope instability represents the major existing geologic hazard on Grady Ranch. Landslides can occur naturally and also are human-induced. They result from the often complex interaction of the underlying rock units, soil-water relationships, construction of fire access roads, and other activities, such as alterations on drainage patterns.

The USDA Soil Survey for Marin County indicates that the project area has four native soil types: Blucher-Cole complex, two to five percent slopes; Los Osos-Bonnydoon complex, 30 to 50 percent slopes; Saurin-Bonnydoon complex, 50 to 75 percent slopes; and Tocaloma-Saurin association, extremely steep.

2.3.6 HYDROLOGY SETTING

Grady Ranch is located in the upper reaches of the 5,100-acre (eight-square-mile) Miller Creek Watershed. The portion of the Miller Creek watershed that lies upstream of its most downstream point on the Grady Ranch property is 1,786 acres. Miller Creek leaves the Grady Ranch property at the southeastern corner of the ranch and continues through the adjacent to the Monahan Property. Surface runoff on the project site primarily flows into two intermittent streams that function as major tributaries to Miller Creek. Miller Creek is a major stream in Marin County and flows east through the Las Gallinas Valley for six miles to San Pablo Bay. Upstream (west) of the Monahan bridge, the Miller Creek watershed drains ~~4,700~~ 1,786 acres primarily north of Lucas Valley Road, and a smaller sub-basin south of the road. Natural hydrological sources for the project area include direct precipitation and surface run-off from adjacent lands. Small areas (less than 0.05 acre) of riparian, seasonal freshwater emergent, and perennial freshwater wetlands have formed on gravel bars within the bed of Miller Creek. Seasonal wetlands in the project area are located in a vegetated depression that collects flows from an unnamed ephemeral drainage during the rainy season (WRA, Inc. 2009).

Miller Creek is the principal source of recharge to the local groundwater system. The water table rises to the level of the creek bed during the winter. In spring, groundwater drains into the creek, sustaining low stream flow into early summer. The vertical drop at the bridge at Grady Fire Road (an approximately vertical 9-foot drop in the creek-bed elevation) creates a stair-step in the creek-bed profile where groundwater discharge generates a small volume of stream flow that typically continues to the downstream property line. Also, Miller Creek upstream of the Grady Fire Road bridge goes dry relatively early in the summer because the water table rapidly declines to the groundwater level below the bridge which has been depressed.

Miller Creek, Grady Creek, Landmark Creek, Loma Alta Creek and several smaller drainageways throughout Grady Ranch are steeply incised and show signs of heavy erosion along their banks. This process of down-cutting and erosion is likely due to logging and grazing activities in the watershed over the last century. Both activities can promote soil compaction, reduced vegetative cover and increased soil instability in upland areas, which in turn promote higher, more powerful flows through adjacent stream channels, stream bank slumping, and channel scouring. Streams affected by scouring and slumping provide poor habitat for aquatic and riparian vegetation and associated wildlife species such as salmonids and other fish species. Evidence of these erosive

processes are most apparent in lower reaches of Grady Creek and just downstream of Grady Bridge in Miller Creek where the creek channel bed is 11 feet lower than the channel bed upstream of the bridge (WRA, 2008d).

2.3.7 NOISE SETTING

The existing noise environment in the project area is primarily influenced by transportation noise from vehicle traffic on the local roadway system (e.g., Lucas Valley Road). Other noise sources that contribute to the existing noise environment, but to a much lesser extent, include the nearby residential areas (e.g., golf carts, landscape maintenance activities, dogs barking, people talking) and cyclists pass-bys.

An ambient noise survey was conducted on February 21, 2011. Short-term measurements were taken at two locations. The short-term measurement data reflects a fairly quiet noise environment, which is typical of rural areas affected by intermittent traffic noise.

2.3.8 TRAFFIC SETTING

The Grady Ranch site is located on the north side of Lucas Valley Road in the Las Gallinas Valley. Regional highway access is provided by the Highway 101/Lucas Valley Road interchange. Highway 101 is a major north-south freeway providing eight travel lanes (four in each direction). Lucas Valley Road is an east-west arterial roadway providing two travel lanes (one in each direction) (see Exhibit 2-1). Las Gallinas Avenue is a north-south arterial that provides between four (two in each direction) and two (one in each direction) travel lanes. Miller Creek Road is a north-south arterial that provides access through an area of residential development in Marinwood. Mt. Lassen Road is a north-south collector road that provides access to an area of residential development in the Upper Lucas Valley.

2.4 PROJECT BACKGROUND

In 1991, Lucasfilm, Ltd. submitted an application to Marin County of a Countywide Plan Amendment, a rezoning, and a Master Plan approval for the 1,039-acre Grady Ranch. The applicant also prepared a conceptual plan for the adjacent 1,117-acre Big Rock Ranch. In July 1991, County Planning Department staff determined a Program EIR was required for the proposed Grady Ranch project. In 1991, a Notice of Preparation was issued to affected Federal, State, and local public agencies and to all known interested parties to begin the scoping of environmental issues for the EIR. A public scoping session was conducted on December 19, 1991 to identify environmental issues and provide additional opportunity for the public to participate in the development of the scope of the EIR.

The Grady Ranch Draft EIR was circulated for public review for a 45-day period between August 4, 1992 and September 21, 1992. A public hearing was conducted by the Marin County Planning Commission on August 24, 1992, and testimony was received on the adequacy of the 1992 Draft EIR. In September 1992, after the close of the public review period for the 1992 Draft EIR, the project applicant formally notified the County of changes to the project that would require a supplemental or subsequent Draft EIR to address the project revisions. Consequently, the project applicant requested, and the County agreed, to suspend all processing of the project applications and 1992 Draft EIR pending revisions to the project design.

In October 1994, the project applicant submitted a letter to the Marin County Community Development Agency requesting that the County proceed with its Master Plan application, as modified. Lucasfilm, Ltd. submitted an application to Marin County for a Master Plan and Use Permit approval for digital film and multi-media facilities and related uses on the Grady, Big Rock, Loma Alta, and McGuire Ranches. On the basis of the previous 1992 Draft EIR and the project redesign, County staff determined that a new Master Plan Program EIR should be

prepared. The 1996 Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan EIR evaluated a full range of impacts, including geology and soils, hydrology and drainage, biological resources, visual and aesthetic quality, archaeological and historical resources, transportation and circulation, and public services and, where significant, proposed measures to mitigate these impacts. The Master Plan FEIR was certified by the Marin County Board of Supervisors (Ordinance 3237 and Resolution 96-151). As mentioned above, the Master Plan Project was planned as a phased project, and the Master Plan Program EIR analyzed both the Big Rock Ranch and Grady Ranch portions of the project. The Grady Ranch PDP constitutes a second phase of the implementation program of the Grady Ranch/Big Rock Ranch Master Plan and Use Permit approved by the Marin County Board of Supervisors on October 29, 1996.

2.5 PROJECT OBJECTIVES

The 1996 Master Plan FEIR did not include overall project-specific objectives. It included a list of criteria for the Lucasfilm facilities such as location, size, topography, and site availability. The following objectives are new and have been developed to address the Grady Ranch PDP. The project is proposed to meet the following objectives:

- ▲ Implement the Grady Ranch development project consistent with the Marin County Board of Supervisors Ordinance 3237 and Resolution 96-151 including numerous public benefits identified in these approval documents including but not limited to, mitigation of existing site watercourse erosion and landslide impacts, restoration and enhancement of habitat value along streams, implementation of long-term site habitat restoration and watershed management measures, mitigation of area-wide cumulative traffic impacts, enhancement of public services, job development and open space deed restrictions.
- ▲ Develop a world class facility devoted to digital image and film production.
- ▲ Provide ecological- and watershed-wide mitigated design and site construction that follows current standards for erosion control and habitat restoration and which meet the purpose and intent of the Master Plan EIR mitigations while following highest and best management practices.
- ▲ Ensure that site development and building construction:
 - /// is sensitive to the property's unique scenic resources and open space character of the area;
 - /// results in restoration, preservation and conservation of natural resources in development areas and land deeded for conservation purposes; and
 - /// balances the 1996 Master Plan approval allowing up to 456,100 square feet of building floor area for up to 340 employees and overnight guests (the primary use of the buildings to be office and digital film production) with the public's desire to preserve and protect over 800 acres of dedicated open space.

2.6 PROJECT CHARACTERISTICS

As stated above, the second phase of the Master Plan Project includes the Grady Ranch PDP. The PDP proposes construction and operation of the Main Building, Gate House Building, and Main Entry Road, as well as roadway improvements, bridges, and other related improvements (see Exhibit 2-2). These elements of the project are discussed below. It is expected that the Grady Ranch Project would employ a similar number of people as described in the Master Plan EIR. The Master Plan FEIR listed the following number of employees and guests at Grady Ranch per use: residential accommodations, 6; main building, 319; day care/recreation building, 10; and gate house building, 5. The project applicant has indicated that the number of employees and guests under the Grady Ranch PDP (340) would be similar to, and would not exceed, what was proposed under the Master Plan. This would be the maximum number of guests and employees on the project site. It is expected that typical day-to-day operations would be less than this maximum. Business hours of the site administration would be

expected to adhere to a typical Monday through Friday work schedule from 9 a.m. to 5 p.m. However, the hours and activities occurring onsite during film production would vary depending on the needs of the film production schedule at the time. As with any business operation, occasional employee hours may extend past this time on an individual basis. As noted above, there would be residential accommodations in the Main Building. A small number of employees could be available around the clock for guest services. Potential exceptions to these business hours for more than a few people at a time would be rare, because of the costs of extending employee hours past the typical workday for a production. Typical existing operating hours for Skywalker and Big Rock Ranches, including for film production work, fall within the 9 a.m. to 5 p.m. work schedule

2.6.1 MAIN BUILDING

The Main Building would house facilities to be used primarily for advanced, digital technology-based entertainment production. The building would have three stories over underground parking. The parking level would include spaces for 202 cars and 24 bicycles, storage areas, mechanical rooms, a receiving/storage area, and a service dock (see Exhibit 2-3).

The first level of the Main Building would include the entrance lobby, reception/security, offices, a general store, kitchen and dining areas, screening rooms, costume storage, make-up/dressing rooms, a set shop, equipment storage area, and stages, including an outdoor stage (see Exhibit 2-4). The production stages at the rear of the Main Building would vary from 25 to 55 feet in height. These production stages would be used at times for the production of sequences that require techniques possible only in such a large space. Costume storage, make-up rooms, and dressing rooms would be located adjacent to the production stages at the rear of the building. A set shop, equipment storage, and an outdoor stage would be located on the west side of the building, adjacent to the production stages. The outdoor stage would include both safety/security and work light features. Approximately seven work light fixtures are planned for this outside area. The outdoor stage would not be a sound stage or a concert stage. Rather, the outdoor stage would be used for digital motion and still photography for the production of television shows, motion pictures, and related entertainment media. For the past decade, LucasFilm, Inc. has used outdoor stage facilities primarily for motion and still photography of miniature model sets, and of props and actors situated in front of "green screen" scrims (i.e. fabric screen wall). These activities can be accommodated in a compact area, as reflected in the relatively small size of the outdoor stage, which would measure approximately 150 feet wide by 50 feet deep. Such facilities are used on a very infrequent basis; for example, it is estimated that LucasFilm, Inc. has used such facilities for the filming of only one motion picture in the past five years. Amplified sound would not be included in the use of the outdoor stage. Pursuant to Marin County Code section 6.70, any amplified sound or loud noises that could be heard at a distance of 50 yards from the building would require approval of a separate permit by the Community Development Director.

An entrance lobby with an administration office and attached reception/security office would be located at the main entrance of the building on the first floor level. A main lobby with glazed roof, open to the second and third floors, with four offices on each side, would lead to the restaurant, store, and wine tasting room, as well as to the open courtyard. Office suites and screening rooms would surround the open courtyard. Production suites would be located on the second floor level (see Exhibit 2-5). There would be 15 to 20 guest suites, a pilates/yoga room and a fitness center located on the third floor level (see Exhibit 2-6).

The "footprint" on the ground would be 123,145 square feet including the outdoor stage and loading dock area between the stage and the building. The total area of building area would be 269,701 square feet, distributed among the uses as indicated in Table 2-1.

| Table 2-1: Grady Ranch Precise Development Plan- Project Elements and Building Square Footage | |
|--|----------------|
| Project Element | Square Footage |
| Parking | |
| Vehicular Parking | 72,375 |
| Cycle Racks | 337 |
| Subtotal – Parking | 72,712 |
| Unenclosed Open Space | |
| Subtotal – Unenclosed Open Space | 6,504 |
| Occupied Areas | |
| Stage A | 31,710 |
| Stage B | 12,647 |
| Outdoor Stage | 6,947 |
| Set Shop | 2,400 |
| Stage Alley | 5,485 |
| Equipment Storage | 6,427 |
| Services | 1,805 |
| Mech / Electric | 8,332 |
| Kitchen | 1,151 |
| Speakers | 817 |
| Proj. | 476 |
| Screen Rooms | 27,918 |
| Control Room | 2,073 |
| Media Room | 2,625 |
| Make-Up/Dressing | 1,913 |
| Costume | 2,125 |
| Office Uses | 12,547 |
| Guest Rooms | 11,228 |
| Guest Balconies | 4,304 |
| Restaurants | 4,381 |
| Fitness | 4,803 |
| General Store | 3,151 |
| Restrooms | 3,084 |
| Lobby | 4,166 |
| Main Lobby | 1,335 |
| Subtotal – Occupied Areas | 190,485 |
| Circulation | |
| Circulation | 27,960 |
| Total Area | 269,701 |
| Source: Grady Ranch Precise Development Plan, application materials, [September 8, 2010] | |

The Main Building would be built up to a maximum height of 85 feet. This would consist of the main portion of the building that would be built up to 51 feet from the floor of the first level to the top of the wall above the third level. The height of the building would extend an additional 34 feet to the highest point at the top of the towers. The building would be situated partially underground to minimize the aboveground mass. The visible height of the building would vary according to both the building dimensions and the interrelationship of the building with the surrounding topography outside the structure. The east, west, and south elevations would appear as a predominantly three-story building with architectural features, such as stone walls, cast stone detailing, glass ceilings, and a tower. The north elevation would include the back of the proposed Main Building and would appear as a predominantly one-story building with two towers overhead.

2.6.2 GATE HOUSE

The Gate House would be located on the Main Entry Road beyond the bridge over Miller Creek and would be used to manage arrivals and departures. The Gate House would ~~be~~ also be used as headquarters for onsite fire service, maintenance, and security. The Gate House would comprise 900 square feet of floor area in one story and would include an extended roof under which entering vehicles would pass. The maximum height of this building would be 25 feet from the surrounding finish grade.

2.6.3 AGRICULTURAL USES

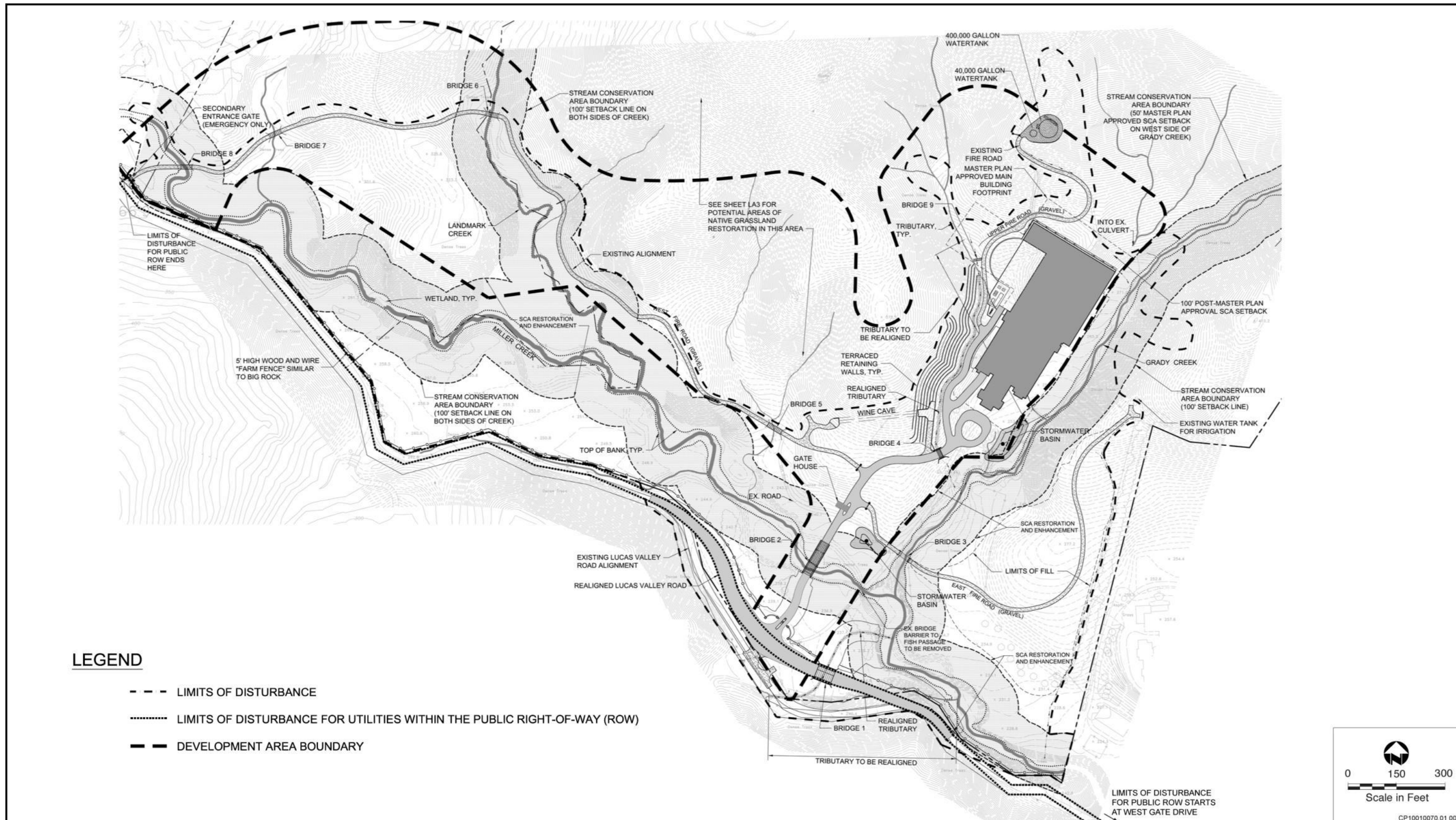
The proposed PDP would not include any agricultural uses. Grape vines would be planted on the terraced retaining walls west of the Main Building and would be solely for aesthetic purposes. The Master Plan and the Master Plan FEIR included potential agricultural use for the proposed grape vines, but under the Grady Ranch PDP, the grapes would not be harvested. Cattle grazing would not occur on the project site.

2.6.4 WINE CAVE

A wine cave would be constructed at the southern end of the ridge to the west of the Main Building with an entrance at the southern end of the terraced vineyards. A second entrance would be located off the driveway for the future archival storage building on the opposite side of the ridge. The proposed retaining wall in the vicinity of the wine cave entrance would be 20 feet high. The interior size of the wine cave would be 3,920 square feet. The wine cave would be used for the storage of wine from grapes planted on other Lucasfilm properties (e.g., on Skywalker Ranch). The wine would arrive in barrels via truck following harvest on the Skywalker property each year for storage and aging. Wine would be stored in barrels for later distribution to bottling facilities. Delivery and distribution of wine barrels would occur occasionally, and it is estimated that eight trucks per year would visit the site for activity pertaining to the wine cave. The wine cave would also be used for the storage of olive oil and/or other agricultural products from other Lucasfilm properties. No production of agricultural products would occur on-site. In addition to storage of agricultural products, periodically, the wine cave may be used to host wine tastings. As indicated in Table 2-2 below, the wine cave was not part of the proposed Master Plan.

2.6.5 ROAD IMPROVEMENTS

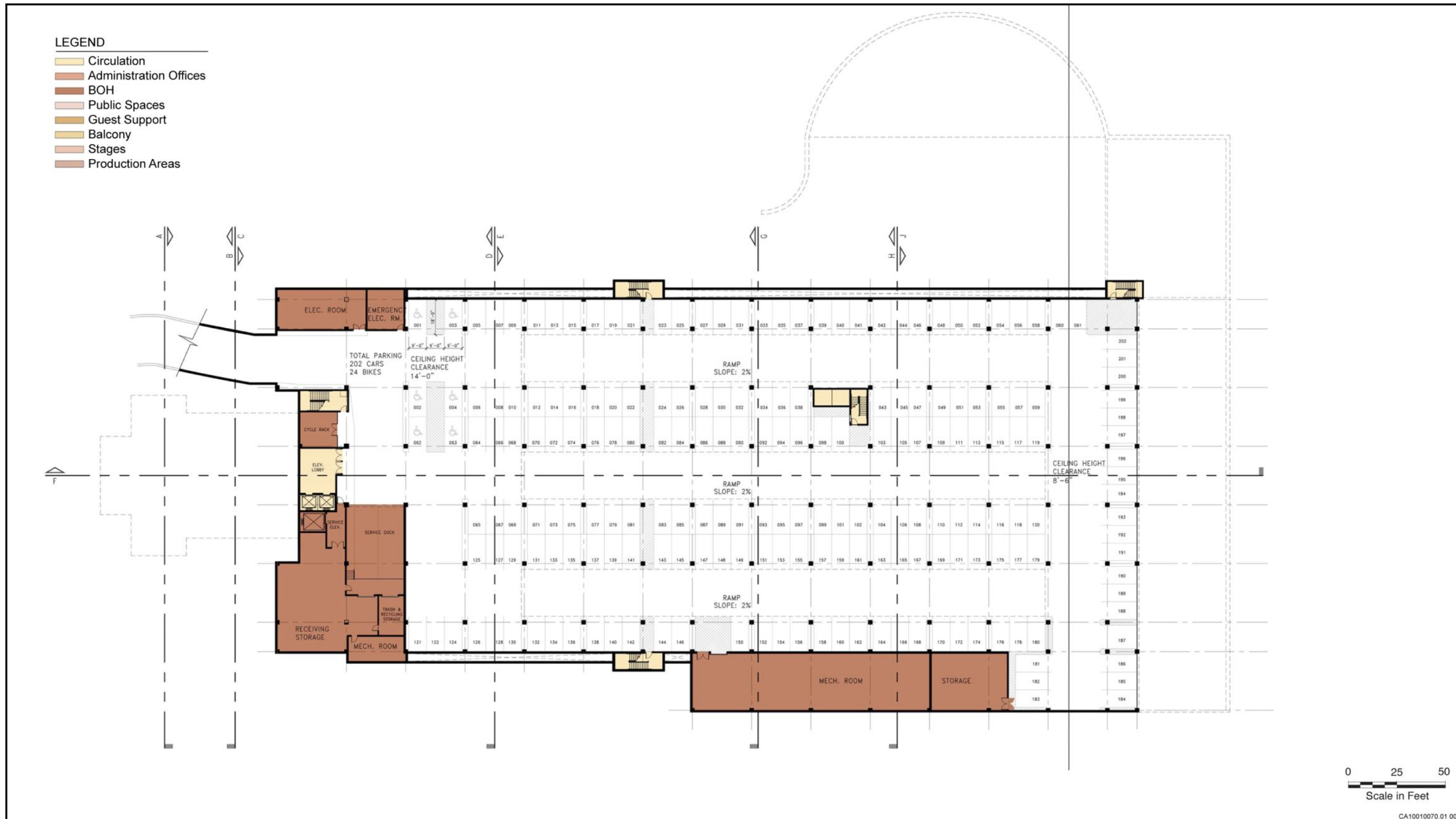
A recommended mitigation in the Lucasfilm Ltd. Big Rock Ranch/Grady Ranch Master Plan EIR (Mitigation Measure 5.7-7) was to realign a portion of Lucas Valley Road near the project site entrance. As part of the PDP, an approximately 1,200-linear-foot section of Lucas Valley Road would be realigned to eliminate two sharp curves and improve sight distances near the main entrance to the project. The realigned Lucas Valley Road would cross over a realigned tributary of Miller Creek instead of placing the tributary in a culvert, as approved in the Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan.



Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Exhibit 2-2

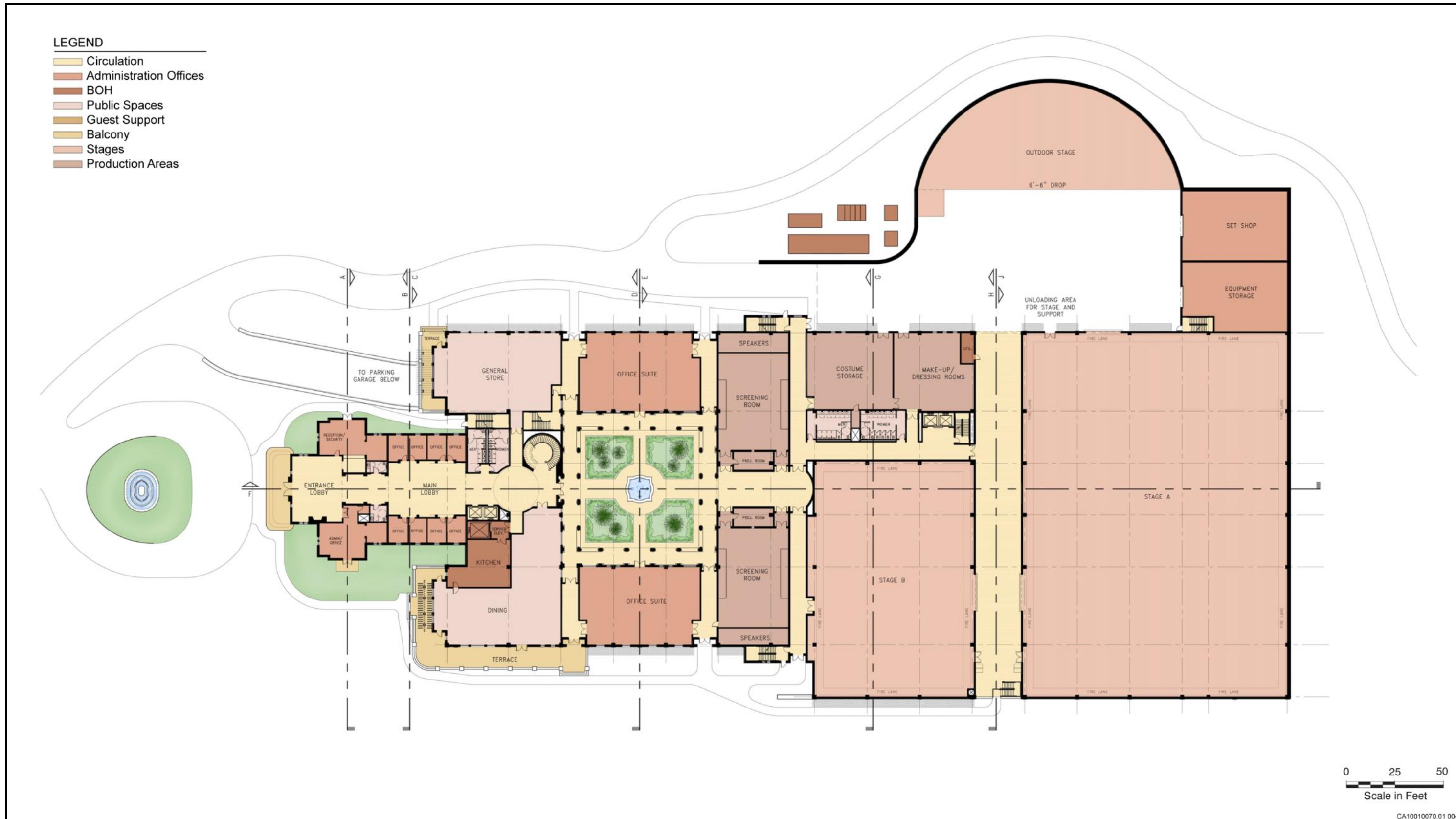
Proposed Project Site Plan



Source: Adapted from Urban Design Group 2009

Exhibit 2-3

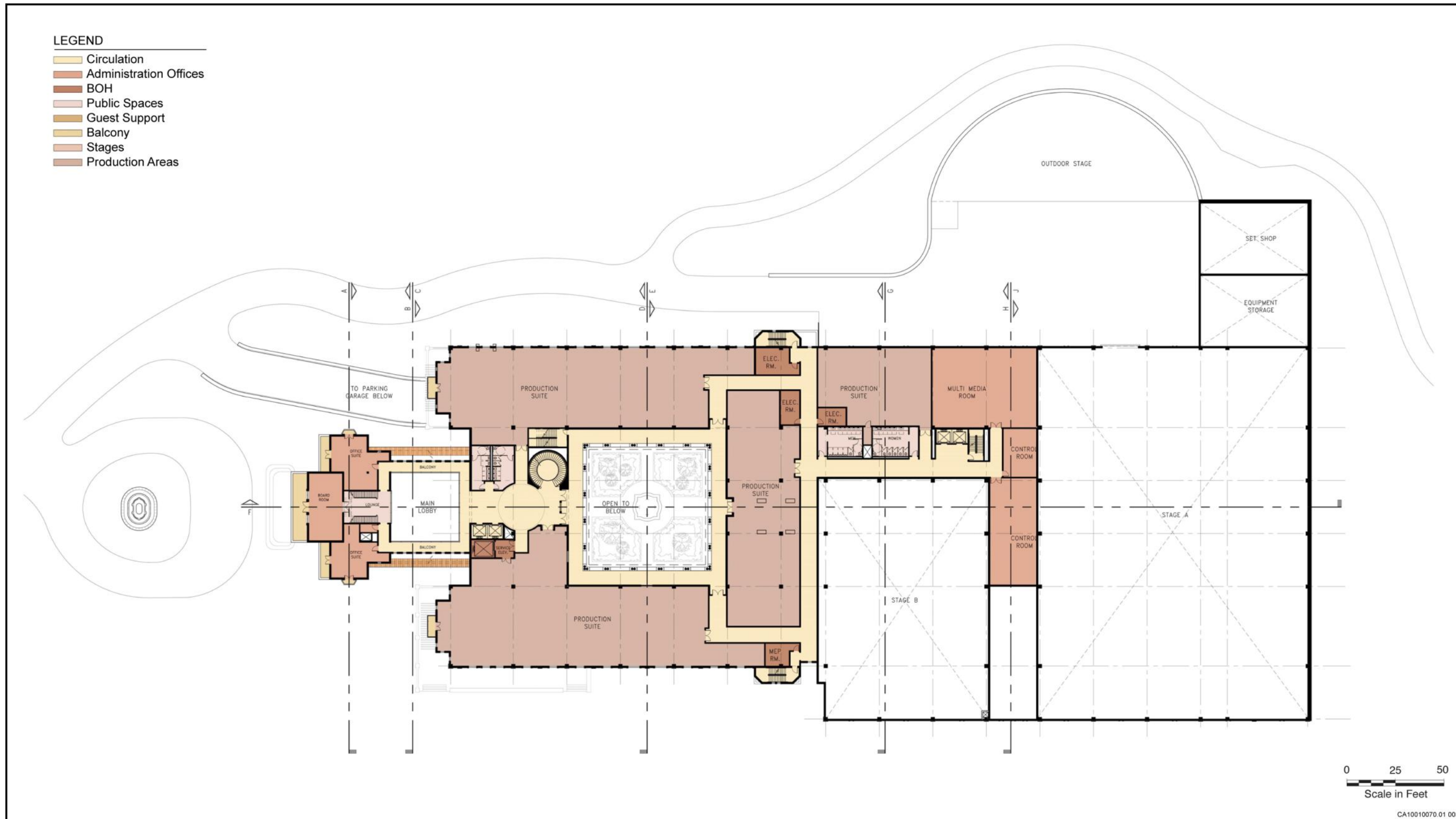
Proposed Project Floor Plan - Parking Level



Source: Adapted from Urban Design Group 2009

Exhibit 2-4

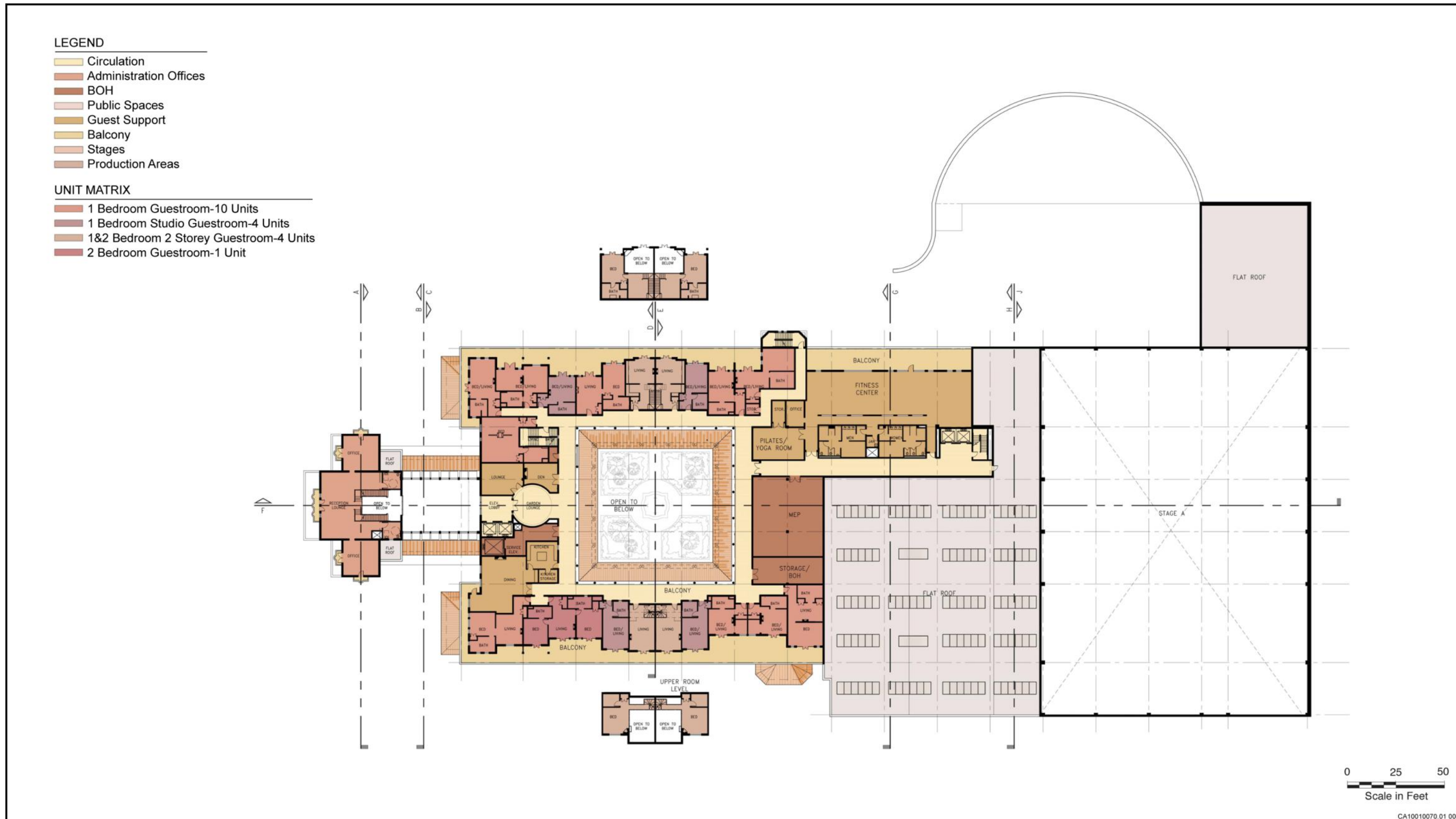
Proposed Project Floor Plan - First Level



Source: Adapted from Urban Design Group 2009

Exhibit 2-5

Proposed Project Floor Plan – Second Level



Source: Adapted from Urban Design Group 2009

Exhibit 2-6

Proposed Project Floor Plan - Third Level

A Main Entry Road would be constructed from Lucas Valley Road, over Miller Creek to the Gate House and then to the Main Building. Just past the Gate House, a new section of the West Fire Road would be constructed to connect to the existing alignment of the fire road. From that point, the West Fire Road would for the most part remain in its current alignment. Four existing unimproved crossings of Miller Creek and its tributaries would be replaced by bridges. The West Fire Road would connect with Lucas Valley Road approximately one half mile west of the Main Entry Road. In the Master Plan drawings, this road was realigned to the south to provide access to the future Ancillary Building. Per Master Plan Condition of Approval #17, the alignment of the West Fire Road has been modified to remain in its existing alignment to eliminate the loss of numerous specimen trees. West Fire Road would be improved as a gravel road.

Just past the Gate House on the east side of the Main Entry Road, the East Fire Road would be constructed to provide access to the property on the east side of Grady Creek. The original East Fire Road is continually washed out by winter storms and must be replaced. The East Fire Road would cross over the restored and enhanced Grady Creek on a new bridge.

The Service Road off of the Main Entry Road would provide access to the ~~garage yard~~ and stages. The Upper Fire Road would be realigned around the west side of the Main Building and then connect to the existing alignment above the Main Building. This Upper Fire Road would also provide access to the back of the building and the new water tanks on the hillside above, and would connect to the existing fire road which accesses Big Rock Ridge.

The project would include the construction of nine bridges for crossing the creeks and tributaries on the project site (see Exhibit 2-2 for bridge locations on the Proposed Project Site Plan). The bridges would include eight clear span bridges and one bridge with a center abutment. Bridge 1 would cross tributary S-4 on the realigned Lucas Valley Road. Bridge 2 would cross Miller Creek on the main entry road leading to the Main Building and would include the construction of two abutments. Bridge 3 would cross Grady Creek to the east of the main entry road on East Fire Road so that emergency vehicles do not travel through the creek. Bridge 4 would cross the proposed realigned tributary on the main entry road leading to the Main Building. Bridges 5 and 7 would cross ~~an two unnamed tributary tributaries~~ on West Fire Road. Bridge 6 would cross Landmark Creek on the West Fire road. Bridge 8 would cross Miller Creek at the western end of West Fire Road. Bridge 9 would cross the G-2 tributary and would be a maintenance bridge located adjacent to the Main Building on Upper Fire Road.

In addition to the road improvements described above, Lucasfilm Ltd. paid its “fair share” of traffic mitigation fee per the Lucasfilm Ltd. Master Plan and Use Permit Conditions of Approval. As required, prior to the issuance of the first building permit for either Big Rock Ranch or Grady Ranch, Lucasfilm Ltd. paid its “fair share” to the Main County Department of Public Works on September 21, 2000 for improvements to the following locations: Northgate Activity Center Plan; Miller Creek/Lucas Valley; Los Gamos/Lucas Valley; southbound ramps/Lucas Valley; northbound ramps/Smith Ranch; Lucas Valley/Mt. Lassen; Lucas Valley/Las Galinas; and Miller Creek/U.S. Highway 101.

2.6.6 WATER TANKS

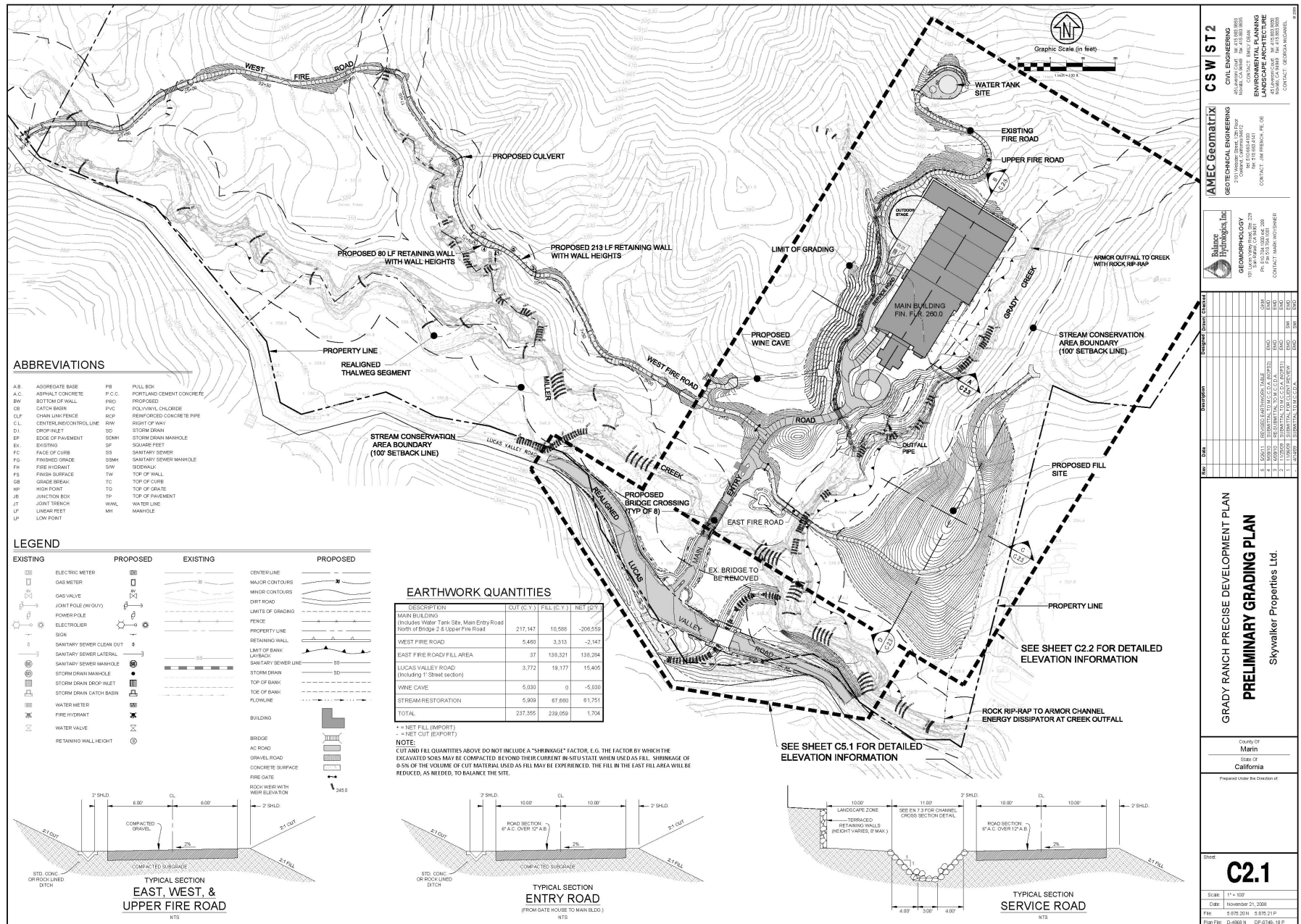
Two water tanks would be constructed onsite. The water tanks would be private tanks that would be designed, owned, constructed, and maintained by Skywalker Properties. One 40,000-gallon and one 400,000-gallon tank would be located at the end of the fire road north of the Main Building. As discussed below, water service for Grady Ranch would be provided by the Marin Municipal Water District from extensions of the 12-inch water main located along Lucas Valley Road. The 400,000-gallon water tank is proposed to provide adequate storage for fire flows. The 40,000-gallon tank would be filled with rainwater runoff from the roof of the main building.

The collected rainwater would be used only for water applications where the use of non-potable water is acceptable. Construction of the water tanks would include grading of the existing ground and the placement of three-tiered retaining walls.

2.6.7 GRADING

Grading would be required for construction of the Main Building (including underground parking); Main Entry Road; West, East and Upper Fire Roads; nine bridges, realignment of Lucas Valley Road, water tanks, and the eastern knoll over ~~geothermal exchange~~ geoexchange units. The major excavation would occur at the Main Building site. Exhibit 2-7 depicts the proposed grading plan for the project.

Grading would involve approximately 240,000 cubic yards of cut and 240,000 cubic yards of fill. The fill would include approximately 68,000 cubic yards that would be used as material for stream restoration activities. Compaction of 0-5% of the volume of cut material when used as fill could result in little or no off-haul (+/- 12,000 cubic yards). Most of the excavation would occur during the construction of the Main Building, Service Road, and Upper Fire Road. In the Grady Ranch PDP, the amount of excavation on the west side of the Main Building would be reduced from the Grady Ranch/Big Rock Ranch Master Plan with the construction of terraced retaining walls, reducing the volume of cut material and the extent of hillside disturbance. The material generated from the excavation for the Main Building area would be used to elevate the creek channel to reestablish natural geomorphology of the currently incised sections of Miller, Grady and Landmark Creeks. The cut material (including boulders) plus the trees that would be removed due to grading would be used to repair the damage to these creeks (see Checklist Item 2d for a discussion of trees to be removed). The additional cut material would be placed to extend the knoll ridge on the eastern side of Grady Creek for the purposes of covering ~~geothermal heat exchange~~ geoexchange units for the Main Building and providing visual screening of the Main Building for nearby residences to the east. The knoll ridge fill area would be approximately five acres and would be higher than the existing grade, ranging from just a few feet up to approximately 37 feet above the existing grade. After completion, the knoll ridge fill area would start at approximately 240 feet above mean sea level at the southern portion and increase in height to approximately ~~312~~ 327 feet above mean sea level at the northern portion. The East Fire Road would be located across the knoll with grades ranging from a steeper grade of up to 18.3% leading from the Main Entry Road to a 3.3% grade at the northern end of the knoll where the existing terrain is higher.



Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Exhibit 2-7

Grady Ranch Precise Development Plan Preliminary Grading Plan

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CSW ST 2

**GRADY RANCH PRECISE DEVELOPMENT PLAN
PRELIMINARY GRADING PLAN**
Skywalker Properties Ltd.

City of
Marin
State of
California

Prepared Under the Direction of

C2.1

Scale: 1" = 100'
Date: November 21, 2008
File: 2-025.DWG, 2-025.21P
Plot File: D-4882.N DP-0146-18.P

2.6.8 REESTABLISHMENT OF CREEK CHANNEL MORPHOLOGY PLUS STREAM CONSERVATION AREA (SCA) RESTORATION AND ENHANCEMENT

The deeply incised channel of Miller Creek has lowered the base level of the tributary creeks that join Miller Creek. The incision of Miller Creek has caused incision and widening to occur up the tributary creeks as well. This has resulted in making upstream fish passage very difficult or impossible. In addition, an eroded stream channel can result in directing runoff quickly downstream and drawing down meadow water tables, resulting in drier conditions for riparian community vegetation. Little habitat exists for riparian species when the water table has dropped below the root zone (Brown and Hecht 2009). The restoration treatments in the SCA Restoration and Enhancement Plan are intended to reduce sediment delivered to San Francisco Bay; enhance the stability of Miller Creek and the network of tributary creeks; expand the habitat accessible to steelhead; increase aquifer storage thereby increasing spring and summer baseflows; enhance the vigor, extent, and resilience of riparian vegetation; and maintain channel functions and form during episodic events. Exhibit 2-8 depicts the Stream Conservation Area Restoration and Enhancement Plan.

As part of this project, the streamflow, bedload and suspended sediment have been measured at six different gaging stations within Grady Ranch during water years 2010 and 2011. These measurements, coupled with data from other project analyses as well as regional literature, were used to quantify the magnitude of sediment transport within the upper Miller Creek watershed. Total sediment transport (suspended- and bedload-sediment) under existing conditions at Grady Ranch is higher than optimal, because of excessive bed and/or bank erosion, with bedload-sediment comprising between 40 and 75 percent of the total sediment load. The various Miller Creek reaches downstream from Grady Ranch are also experiencing high sediment inputs from the upper Miller Creek watershed (Balance Hydrologics, Inc. 2011).

The Restoration and Enhancement Plan (Plan) would extend for approximately 1.5 miles of the creek channel and would include boulder weirs and step-pool sequences, intended to provide stability to the stream system. Reintroduction of woody debris into the system would add additional channel complexity and, where added as secure structures, would help dissipate flow energy and increase bank stability. The added roughness of the woody debris, along with the boulder weirs, would also provide flow attenuation to downstream reaches. The Plan would include raising the base level of Miller Creek and portions of its tributaries in the lower portions to eliminate the fish passage barriers within Miller and Grady Creeks and to allow for additional groundwater storage within the alluvial aquifer. This element is intended to allow for the creation of an inset floodplain without the need to remove much alluvial bank material (see Exhibits 2-9 and 2-10). The raising of the base level of Miller and Grady Creeks would result in fill depths up to eight feet. This re-activated floodplain would allow storm flows to spread out and slow, providing flood attenuation benefits to the downstream reaches. In addition, the raised stream bed would provide a more intact and contiguous valley floor. The Plan would also include laying back stream banks and expanding floodplain terraces in selected segments of the stream to provide additional overbank areas for flood attenuation and, with associated plantings, to provide additional stability of the bank material (Brown and Hecht 2009).

Specific design criteria are incorporated into the design of the restoration to minimize the risk of failure. In the unlikely event of a complete failure or bypass of a boulder structure during a very-high-flow event, some scour of the fill material may occur with effects similar in kind to those prevailing under current conditions. Effects of partial failure would be more limited.

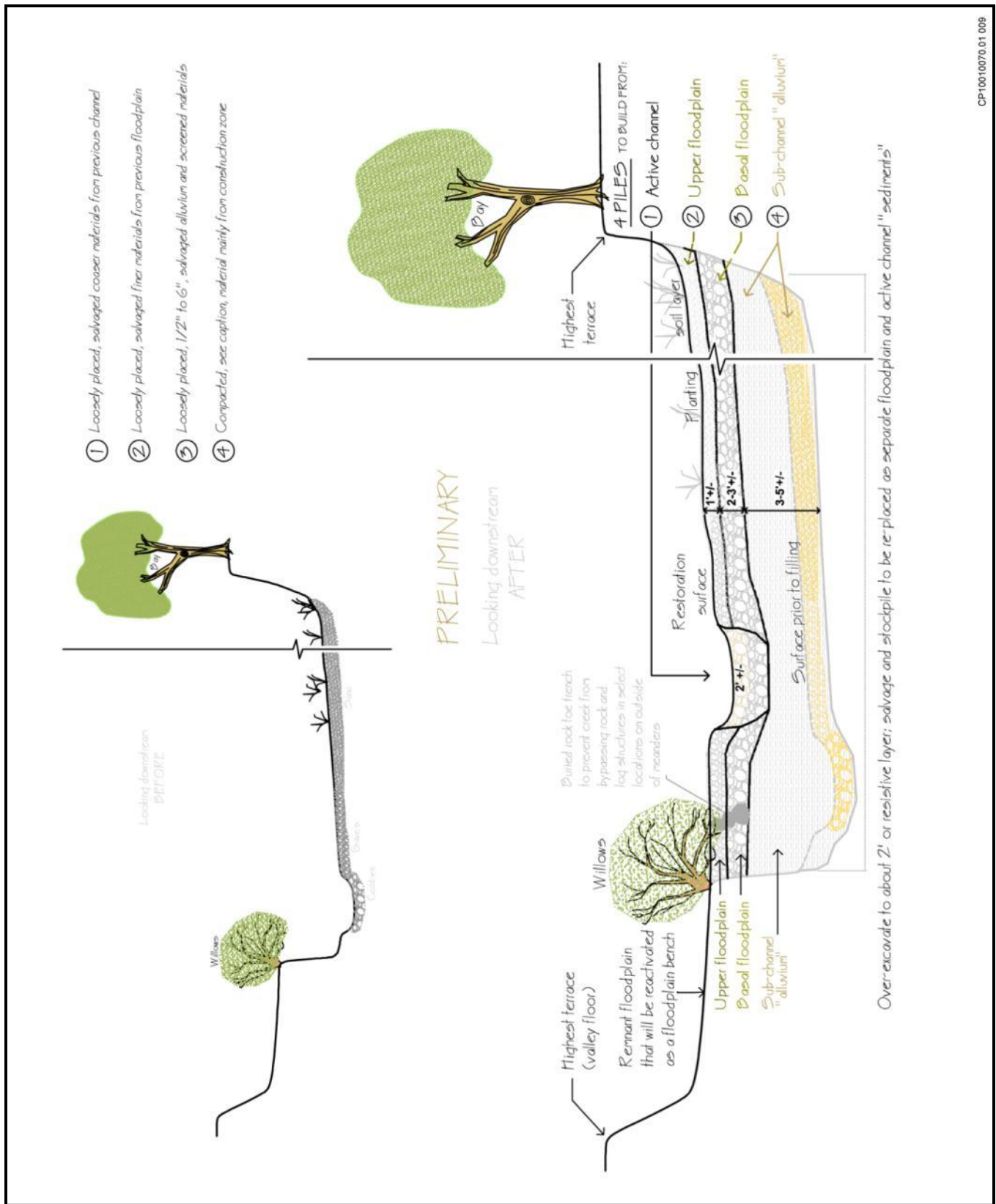
Periodic inspections by a qualified professional (hydraulic engineer/geomorphologist) would be conducted to ensure that key design elements of the restoration project are intact and functioning as designed. These would be conducted annually prior to the rainy season and following runoff events equal to or larger than the five-year frequency storm. If the inspection discovers any area of potential weakness or potential loss of integrity of the



Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Exhibit 2-8

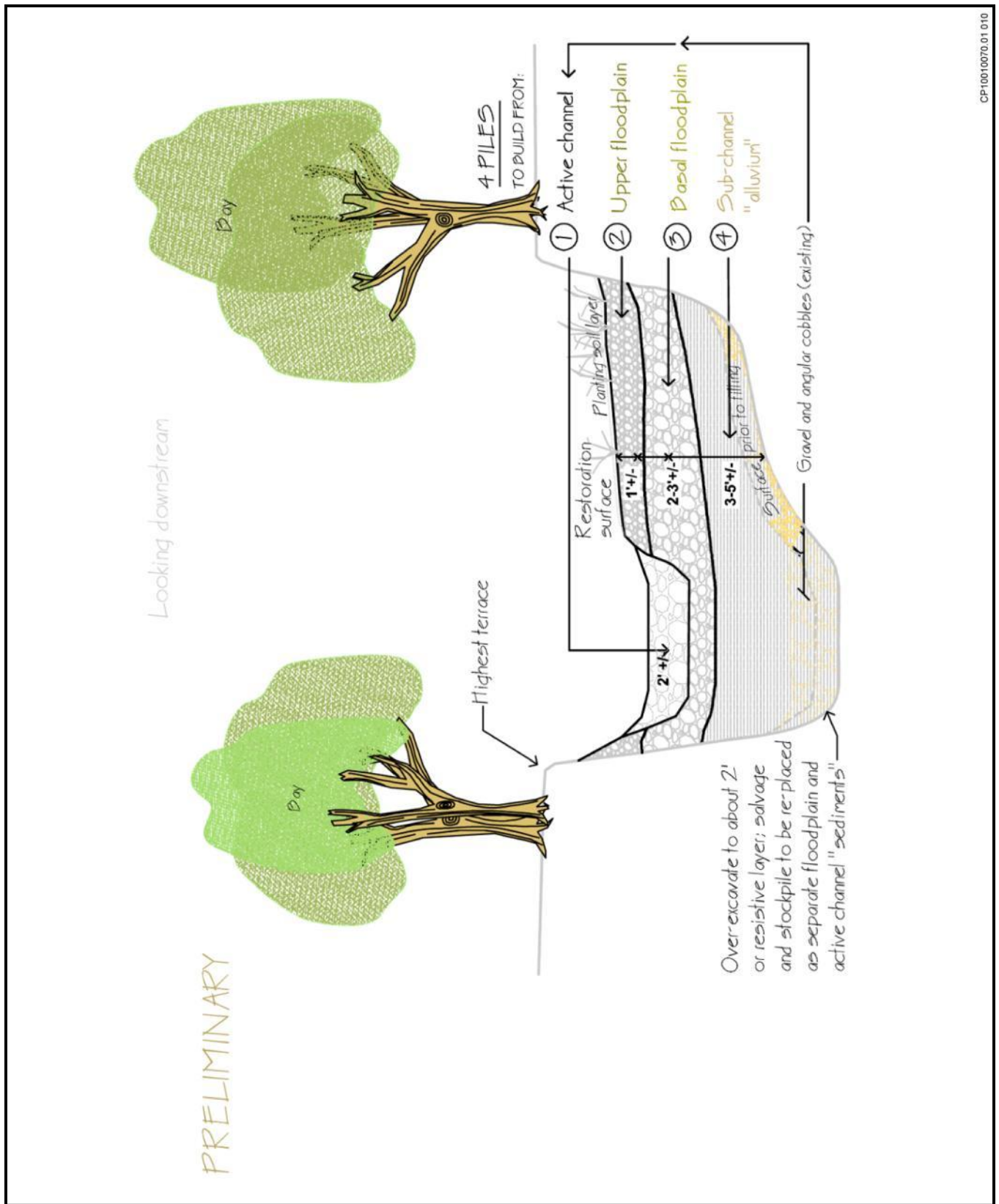
SCA Restoration and Enhancement Plan



Source: Adapted from Stream and Valley Floor Restoration Vision, Scott Brown and Barry Hecht, Balance Hydrologics, Inc. 2009

Exhibit 2-9

Schematic Restoration of Miller Creek



Source: Adapted from Stream and Valley Floor Restoration Vision, Scott Brown and Barry Hecht, Balance Hydrologics, Inc. 2009

Exhibit 2-10

Schematic Restoration of Miller Creek

restored stream features, Marin County Department of Public Works (DPW) and all applicable federal, state, and regional agencies would be notified in a timely manner with proposed actions to be implemented to prevent erosion and/or failure of key grade control features. Following this notification and an opportunity for comment from Marin County DPW, the proposed preventative actions would be implemented.

2.6.9 STORMWATER CONTROL

LID practices are incorporated in the Grady Ranch PDP to manage stormwater quantity and quality while controlling erosion and sediment. Various source control and site design measures would be used to limit the potential pollutants mobilized by rain events. Treatment controls would include stormwater basins designed as created wetlands that would capture runoff, slow down releases to the creeks, recharge groundwater sources and improve water quality. Bioretention areas and swales would reduce peak flows, remove pollutants, and promote runoff infiltration from project roadways not adjacent to the Main Building. Roof runoff would be collected from rainwater leaders and stored for later irrigation use, reducing the project's demand for municipal water, while reducing the hydrologic impact of the project's impervious surface. All treatment controls would be designed to address water quality, hydromodification control and flood control.

In the approved Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan, the tributary to the northwest of the Main Building was planned to be undergrounded in a storm drain pipe running beneath the building with an outfall to Grady Creek. In the Grady Ranch PDP, this tributary would be realigned west of the building in an enhanced natural channel. The tributary creek would flow down this open channel and under a new bridge for the Main Entry Road and into Grady Creek. An overflow pipe would be installed adjacent to the channel under the Upper Fire Road and Service Road and would discharge to Grady Creek at approximately the same location as the realigned channel. The overflow pipe would be designed to carry at least a 100-year storm and would only convey flows in very large storm events.

2.6.10 LANDSCAPE PLANS

Planting plans in the PDP emphasize the use of native vegetation for much of the development site, except for non-invasive ornamental plantings at key locations. Planting of native species along the creeks would enhance habitat functions and values of the SCA (including within the creek channels). The appropriate native species would be planted in areas where the bottom of the creek channels would be raised to create functioning floodplains; where the eroded, vertical creek banks would be laid back to provide the opportunity for vegetation to grow; and in connection with proposed LID practices to control stormwater, including seasonal wetland species in the stormwater basin. Tree replacement and native grassland restoration are also proposed. Use of ornamental plants would be limited and would only be used adjacent to the Main Building and on the Lucas Valley Road side of the main entrance to the project. The proposed landscape plans take into account the vegetation/fuels management requirements for the site as required by the Marinwood Fire Department and the Marin County Fire Department.

2.6.11 OPEN SPACE

In accordance with the Master Plan Conditions of Approval, 800 acres of Grady Ranch outside of the PDP area were dedicated to, and accepted by the Marin County Open Space District as public open space. Within the PDP area, 187 acres around the 52-acre development area would be preserved as private open space. Thus, 95 percent of Grady Ranch would remain in open space. It should be noted that as part of Phase I of the implementation of the Grady Ranch/Big Rock Ranch Master Plan, 561 acres of the Loma Alta Ranch, 674 acres of the McGuire Ranch, and 1,061 acres of Big Rock Ranch were protected as open space with conservation easements.

2.6.12 PUBLIC SERVICES AND OFF-SITE IMPROVEMENTS

The proposed onsite utility improvements are depicted on Exhibit 2-11, and the proposed off-site improvements are depicted on Exhibit 2-12. The proposed realignment of Lucas Valley Road is depicted on Exhibit 2-7. The proposed bridge adjacent to Lucas Valley Road would cross a small intermittent drainage tributary to Miller Creek. Lucas Valley Road in this area is founded on thin fill over Franciscan Complex bedrock. The fill is underlain by intact bedrock, which is also exposed along the banks of the drainage and along the banks of Miller Creek. There are no landslide areas within this stream area (amec Geomatrix 2008). Additional information from the geotechnical firm indicates there is no evidence of instability of the road or drainage bank in this area. The proposed bridge abutment that would launch from the existing Lucas Valley Road would be designed to be founded in stable bedrock and provide stability to the drainage banks. Alternatively, the road could cross the small drainage on engineered fill over a large culvert with concrete headwalls. Typical construction techniques would provide stability and erosion protection to the road and drainage banks during construction. All work would be subject to encroachment permit review, a building permit for bridge construction, creek or grading permits, conditions, inspections, and testing prior to acceptance by the County.

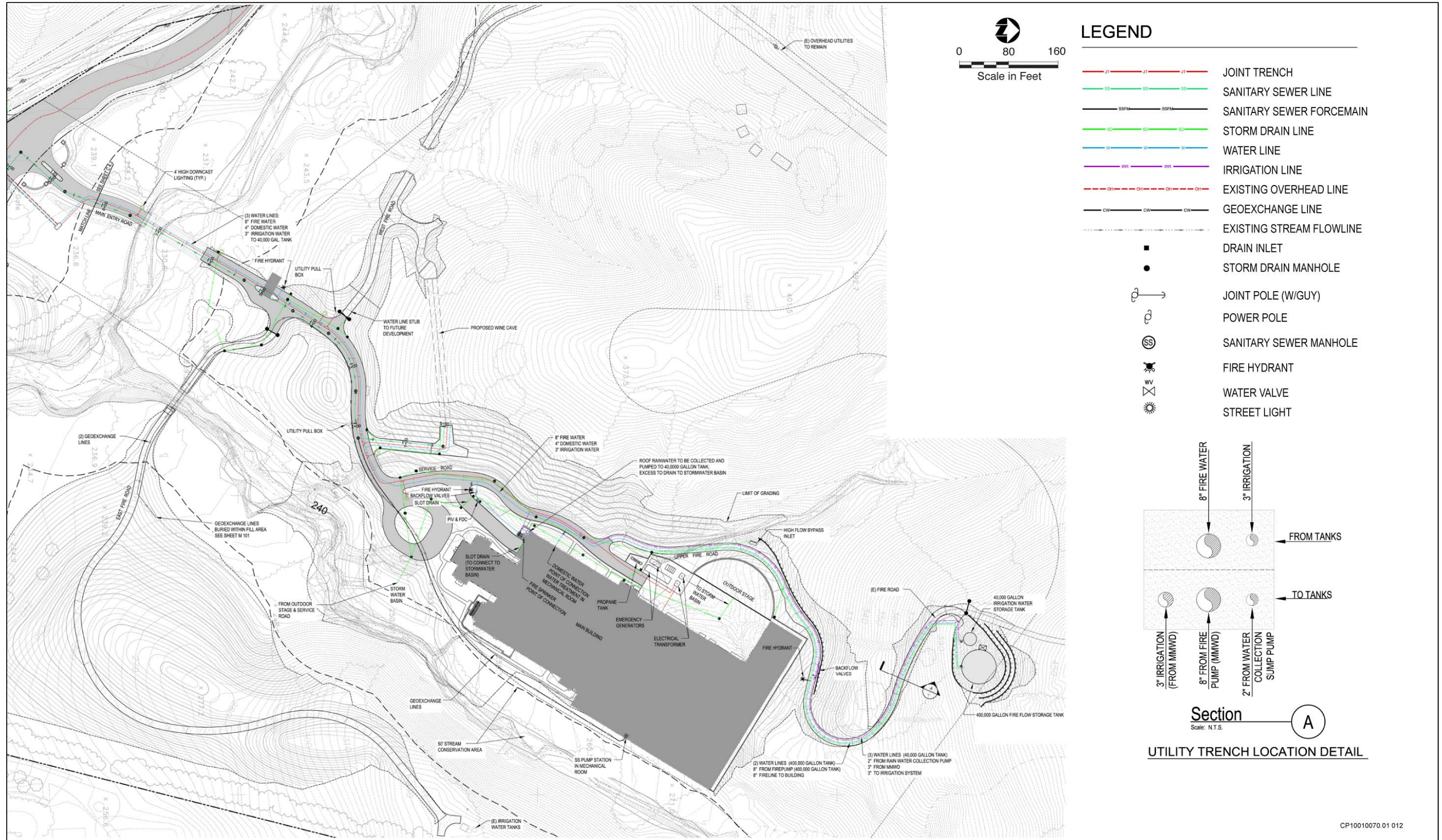
WASTEWATER SERVICE

The development area of Grady Ranch would be annexed into the Las Gallinas Valley Sanitary District (LGVSD) for sanitary sewer service. The Main Building sewage would be collected within a wet well, located east of the Main Building outside of the stream conservation area, and transported via a 4-inch force main to the intersection of the Main Entry Road / Lucas Valley Road. A new gravity sanitary sewer line would connect the wet well at the Main Entry to the site to existing LGVSD facilities located at the intersection of Lucas Valley Road and Westgate Drive.

WATER SERVICE

As provided for in the approved Master Plan, water service for Grady Ranch would be supplied by the Marin Municipal Water District (MMWD). The project would be annexed into the MMWD, and the project applicant would enter into a pipeline extension agreement with MMWD. MMWD expects that it would install two water services to the edge of the project site; one domestic water service and one irrigation water service. The length of the extension and the details of the size of the pipeline/s have not been specifically defined. The 12-inch water main ~~would~~ may be extended east along Lucas Valley Road to the project entrance from its current terminus adjacent to Westgate Drive, a distance of approximately 1,800 to 1,900 feet. The length and diameter of pipeline extensions have ~~has~~ not been determined.

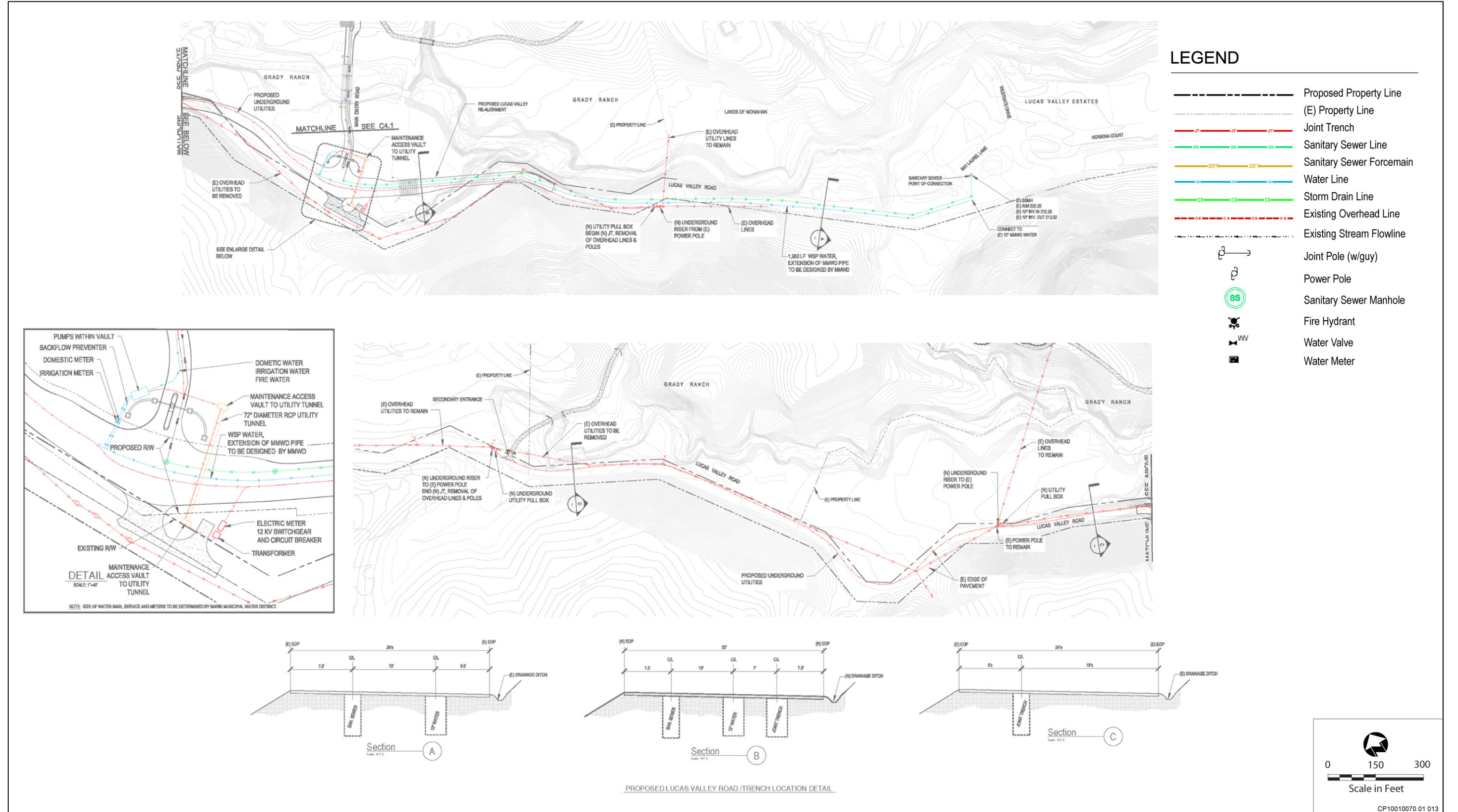
The three water lines (8-inch fire, 3-inch irrigation and 4-inch domestic) ~~would~~ could cross Lucas Valley Road attached to the walls of a 6-foot diameter reinforced concrete pipe tunnel. The tunnel would terminate to the east of the Main Entry Road on the Grady Ranch property and pipes would be constructed in a trench after this point. A private pump station would be built in an underground vault on the project site. The pump station would be needed to convey water from the terminus of the proposed Lucas Valley Road pipeline extension to proposed on-site improvements. While some of the lower elevation portions of the project site could be served via gravity flow, the proposed building floor elevations would be too high to be served by gravity-flow from the end of the pipeline extension or from any existing MMWD facilities. The pump station would be needed to move water uphill to the private water storage tanks. = MMWD would supply water for ~~fire suppression,~~ domestic use, and irrigation, all of which would have separate plumbing within the project. It is intended that ~~The~~ the code-required fire flows would be met through the use of the onsite 400,000 gallon tank located on the hill behind the Main building. If some or all of the required flow can be provided by the MMWD system, this tank may be reduced or eliminated. Captured rain water runoff from the roof of the main building would be pumped up to the smaller 40,000 gallon tank for irrigation use.



Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Revised Exhibit 2-11

Onsite Utility Improvements



Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Revised Exhibit 2-12

Offsite Utility Improvements

TELEPHONE/ELECTRICITY/FIBER OPTICS

The electric, telephone and fiber optic data utilities currently on overhead lines along Lucas Valley Road would be undergrounded along the property frontage as part of this project. Please see Exhibit 2-12 for the location of utilities to be placed underground. These utilities would be extended from existing facilities in Lucas Valley Road to the Main Building in a joint trench along the Main Entry Road. The length of the undergrounded electricity and telephone lines would be approximately 3,600 feet along Lucas Valley Road. Overhead utility lines at the eastern edge of the project site that extend to the Monahan property would remain, and the utility lines that extend to the west towards the proposed main entry road would be placed underground up to the main entry road. Overhead utility lines to the west of the western gate and between the western gate and the proposed main entry road onto the project site would remain. Electricity for the project would be provided by PG&E from existing 12 KV service in Lucas Valley Road.

FIRE PROTECTION SERVICE

The ~~entire~~ 52-acre developed project site would be annexed into the Marinwood Community Services District (MCSD) for fire protection services around the building areas from the Marinwood Fire Department. Fire protection for the State Responsibility Areas (all other acreage/wildland on the property) would be provided by the Marin County Fire Department. The Skywalker Ranch Fire Brigade would supplement the fire protection provided by the MCSD and the Marin County Fire Department, and the Fire Brigade would handle fire prevention coordination with the agencies. Paramedic service would be provided by the City of San Rafael Fire Department as part of Paramedic Service Area B.

2.6.13 GEOEXCHANGE SYSTEM

A geexchange system and heat pump would be used for heating and cooling the building. The geexchange system uses a system of coiled pipes buried in the earth and a heat pump to alter the indoor air temperature. Rather than burning fuel to heat the building, the geexchange system circulates fluid through the coils which are warmed by the relatively constant temperature of the earth. This warmed fluid is carried to the geexchange system heat pump that uses electrically-driven compressors and heat exchangers in a vapor compression cycle to concentrate the energy, warm the air in the compressor, and release it inside the building. Duct fans then distribute the warmed air to various rooms. In summer, the process is reversed in order to cool the building air. Excess heat is drawn from the building's indoor air, expelled to the cooler fluid in the looped pipes, and absorbed by the earth.

Geoexchange coils would be buried under at least six feet (6 ft) of fill, southeast of the building. Piping from the building to the coil field would follow the route of the trench provided for the East Fire Road. The spacing and quantity of coils would be dependent on the thermal conductivity of the soil material. Coils would be located outside of the Stream Conservation area, and a 100-foot setback from the stream would be required during all construction and operation activities.

2.7 ANTICIPATED CONSTRUCTION ACTIVITIES

Project construction is anticipated to occur over a period of approximately two and a half years and would include the use of heavy construction equipment for site grading activities (e.g., dozers, graders, and backhoes, as necessary). Construction would occur in phases and is expected to include the following stages: tree protection, utility supply and site set up; initial sitework (grading, bridge construction, creek upgrades, and Lucas Valley Road realignment); sitework; terraced retaining walls; wine cave; and building construction. As explained

above, the material generated from the excavation of the Main Building area would be used to elevate the creek bed. Additional cut material would be placed to extend the knoll ridge on the eastern side of Grady Creek for the purposes of covering ~~geothermal heat exchange~~ geoexchange units for the Main Building and providing visual screening of the Main Building for nearby residences to the east. Phase 1 of the creek restoration would focus on Miller Creek downstream of Grady Ranch bridge and would include Grady Creek and tributary S-4. Phase 2 of the creek restoration would focus on Miller Creek upstream of Grady Bridge and the tributaries that enter Miller Creek upstream from the bridge. The material that would be required for the stream restoration would be excavated in the reverse order of how it would be needed. Thus, all excavated material for the streams would need to be stockpiled. The upland areas on the property would be built up first and then the fill would be placed in the creek beds.

Parking for construction workers would be provided onsite. All site personnel and visitors would be restricted to parking in the designated areas. In general, construction activities would be limited by Marin County Ordinance No. 3431 to the hours between 7 a.m. and 6 p.m. Monday through Friday and 9 a.m. to 5 p.m. on Saturday. In addition, some construction hours would be confined by mitigation measures identified in the 1996 Master Plan FEIR. For example, Mitigation Measure 5.9-1 addressed potential noise impacts by limiting the use of grading and impact tool use (such as pile driving) for the Main Building and easternmost berm on Grady Ranch to Monday through Friday, 8 a.m. to 5 p.m. unless the applicant can show that activity would not generate excessive noise levels in nearby residences or unless permission is granted by the affected homeowners. No construction would be permitted on Sunday, or holidays. A detailed traffic control plan would be submitted prior to commencement of construction by the general contractor. Demolition of the existing Grady Bridge and remnant wall would occur as part of project construction.

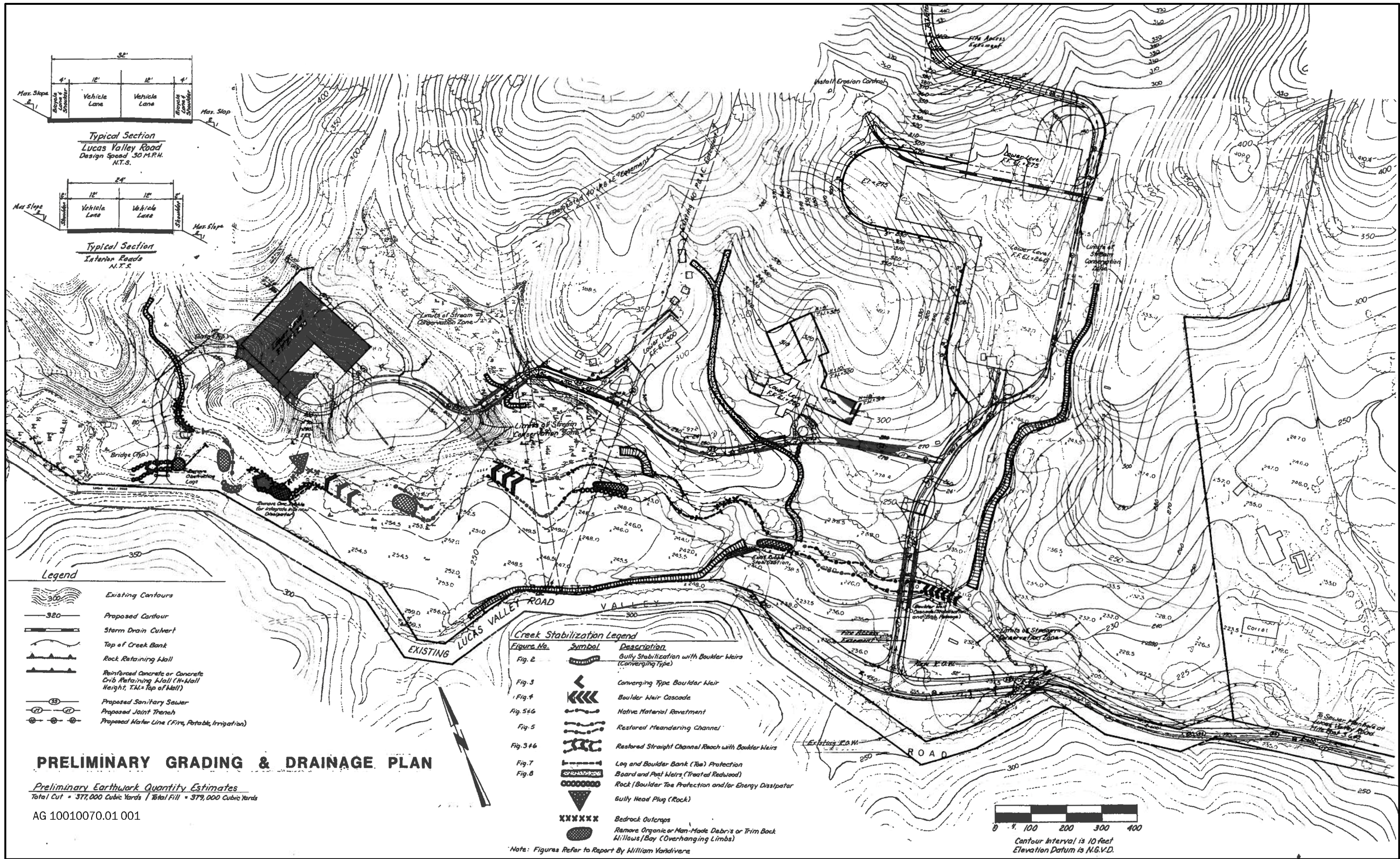
2.8 CHANGES TO THE PREVIOUSLY-APPROVED MASTER PLAN

As discussed above, the Grady Ranch PDP details a second phase of the implementation of the Grady Ranch/Big Rock Ranch Master Plan and Use Permit, analyzed in the 1996 Master Plan FEIR and approved by the Marin County Board of Supervisors on October 1996. The PDP includes several changes to the project description, including a decrease in the proposed Main Building size, decreases in the anticipated grading and subsequent cut and fill amounts, and an increase in the number of proposed bridges. The changes to the proposed project description that are relevant to environmental review are listed in Table 2-2.

| Project Element | Previous Master Plan | Proposed Precise Development Plan |
|------------------------|--|---|
| Bridges | Four bridges proposed. Vehicles would continue to drive through creeks and tributaries | Eight clear span bridges and one bridge with a center abutment proposed. Vehicles would not travel through creeks or tributaries. |
| Bridges | No bridges across Grady Creek | Bridge 3 spans Grady Creek so emergency vehicles do not travel through creek |
| Creeks | Loma Alta Creek conveyed under Lucas Valley Road by culvert | Loma Alta Creek (Tributary S-4 in the Grady Ranch PDP) to be bridged and creek would retain a natural bottom |
| Creeks and tributaries | Tributary to Grady Creek near Main Building to be enclosed within culvert along north side of building | Tributary to Grady Creek to be realigned along west side of building and natural bottom to be retained and enhanced |
| Creeks | Creek channel beds remain at existing elevations | Creek channel beds raised to historic levels with approximately 68,000 cubic yards of material from onsite excavation. |
| Creeks and tributaries | No stabilization of the S-4 tributary proposed | The S-4 tributary is realigned in a stable, open channel |

| Table 2-2: Changes from the Previous Master Plan to the Proposed Grady Ranch Precise Development Plan | | |
|---|---|--|
| Project Element | Previous Master Plan | Proposed Precise Development Plan |
| Day Care/ Recreation Building | Construction of Day Care/Recreation building | No Day Care/Recreation Building is proposed. Day Care facilities would be offered at existing Skywalker ranch. Recreation facilities to be included in Main Building. |
| Drainage | No stormwater basins and bioretention swales | Stormwater control basins included for the building and road runoff and bioretention swales linked to paved roadways. |
| Fencing | Metal deer fencing to encompass development area | Fencing removed from the back property line to maintain wildlife access along Landmark Creek and north-south movement |
| Grading | 377,000 cubic yards of cut 379,000 cubic yards of fill | Up to approximately 240,000 cubic yards of cut Up to approximately 240,000 cubic yards of fill |
| Grading Material | 2,000 cubic yards of net import | May vary from less than 2,000 up to approximately 12,000 cubic yards export/off-haul depending on stream restoration work |
| Grade control | Board and post weirs proposed for grade control to help stabilize bank erosion | Boulder weirs would be installed for grade control |
| Main Building | Main Building footprint is 190,000 square feet | Main Building footprint is 123,145 square feet |
| Main Guest Building | Main Guest Accommodations Building proposed as seven detached accessory cottages | No separate guest accommodations proposed. Guest accommodations incorporated into Main Building |
| Public Services | Applicant offered fee ownership of 800 acres to Marin County Open Space District | 800 acres was dedicated to, and accepted by, the Marin County Open Space District |
| Public Services | New MMWD pump station to be constructed near Creekside tank | The pump station would be constructed south of existing Lucas Valley Road. <u>The pump station would be designed, owned, constructed, and maintained by the project applicant.</u> |
| Public Services | Overhead electric and telephone/data service | Overhead lines to be undergrounded between eastern property line and western gate. |
| Public Services | A portion of the 40-foot wide PG&E easement to be realigned, involving two utility poles and their associated wire. | Onsite PG&E easement to remain in place |
| Roadways and Circulation | Realignment of Lucas Valley Road to improve sight distance | Realignment revised to include eastbound acceleration lane |
| Roadways and Circulation | Access to Upper Fire Road along east side of Main Building. MMWD easement required for access to water tank | Access to Upper Fire Road via Service Road and new portion of Upper Fire Road west of Main Building. No MMWD easement required. |
| Roadways and Circulation | No improvement of East Fire Road included | Improvement of East Fire Road and addition of bridge over Grady Creek to improve fire emergency access |
| Roadways and Circulation | West Fire Road required extensive grading and the loss of numerous specimen-sized trees | West Fire Road would be realigned to follow existing ranch road, minimizing grading and tree removal |
| Stream Conservation Area (SCA) | SCA measured from creek centerline | SCA measured from top of bank |

| Table 2-2: Changes from the Previous Master Plan to the Proposed Grady Ranch Precise Development Plan | | |
|---|--|--|
| Project Element | Previous Master Plan | Proposed Precise Development Plan |
| SCA | No raising of baselevel of creeks to address reduced groundwater storage in aquifer due to incision. | SCA Restoration and Enhancement Plan would raise the baselevel in Miller Creek to provide for continuity of groundwater flow as it moves from the tributaries to the main valley. Additional cut material would provide the opportunity to expand restoration plans and address incision on a more comprehensive level. |
| SCA | Install boulder cascades immediately downstream of the existing Grady Bridge and removal of debris upstream of the new Grady Bridge. See Exhibit 2-13, which includes the 1996 Master Plan preliminary grading plan, for a comparison of the previous grading plan with the proposed site plan (Exhibit 2-2) and the proposed grading plan (Exhibit 2-7). | SCA Restoration and Enhancement Plan would raise the bed of Miller Creek upstream of the new Grady Bridge and would include boulder weirs |
| SCA | Utility line located within the Grady Creek SCA | Main Building and utility line shifted to the west, outside of Grady Creek SCA |
| SCA | Grading would occur within 50 feet of top of bank on east side of Grady Creek | Neither grading nor utility lines would occur within 50 feet of top of bank on east side of Grady Creek |
| Energy Conservation/Sustainable Features | None identified. Compliance with Title 24 of the California Administrative Code for energy conservation required | Geo-exchange system; solar thermal panels; photovoltaic solar panels; low-flow plumbing fixtures; variable frequency drives; heat recovery water heaters; airside economizers; alternate garage exhaust system; automatic daylighting controls; high efficiency fixtures; time clock; dark-sky friendly practices; occupancy sensors; rainwater harvesting for recharging aquifer; stormwater runoff renovation for recharging aquifer |
| Trees | A total of 2,374 trees to be removed | A total of approximately 411 trees to be removed, or adversely affected sufficiently <u>(a portion of their driplines could be located within the limit of grading)</u> to require ing removal |
| Trees | Trees to be planted in valley floor/meadow area between Miller Creek and Lucas Valley Road. | No trees planted in valley floor/meadow area between Miller Creek and Lucas Valley Road. |
| Trees | Extensive grading and loss of trees for new alignment of West Fire Road and location of ancillary building | West Fire Road would be kept in existing alignment to reduce environmental impacts, including loss of specimen-sized trees |
| Water Tanks | 120,000-gallon above-ground water tank, 32 feet diameter and 20 feet in height at elevation 500 | 400,000-gallon above-ground water tank for fire protection, 58 feet diameter, 22 feet in height at elevation 400 and 40,000-gallon above-ground water tank for domestic <u>irrigation</u> use, 22 feet diameter, 15 feet in height at elevation 400 |
| Wine Cave | A wine cave was not part of the Master Plan | Wine cave is proposed for storage of wine from grapes on other Lucasfilm properties |



Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Exhibit 2-13

1996 Master Plan Preliminary Grading and Drainage Plan (for Comparison Purposes)

2.9 PROPOSED PROJECT OPERATIONS

Operation of the proposed project would include digital production and interactive entertainment/education office facilities. These operations would be different from, but complimentary to, those already existing at Skywalker Ranch and Big Rock Ranch. The Main Building would be used for advanced, digital technology-based film production and production stages for the filming of sequences that require production techniques possible only in such a large space.

Special events on the project site are expected to be few in number and infrequent due to the confidential nature of the production work onsite. There would be no public access allowed at Grady Ranch, similar to the policy at Skywalker and Big Rock Ranches. No film screenings with large audiences would occur because the facility would not include a large screening room. Employee visits from other facilities would generally not be allowed unless there is a specific business reason. These groups would be kept small, generally less than 10 people at a time and coordinated only during regular business hours on Monday through Friday. At this time, it is anticipated that two “Open House” events would occur upon completion of the project. One open house for construction and development personnel would include up to 300 people during a Saturday day. Additional open houses would occur for company employees for up to 300 people at a time during a Saturday day.

2.10 FUTURE PHASES OF MASTER PLAN IMPLEMENTATION

There are three groupings of additional buildings in the approved Master Plan for Grady Ranch that are not included in the proposed PDP. These ten buildings were originally envisioned for use as a day care center/recreation facility, guest accommodations consisting of a main building and seven cottages, and an archival storage building. ~~However,~~ The current PDP proposal now includes recreational facilities and guest accommodations ~~have been~~ incorporated in the Main Building at Grady Ranch and child care facilities are available at Big Rock Ranch. As such, the approved square footage of buildings, which may be constructed in a future phase, would be used only for archival storage. These buildings would not be used as production space. Water and parking demands would be limiting factors to the development of future phases.

2.11 REQUIRED DISCRETIONARY ACTIONS

Project approval requires Marin County as the lead agency to approve the project, issue required permits, or affirm compliance with agency requirements. Described below is the environmental review process for the project and the discretionary actions sought by the project applicant for the project.

2.11.1 LEAD AGENCY

Marin County is the lead agency for the proposed project. A lead agency, as defined in Section 15367 of the State CEQA Guidelines, is “the public agency that has the principal responsibility for carrying out or approving a project.” In this case, the applicant has requested that the County approve a PDP. The County would also be responsible for issuing a grading permit for site excavation and grading activities, building permits for the construction of aboveground facilities on the site, and an encroachment permit for work in the county road right-of-way.

2.11.2 RESPONSIBLE AGENCIES

A number of other agencies would have discretionary approvals related to the proposed project. Responsible and Trustee agencies include:

- ▲ California Department of Fish and Game (CDFG). The CDFG is responsible for activities that would disrupt the natural flow or alter the channel, bed, or bank of streams or their tributaries under Section 1601 and 1603 of the California Fish and Game Code. The project would require a California Fish and Game Code Streambed Alteration Agreement from the California Department of Fish and Game.
- ▲ State Water Resources Control Board, Division of Water Rights. The Division of Water Rights regulates water entitlements and reviews dam's effects on downstream flows, including effects on riparian habitat, aquatic life, and water rights of downstream property owners.
- ▲ Regional Water Quality Control Board. The project would require permits related to the control of nonpoint source runoff, pursuant to the National Pollutant Discharge Elimination System requirements (Section 401 Water Quality Certification).
- ▲ Las Galinas Valley Sanitary District (LGVSD). The project would require annexation of the developable portion of Grady Ranch into the LGVSD to obtain sanitary sewer service.
- ▲ Marin Municipal Water District (MMWD). The project would require annexation of the developable portion of Grady Ranch into the MMWD to obtain water service.
- ▲ Marinwood Community Services District (MCSD). The project would require annexation of Grady Ranch into the MCSD to obtain structural fire protection.
- ▲ Marin County Local Agency Formation Commission. The project would require LAFCO approval for annexation into the LGVSD, MMWD, and MCSD.

Bay Area Air Quality Management District (BAAQMD). The BAAQMD has jurisdiction over regional air quality issues, and could require Authority to Construct and Permission to Operate permits for any stationary sources proposed as part of the project.

2.11.3 INTERESTED AGENCIES

The following federal agencies may have jurisdiction over a portion the project:

- ▲ U.S. Army Corps of Engineers. The USACE has jurisdiction for regulation of the filling of wetlands under Section 404 of the Clean Water Act. If the USACE determines that the project site's wetlands are under USACE jurisdiction, a permit would be required.
- ▲ National Marine Fisheries Service and U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) administer the federal Endangered Species Act (ESA) and have authority over projects that may result in take of a species listed as threatened or endangered under the ESA. If a project is likely to result in take of a federally listed species either an incidental take permit under ESA Section 10(a) or a federal interagency consultation under ESA Section 7 is required before the take may occur. Such a permit typically requires various types of mitigation to compensate for or to minimize a take. Because of the presence of steelhead in Grady Creek and the documented anadromy (i.e., migration-connectivity with the ocean) of Miller Creek, ESA Section 7 consultation by the U.S. Army Corps of Engineers (USACE) with USFWS and NMFS will be required as part of USACE's review and permitting for impacts to waters of the U.S. (including wetlands). USACE will initiate ESA Section 7 Consultation with USFWS and NMFS, based on the May 2011 Joint Aquatic Resources Permit Application (JARPA) submitted to USACE.

3 ENVIRONMENTAL CHECKLIST FOR SUPPLEMENTAL ENVIRONMENTAL REVIEW

3.1 EXPLANATION OF CHECKLIST EVALUATION CATEGORIES

The environmental impact analysis in this Supplement to the Master Plan Final EIR (1996 Master Plan FEIR or 1996 FEIR) is presented in the format of an environmental checklist and supporting evaluation. The analysis has been updated to evaluate potential changes in the environmental impacts of the proposed Precise Development Plan for the Grady Ranch project compared to those described in the 1996 Master Plan EIR.

This checklist and analysis are not a traditional CEQA “Initial Study” checklist and analysis. The purpose of this checklist is to evaluate the categories in terms of any “changed condition” (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a different environmental impact significance conclusion from the project Master Plan certified Final EIR. The row titles of the checklist include the full range of environmental topics, as presented in Appendix G of the State CEQA Guidelines. The column titles of the checklist have been modified from the Appendix G presentation to help answer the questions to be addressed pursuant to CEQA Section 21166 and State CEQA Guidelines Section 15162, 15163, 15164, and 15168. A “no” answer does not necessarily mean that there are no potential impacts relative to the environmental category, but that there is no change in the condition or status of the impact since it was analyzed and addressed with mitigations in the Master Plan EIR. For instance, the environmental categories might be answered with a “no” in the checklist because the proposed Grady Ranch Precise Development Plan does not introduce changes that would result in a modification to the environmental impact significance conclusions of the prior environmental document. The purpose of each column of the checklist is described below. The checklist categories are presented in alphabetical order.

3.1.1 WHERE IMPACT WAS ANALYZED IN THE 1996 MASTER PLAN FEIR

This column provides a cross-reference to the pages of the prior environmental documents where information and analysis may be found relative to the environmental issue listed under each topic.

3.1.2 DO PROPOSED CHANGES INVOLVE NEW OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT IMPACTS?

Pursuant to Section 15162(a)(1) of the State CEQA Guidelines, this column indicates whether the changes represented by the current project will result in new significant impacts that have not already been considered by the prior environmental review or a substantial increase in the severity of a previously identified impact.

3.1.3 DO ANY NEW CIRCUMSTANCES INVOLVE NEW OR SUBSTANTIALLY MORE SEVERE SIGNIFICANT IMPACTS?

Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been changes to the project site or the vicinity (circumstances under which the project is undertaken) that have occurred subsequent to the prior environmental documents, which would result in the current project having new significant environmental impacts that were not considered in the prior environmental documents or that substantially increase the severity of a previously identified impact.

3.1.4 ANY SUBSTANTIALLY IMPORTANT NEW INFORMATION REQUIRING NEW ANALYSIS OR VERIFICATION?

Pursuant to Section 15162(a)(3)(A-D) of the State CEQA Guidelines, this column indicates whether new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified as complete is available requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigations remain valid. If the new information shows that: (A) the project will have one or more significant effects not discussed in the prior environmental documents; or (B) that significant effects previously examined will be substantially more severe than shown in the prior environmental documents; or (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative, the question would be answered ‘Yes’ requiring the preparation of a subsequent EIR or supplement to the EIR. However, if the additional analysis completed as part of this Environmental Checklist Review finds that the conclusions of the prior environmental documents remain the same and no new significant impacts are identified, or identified environmental impacts are not found to be substantially more severe, the question would be answered ‘Yes, but no significant impact would occur’ and no additional EIR documentation (supplement to the EIR or subsequent EIR) would be required.

3.1.5 DO 1996 MASTER PLAN FEIR MITIGATION MEASURES ADDRESS/RESOLVE IMPACTS?

Pursuant to Section 15162(a)(3) of the CEQA Guidelines, this column indicates whether the prior environmental documents provide mitigation measures to address effects in the related impact category. In some cases, the mitigation measures have already been implemented. A “yes” response will be provided in either instance. If “N/A” is indicated, this Environmental Checklist Review concludes that the impact does not occur with this project and, therefore, no mitigation measures are needed.

3.2 DISCUSSION AND MITIGATION SECTIONS

3.2.1 DISCUSSION

A discussion of the elements of the checklist is provided under each environmental category to clarify the answers. The discussion provides information about the particular environmental issue, how the project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

3.2.2 MITIGATION MEASURES

Applicable mitigation measures from the prior environmental review that apply to the project are presented under each environmental category. New mitigation measures are included, if needed. The text of the mitigation measures from the 1996 FEIR are included in the “Mitigation Measures” section of each checklist item. These measures are followed by “1996 FEIR”, with either a “U” for unchanged measures or “R” for revised measures. New mitigation measures are followed by “N” to indicate they are new measures included in this checklist.

3.2.3 CONCLUSIONS

A discussion of the specific conclusion for each topical section relating to the need for additional environmental documentation is contained at the end of each separate section.

3.2.4 ALTERNATIVES

This section includes a brief summary of the conclusions of the alternatives analysis from the 1996 FEIR. The conclusions are compared to the current Grady Ranch Precise Development Plan to determine if the conclusions from the previous EIR would change. For purposes of this analysis, Alternative 4 (Grady Ranch Development Only) is not included because the alternative assumed that development would occur only on Grady Ranch with no development permitted on Big Rock Ranch. This alternative is moot, because Big Rock Ranch has been developed. The remaining three alternatives analyzed in the 1996 FEIR include the following:

- ▲ Alternative 1: No Project Alternative. No development would occur and there would be no changes to existing conditions.
- ▲ Alternative 2: Current Zoning Alternative. The site would be developed residentially, consistent with residential density maximums of the current zoning.
- ▲ Alternative 3: Previous Proposed Project Alternative. The project site would be developed as proposed in the previous application that was evaluated in the 1992 EIR. The previous alternative included a main office building complex in approximately 396,900 square feet of floor area in two buildings; a main guest accommodations building and seven detached accessory cottages; a day care/recreation building; a gate house building; an ancillary building to accommodate possible expansion; and a dam and reservoir across Miller Creek with an 100 acre-foot capacity

The 1996 FEIR also includes a discussion of potential alternative locations. A total of 16 alternative sites were considered as a location for the Master Plan Project. However, as discussed in the previous EIR, all were found infeasible for various reasons.

3.3 SUMMARY FINDINGS OF CHECKLIST

A summary of findings and overall conclusions of the PDP Project environmental checklist and requirements for further environmental documentation pursuant to CEQA Guidelines Sections 15163, and 15168 are provided following the checklist items. As explained above, the checklist items are listed in alphabetical order.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Any Substantially Important New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|--|---|---|
| 1. Aesthetics. Would the Project: | | | | | |
| a. Have a substantial adverse effect on a scenic vista? | Not analyzed | No | No | No | N/A |
| b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | Not analyzed | No | No | No | N/A |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | 1996 FEIR; Impacts 5.5-1, 5.5-2, 5.5-4, 5.5-5, and 5.5-8; pages 5.5-26 through 5.5-35 | No | No | Yes, but new or more severe significant effects would not occur. | Yes |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | 1996 FEIR; Impact 5.5-3, page 5.5-28 | No | No | No | Yes |

DISCUSSION

- a, b) The 1996 Master Plan FEIR did not specifically address scenic vistas or scenic resources from a state scenic highway. There are no designated State Scenic Highways or National Scenic Byways within Marin County (Marin County 2007). Therefore, there would be no impact due to an effect on a scenic vista or substantial damage to scenic resources.
- c) The 1996 EIR identified a less-than-significant impact as a result of changes of views onto the project site from Lucas Valley Road. The previous EIR identified a potentially significant visual resources impact because of the visibility of potential water storage tanks to be constructed on the project site. Mitigation Measure 5.5-8 would reduce this impact to a less-than-significant level.

Since the time that the previous EIR was prepared, additional residential units have been constructed adjacent to the southeastern portion of the project site, resulting in a change in circumstances relevant to visual impact analysis (i.e., the introduction of private viewers next to the project site). These homes are separated from the project site with a chain link fence, and there are existing trees sparsely lining the fence line on the Grady Ranch property side and in the yards of the homes. Existing short-range views to the east over and across the project site consist of trees located on the eastern edge of the Grady Ranch property, grassland, thick tree stands adjacent to Miller Creek and its tributaries, and the natural topography of the Grady Ranch site, including the existing knoll in the southern portion of the site. Existing long-range views from the adjacent residences looking to the west east across the Grady Ranch site include additional hills and topography on the western portion of the project site, including views of undeveloped ridgelines in the distance. Case law has been mixed in determining whether

private views are valid for evaluation in CEQA environmental review; however, recognizing that multiple residences are now present next to the project site, the potential for altering multiple private viewers warrants consideration.

Most of the development proposed in the Grady Ranch Precise Development Plan would be similar to the previously proposed project. ~~The number of buildings on the site would be fewer than previously proposed, and the Main Building would be located in the same place as under the 1996 Master Plan.~~ The Main Building would be smaller and located in the same place as approved under the Master Plan. The potential change in views onto and across the project site due to grading on the site and the proposed berm east of Grady Creek was identified as a less-than-significant impact in the 1996 Master Plan FEIR.

The Countywide Plan primarily provides for the protection of scenic resources through the use of the Ridge and Upland Greenbelt designation (Marin County November 2007, page 4.12-12). The project site is located in an area designated as a Ridge and Upland Greenbelt. Countywide Plan Policy DES-4.1 addresses the preservation of visual quality by protecting the scenic quality and views of the natural environment, including ridgelines and upland greenbelts, hillsides, water, and trees, from adverse impacts related to development. The Countywide Plan includes Implementing Programs DES-4.d and 4.e that address the protection of Ridge and Upland Greenbelt areas. Implementing Program DES-4.d requires the implementation of Development Code standards that require development proposed on or near visually prominent ridgelines to be clustered below the ridgeline on the least visually prominent portion of the site. Implementing Program DES-4.e requires the employment of a variety of strategies to protect views of Ridge and Upland Greenbelt areas including, among other things: indentifying any unmapped ridgelines of countywide significance; rezoning Ridge and Upland Greenbelt lands to the Planned District category and adjacent buffer areas to a transitional district, thereby subjecting them to County Design Review Requirements that include hillside protection; and requiring buildings in Ridge and Upland Greenbelt areas to be screened from view by wooded areas, rock outcrops, or topographical features.

The most prominent building on the Grady Ranch site would be the Main Building, which would be built up to a maximum height of 85 feet. The Main Building would be screened from view from roadways and adjacent residences by the existing vegetation, existing topography, and the knoll on the southeastern portion of the site. It would be well below the surrounding ridgelines, so it would not alter the appearance or visibility of ridgelines from surrounding viewpoints.

One change to the project includes a proposed increase in the amount of fill at the knoll located on the southeastern edge of the project site. As shown in Table AES-1, the proposed knoll grading would result in a maximum height that is 37 feet above the existing grade. In the proposed PDP, the middle of the knoll would be approximately 12 feet higher above existing grade than the previously proposed project. New residences are located southeast of the knoll, creating new private views across the project site that did not exist when the Master Plan FEIR was prepared. There are four to five residences located on Lucas Valley Road and Westgate Drive that currently have views to the west across the project site. Of those homes, the one to two southernmost residences' western long-range views would be altered by the increased height of the knoll.

The Grady Ranch PDP would not alter the view of the surrounding ridgelines from Lucas Valley Road, similar to the 1996 FEIR conclusion. Also similar to the Master Plan project, the knoll would repeat the visual elements of the existing landscape and, after grass covering is established, the color and texture of the knoll would be designed to match the surrounding vegetation. Private views toward the west

from nearby residences near the project site would be altered by the fill on the knoll, with some views of distant ridgelines replaced by the view of the ridgeline of the more near-ground knoll on the project site. Once the knoll is completed and revegetated, the residences would retain ridgeline views that consist of vegetated hillside without the presence of structures. While the Countywide Plan includes a policy and implementing programs to protect the views of Ridge and Upland Greenbelt areas, the Plan does not specifically include goals and policies recognizing the protection of private views of those ridgelines. The project would not include construction on a ridgeline, consistent with Implementing Program DES-4.d. The project would screen buildings on the project site with vegetation and topographical features, consistent with Implementing Program DES-4.e. Because the project would be consistent with Countywide Plan policies and programs addressing Ridge and Upland Greenbelt areas and because the project elements would be similar to what was previously analyzed in the 1996 FEIR, this would remain a less-than-significant impact.

| | Existing Height | 1996 Master Plan | PDP |
|---|--------------------------|----------------------------|--|
| Approximate maximum height at the middle of the knoll | 275 feet elevation | Approx. 301 feet elevation | 313 feet elevation (approx. 12 feet higher than Master Plan) |
| Approximate maximum height at the northern end of the knoll | 300 – 310 feet elevation | Approx. 300 | 310 – 327 feet elevation (approx. 10 to 27 feet higher than Master Plan) |

Source: Grady Ranch Precise Development Plan, November 21, 2008; Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan Final Environmental Impact Report, June 1996.

Potential aesthetics impacts of the proposed water tank would be similar to the previously proposed project. The Master Plan proposed a 120,000-gallon above-ground water tank, 32 feet diameter and 20 feet in height, at elevation 500 feet. The Grady Ranch PDP includes two water tanks. A 400,000-gallon above-ground water tank for fire protection would be 58 feet diameter, 22 feet in height, at elevation 400 feet. A 40,000-gallon above-ground water tank for domestic irrigation use would be 22 feet diameter, 15 feet in height, at elevation 400 feet. Based on tank locations, topography, and existing vegetation, the visibility of the water tanks proposed in the PDP would not be substantially different than the tank described in the Master Plan. Implementation of Mitigation Measure 5.5-8 would continue to reduce this impact to a less-than-significant level and the proposed PDP would not result in a new significant impact or a substantial increase in the severity of the previously-identified impact.

- d) Potential nighttime lighting impacts may be reduced because the project no longer includes outdoor tennis courts, which were identified as potentially illuminating the surrounding trees and the spur ridge immediately behind the previously proposed courts location. Other sources of light would be similar to the approved Master Plan, and no additional significant impact, or an increase in the severity of a previously-identified impact, would occur. The 1996 EIR did not specifically address potential impacts caused by glare. Similar to the previously-described elements of the Grady Ranch project, the Precise Development Plan does not include architectural elements that would create new sources of glare.

MITIGATION MEASURES

Mitigation Measure 5.5-3 would continue to reduce potential impacts resulting from new sources of light to a less-than-significant level because it would restrict lighting types and lighting operations to reduce visual impacts. Mitigation Measure 5.5-8 would reduce potential impacts from the Grady Ranch water tanks to a less-than-significant level by requiring the applicant to follow design criteria as developed by the Marin Municipal

Water District. The text of these mitigation measures is included below. Mitigation Measure 5.5-8 has been revised to delete reference to Big Rock Ranch project because it has been developed.

1996 FEIR Mitigation Measures

5.5-3 The following mitigations would be required to be incorporated into the Precise Development Plan as a condition of Master Plan approval to lessen visual impacts:

- › *All other native tree species should be replaced at a ratio of 3 to 1.*
- › *Outdoor night lighting should be focused downward and/or shielded. Roadway and pavement surfaces should be selected to minimize upward reflected light.*
- › *All outdoor lighting should be turned off after 11:00 p.m. if not in use unless needed for safety and security. Safety and security lighting (except street lighting) can usually be at lower levels when the area is not at use.*
- › *Lighting elements should be recessed within their fixtures to prevent glare.*
- › *A lighting design should attempt to conceal lights to avoid glare. When concealing lights, avoid placing lights too close to an object to avoid reflected glare.*
- › *Lighting should be selected to avoid high-angle, high-candela distribution.*
- › *Lighting fixtures should be selected that can be shielded, if a potential problem exists, after installation.*
- › *Outside parking areas should be designed to ensure that car headlights do not interfere with the surrounding areas, either by orientation or screening.*
- › *As light trespass effects are subjective and site-specific, quantifiable criteria (such as controlling the amount of luminescence or restricting certain angles of lighting) usually cannot be developed. For this reason, a specialist in lighting design should be consulted to determine light source locations, light intensities, and types of light sources for both outdoor and indoor locations on Grady and Big Rock Ranches. Lighting should be adequate for safety and security, but should minimize calling attention to the project. [1996 FEIR-R]*

5.5-8 The following mitigations would be required to lessen visual impacts:

- › *For the Grady Ranch tanks, the applicant would be required to follow design criteria developed by the applicant's professionals and reviewed for approval by the Department of Public Works (DPW) and Community Development Agency staff, ~~as developed by the MMWD. The MMWD develops specific design criteria for each new tank after consultation with concerned local groups or individuals, such as with residents of Lucas Valley Estates.~~*
- › *The final design of the water tanks and pump stations as developed by ~~the MMWD and~~ the applicant would be required to either hide the tank from view, or to borrow or repeat the form, line, color, and texture of the surrounding area.*
- › *For the ~~Big Rock Ranch~~ Grady Ranch tanks, the applicant would be required to submit a color scheme for the tank to the Marin County Community Development Agency staff as a part of the Precise Development Plan. The color scheme would be required to minimize color contrasts with the*

~~surrounding terrain. While the applicant and not the MMWD is responsible for the Big Rock Ranch tank the applicant should coordinate with the MMWD in the design review process for the Grady Ranch tank so that community input can be also [sic] obtained for the design review of the Big Rock Ranch tank. The color of the tank should match the color of the surrounding area, but in slightly darker tones to minimize shadow effects. Plantings would be required to minimize the viewpoints in which the tank is visible and to break up the line and form of the tank. Trail use views should be interrupted with foreground trees.~~

~~When the future public access trails across Grady and Big Rock Ranches are designed, they should take advantage of local topography, existing trails, and tree masses to minimize views of the water tank and project buildings. [1996 FEIR R]~~

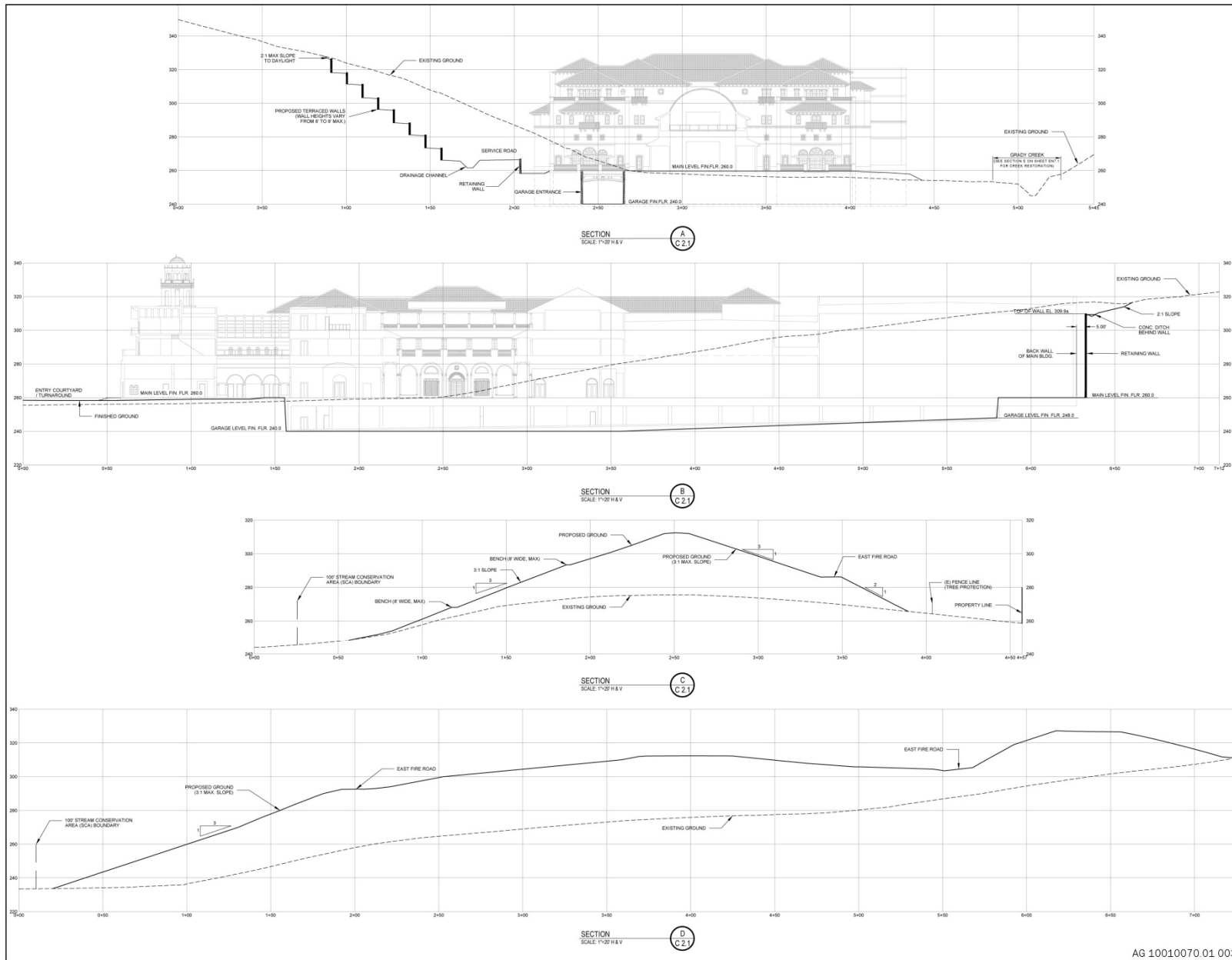
CONCLUSION

Proposed changes to the Grady Ranch PDP after the 1996 Master Plan FEIR was certified would not result in new significant impacts or substantially more severe impacts related to aesthetics. The development of residences next to the project site since the Master Plan EIR is a change in circumstances and the increase in the knoll height proposed in the PDP is a change in the project. In combination, these changed conditions would lead to replacement of existing ridgeline views toward the west from some of the residences near the southeast portion of the project site with more near-ground ridgeline views of the proposed knoll. Once the knoll is completed and revegetated, the residences would retain ridgeline views that consist of vegetated hillside without the presence of structures. Consequently, although views would change, they would not result in impacts that are new or substantially more severe significant impacts.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), the existing visual character of the project site would remain unchanged, and no impacts to visual resources would occur. Under Alternative 2 (Current Zoning Alternative), visual impacts would be significantly greater than the proposed project because it would introduce a more urbanized use to the project site. Under Alternative 3 (Previous-Proposed Project Alternative), visual impacts would be greater than the proposed project because of the construction of a reservoir that would be visible traveling east on Lucas Valley Road.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the elements of the proposed project that would result in potential visual impacts would be similar to the elements in the 1996 FEIR, including the introduction of nighttime lighting, the construction of water storage tanks, and project site grading changes.



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| Rev | Date | Description | Designated | Checked | Drawn |
|-----|----------|-------------|------------|---------|-------|
| 1 | 11/20/08 | PRELIMINARY | AM | AM | AM |
| 2 | 11/20/08 | REVISIONS | AM | AM | AM |
| 3 | 11/20/08 | REVISIONS | AM | AM | AM |
| 4 | 11/20/08 | REVISIONS | AM | AM | AM |

GRADY RANCH PRECISE DEVELOPMENT PLAN
GRADING SECTIONS
Skywalker Properties Ltd.

County of
Marin
State of
California

Prepared Under the Direction of

Drawn
C2.3

Scale: 1" = 20'
Date: November 21, 2008
File: S 875.20 N - S 875.21 P
Plot File: D:\2008 N - DP-0126-18 P

AG 10010070.01.003

Source: CSW/Stuber-Stroeh Engineering Group, Inc., November 2008

Exhibit AES-1

Grady Ranch Precise Development Plan Grading Sections

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 2. Agriculture and Forestry Resources. Would the project: | | | | | |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | 1996 FEIR; Section 5.4, pages 5.4-8 through 5.4-12 | No | No | No | N/A |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | 1996 FEIR; Section 5.4, page 5.4- 12 | No | No | No | N/A |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| d. Result in the loss of forest land or conversion of forest land to non-forest land? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | No |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | Refer to a. and d. above | Refer to a. and d. above | Refer to a. and d. above | Refer to a. and d. above | Refer to a. and d. above |

DISCUSSION

The proposed PDP does not include any agricultural uses. Grape vines would be planted on the terraced retaining walls west of the Main Building, but solely for aesthetic purposes.

The Grady Ranch site contains 216 acres of grazing land and 20 acres as Farmland of Local Importance as defined by California Department of Conservation. The 20 acres of Farmland of Local Importance is located along the southeastern boundary of the site near Lucas Valley Road (see Exhibit 5.4-3, p. 5.4-9 of the 1996 Master Plan FEIR). No changes to the Farmland Mapping and Monitoring Program (FMMP) maps of the Grady Ranch site have occurred since the Master Plan EIR analysis.

The wooded portion of the site would meet the definition of forest land under Public Resources Code section 12220(g), because it contains at least 10 percent native tree cover and allows for management of one or more forest resources. Questions regarding effects to forest land have been added to the Appendix G checklist in the State CEQA Guidelines, since the completion of the Master Plan EIR.

- a, b)** The Grady Ranch site contains 216 acres of grazing land and 20 acres as Farmland of Local Importance as defined by California Department of Conservation. The property is zoned as RMP (Residential Multiple Planned), which allows for a maximum of 137 residential units (Nichols-Berman 1996), and it is not under a Williamson Act Contract (CWP Interactive Map Application 2011). No agricultural uses are proposed in the PDP. Development proposed within the portion of the site mapped as Farmland of Local Importance is located primarily south of Miller Creek (see Exhibit 5.4-3, p. 5.4-9 of the 1996 Master Plan FEIR) and would, therefore, be minimally affected by proposed road and creek restoration work. Because the site is not designated or zoned for agricultural use, implementation of the proposed project would not withdraw the site's acreage from the County's existing or planned supply of agricultural land and would not conflict with existing zoning. The previous discussion in the 1996 Master Plan FEIR is still applicable and implementation of the PDP would not alter the previous conclusion.
- c - e)** Forest resources were not directly addressed in the previous EIR. Questions about forest impacts were added to the Appendix G Checklist after the Master Plan EIR preparation (i.e., in 2010 with amendments pursuant to SB 97, Statutes of 2007). The Grady Ranch is not zoned as forest land or timberland. The Grady Ranch site is zoned as RMP (Residential Multiple Planned). Therefore, no impact on land zoned for forest uses or timberland would occur with implementation of the proposed development plan.

Under Public Resources Code section 12220(g), forest land is defined as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." The wooded portion of the site would meet the definition of forest land under Public Resources Code Section 12220(g). because the development area of the site contains at least 10 percent native tree cover and management of one or more forest resources is allowable, including for aesthetics, fish and wildlife, biodiversity, water quality, and other public benefits. Allowance for management of the forest land resources is demonstrated by the proposal in the PDP to manage portions of the wooded areas for open space, buffers, and stream restoration, which create some of the benefits noted in the statutory definition.

The proposed PDP would result in the loss of substantially fewer trees on the project site than the previously proposed Master Plan. Implementation of the Master Plan would have required removal of 2,374 trees (4-inches or more of tree trunk diameter) on the Grady Ranch site. The number of trees that would be removed for the proposed project has been reduced to approximately 411 trees in the PDP. Of those 411 impacted trees, 306 are native trees larger than 12 inches DBH. Some trees would require removal and replacement and some trees would remain in place, but could be affected by project grading. Of the 411 trees, 266 are located within the planned limit of disturbance and would need to be removed to accommodate the project. One hundred eight (108) of the potentially affected trees have a portion of their dripline located within the limit of grading and would probably require removal. While removal of these trees would not be certain, they would nonetheless be mitigated, even if they are retained (Tree Replacement Report, 2008, page 2). The remaining 37 trees are located within 1.5 times the width of their dripline from the limit of grading, indicated that some impacts from grading could be expected. These trees would be examined individually to determine if any of them would require removal. Similar to the previously proposed project, construction within the development area would result in the loss of oak woodland and the potential conversion of forest land to a non-forest land use.

Although impacts related to tree removal was not addressed under Agricultural Resources in the 1996 Master Plan FEIR, it was addressed under Biological Resources, Impact and Mitigation Measure 5.3-2 and is essentially the same physical consequence as the topic raised in the new Appendix G forest land question. Implementation of Mitigation Measure 5.3-2 would reduce the project's impacts related to tree removal. The changes to the proposed project would reduce the severity of this impact, and the previous conclusion related to loss of trees is still applicable.

MITIGATION MEASURES

No additional mitigation measures would be necessary. Implementation of Mitigation Measure 5.3-2 from the 1996 Master Plan FEIR would continue to reduce potential impacts due to the loss of trees to less-than-significant levels. Mitigation Measure 5.3-2 requires that, where feasible, trees near the limits of anticipated grading should be preserved and protected. In addition, it required grading on Grady Ranch to accommodate existing trees and it required detailed guidelines to control possible damage to trees to be preserved. Finally, Mitigation Measure 5.3-2 required a tree replacement program to provide for replacement of native trees with trunk diameters exceeding 12 inches removed by proposed development. The text of Mitigation Measures 5.3-2 is included below.

1996 FEIR Mitigation Measures

5.3-2 The following mitigation measures would address tree loss:

- 5.3-2(a) *Where feasible from an engineering and geotechnical standpoint and warranted based on the good to excellent health and structure of the tree, trees near the limits of anticipated grading should be preserved and protected. An engineering survey for trees with trunk diameters of four inches or greater (measured at four and one-half feet above grade) should be performed prior to preparation of the Precise Development Plan, and trunk locations within 50 feet of the limits of grading should be mapped. Individual specimen-sized trees should be preserved through the use of retaining walls, short oversteepened slopes, and other methods. Protection of larger native trees with trunk diameters exceeding 24 inches should take precedence over smaller live oaks and California bay which are abundant in the forest and woodland habitat.*
- 5.3-2(b) *Proposed grading to accommodate the Ancillary Building and associated access improvements on Grady Ranch should be modified to protect the numerous specimen-sized trees to the east of the building footprint. The existing grade in the vicinity of the trees should be retained to avoid tree loss. This may require adjustment to the proposed building footprint and the alignment of the access roads to the building.*
- 5.3-2(c) *Detailed guidelines should be prepared by a certified arborist to control possible damage to trees to be preserved. The location of tree trunks to be retained within 50 feet of proposed grading should be mapped by engineering survey, and the trees identified in the field through flagging or other obvious marking method prior to any grading. Standards contained in the preservation guidelines should include the following.*
- › *Grade changes within 1.5 times the width of the tree dripline should be avoided and any encroachment closer than one-third the distance from the dripline to the trunk should be prohibited. Restrictions on the limits of grading, adjustments to the final grade of cut and fill slopes, and use of retaining walls should all be used to protect individual trees worthy of preservation.*

- › *Temporary fencing should be provided along the outermost edge of the dripline of each tree or group of trees to be retained in the vicinity of grading to avoid compaction of the root zone and mechanical damage to trunks and limbs.*
- › *Paving within the tree dripline should be prohibited or stringently minimized by using porous materials such as gravel, loose boulders, cobbles, wood chips, or bark mulch where hardscape improvements are necessary for access in the vicinity of trees.*
- › *Trenching within the tree dripline should be prohibited, with any required utility line within the dripline installed by boring or drilling through the soil.*
- › *The amount of landscape irrigation within the tree dripline should be minimized by prohibiting turf or any landscaping with high water requirements and limiting permanent irrigation improvements to bubbler, drip, or subterranean systems.*
- › *Storage of construction equipment, materials, and stockpiled soils should be prohibited within the tree dripline.*

5.3-2(d) *A tree replacement program should be prepared to provide for replacement of native trees with trunk diameters exceeding 12 inches removed by proposed development. The tree replacement program should be incorporated as a component of the Landscape and Vegetation Management Plan, and implemented as part of site revegetation and landscaping. Provisions of the tree replacement program should include the following:*

- › *Oaks should generally be replaced at a ratio of 5 to 1 (ratio of replacement trees to number of trees removed) unless salvaged from the site or grown from a locally-collected seed source as specified below.*
- › *All other native tree species should be replaced at a ratio of 3 to 1.*
- › *Species composition of plantings in the tree replacement program should be consistent with the percentage of each tree species removed. If offsite nursery stock is used for replacement plantings, the plants should preferably be seedlings with a container size of one-gallon or smaller. Younger plant material tends to have a higher survival rate than older nursery stock which has become established under ideal growing conditions associated with most nurseries.*
- › *Young trees and saplings (with trunk diameters of less than 12 inches) within the limits of anticipated grading should qualify as replacement plantings if successfully salvaged and transplanted as part of revegetation. Use of onsite salvage trees for replacement plantings would serve to preserve younger trees and protect the genetic integrity of the native species. Trees from a local source, particularly seedlings, typically have a higher success rate for re-establishment than nursery stock due to their adaptation to local conditions. Due to the benefits of using local plant material, salvage of young oaks should be encouraged by reducing the required replacement ratio from 5 to 1 to 3 to 1 where onsite oaks are used as replacement plantings.*
- › *A program to collect onsite seed and grow seedlings for use in the tree replacement program should be considered as part of the tree replacement program. Seed would be collected onsite in the fall months, planted in temporary containers, and maintained for a period of one or more years until seedlings are ready for planting. As with the salvage plantings, oak seedlings grown from an onsite seed source would be preferable to offsite nursery stock, and this program should*

be encouraged by reducing the required replacement ratio from 5 to 1 to 3 to 1 where seedlings from onsite collection are used as replacement plantings.

- › *If mature trees (with trunk diameters of 12 inches or greater) proposed for removal are successfully salvaged and transplanted, no additional replacement mitigation should be required.*
- › *Tree replacement plantings should be monitored as part of the Landscape and Vegetation Management Plan for a minimum of five years. If mature salvaged trees die within this time period, replacement plantings should be made at the respective 5 to 1 or 3 to 1 ratios. Any onsite salvage, locally-collected and grown seedlings, or nursery stock plantings lost within this monitoring period should be replaced at a 1 to 1 ratio on an annual basis. [1996 FEIR – U]*

CONCLUSION

No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant environmental impacts, compared to the analysis presented in the Master Plan EIR. While new questions were added to the Appendix G checklist related to forest resource effects since completion of the EIR, the physical consequences leading to determination of a potentially significant forest conversion impact were adequately addressed in the evaluation of tree removal in the 1996 Master Plan EIR.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), the adverse impact of tree removal would not occur. Alternative 1 could result in the reestablishment of agricultural operations, which could result in a beneficial impact because the reintroduction of grazing would reduce fire hazards on the project site. However, it would also result in increased urban-rural conflicts. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) could result in a reduction in the magnitude of grading, and the likelihood of tree removal could be less. Alternatives 2 and 3 could result in increased urban-rural conflict if agricultural uses were continued on the open space areas.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the elements of the proposed project that would result in potential agricultural and forestry resources impacts that would be similar to the elements in the 1996 FEIR, including the removal of trees. However, the proposed project would result in the removal of fewer trees than previously proposed for the Grady Ranch Project. The previous project included the removal of 2,374 trees. The proposed project would result in the removal of up to approximately 411 trees. Therefore, Alternative 2 would result in significant impacts that are greater in severity than the proposed Grady Ranch PDP, because it would not decrease the amount of trees to be removed, but it could increase urban-rural conflicts by locating agricultural uses adjacent to residential uses.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|--|---|
| 3. Air Quality. Would the project: | | | | | |
| a. Conflict with or obstruct implementation of the applicable air quality plan? | 1996 FEIR; pages 5.8-3 – 5.8-5. | No | Yes | Yes, but new or more severe significant effects would not occur | No |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | 1996 FEIR; pages 5.8-3 – 5.8-5. | No | Yes | Yes, but new or more severe significant effects would not occur | No |
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | 1996 FEIR; pages 5.8-3 – 5.8-5. | No | Yes | Yes, but new or more severe significant effects would not occur | No |
| d. Expose sensitive receptors to substantial pollutant concentrations? | 1996 FEIR; pages 5.8-3 – 5.8-5. | No | Yes | Yes | No |
| e. Create objectionable odors affecting a substantial number of people? | N/A | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

To address air resources impacts, the Precise Development Plan and project description-related materials provided by the applicant were peer reviewed by two air quality staff members with a combined total of over 19 years of professional experience in sustainable design and engineering practices, air pollution chemistry, meteorology, health risk assessments, and environmental policy. The staff members reviewed all project description-related materials, consulted with staff from the Bay Area Air Quality Management District, and provided the analysis discussion to answer the following Environmental Checklist questions.

The 1996 Master Plan FEIR analyzed air quality impacts of construction and operation of the proposed project, and cumulative impacts of air pollutant emissions. Changes to the proposed project since the 1996

environmental review would not result in new or increased severity of impacts, because the project site and proposed land uses would be the same or substantially similar to those which were previously analyzed.

In 2010, however, the Bay Area Air Quality Management District (BAAQMD) adopted new thresholds of significance for criteria air pollutants, precursors, and toxic air contaminants (TACs), and adopted new CEQA air quality guidelines (BAAQMD 2010a). This constitutes new circumstances and new information requiring analysis and verification that may result in new significant impacts, more severe significant impacts, new mitigation measures that may be considered feasible, and/or new information that requires analysis. Therefore, a revised analysis is presented here to evaluate the project's impacts in the context of the current regulatory environment. In addition, revised emissions modeling was conducted to account for changes in recommended methodologies and emission factors since 1996, and to address additional thresholds for pollutants that were not previously estimated.

BAAQMD is the regional air quality agency for the San Francisco Bay Area Air Basin (SFBAAB), which includes Marin County. BAAQMD prepares plans in order to attain ambient air quality standards in the SFBAAB. More specifically, BAAQMD prepares ozone attainment plans (OAP) for the national ambient air quality standards (NAAQS) for ozone and clean air plans (CAP) for the California ambient air quality standards (CAAQS) both in coordination with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG). With respect to applicable air quality plans, BAAQMD prepared the Bay Area 2010 CAP to address nonattainment of the national 1-hour ozone standard and nonattainment of the CAAQS in the SFBAAB.

As stated in the Appendix G Checklist, conflict with an applicable air quality plan is considered in determining significant environmental effects. The BAAQMD established significance criteria intended to support attainment of its air quality plans, so the criteria may be relied upon to make CEQA significance determinations. The BAAQMD's significance criteria have been updated since the 1996 Master Plan FEIR was prepared. Pursuant to BAAQMD's current CEQA Air Quality Guidelines (June 2010), the proposed project would result in a significant air quality impact if:

- ▲ Average daily construction emissions would exceed 54 pounds per day (lb/day) of reactive organic gases (ROG), oxides of nitrogen (NO_x), or particulate matter less than 2.5 micrometers in diameter (PM_{2.5}), or 82 lb/day of particulate matter less than 10 micrometers in diameter (PM₁₀). The thresholds for PM₁₀ and PM_{2.5} only apply to exhaust emissions;
 - ▲ The project would not implement BAAQMD Best Management Practices for fugitive dust during construction;
 - ▲ Operational emissions would exceed 54 lb/day or 10 tons per year (tpy) of ROG, NO_x, or PM_{2.5}, or 82 lb/day or 15 tpy of PM₁₀;
 - ▲ The proposed residents would be exposed to, or if the project would cause an excess cancer risk level exceeding 10 in one million or a Hazard Index greater than 1.0 at the maximally exposed individual (MEI); or
 - ▲ The project would result in an incremental increase of greater than 0.3 micrograms per cubic meter (µg/m³) annual average PM_{2.5}.
- a) The proposed project would result in emissions of criteria air pollutants and precursors during construction and operation.

Short-Term Construction-Related Emissions

Similar to the previously proposed project, construction of the project according to the proposed Grady Ranch PDP would include the main building (with guest quarters, sound stage, and technical facilities), gate house, excavation for the proposed parking garage, wine cave, roadway improvements, and stream restoration. Construction activities are anticipated to last approximately three years. Because of the new

information regarding significant criteria promulgated from the BAAQMD and because of changes to the project, a new quantitative analysis of potential air emissions was conducted for the proposed project.

During construction of the proposed project, criteria air pollutant emissions would be temporarily and intermittently generated from a variety of sources over the three year period. Project-related excavation and site grading activities would generate fugitive particulate matter (PM) dust emissions. Fugitive PM dust emissions are primarily associated with ground disturbance and material transport and vary as a function of parameters such as soil silt content and moisture, wind speed, acreage of disturbance area, and the intensity of activity performed with construction equipment. Exhaust emissions from diesel equipment, material transport trips, and construction worker-commute trips also contribute to short-term increases in PM emissions, but to a lesser extent. Exhaust emissions from these construction-related mobile sources would also include ROG and NO_x. In addition, the application of architectural coatings (i.e., interior and exterior surface painting) would result in off-gas emissions of ROG.

According to BAAQMD, PM₁₀ is the pollutant of greatest concern with respect to construction-related emissions. Construction-related emissions of criteria air pollutants and precursors were modeled in accordance with BAAQMD-recommended methodologies using project specifications (e.g., volume to be excavated, duration) described in the Project Description and construction schedule, and default settings and parameters contained in the 2007 Urban Emissions Model Version 9.2.4 (URBEMIS) for Marin County. Based on the modeling conducted, a summary of average daily construction emissions is presented in Table AQ-1. Because the 1996 EIR did not address construction-related ROG, NO_x, or PM_{2.5}, these construction emissions constitute new information for the Grady Ranch Precise Development Plan.

| Construction Phase (Year) | Pollutant Emissions (lb/day) | | | |
|---|------------------------------|-----------------|-------------------------------|--------------------------------|
| | ROG | NO _x | PM ₁₀ ¹ | PM _{2.5} ¹ |
| Average Daily Emissions during Year 1 (2011) | 8.2 | 60.9 | 3.4 | 3.1 |
| Average Daily Emissions during Year 2 (2012) | 11.4 | 57.9 | 3.4 | 3.1 |
| Average Daily Emissions during Year 3 (2013) | 47.4 | 33.9 | 2.3 | 2.1 |
| Average Daily Emissions for Total Construction Period | 17.7 | 54.0 | 3.1 | 2.9 |
| BAAQMD Significance Thresholds (lb/day) (Average Daily Emissions) | 54 | 54 | 82 | 54 |

Notes: BAAQMD = Bay Area Air Quality Management District; lb/day = pounds per day; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with aerodynamic diameter less than 10 microns; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns.

Bold text indicates an exceedance of BAAQMD's threshold.

¹ BAAQMD's construction-related thresholds for PM₁₀ and PM_{2.5} only apply to exhaust emissions. Therefore, PM₁₀ and PM_{2.5} emissions shown are only those associated with construction-related exhaust (e.g., construction worker vehicles, material delivery trucks, heavy-duty construction equipment). PM₁₀ from fugitive dust would result in approximately 351 lb/day and PM_{2.5} from fugitive dust would result in approximately 76 lb/day.

Detailed assumptions and modeling output files are included in Appendix A.
Source: Ascent Environmental, Inc. 2011.

As shown in Table AQ-1, the average daily construction-related emissions would exceed BAAQMD's thresholds of significance for construction-generated emissions of NO_x during years 1 and 2, and when averaged over the entire construction period, would still trigger the threshold. Therefore, the project's construction-related emissions could contribute to a violation of air quality standards, and could conflict with air quality planning efforts. In addition, BAAQMD recommends inclusion of basic best practices to control fugitive dust emissions during construction, whether or not construction-related emissions would exceed applicable thresholds. The basic control measures are not included as part of the project

description. For these reasons, this impact is considered significant. Implementation of Mitigation Measure AQ-1a and AQ-1b (below) would reduce this potential impact to a less than significant level.

The 1996 Master Plan FEIR evaluated fugitive dust emissions from construction, and concluded that the impact of construction-related dust emissions would be significant. The impact would be mitigated through implementation of the 1996 Master Plan FEIR’s Mitigation Measure 5.8-1. The 1996 Master Plan FEIR did not evaluate ROG, NO_x, or PM_{2.5} from construction. However, BAAQMD now requires evaluation of all four of these pollutants (i.e., ROG, NO_x, PM₁₀, and PM_{2.5}) during construction.

Long-Term Operation-Related Emissions

The operational emissions (i.e., area- and mobile-source emissions of ROG, NO_x, PM₁₀, and PM_{2.5}) associated with implementation of the proposed project were estimated using URBEMIS, as recommended by BAAQMD, based on inputs from the Project Description and default model settings where project-specific information was not available. Area-source emissions would include landscaping activities, combustion of natural gas, and consumer products, and would occur at the project site. Regional mobile-source emissions for the proposed project were estimated based on trip generation rates provided in the traffic study prepared for the project (Parisi 2010), and default settings and parameters contained in URBEMIS for Marin County. The project’s operational emissions are presented in Table AQ-2.

| Table AQ-2: Summary of Project-Generated Operational Emissions | | | | |
|--|-------------------------------------|-----------------|------------------|-------------------|
| Source | Pollutant Emissions [lb/day, (TPY)] | | | |
| | ROG | NO _x | PM ₁₀ | PM _{2.5} |
| Area Sources | 1.83 (0.32) | 1.82 (0.33) | 0.01 (-) | 0.01 (-) |
| Mobile Sources | 6.76 (1.14) | 5.28 (1.12) | 10.63 (1.94) | 2.02 (0.37) |
| Total Operational Emissions | 8.59 (1.46) | 7.10 (1.45) | 10.64 (1.94) | 2.03 (0.37) |
| BAAQMD Operational Significance Thresholds | 54 (10 TPY) | 54 (10 TPY) | 82 (15 TPY) | 54 (10 TPY) |

Notes:
 BAAQMD = Bay Area Air Quality Management District; lb/day = pounds per day; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with aerodynamic diameter less than 10 microns; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns; TPY = tons per year; “-” = less than 0.00.
 Emissions are presented in lb/day, followed by TPY in parentheses.
 Emissions were modeled for operational year 2013 as the earliest assumed year of project operation.
 See Appendix A for detailed model output and input assumptions.
 Source: Ascent Environmental, Inc. 2011.

As shown in Table AQ-2, the operational emissions associated with implementation of the proposed project would not exceed the applicable BAAQMD-recommended thresholds of significance for ROG, NO_x, PM₁₀, or PM_{2.5}. As a result, the project would not violate or contribute substantially to an existing air quality violation or conflict with air quality planning in the SFBAAB. Although the previous EIR only analyzed operational impacts related to traffic generation, the updated conclusion that operational impacts would be less than significant is similar to the conclusion in the 1996 Master Plan FEIR. No new or substantially more severe air quality impacts would occur for criteria air pollutants resulting from operation of the proposed project, as defined by the PDP.

- b) As discussed in a), above, project construction would result in an exceedance of BAAQMD’s significance criteria for NO_x (54 lb/day). In addition, basic fugitive dust control measures are not incorporated into the project description. For these reasons, project construction could result in or substantially contribute to a violation of air quality standards related to NO_x and fugitive dust.

In the 1996 EIR, construction-related air quality impacts were identified as significant, and were reduced to a less-than-significant level with implementation of Mitigation Measure 5.8-1. This analysis confirmed that construction-related NO_x and fugitive dust impacts are also considered significant. Mitigation Measures AQ-1a and AQ-1b (below) would replace Mitigation Measure 5.8-1, and would reduce this impact to a less-than-significant level. Therefore, this impact would be less than significant with mitigation incorporated, similar to the impact conclusion identified in the 1996 Master Plan FEIR.

- c) As discussed in a), above, project construction would result in an exceedance of BAAQMD's significance criteria for NO_x (54 lb/day). In addition, basic fugitive dust control measures are not incorporated into the project description. For these reasons, project construction could result in a cumulatively considerable net increase in ozone precursor or PM₁₀ emissions.

In the 1996 EIR, cumulative traffic-generated air quality impacts were identified as less than significant. Cumulative impacts on air quality associated with construction appear to be omitted from the cumulative impact evaluation in the 1996 EIR.

In the air quality impact assessment for this Environmental Checklist Review, cumulative impacts of operational emissions, which comprise traffic-related emissions and area sources, are also less than significant. However, for construction-related emissions, this impact is considered significant. Mitigation Measures AQ-1a and AQ-1b would reduce this impact to a less-than-significant level. Therefore, this impact would be less than significant with mitigation incorporated. However, this would be a new significant impact not previously discussed in the 1996 Master Plan FEIR.

- d) The exposure of sensitive receptors to emissions of TACs from on-site sources during construction and operation of the proposed project are discussed separately below. Toxic air contaminants were not previously discussed in the 1996 Master Plan FEIR.

Short-Term Construction-Related Emissions

Construction-related activities associated with the proposed project would result in temporary diesel PM exhaust and PM_{2.5} emissions from off-road, heavy-duty diesel equipment used for soil excavation, site grading, building construction, and other related activities. BAAQMD provides a screening-level methodology for exposure of receptors to construction-related health risks associated with development. The methodology used to estimate health risk from construction emissions follows standard modeling procedures and risk assessment practice, and calculations and modeling inputs were based upon the most conservative information and assumptions available at the time of analysis to ensure that health risks are not underestimated (BAAQMD 2010b).

The screening methodology uses the size of the project site under construction and the distance to sensitive receptors. The project would involve construction of 269,701 square feet of commercial land uses in a 52-acre development area. The nearest receptors are residences located approximately 50 meters from the nearest construction activities that would occur at the knoll, and approximately 225 meters from the main building construction site.

According to BAAQMD's screening tables, adapted below in Table AQ-3, the project would not meet the screening criteria of a minimum of 200 meters set back distance of receptors from construction activities. BAAQMD's screening-level method is based on extremely conservative assumptions. Actual health risks associated with the proposed project would be much less; especially since most of the construction activity would occur beyond the screening distance (approximately 225 meters) from the nearest receptor. For these reasons, BAAQMD recommended a qualitative approach to this analysis, as provided below (Vintze, Pers. Comm., 2011).

In addition, in January 2001, the U.S. Environmental Protection Agency (EPA) promulgated a Final Rule to make emission standards more stringent for model year 2007 heavy-duty diesel engines and all subsequent model years. These emission standards represent a 90 percent reduction in NO_x emissions, 72 percent reduction in non-methane hydrocarbon emissions, and 90 percent reduction in PM emissions in comparison to the 2004 model year emission standards. In December 2004, ARB adopted a fourth phase of emission standards (Tier 4) in the Clean Air Non-road Diesel Rule that would require new nonroad engines (e.g., construction, agriculture, mining) to be equipped with similar advanced emissions-control technology as highway trucks and buses. As such, engine manufacturers are required to meet treatment-based exhaust standards for NO_x and PM starting in 2011 that are more than 90 percent lower than current levels. This would put emission factors from off-road engines (e.g., construction, agricultural, and mining equipment) virtually on par with those from on-road, heavy-duty diesel engines. Therefore, it is anticipated that actual diesel PM emissions from heavy-duty construction equipment would be lower than those assumed in BAAQMD's screening methodology.

Table AQ-3: Summary of Construction-Related Health Risk Screening

| Project Scenario | | | Minimum setback distance (meters) from receptor to the project fence line to ensure less-than-significant health risk | | | | | Setback distance required for combined risk level w/ASF |
|------------------|------------------------------|------------|--|-------------------------|---|-----------------------|-------------------------|--|
| | | | Diesel PM | | PM _{2.5} | Acrolein ² | | |
| Land Use Type | # of Thousand Square Feet | # of Acres | Cancer Risk w/ASF ¹ | Chronic Hazard Index | Annual Average Concentration (µg/m ³) | Acute Hazard Index | Chronic Hazard Index | |
| Commercial | 100 | 13.8 | 150 | 19 | 125 | 85 | 8 | 150 |
| Commercial | 300 | 23.0 | 200 | 25 | 150 | 85 | 13 | 200 |

Notes: ASF = age sensitivity factor; PM = particulate matter; PM_{2.5} = particulate matter with aerodynamic diameter less than 2.5 microns. µg/m³ = micrograms per cubic meter.

¹ The Office of Environmental Health and Hazards Assessment (OEHHA) proposes weighting cancer risk by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposures that occur from 2 years through 15 years of age. These factors are called "Age Sensitivity Factors (ASF) and were applied to the cancer risk factors in BAAQMD's screening tool.

² Acrolein was included because it has the greatest non-cancer health risks of the TACs in diesel PM exhaust.

Source: BAAQMD 2010b.

The dose to which receptors are exposed to TACs is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the MEI. Thus, the risks estimated for an MEI are higher if a fixed exposure occurs over a longer period of time. According to the State Office of Environmental Health Hazard Assessment, a health risk assessment, which determines the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period. However, such assessments should be limited to the period/duration of activities (e.g., construction or operations) associated with the proposed project. As stated in BAAQMD's *Air Quality Guidelines*, "current models and methodologies for conducting health risk assessment are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities resulting in difficulties in producing accurate estimates of health risk" (BAAQMD 2010a; pg 8-7). The proposed project's construction activities would occur for approximately three years, which is one-third of the minimum exposure period for health risk assessments. The use of heavy-duty, diesel-fueled construction equipment would occur intermittently throughout the construction period.

Because certain construction activities would occur near off-site sensitive receptors, based on BAAQMD's screening criteria, a detailed, site-specific health risk assessment (HRA) would be required. A site-specific HRA has not been prepared. Absent a site-specific HRA to demonstrate otherwise, this

impact would be considered potentially significant. This would be a new significant impact not previously discussed in the 1996 Master Plan FEIR. Implementation of Mitigation Measure AQ-2 (below) would reduce the severity of this impact to a less-than-significant level.

Long-Term Operation-Related TAC Emissions

The proposed project would involve commercial land uses that could include diesel-fueled back-up generators, which could be long-term sources of TACs. Diesel-fueled back-up generators would be required to obtain permits from BAAQMD. BAAQMD's permit process would assure that these sources would be equipped with the required emission controls, and that individually, these sources would not cause a significant environmental impact. However, these emissions would be considered additive to the mobile-source emissions described below. Because of the nature of their use, all back-up generators would only be operated periodically for maintenance and testing purposes, or in emergency situations, and therefore would not generate a continuous or considerable source of TAC emissions.

Implementation of the proposed project would cause a net increase in mobile-source emissions. It is expected that the increase in vehicle trips would include trips by diesel-fueled delivery/service trucks to and from the project site. The nearest sensitive receptors to the proposed project would be residents located approximately 225 meters (738 feet) to the east of truck loading/unloading areas. Mobile-source diesel PM emissions would be emitted over the course of a day and throughout the air basin; not exclusively on the project site or at any other single location. ARB connects health risks with siting residences within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day (ARB 2005:10). The proposed project's resultant average daily traffic (918 vehicles/day; only few of which would be diesel-fueled trucks) would be well below ARB's vehicle traffic volumes of concern, and would not result in Lucas Valley Road approaching these vehicle volumes. Therefore, the project would not result in exposure of off-site residences to excessive mobile-source emissions of TACs.

Given the project's relatively small and widely distributed net increase in diesel PM emissions, coupled with the highly dispersive properties of diesel PM, and anticipated future reductions in diesel PM exhaust emissions, it is not anticipated that TAC emissions associated with the proposed project would result in an incremental increase in cancer risk that exceeds 10 in one million. This impact would be less than significant.

- e) Construction of the proposed project is not anticipated to expose nearby off-site receptors to objectionable odors. The proposed project would not involve the siting of sensitive receptors. During construction of the proposed project, exhaust odors from diesel engines and emissions associated with the application of architectural coatings may be considered offensive to some individuals. However, because odors would be intermittent and temporary (i.e., over approximately 3 years) and would disperse rapidly with distance from the source, construction-generated odors would not result in the exposure of a substantial number of receptors to objectionable odorous emissions. Furthermore, the project's compliance with Regulation 8 Rule 3 (Architectural Coatings) and Rule 15 (Emulsified Asphalt) would ensure that odors generated by short-term project construction would not affect a substantial number of people.

The proposed project would add land uses that are not typically associated with the generation of substantial odorous emissions (e.g., landfill, wastewater treatment plant, food processing facilities). Land uses that typically have minor odor-generating potential include dry cleaning establishments, restaurants with charbroilers, and gasoline stations. The project would include a kitchen with on-site dining in the Main Building, which could generate minor sources of odor from food preparation.

However, the project's compliance with BAAQMD Regulation 7 (Odorous Substances) and standard commercial waste disposal methods would limit potential odor exposure. In addition, it is anticipated that any waste product from on-site operations with the potential to emit odors (e.g., trash enclosures) would be disposed in proper containers and/or handled in a manner that would not emit any objectionable odors. Therefore, the proposed project would not expose a substantial number of people to objectionable odors. As a result, the impact would be less than significant.

MITIGATION MEASURES

The prior FEIR included the mitigation measure 5.8-1 (page 5.8-4 of the FEIR) for air quality impacts. These measures pertain to construction-related emissions, and are similar to Mitigation AQ-1 proposed under checklist Item a), but prior mitigation did not include the up-to-date list of all feasible mitigation strategies as currently recommended by BAAQMD. Therefore, Mitigation Measures AQ-1a and AQ-1b are new mitigation measures identified through environmental review that would replace Mitigation Measure 5.8-1.

New Mitigation Measures

Mitigation Measure AQ-1a [N]

The applicant and all construction contractors shall implement the following basic control measures during construction, per BAAQMD's Air Quality Guidelines:

- › *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
- › *All haul trucks transporting soil, sand, or other loose material off-site shall be covered.*
- › *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
- › *All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).*
- › *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.*
- › *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measures (ATCM) Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.*
- › *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.*
- › *Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.*

BAAQMD recommends that all proposed projects, where construction-related emissions would exceed the applicable thresholds of significance, implement the following Additional Construction Mitigation Measures (Mitigation Measure AQ-1b).

Mitigation Measure AQ-1b [N]

The project applicant and all construction contractors shall implement the following measures during construction, where feasible:

- › All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
- › All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- › Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- › The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited, if feasible. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
- › All trucks and equipment, including their tires, shall be washed off or swept prior to leaving the site.
- › Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.
- › Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- › Further minimize the idling time of diesel powered construction equipment to two minutes.
- › The project builder shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would comply with the BAAQMD recommendations for emissions. Currently, the recommendation is a project wide fleet-average 20 percent NO_x reduction and 45 percent PM reduction compared to the most recent California Air Resources Board (ARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
- › Use low volatile organic compounds (VOC) (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), if feasible.
- › Require that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NO_x and PM.
- › Require all contractors use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines.

Mitigation Measures AQ-1a and AQ-1b would replace the air quality mitigation measure (Mitigation Measure 5.8-1) in the 1996 EIR to be consistent with BAAQMD's current recommendations for best practices. BAAQMD recommends additional measures that were not included in the 1996 EIR that would further reduce construction-related emissions of criteria air pollutants and precursors. Mitigation Measures AQ-1a and AQ-1b combined are estimated to reduce construction-related emissions of NO_x by approximately 20 percent, PM from exhaust by 45 percent, and fugitive PM emissions by 75 percent. This would reduce worst-case average daily

NO_x emissions to approximately 48 lb/day, below BAAQMD's threshold of significance of 54 lb/day, and result in the implementation of all BAAQMD-recommended measures to prevent fugitive dust emissions from adversely affecting offsite receptors. This impact would be reduced to a less-than-significant level with mitigation incorporated.

Mitigation Measure AQ-2 [N]

The applicant shall either complete a detailed, site-specific HRA that demonstrates that risk exposure at nearby sensitive receptors would be below BAAQMD's significance thresholds for TACs, or the applicant and all construction contractors shall implement the following measures, developed in coordination with BAAQMD, to minimize exposure of off-site sensitive receptors to construction-related emissions of TACs:

- › *Implement Mitigation Measure AQ-1.*
- › *Construction contracts shall specify use of Tier III or better engines in all off-road equipment used on the project site.*
- › *Construction equipment shall be equipped with diesel PM traps.*
- › *Unnecessary idling of construction equipment shall be restricted to two minutes.*
- › *Construction staging areas shall be located as far away as possible on the project site from off-site receptors.*

With implementation of Mitigation Measure AQ-2, exposure of off-site residences to short-term construction-related TAC emissions and associated health risks would be further minimized. This impact would be less-than-significant with mitigation incorporated.

CONCLUSION

Proposed changes to the Grady Ranch PDP after the 1996 Master Plan FEIR was certified would not result in new significant impacts or substantially more severe impacts to air quality. However, changed circumstances based on new information regarding air quality attainment status, newly-adopted CEQA Guidelines and thresholds of significance by the BAAQMD, and new off-site receptors that did not exist at the time of the prior EIR, would result in a new and substantially more severe significant impact conclusions related to air quality. Air quality impacts from criteria air pollutant and precursor emissions (specifically, NO_x and fugitive dust emissions) associated with project construction would be significant, but would be reduced to a less-than-significant level with implementation of mitigation measure AQ-1, a new mitigation measure identified through environmental review. Air quality impacts associated with exposure of off-site residences to TAC emissions during construction would be potentially significant, but would be reduced to less-than-significant with implementation of mitigation measure AQ-2, a new mitigation measure identified through environmental review. Air quality impacts from project operation would be less than significant.

ALTERNATIVES

The 1996 FEIR stated that Alternative 1 (No Project) would not have any short- or long-term effects on local or regional air quality. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) would cause greater impacts than the project, because it would result in more daily trips, an increase in construction dust, and the addition of wood smoke from homes. Alternative 3 (Previous-Proposed Project)

would result in a potentially significant impact from construction dust and traffic impacts, similar to the Master Plan Project.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the number of trips and construction area are similar to the 1996 Master Plan Project. Odor impacts could be more severe under the No Project Alternative, if the reintroduction of agricultural uses on the project site includes livestock.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|--|---|---|---|---|
| 4. Biological Resources. Would the project: | | | | | |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | 1996 FEIR; Section 5.3; pages 5.3-35–5.3-39 | No | Yes | Yes | Yes, with modifications/updates |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | 1996 FEIR; Section 5.3; pages 5.3-22–5.3-31, 5.3-39–5.3-41 | No | No | Yes, but new or more severe significant effects would not occur | Yes, with modifications/updates |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | 1996 FEIR; Section 5.3; pages 5.3-39–5.3-41 | No | No | Yes, but new or more severe significant effects would not occur | Yes, with modifications/updates |
| d. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | 1996 FEIR; Section 5.3; pages 5.3-31–5.3-34 | No | No | No | Yes |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. | 1996 FEIR; Section 5.3; pages 5.3-22–5.3-27 | No | No | Yes, but new or more severe significant effects would not occur | Yes, with modifications/updates |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | Not analyzed | No | No | No | NA |

DISCUSSION

To address biological resources impacts, the applicant's materials regarding stream restoration and biological resources were peer reviewed by a biological resources staff member with over 15 years of professional experience specializing in natural resources planning and management, impact assessment and mitigation design, restoration and conservation planning, biological monitoring and adaptive management, and data analysis. The staff member reviewed all stream restoration and biological resources-related materials, provided peer review, and provided the analysis discussion to answer the following Environmental Checklist questions.

Proposed changes to the project, as described in the Grady Ranch PDP, would not result in new significant impacts or substantially more severe impacts to biological resources. However, new information about biological resources on the project site (i.e., changed circumstances), and updates to the State CEQA Guidelines and checklist items for biological resources since the Master Plan EIR warrant evaluation to determine whether a new or revised impact conclusion could result for some issues. The following summarizes the information changes requiring review and new analysis for biological resources.

- ▲ **Updates to environmental checklist items and significance criteria since the 1996 Master Plan FEIR.** The 1996 Master Plan FEIR analyzed impacts of project implementation to biological resources, using the following significance criteria: 1) impacts to a population or critical habitat of special-status plant or animal species; 2) substantial interference with the movement of any resident or migratory fish or wildlife species; and 3) substantial reduction in habitat for fish, wildlife, or plants. These criteria were based on the State CEQA Guidelines (as of 1996) and *Appendix N of the Marin County Environmental Review Guidelines and Procedures* adopted in 1994. The environmental checklist for the current analysis of the Grady Ranch PDP is based on the 2011 State CEQA guidelines Appendix G. Because of differences between the 1996 and 2011 CEQA Guidelines and checklists, including the addition of several environmental issues to the checklist since 1996, some of the issues requiring evaluation in the current analysis were not explicitly addressed in the 1996 Master Plan FEIR. The 1996 Master Plan FEIR has been reviewed to assess whether the current set of issues were or were not adequately addressed, even if they were not explicitly listed in that prior document's checklist.
- ▲ **Changes to the regulatory status and sensitivity of some biological resources.** The regulatory status and sensitivity of some resources have substantially changed since the 1996 Master Plan FEIR was certified. For example, steelhead (*Oncorhynchus mykiss*) was not listed under the federal Endangered Species Act (ESA) at the time the FEIR was prepared (although, its population status and potential for listing under the ESA was being reviewed by NOAA Fisheries); and potential impacts to steelhead were not analyzed in the 1996 Master Plan FEIR. However, steelhead was subsequently listed as threatened under the ESA in 1996, and this species has been documented at Grady Ranch. Therefore, potential effects of project implementation on steelhead need to be analyzed. Several other special-status species with potential to occur at Grady Ranch did not have a special-status designation in 1996 and require analysis, as well. Also, after certification of the 1996 Master Plan FEIR, Marin County adopted a *Native Tree Preservation and Protection Ordinance* in 2002. Although tree removal impacts were analyzed and mitigation was proposed in the 1996 Master Plan FEIR, the analysis and mitigation measures need to be reviewed and updated in light of the current PDP design, tree protection requirements under the County ordinance, and tree protection and replacement plans recently prepared by the Applicant's consultant team.
- ▲ **New site-specific biological data collected after the 1996 Master Plan FEIR was certified.** After the FEIR was certified, additional detailed biological studies were completed on behalf of the project applicant for the Grady Ranch PDP in 2008–2011. Also, a field reconnaissance survey was completed by an Ascent biologist in November 2010. These studies present new information about the existing setting that is relevant to the current analysis. For example, steelhead and one other special-status species (golden eagle [*Aquila*

chrysaetos) that were not documented at Grady Ranch during preparation of the FEIR were recently documented there.

The following discusses each biological resources checklist item, to clarify the answers provided in the checklist. The discussion does not provide a full impact analysis or describe all new information that relates to the environmental setting for biological resources; rather, it focuses on changed conditions since the 1996 Master Plan FEIR was certified that require review or verification, or that may result in a changed or new analysis conclusion.

- a) The 1996 Master Plan FEIR evaluated potential impacts to special-status plant and animal species (Impact 5.3-6). The FEIR considered 25 special-status animal and 35 special-status plant species with potential to occur on the project site, based on the presence of suitable habitat for those species. No fish species were addressed in the analysis. The FEIR reported that no special-status animal species were known to occur on the project site. The FEIR concluded that populations of two special-status plant species occur at Grady Ranch, but they are located outside of the proposed development area, and would not be affected. The analysis of special-status species in the FEIR concluded that, at Grady Ranch, no special-status species would be affected; however, raptor nests could be removed or abandoned during project construction. Although “raptors” as a group or common raptor species are not considered special-status species (per standard definitions of “special status”), raptor nests are protected by the federal Migratory Bird Treaty Act and provisions of the California Fish and Game Code.

In November 2008, WRA, Inc. completed an assessment of biological resources at Grady Ranch (WRA 2008a) on behalf of the Applicant to update biological information collected on the site in the early 1990s and used in the 1996 Master Plan FEIR analysis. The WRA report also evaluated potential impacts to special-status species and other sensitive biological resources, and recommended mitigation measures for those impacts. Additionally, in 2011, WRA completed a Section 7 Biological Assessment (WRA 2011a), Salmonid Habitat Assessment (WRA 2011b), and focused rare plant surveys and a Rare Plant Survey Report (WRA 2011c). On November 4, 2010, an Ascent biologist conducted a field reconnaissance survey of the site, in preparation for this analysis. The following summarizes new information that is relevant to the analysis of potentially changed or new biological resources impacts.

- ▲ **Legal Status and Presence of Steelhead (*Oncorhynchus mykiss*) at Grady Ranch.** The Central California Coast distinct population segment (DPS) of steelhead was listed as threatened under the ESA by NOAA Fisheries on August 18, 1997 (with an effective date of October 17, 1997) (62 FR 43937), after the County certified the 1996 Master Plan FEIR. After completing a status review of all west coast steelhead populations, NOAA Fisheries reaffirmed the threatened status of this DPS and issued a final listing determination on January 5, 2006 (71 FR 834). The analysis of impacts to special-status species in the 1996 Master Plan FEIR did not address steelhead (or any other fish species). The Grady Ranch project site occurs within the range of the Central California Coast steelhead DPS, and steelhead has been documented in Grady Creek and Miller Creek on the site since 2008 (WRA 2008a, 2011a). Because of the presence of steelhead in Miller Creek and Grady Creek, and the documented anadromy (i.e., migration-connectivity with the ocean) of Miller Creek, ESA Section 7 consultation by the U.S. Army Corps of Engineers (USACE) with USFWS and NOAA Fisheries is required as part of USACE’s review and permitting for impacts to waters of the U.S. (including wetlands) (WRA 2008a). The Applicant submitted a Joint Aquatic Resources Permit Application (JARPA) in August 2011 to USACE, along with a Section 7 Biological Assessment (BA) (WRA 2011a) and Salmonid Habitat Assessment (WRA 2011b) prepared for the project by WRA. Representatives from NOAA Fisheries, U.S. Fish and Wildlife Service (USFWS), and California Department of Fish and Game (CDFG) have been on site visits with WRA. During its review of the

JARPA and BA, USACE will initiate ESA Section 7 Consultation with USFWS and NOAA Fisheries. Although stream restoration proposed as part of the Grady Ranch PDP is expected to improve long-term aquatic conditions for fish, potential short- and long-term effects of the proposed project on steelhead habitat, populations, and movement would be a new potentially significant impact that requires analysis and consideration of mitigation, as explained below.

- ▲ **Presence or Potential Occurrence of Other Special-Status Species.** Based on recent studies, two special-status animal species – steelhead and golden eagle – have been documented at Grady Ranch, and 11 other special status animal species have a moderate or high potential to occur there. No special-status plant species were documented in the proposed development area during focused surveys for rare plants conducted during March–August 2011 (WRA 2011c), or during surveys conducted previously for the 1996 Master Plan FEIR. The current assessment of occurrence potential for these 11 animal species is based on: 1) the current status designations for species in the region, which have changed for some species since 1996 (both additions to and removals from the list of special-status species addressed in the 1996 Master Plan FEIR); 2) a recent review of the species' known range or distribution in Marin County; 3) a recent assessment of habitat conditions at Grady Ranch; and 4) relevant information from the 1996 Master Plan FEIR that is still current (e.g., habitat suitability determinations).

With the exception of recent California red-legged frog (*Rana aurora draytonii*) surveys, protocol or focused surveys for special-status animal species have not been completed for the project in nearly 20 years. (Focused surveys were conducted for the Grady Ranch Master Plan FEIR during 1992 and 1993.) A protocol survey for California red-legged frog was completed by WRA in 2010. The survey determined that this species was not present in the survey area, and that overall habitat suitability for red-legged frog was low (WRA 2010). Therefore, the recent presence/absence status of the 11 special-status animal species now considered to have a moderate or high potential to occur at Grady Ranch is not confirmed. Also, several of these species did not have a special-status designation in 1996; therefore, they were not addressed in the original FEIR surveys or impact analysis. This SEIR takes a conservative approach by assuming that these species do exist on the site. If any special-status species occurs on the project site, project construction could result in the loss of individuals or populations, occupied habitat, or active breeding and roosting sites. Depending on the species affected, potential effects of project implementation on special-status species known or with moderate to high potential to occur on the project site would differ from the previously-identified special-status species impact identified in the 1996 EIR and could be significant.

Short-term Disturbance to Steelhead Habitat Resulting from Construction and Initial Channel Response

The project includes proposed restoration and enhancement of Miller Creek, Grady Creek, and Landmark Creek with the goals of restoring bank-full equilibrium channel interaction with floodplains; installing fish-friendly rock and log structures to stabilize channel bed material and improve upstream fish passage; laying back most vertical banks to allow planting of riparian vegetation that will help stabilize streambanks and provide shade to the channel; raising the grade of most portions of Miller Creek bed and its tributaries with rock and log structures to reverse much of the incision that has already occurred; and stabilizing knickpoints that are propagating up the side tributaries from Miller Creek. Substantial fill, rock, and biotechnical material are proposed to be placed in the creek corridor. The proposed stream restoration would extend for approximately 1.5 miles and is expected to improve habitat conditions and fish passage for steelhead, and habitat for other aquatic resources over the long term. However, construction activities could temporarily degrade water quality, aquatic habitats, and the aquatic community, such as by the mobilization of sediment and temporary increases in turbidity. Effects could also occur during the initial channel-response and riparian revegetation period within the

construction area and downstream. Impacts to riparian and aquatic habitat would result from temporary loss of riparian vegetation, which could increase stream temperatures and erosion potential; and removal of in-channel large woody debris, which would reduce habitat structure and cover for steelhead, invertebrate prey, and other aquatic species. If steelhead are present in or downstream of restored stream reaches during construction, individuals could be harmed or killed by construction activities. Any adverse impact to steelhead, a federally threatened species, would be significant. Potential short-term disturbance to steelhead habitat resulting from construction and initial channel response would be a substantial increase in the severity of the previously-identified significant impact on special-status species. Mitigation Measure BIO-1 (below) would reduce the severity of this impact to a less-than-significant level. Additionally, implementation of Mitigation Measure 5.1-2 from the 1996 Master Plan FEIR would reduce potential erosion impacts due to construction and creek bank stabilization to less-than-significant levels through the formulation of a detailed design-level onsite Erosion Control Plan (see checklist item 10, Hydrology and Water Quality, below).

Construction-Related Disturbance or Loss of Special-Status Wildlife Species

Golden eagle has been documented at Grady Ranch, and six other special status bird species (white-tailed kite [*Elanus leucurus*], long-eared owl [*Asio otus*], olive-sided flycatcher [*Contopus cooperi*], loggerhead shrike [*Lanius ludovicianus*], yellow warbler [*Dendroica petechia*], grasshopper sparrow [*Ammodramus savannarum*]), three special-status bat species (long-eared myotis [*Myotis evotis*], long-legged Myotis [*Myotis volans*], pallid bat [*Antrozous pallidus*]), and one other special-status mammal species (American badger [*Taxidea taxus*]) have potential to occur there during the breeding season. If these species occur on the project site, construction activities such as project grading, construction of facilities, and restoration activities could result in the loss of individuals or nests of special-status bird species; removal of active roost sites for, or injury to, special-status bat species; and loss of American badger. Potential construction-related disturbance or loss of special-status wildlife species would be a substantial increase in the severity of the previously-identified significant impact on special-status species. Mitigation Measure BIO-2 (below) would reduce the severity of this impact to a less-than-significant level.

b) Riparian Habitat and Stream Conservation Areas

The 1996 Master Plan FEIR analyzed project impacts to riparian habitat and stream conservation areas (SCAs) (Impact 5.3-4). The Marin Countywide Plan, Natural Systems and Agricultural Element (Marin County 2007), establishes and defines a SCA as a “setback from the bank of a natural watercourse, which is intended to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams.” The Countywide Plan includes standards for defining SCAs and establishing development setbacks for different stream types (perennial, intermittent, ephemeral), County-designated environmental corridor types, and parcel sizes; the Countywide Plan also includes several specific implementation policies to protect streams and riparian zones. Since adoption of the 1996 Master Plan FEIR, the County adopted revisions to the 1994 Countywide Plan in 2007 and strengthened protection requirements for SCAs. For example, whereas SCAs at Grady Ranch in 1996 (subject to the 1994 Countywide Plan) were defined as a 100-foot development setback on each side of the stream centerline, the SCAs are now defined as a minimum 100-foot setback on each side of the top of bank. However, when the Master Plan was approved, the County reduced the Stream Conservation Area setback on the west side of Grady Creek to 50 feet for this project.

The FEIR concluded: “development as proposed may partially conflict with the intent of policies in the Countywide Plan regarding Stream Conservation Areas. However, restoration and enhancement proposed as part of the project would improve the overall riparian habitat value of the site. This is a less-than-significant impact.” No mitigation was recommended. The potential conflict with the Countywide

Plan SCA policies was due to a proposed utility line that may have been located within the Grady Creek SCA, and the Main Building's location within the 100-foot SCA.

Changes to the project design in the proposed Grady Ranch PDP include relocating the utility line and Main Building to the west and outside of the Grady Creek SCA, which would provide increased protection of the Grady Creek SCA and consistency with the 2007 Countywide Plan relative to the design evaluated in the 1996 Master Plan FEIR. The stream restoration treatments would be implemented within the SCA and temporarily disturb and remove riparian habitat; however, the treatments are designed and expected to improve the long-term habitat functions and values of the SCA, including enhancing the extent, quality, and resilience of riparian vegetation. As discussed below under Item 10c, upper Miller Creek is experiencing high rates of sediment transport. This sediment is transported to other reaches of Miller Creek downstream of Grady Ranch. Given the constrained existing conditions due to sediment deposition within the downstream reaches, reduction in sediment transport from Grady Ranch would reduce the potential for (or decrease the rate of) channel aggradation and loss of flow capacity in flood-prone reaches downstream. The sediment reduction also has the potential to enhance downstream aquatic resources (Brown and Hecht, 2011). Although the specific types, locations, and magnitude of potential effects on riparian habitat and SCAs have changed as a result of project design changes since the 1996 Master Plan FEIR, no new significant impacts or substantially more severe impacts to riparian habitat and SCAs are expected.

Native Grassland (Valley Needlegrass/Purple Needlegrass Grassland)

Valley or purple needlegrass grassland is a native grassland type present on the project site. Native grasslands are considered sensitive habitats in California. The 1996 Master Plan FEIR analyzed impacts to native grassland (Impact 5.3-3), concluding that disturbance of native grassland as a result of project development would be a significant impact. To mitigate for this impact, the FEIR required preparation and implementation of a grassland restoration and enhancement program to provide for replacement of native grasslands disturbed by proposed development (Mitigation Measure 5.3-3). In 2008, on behalf of the Applicant, WRA completed a Native Grassland Restoration and Enhancement Report (WRA 2008b) to meet the objectives of Mitigation Measure 5.3-3. This report was also prepared specific to the PDP design and incorporated updated estimates of native grassland impacts as of 2008. The specific locations and magnitude of native grassland impacts have changed as a result of project design changes since the 1996 Master Plan FEIR, including a reduction in native grassland area disturbed under the current PDP design, but no new significant impacts or substantially more severe impacts to native grasslands are expected.

Implementation of the Native Grassland Restoration and Enhancement Report (WRA 2008b) is expected to meet the mitigation requirements of the 1996 Master Plan FEIR. The specific acreage of native grassland disturbance would vary from the 1996 Master Plan FEIR, but it would not increase nor cause new or substantially more severe significant impacts. The Native Grassland Restoration and Enhancement Report should be compared to the final PDP design, and possibly updated if any disturbance estimates or other assumptions have changed since the report was completed in 2008; however, no new or substantially more severe significant impact would occur. Implementation of this report (as revised to reflect final native grassland disturbance estimates, if needed) would mitigate for disturbance to or loss of native grassland, consistent with the 1996 Master Plan FEIR. No new mitigation would be required.

Oak-California Bay Woodland

Oak-California bay woodland is distributed on hillside slopes and along drainages at Grady Ranch. In general, oak woodlands are not considered or tracked as a sensitive habitat by CDFG's California Natural

Diversity Database. However, oak woodlands are considered sensitive and receive protection in several local jurisdictions (e.g., counties, cities) in California because of their high biological, heritage, and aesthetic value, and because of threats to oak woodlands statewide from development and sudden oak disease. Oak woodlands receive special consideration for conservation in the Marin Countywide Plan and the County *Native Tree Preservation and Protection Ordinance*, which include policies to protect oak trees and woodlands. The 1996 Master Plan FEIR did not explicitly analyze project impacts to oak woodland as a sensitive natural community; however, the FEIR analyzed and proposed compensatory mitigation for tree removal (Impact 5.3-2), including loss of oaks and other trees within oak woodland communities. Mitigation proposed in the FEIR included measures to protect trees on site and preparation of a tree replacement program to compensate for necessary tree removal (Mitigation Measure 5.3-2).

In 2008, on behalf of the Applicant, WRA completed a Tree Survey Report (WRA 2008c), Tree Preservation Guidelines Report (WRA 2008d), and Tree Replacement Report (WRA 2008e) to fulfill the FEIR mitigation for tree removal. These reports were prepared specific to the PDP design and incorporated updated tree removal estimates as of 2008. These reports were also prepared in consideration of tree protection policies in the 2007 Marin Countywide Plan and *Native Tree Preservation and Protection Ordinance*. Although the specific locations of tree removal and impacts to oak woodlands have changed as a result of project design changes since the 1996 Master Plan FEIR, substantially fewer trees would be removed based on the current PDP design and no new or substantially more severe significant impacts to oak woodlands are expected.

Implementation of the Tree Preservation Guidelines Report (WRA 2008d) and Tree Replacement Report (WRA 2008e), as part of FEIR Mitigation Measure 5.3-2, is expected to meet the mitigation requirements of the 1996 Master Plan FEIR and County policies for tree and woodland protection. Implementation of these reports (as revised to reflect final tree removal estimates, if needed) would mitigate for tree removal and loss of oak woodland. No new mitigation would be required.

Seasonal Freshwater Wetland and Perennial Freshwater Wetland

Seasonal freshwater wetland and perennial freshwater wetland are sensitive habitats present on the project site. These habitats are included in the wetland resources addressed in checklist item “c,” below.

- c) The proposed project would involve filling of streams and jurisdictional wetlands for stream restoration and enhancement, and disturbance of existing riparian and other habitats on the project site. Jurisdictional wetlands and Waters of the U.S. on the project site include seasonal freshwater wetland, perennial freshwater wetland, riparian wetland, and other Waters of the U.S. The 1996 Master Plan FEIR analyzed impacts to wetlands (Impact 5.3-7), concluding that “while project development would generally avoid the limited wetland habitat on the site and provide for enhancement of stream corridors, some direct loss would occur, secondary impacts may result from erosion and water quality degradation, and review and coordination with jurisdictional agencies would be required due to channel improvements and realignment. This is a significant impact.” To mitigate for this impact, the FEIR required preparation and implementation of a detailed wetland protection, replacement, and restoration program (Mitigation Measure 5.3-7). In 2009, on behalf of the Applicant, WRA completed a Wetland Mitigation and Monitoring Plan (WRA 2009a) to meet the objectives of Mitigation Measure 5.3-7. This report was also prepared specific to the PDP design and incorporated updated estimates of wetland impacts as of 2009. Additionally, WRA completed a Preliminary Section 404 Determination for consultation with USACE (WRA 2009b), which has been submitted to USACE and verified in December 2010. Although the specific locations and magnitude of wetland impacts have changed as a result of

project design changes since the 1996 Master Plan FEIR, no new or substantially more severe significant impacts to federally protected wetlands are expected.

Implementation of the Wetland Mitigation and Monitoring Plan (WRA 2009) is expected to meet the mitigation requirements of the 1996 Master Plan FEIR. Implementation of this report (as revised to reflect final wetland disturbance estimates, if needed), along with completion of the ongoing Section 404 consultation with USACE, would mitigate for disturbance to or loss of wetlands and other Waters of the U.S. No new mitigation would be required.

- d) Although this item was added to the State CEQA Guidelines and checklist after the FEIR was certified in 1996, the FEIR addressed impacts to wildlife movement corridors and loss of wildlife habitat (Impact 5.3-5). Related to this checklist item, the FEIR concluded that “development of the site would alter existing patterns of wildlife use, and could disrupt movement of larger species along the creek corridors on the site” (e.g., deer). To mitigate for this impact, the FEIR required minimizing disturbances within stream corridors to protect their function as sensitive wildlife habitat, and coordinating with CDFG to implement methods to exclude deer from the proposed development areas while maintaining wildlife corridors along stream channels and across valley floors (Mitigation Measure 5.3-7). The FEIR did not explicitly analyze impacts to fish movement or migration. However, as discussed previously in “New Impact BIO-1,” the proposed stream restoration is expected to improve habitat conditions and connectivity for steelhead and other aquatic resources over the long term. No new or substantially more severe significant impacts related to this checklist item are expected, and no new mitigation would be required.
- e) When the 1996 Master Plan FEIR was certified, Marin County did not have an adopted tree protection ordinance. However, the FEIR explicitly quantified and analyzed tree removal impacts (Impact 5.3-2), including loss of oaks and other trees within oak woodland communities. The FEIR concluded that proposed tree removal would be a significant impact. Mitigation proposed in the FEIR included measures to protect trees on site and preparation of a tree replacement program to compensate for necessary tree removal (Mitigation Measure 5.3-2). After certification of the 1996 Master Plan FEIR, Marin County adopted a *Native Tree Preservation and Protection Ordinance* in 2002.

As previously discussed, WRA completed a Tree Survey Report (WRA 2008c), Tree Preservation Guidelines Report (WRA 2008d), and Tree Replacement Report (WRA 2008e) to fulfill the FEIR mitigation for tree removal. These reports were also prepared specific to the PDP design and incorporated updated tree removal estimates as of 2008, and in consideration of tree protection policies in the 2007 Marin Countywide Plan and *Native Tree Preservation and Protection Ordinance*. Although the specific locations and magnitude of tree removal and impacts to oak woodlands have changed as a result of project design changes since the 1996 Master Plan FEIR, including the removal of substantially fewer trees under the current PDP design, no new or substantially more severe significant impacts related to tree removal are expected.

Implementation of the Tree Preservation Guidelines Report (WRA 2008d) and Tree Replacement Report (WRA 2008e), as part of FEIR Mitigation Measure 5.3-2, is expected to meet the mitigation requirements of the 1996 Master Plan FEIR and County policies for tree and woodland protection. Implementation of these reports (as revised to reflect final tree removal estimates, if needed) would mitigate for tree removal and maintain consistency with the County’s *Native Tree Preservation and Protection Ordinance*. No new mitigation would be required.

The proposed Grady Ranch PDP is not expected to conflict with other local policies or ordinances protecting biological resources, including policies in the Natural Resources and Agricultural Element of the 2007 Marin Countywide Plan.

- f) A project's potential conflict with an adopted conservation plan was not included as an environmental checklist item in the 1996 State CEQA Guidelines and, therefore, was not evaluated in the 1996 Master Plan FEIR. No federal, state, or local conservation plans that include the project site have been adopted. Therefore, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. No new or substantially more severe significant impacts related to this checklist item would occur. No mitigation would be required.

MITIGATION MEASURES

The 1996 Master Plan FEIR recommended six mitigation measures to reduce significant impacts to biological resources to less-than-significant levels (Mitigation Measures 5.3-1, 5.3-2, 5.3-3, 5.3-5, 5.3-6, and 5.3-7). Mitigation Measure 5.3-1 required a detailed Landscape and Vegetation Management Plan and prohibited vehicles, motorcycles, and bicycles from traveling off designated roadways to prevent further disturbance to grassland cover and other vegetation. As discussed above under Checklist Item 2, Mitigation Measure 5.3-2 would address potential tree loss. Mitigation Measure 5.3-3 addressed loss of native grasslands by requiring the preparation of a grassland restoration and enhancement program. Mitigation Measure 5.3-5 addressed impacts on wildlife habitat by limiting disturbance, such as pedestrian pathways, lighting, ornamental landscaping, and other improvements, within the stream corridors to protect their function as sensitive wildlife habitat. Mitigation Measure 5.3-5 also required coordination with CDFG to develop methods to exclude deer from the proposed development areas. Mitigation Measure 5.3-6 addressed potential impacts on special-status taxa on the Grady Ranch site by requiring the preparation of a special-status plant protection program, and by requiring avoidance of any active raptor nests until young birds are able to leave the nest and forage independently. Mitigation Measure 5.3-7 required the preparation of a detailed wetland protection, replacement, and restoration program by a qualified wetland consultant that meets the approval of the County, the Corps, and CDFG. The text of Mitigation Measure 5.3-2 is included under Checklist Item 2, Agriculture and Forestry Resources. The text of the other biological resources mitigation measures is included below.

1996 FEIR Mitigation Measures

5.3-1 The following mitigation measures would address landscape compatibility and management impacts:

- 5.3-1(a) *A detailed Landscape and Vegetation Management Plan should be prepared by a qualified landscape architect in consultation with a plant ecologist experienced in management of native species. The plan should: 1) provide for re-establishment of native vegetation on graded slopes around the fringe of proposed development; 2) provide details on native plantings associated with proposed restoration, enhancement and mitigation; 3) establish a program to salvage suitable native plants for use in landscaping and revegetation; 4) identify unsuitable species which should not be used in landscaping; 5) control the establishment and spread of introduced broom; and 6) specify long-term management provisions to ensure re-establishment of landscape improvements. Aspects of the plan should include the following:*
- › *Landscaping and revegetation should emphasize the use of native plant species along the fringe of proposed structures and grading, and around the perimeter of the expanded reservoir. The plantings list in the proposed Preliminary Landscape Plans should be expanded to include: California buckeye (*Aesculus californica*), California rose (*Rosa californica*), toyon (*Heterameles**

arbutifolia), common rush (*Juncus patens*), creeping wildrye (*Leymus triticoides*), and purple needlegrass (*Nassella pulchra*). Native freshwater marsh species should be used in landscaping the fringe of the expanded reservoir. Suitable species include: cattail (*Typha domingensis*), common tule (*Scirpus acutus*), iris-leaved rush (*Juncus xiphioides*), and California blackberry (*Rubus vitifolius*).

- › Suitable native sapling trees, shrubs, and groundcovers to be removed by the project should be salvaged before grading and used in landscaping and revegetation, providing a source of mature plants and re-establishing much of the desirable local cover which would otherwise be lost with development. The anticipated limits of grading should be flagged and plant material suitable for use in the salvage program marked, carefully removed, and stored. The salvage material could be maintained onsite during initial grading and transplanted to selected areas at the appropriate time of the year following formal grading (generally in October and November), with maintenance provided as necessary to ensure re-establishment. Trees species successfully transplanted as part of the salvage program should count as credit for the tree replacement mitigation requirement for the project.
- › Non-native ornamental species used in landscape plantings should be restricted to the immediate vicinity of proposed structures. Use of non-native, invasive species which may spread into adjacent undeveloped areas should be prohibited in landscaping plans. Unsuitable species include: blue gum eucalyptus (*Eucalyptus globulus*), acacia (*Acacia* spp.), pampus grass (*Cortaderia selloana*), broom (*Cytisus* spp.), gorse (*Ulex europaeus*), bamboo (*Bambusa* spp.), giant reed (*Arundo donax*), English ivy (*Hedera helix*), Gennan ivy (*Senecio milanioides*), and periwinkle (*Vinca* sp.).
- › Species used in "Woodland Tree Mass" plantings of the proposed Preliminary Landscaping Plans should be native to Marin County. California buckeye (*Aesculus californica*) should be substituted for proposed plantings of horse chestnut (*Aesculus hippocastanum*), and plantings of oaks should be limited to live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*), eliminating the proposed use of several non-native species (i.e. *Quercus coccinea*, *Q. ilex*, and *Q. rubra*).
- › Graded slopes and areas disturbed as part of the project should be monitored for a minimum of five years to prevent establishment and spread of French and Scotch broom. The removal and monitoring program should include annual late winter removal of any rooted plants when soils are saturated and cutting back of any remaining flowering plants in the spring before seed begins to set in late April.
- › Provisions for maintenance of landscaping and revegetation of graded slopes should be specified as part of the plan, with replacement plantings, seeding and monitoring provided over a minimum of five years to ensure re-establishment of cover.

5.3-1(b) Vehicles and motorcycles should not be allowed to travel off designated roadways to prevent further disturbance to grassland cover and other vegetation. Similarly, bicycles should not travel off designated roadways or trails. Barriers should be provided where vehicle access to open space areas may be possible, and employees should be informed of the prohibition of off-road vehicle use. Although unauthorized vehicle access does not appear to pose a significant threat to vegetation in open space areas, this measure is recommended to further limit the possibility of damage to established vegetation. [1996 FEIR-U]

5.3-3 The following mitigation would address loss of native grasslands:

A grassland restoration and enhancement program should be prepared to provide for replacement of native grasslands disturbed by proposed development, emphasizing the use of purple needlegrass. The program

should be prepared by a qualified plant ecologist experienced in grassland restoration using purple needlegrass. The grassland program should be incorporated as a component of the Landscape and Vegetation Management Plan, and implemented as part of site revegetation and landscaping. Provisions of the grassland program should include the following.

- › Native grasslands disturbed by proposed development should be restored and replaced at a minimum 1 to 1 ratio, with replacement provided on a per acre basis for each cover class lost. Success criteria for replacement should provide for establishment of native grasslands which meet or exceed the cover class of the existing stands lost as a result of development.
- › Replacement grasslands should be located in close proximity to the disturbed grassland stands, and to the degree feasible should serve to revegetate graded slopes above the new dam and the Archives Building on Big Rock Ranch, and north of the Main Office Building on Grady Ranch.
- › Prior to construction, the boundary of proposed grading within the stands of native grasslands should be clearly staked with color-coded flagging set at 50 foot intervals, and disturbance from construction equipment operation, storage, or other activities should be prohibited outside the delineated "no disturbance zone".
- › Landscape tree plantings shown in the Preliminary Landscape Plan should be restricted outside the existing and restored native grasslands. This includes the Woodland Tree Mass plantings on the slopes to the north of the Main Office Building on Grady Ranch, and the Conifer Tree Mass plantings in the narrow ravine to the south of the reservoir and Woodland Tree Mass plantings to the northwest of the Archives Building on Big Rock Ranch.
- ~~› Cattle should be restricted from the native grasslands associated with the serpentine outcrop to the south of the reservoir, which would minimize continued disturbance on the steeper slopes of this sensitive resource. Exclusionary fencing should parallel the ravine just east of the existing dam, extend south up to an elevation of at least 775 feet, then west approximately 1,000 feet to the edge of the native grassland, and then north to the proposed deer fencing south of Dairy Creek.~~
- › The program should: identify the detailed onsite mitigation areas and acreage; specify in greater detail performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures; and define site preparation, revegetation procedures, and an implementation schedule. [1996 FEIR, R]

5.3-5 The following mitigation measures would address impacts on wildlife resources:

5.3-5(a) Disturbance within the stream corridors on the site should be limited to protect their function as sensitive wildlife habitat. Pedestrian pathways, lighting, ornamental landscaping, and other improvements often associated with open space areas should be restricted a minimum of 100 feet from channel banks, except along the west bank of Grady Creek where a 50-foot setback would be adequate due to its degraded state from past ranching activities. Understory vegetation and shrubs should be retained and enhanced within the corridors to provide protective cover and discourage human disturbance. Suitable species which may be planted at roadway crossing and discourage human disturbance locations and along channel banks to discourage human access include dense plantings of willow (*Salix lasiolepis*), elderberry (*Sambucus caenliea*), and California blackberry (*Rubus vitifolius*).

~~5.3-5(b) Proposed pedestrian paths along the edge of the expanded reservoir on Big Rock Ranch should be restricted to the northern side of the reservoir where development is proposed. Pedestrian access along the south side of the reservoir should be discouraged to minimize disturbance to wildlife on at~~

~~least one shoreline, and the proposed path eliminated from the Preliminary This would also limit access to the sensitive native grasslands associated with the Landscape Plan. serpentine outcrops.~~

- ~~5.3-5(c) Dense emergent vegetation should be established around the perimeter of the expanded reservoir on Big Rock Ranch to provide protective cover and enhance the wildlife habitat value of this open water feature.~~
- 5.3-5(d) Methods to exclude deer from the proposed development areas should be coordinated with and meet with the approval of the California Department of Fish and Game. The importance of maintaining wildlife corridors along stream channels and across the valley floors must be balanced with long-term management problems and property damage to landscape improvements from deer. ~~The proposed location of deer fencing around the perimeter of the development areas should be adjusted to preserve important wildlife movement corridors on Grady Ranch and to maintain partial access to the reservoir on Big Rock Ranch. Modifications to the alignment of exclusionary fencing should include the following:~~

~~Wildlife access along Landmark Creek should be maintained by ending the proposed exclusionary fencing at the northeast bank of this stream. This would leave the Ancillary Building and surrounding hillside slopes outside the exclusionary fencing, reducing the extent of restricted habitat by almost 30 percent and providing access along an important tributary drainage.~~

~~A north-south wildlife movement corridor should be provided between the eastern property boundary and Grady Creek to maintain wildlife access across the eastern edge of the site. Exclusionary fencing could follow the east side of Grady Creek from the confluence with Miller Creek to an elevation of approximately 240 feet, then up the spur ridge along the eastern edge of the dense forest habitat. A minimum of 100 feet should be provided between the property boundary and the exclusionary fencing at an elevation of approximately 335 feet to maintain the top of the spur ridge as an open corridor. At an elevation of approximately 400 feet, the fencing should veer from the spur ridge and drop back down to the Grady Creek channel, following the contour interval, crossing the creek channel, and intersecting with the proposed fence alignment on the west side of Grady Creek.~~

~~Wildlife access should be maintained on the south side of the expanded reservoir on Big Rock Ranch. Exclusionary fencing could be screened behind proposed Riparian Tree Mass plantings on the southern end of the new dam and drop down into the reservoir. The fencing could then continue near the tributary drainage which converges with Dairy Creek just south of the western structure of the Main Office Building. Cattle should still be restricted from the sensitive native grasslands associated with the serpentine outcrops, as recommended in Mitigation Measure 5.3-3. [1996 FEIR -R]~~

5.3-6 The following measure would address impacts on special-status taxa:

- ~~5.3-6(a) A special status plant protection program should be prepared to provide for the protection of the populations of Tiburon buckwheat, Marin western flax, and woolly headed lessingia associated with the serpentine formation to the south of the reservoir on Big Rock Ranch. The program should be incorporated as a component of the Landscape and Vegetation Management Plan. Provisions of the protection program should include the following:~~
- ~~↳ Proposed repair of the slide to the south of the new dam should be monitored by a qualified botanist to ensure that disturbance to the special status plant populations are avoided. Prior to construction, the boundary of proposed grading in the vicinity of the formation should be clearly staked with color coded flagging set at 50 foot intervals, and disturbance from construction equipment operation, storage, or other activities should be prohibited outside the delineated "no disturbance zone".~~

- ~~› Pedestrian access to the serpentine formation should be restricted to minimize the potential for trampling and disturbance to the populations. The pedestrian pathway indicated in the Preliminary Landscape Plan should be eliminated along the southern edge of the reservoir.~~
- ~~› Signage should be provided at the edge of the serpentine formation near the southeastern end of the new dam indicating the presence of special status plant populations, sensitivity of the grassland community, importance of minimizing disturbance in the generally area, and prohibiting pedestrian traffic around the southern edge of the reservoir.~~
- ~~› Cattle should be restricted from the serpentine formation to improve the overall habitat condition of the area, as recommended in Mitigation Measure 3.5-3.~~

5.3-6 (b) *If any active raptor nests are established within the proposed development areas in the future, they should be avoided until young birds are able to leave the nest (i.e. fledged) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (August 15 through January 14), or if this is not feasible, by conducting a pre-grading survey for raptor nests. If grading is scheduled during the sensitive nesting period (January 15 through August 14), a qualified wildlife biologist, chosen by the County and paid for by the applicant, should conduct a pre-grading raptor survey to provide confirmation on presence or absence of active nests in the vicinity of proposed improvements. If active nests are encountered, species specific measures should be prepared by the biologist and implemented to prevent abandonment of the active nest. At minimum, grading in the vicinity of the nest tree should be deferred until the young birds have fledged, providing a construction-disturbance setback distance of at least 300 feet. Grading or other disturbance in the vicinity of the nest should not be permitted until the biologist has confirmed that the young raptors have fledged. A survey report by the biologist verifying that the young have fledged should be submitted to the County prior to initiation of grading in the construction-disturbance setback area. As necessary, representatives of the CDFG and USFWS should be consulted regarding appropriate construction restrictions, building setbacks, landscape screening and other methods to ensure compliance with the Migratory Bird Treaty Act and provisions in the State Fish and Game Code.*

5.3-6(c) *[Deleted] [1996 FEIR – R]*

5.3-7 In addition to Mitigation 5.1-2 which requires preparation of a detailed design-level Erosion Control Plan, the following mitigation measure would address impacts on jurisdictional waters:

A detailed wetland protection, replacement, and restoration program should be prepared by a qualified wetland consultant, which meets with the approval of the County, the Corps, and the CDFG. The program should be prepared as a component of the recommended Landscape and Vegetation Management Plan, and implemented as part of site revegetation and landscaping. The wetland plan should clearly identify the total wetlands and other jurisdictional areas affected by the project, serving to replace wetland habitat and providing for re-establishment, enhancement, and / or replacement of wetland vegetation. Details of the plan should include the following.

- › Identify the location(s) of mitigation areas. Mitigation for loss of existing wetlands should be provided at a replacement ratio of 2 to 1 consistent with the Countywide Plan, and should result in created or restored wetlands with a higher habitat value.*
- › Specify detailed performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring should be provided for a minimum of five years and continue until the success criteria are met.*

- › *Define site preparation and revegetation procedures an implementation schedule, and funding sources to ensure long-term management of the overall wetland mitigation plan. [1996 FEIR-U]*

In addition to measures from the 1996 FEIR, the following two mitigation measures are recommended for new potentially significant impacts to biological resources that were identified as a result of new information. The potential impacts that these measures address are described in the previous checklist discussion. Mitigation Measure BIO-1 is a new measure that includes mitigation for potential impacts to steelhead that were proposed by WRA (2011a) on behalf of the applicant. Mitigation Measure BIO-2 is a new measure identified through supplemental environmental review. WRA also prepared a Contingency Plan (Habitat Mitigation and Monitoring Plan) (WRA 2011d), which focuses on mitigation for impacts to wetlands and other waters of the U.S. as a result of project implementation.

New Mitigation Measures

Mitigation Measure BIO-1 (Implement BMPs and Other Protective Measures to Avoid Short-Term Impacts to Steelhead and Degradation of Steelhead Habitat) [N]

The following measures will be implemented to avoid short-term impacts to steelhead and degradation of steelhead habitat. These measures are essentially identical to the avoidance, minimization, and conservation measures for steelhead protection proposed in the Section 7 Biological Assessment prepared for the project (WRA 2011a). Any further development of the impact analysis and mitigation program for steelhead should proceed in consultation with NOAA Fisheries, to reflect the agency's input and ensure consistency with the Section 7 consultation process.

- › *Construction activity within potential steelhead habitat will not begin until the channel(s) dry, or within the NOAA Fisheries work window, between July 1 to October 31, whichever is earlier. If no water is present in the channel after October 31, it may be possible to continue work until the first predicted rainfall of one half inch of rain or more within a 24-hour period.*
- › *Orange construction fence will be installed around sensitive habitat adjacent to the project footprint and along access routes in the vicinity of the creek bed. The impact will be the minimum size necessary to complete construction.*
- › *Temporary loss of riparian vegetation through habitat restoration will be mitigated in the enhanced riparian habitat. Removal of riparian vegetation will be the minimal amount necessary to regrade the unstable bank and access the streambed for excavation and fill. Disturbed areas will be revegetated with species specific to the Project vicinity and will comprise of a diverse community structure. Adaptive measures will be employed to ensure survivability.*
- › *Large trees removed on the project site or existing in-channel large woody debris (LWD) will be incorporated into creek restoration to the greatest extent feasible. LWD in areas outside of the project site will be avoided and left in place.*
- › *A Storm Water Pollution and Prevention Plan will be developed and cover work occurring outside of the wetted channel. Additionally, standard construction best management practices (BMPs) will be used to prevent sediment from entering Miller Creek and its tributaries.*
- › *A Spill Prevention and Control Plan will be developed for work within and adjacent to the creek. The Spill Prevention Plan will contain measures to prevent and control potential spills of hazardous materials associated with mechanical equipment (oil, gas, hydraulics, etc.), as well as measures to minimize contact with the stream bed, such as work pads. The Plan and materials necessary to implement it will be accessible on site. All fueling, maintenance, and staging of equipment and*

vehicles will occur outside of active stream channels and above the top of the bank. Heavy equipment will be checked daily for leaks. Equipment with leaks will not be used until leaks are fixed.

- › Any disturbed ground will receive appropriate erosion control treatment or seed mix within seven days following completion of construction, or within seven days following a seasonal stoppage of construction.
- › Any work pads, falsework, and other construction items will be moved prior to the end of the seasonal construction.
- › In addition, a comprehensive plan for work in or below banks would -be required with Construction Management Plans prior to issuance of a creek or grading permit.

Mitigation Measure BIO-2 (Limit Vegetation Removal to Non-Sensitive Periods to the Extent Practicable, Conduct Preconstruction Surveys for Special-Status Wildlife Species, and Implement Limited Operating Periods if Necessary) [N]

- › To the extent practicable, evaluate and implement opportunities to minimize or avoid project-related vegetation removal and other habitat disturbances during the avian breeding season, which is generally February 1–August 31 (depending on species and weather). Attempt to focus tree removal activities during September and October, which is outside the maternity and hibernation periods for bats.
- › For construction activities that would occur in suitable habitat during the avian breeding season, a qualified wildlife biologist will conduct focused surveys for active nest sites of special-status birds. These surveys will be completed within 14 days before construction activities are initiated each construction season. The preconstruction survey for each special-status bird species will be conducted using a nest-searching technique appropriate for the species. For example, for yellow warbler, an appropriate technique involves first conducting point counts in suitable habitat to determine occupancy, followed by nest searching if the species is present. For long-eared owl, surveys typically involve tape playback of recorded long-eared owl calls.
- › If an active special-status bird nest is located during the preconstruction surveys, the biologist will notify CDFG. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives will be evaluated, and implemented to the extent feasible. If avoidance is not feasible or conflicts with project objectives, limited operating periods will be applied to avoid disturbances during the sensitive nesting season; construction will be prohibited within an appropriate distance of the nest until the nest is no longer active. The appropriate nest-buffer size would depend on the species and type of disturbance.
- › For construction activities during the bat roosting season (generally November–August), potential bat roosts that could be removed or otherwise destroyed shall be surveyed by a qualified wildlife biologist. The bat survey shall be completed within 14 days before any removal of potential bat roosts. Potential bat roosts include cavities in trees, exfoliating bark, snags, and cracks in large rocks. Potential roost sites identified will be monitored on two separate occasions for bat activity, possibly using bat detectors to help identify species. Monitoring will begin 30 minutes before sunset and will last up to two hours at any potential roost identified. If a maternity or other significant roost (e.g., hibernation roost) is detected, a 200-foot buffer will be established around the site; and removal of the roost site will be avoided to the extent feasible. If avoidance is not feasible, maternity or other significant roost sites will not be disturbed by project activities until September 1 or later, when juveniles at maternity roosts would be volant (i.e., able to fly). If removing an active non-maternity or non-hibernation roost

site is required, exclusion devices that block the entrance shall be installed after dusk and when the bats have exited the roost to forage, prior to removal.

- › *Prior to any ground disturbance that could affect grassland habitat, a qualified biologist shall conduct a preconstruction survey for American badger in suitable habitat. If a potential American badger den is located during the preconstruction survey, the den will be monitored for three days by the biologist using a tracking medium or an infrared beam camera to determine if the den is active. Surveys should be completed between May and September to avoid disturbance to potential natal or pupping dens. If an active badger den is located, a buffer shall be established around the den during the period that the den is active; the Applicant shall consult with DFG to develop and implement an appropriate non-disturbance buffer and other avoidance measures.*

CONCLUSION

Proposed changes to the Grady Ranch PDP after the 1996 Master Plan FEIR was certified would not result in new significant impacts or substantially more severe impacts to biological resources. However, changed circumstances based on new information about biological resources on the project site would result in a new and substantially more severe significant impact conclusion related to special-status species. Information changes or updates expected to result in new impacts that are potentially significant include changes to the regulatory status and sensitivity of some biological resources and new site-specific biological data collected after the 1996 Master Plan FEIR was certified. New potentially significant impacts to biological resources include potential short-term disturbance to steelhead habitat resulting from construction and initial channel response, and construction-related disturbance or loss of special-status wildlife species. Mitigation Measures BIO-1 and BIO-2 would reduce the impacts to less-than-significant levels. Mitigation Measure BIO-1 includes resource protection measures that have been proposed by the project applicant. Mitigation Measure BIO-2 is a new mitigation measure identified through supplemental environmental review.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), the adverse impacts resulting from tree removal, disturbance to native grasslands and wetlands, and obstruction of wildlife movement would not occur. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) could result in similar impacts to biological resources. However, construction would extend over a larger portion of the site than under the Master Plan, and the severity of this impact would be greater under Alternative 2. As discussed above under Agriculture and Forestry Resources (Checklist Item 2), the 1996 FEIR also concluded that implementation of Alternative 2 (Current Zoning Alternative) could result in a reduction in the magnitude of grading, and the likelihood of tree removal could be less. The 1996 FEIR stated that Alternative 3 would result in greater impacts to biological resources with a potential loss of 5,363 trees and substantial changes to wildlife habitat and movement corridors on the site.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the elements of the proposed project that would result in biological resources impacts would be similar to the elements in the 1996 FEIR, including the footprints for construction and project operation. As discussed above, the proposed project would result in the removal of fewer trees than previously proposed for the Grady Ranch Project. The previous project included the removal of 2,374 trees. The proposed project would result in the removal of up to approximately 411 trees. Therefore, Alternative 2 would likely not reduce the severity of impacts from tree removal.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 5. Cultural Resources. Would the project: | | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | 1996 FEIR, Section 5.6, page 5.6-1; | No | No | No | Yes |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | Same as a) above. | No | No | No | Yes |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| d. Disturb any human remains, including those interred outside the formal cemeteries? | Not analyzed | No | No | Yes | Yes, with updates |

DISCUSSION

An archaeological and historical resources records search and field survey was conducted by David Chavez & Associates in December 1991 and January 1992 for the Grady Ranch site as part of the 1992 Draft EIR for the Grady Ranch/Big Rock Ranch Master Plan (Marin County Community Development Agency 1996). Based on the previously prepared archaeological and historical resources records search and field survey, it was determined that no archaeological or historical resources exist on Grady Ranch (Nichols-Berman 1996, p. 5.6-1). Impact and Mitigation Measure 5.6-4 of the 1996 Master Plan FEIR address disturbance of unknown cultural resources at Grady Ranch and Big Rock Ranch. With the exception of Impact and Mitigation Measure 5.6-4, the previous impact analysis focuses on known resources located within the Big Rock Ranch site (Nichols-Berman 1996).

Compared to the 1996 Master Plan FEIR, no substantial changes in the general location of the project and development footprint are proposed and new development would be located within the boundaries of the property examined in the survey conducted for the earlier EIR. The area of construction disturbance is also within the prior survey boundaries.

Paleontological remains are common in Marin County. They include plants, invertebrates, and vertebrates ranging in age from approximately 140 million years to less than 8,000 years before the present. Within the county, paleontological remains have been primarily recovered from the Pleistocene, Pliocene, Holocene and Miocene geologic time periods (MCPU FEIR 2007). The 1996 Master Plan FEIR did not discuss impacts to paleontological resources.

a-b) As discussed in the 1996 Master Plan FEIR (p. 5.6-1) and a cultural resource investigation of the Grady Ranch site that was conducted for the Master Plan EIR (Marin County Community Development Agency

~~1996 David Chavez & Jan M. Hupman, 1992~~), implementation of the proposed project would not result in impacts on any documented cultural resources presently listed or possibly eligible for listing in the California Register of Historic Places (CRHR) because no resources are known to be present within the Grady Ranch property. Construction of the proposed Grady Ranch Precise Development Plan would occur on the same 52-acre development area previously proposed under the Master Plan. Consequently, this impact would remain less-than-significant, similar to the conclusion in the 1996 Master Plan FEIR.

- c) Paleontological Resources were not analyzed in the Master Plan EIR. According to the University of California Museum of Paleontology Collections Database, the Grady Ranch property does not contain any recorded fossils (Berkeleymapper, February 2011). However, the Marin Countywide Plan Update FEIR (2007) states that paleontological remains are fairly common in Marin County. They include plants, invertebrates, and vertebrates ranging in age from approximately 140 million years to less than 8,000 years before the present. The County has not prepared a paleontological sensitivity map for the project area. However, it is unlikely that the project site is sensitive for these resources, as explained below.

Within the County, paleontological remains have been primarily recovered from the Pleistocene, Pliocene, Holocene and Miocene geologic time periods. These are the most recent time periods within the quaternary period of the Cenozoic era, ranging in time intervals from 23.8 to 5.3 million years ago (Miocene) to 10,000 years ago to the present (Holocene). The Grady Ranch property is underlain by Franciscan Complex that includes sandstone, shale and mélange¹ (AMEC Geometrix, Inc, 2008). The Franciscan Complex is from the older Mesozoic Era of the geologic time scale, which ranges from 248 million to 65 million years ago. The younger geologic formations, where paleontological resources are more likely to be found, are located in the western portion of the County. This corresponds with the recorded locations of paleontological resources recorded by the UC Museum of Paleontology Localities. Of the 342 listed resources during a search under “Marin County,” almost all of the recorded localities were located west of the San Andreas Fault Zone. Because of the lower sensitivity of the project site for paleontological resources, this would be a less-than-significant impact and no mitigation would be required.

- d) Potential disturbance of currently unknown cultural resources during construction was analyzed under Impact 5.6-4, “Potential Disturbance of Other Important Cultural Resources”, of the 1996 Master Plan FEIR. As a matter of standard archaeological practice, prehistoric human remains are recognized as part of the potentially significant impact of unknown, subsurface cultural resources. However, because this issue was not addressed in the 1996 Master Plan FEIR, the potential to disturb prehistoric human remains is considered a new potentially significant impact. Current, standard archaeological mitigation measures include explicit actions if human remains are encountered. To address this potential impact and to update and clarify cultural resources mitigation measures for the proposed Grady Ranch PDP approval, Mitigation Measure CUL-1 would supplement existing measures in response to Impact 5.6-4 in the 1996 Master Plan FEIR.

MITIGATION MEASURES

Implementation of Mitigation Measure 5.6-4 of the 1996 Master Plan FEIR (p. 5.6-10) would mitigate disturbance of unknown cultural resources at Grady Ranch to a less-than-significant level. Mitigation Measure 5.6-4 requires all construction work to halt if cultural deposits are encountered and requires consultation with a

¹ Melange has been defined as: mappable bodies of deformed rocks characterized by the inclusion of native and exotic blocks, which may range up to several miles long, in a pervasively sheared, commonly pelitic [rock composed of clay] matrix.

qualified archaeologist, who shall conduct an independent review of the find. The text of this mitigation measure is included below.

1996 FEIR Mitigation Measures

5.6-4 The following mitigation would reduce impacts to potential cultural resources:

If cultural deposits are encountered, halt construction in the vicinity and consult a qualified archeologist. The archeologist shall conduct independent review of the find, with authorization of and under direction of the County. Prompt evaluations should be made regarding the significance and importance of the finds and a course of action acceptable to all concerned parties should be adopted. If mitigation is required, the first priority shall be for avoidance and preservation of the resource. If avoidance is not feasible an alternative plan that may include excavation shall be prepared. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Appendix K of the State CEQA Guidelines and by the California Office of Historic Preservation. The Native American community shall be consulted on all aspects of the mitigation program.

The pre-construction seminar shall be held in which the project archaeologist would present information about the potential for and nature of potential buried archaeological deposits in the construction areas, and how to identify cultural deposits.

~~*During construction, a monitoring archaeologist and a Native American observer (to be approved by the California Native Heritage Commission in Sacramento) shall conduct periodic observations during construction. During construction nearby the known midden and petroglyph sites, full time monitoring should take place as recommended by the archeologist. [1996 FEIR R]*~~

In addition to Mitigation Measure 5.6-4, the following measure would update and supplement the proposed project's mitigation to explicitly include responses if human remains were encountered during construction. This is a new cultural resources mitigation identified through the updated environmental review.

New Mitigation Measures

CUL-1. Impacts on Presently Undocumented Human Remains [N]

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, potentially damaging excavation in the area of the burial will be halted and the Marin County Coroner and a professional archaeologist will be contacted to determine the nature and extent of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]).

If the remains are determined to be those of a Native American, then the following shall occur:

- (a) *The State Historic Preservation Office (SHPO), the construction contractor, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code.*
- (b) *The SHPO shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD will have 48 hours to complete a site*

inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Assembly Bill (AB) 2641 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the landowner shall implement one or more of the following measures:

- › *record the site with the NAHC or the appropriate Information Center,*
- › *utilize an open-space or conservation zoning designation or easement, and/or*
- › *record a document with the county in which the property is located.*

- (c) *The landowner or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or his/her authorized representative may also reinter the remains in a location not subject to further disturbance if he/she rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner.*

CONCLUSION

Changes to the proposed project since the time of prior environmental review would not result in new or substantially more severe significant impacts related to historical resources or archaeological resources, because the 1996 Master Plan FEIR adequately addressed potential historic and prehistoric resources, and the project site and construction disturbance area are within the survey boundaries of the prior analysis. The project site is likely not sensitive for paleontological resources and this impact would be less than significant. The proposed Grady Ranch PDP could result in a new potentially significant impact because of the potential to disturb prehistoric human remains. Mitigation Measure CUL-1 would reduce this potential impact to a less-than-significant level. Cultural resources impacts would be less than significant after mitigation.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), existing historic and archaeological resources (both known and unknown) would likely remain undisturbed. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) would result in similar impacts to cultural resources as the proposed Master Plan, with the potential disturbance of unknown sites. The 1996 FEIR concluded that implementation of Alternative 3 (Previous Proposed Project Alternative) could result in similar impacts to cultural resources as the proposed Master Plan, with the potential disturbance of known and unknown sites.

The previously identified cultural resource sites on Big Rock Ranch would not be affected by implementation of the proposed Grady Ranch PDP. The conclusions of the severity of impacts on unknown resources under the three alternatives would be similar for the proposed Grady Ranch PDP because the elements of the proposed project that would result in the potential disturbance of unknown resources would be similar to the elements in the 1996 FEIR.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 6. Energy and Natural Resources. Would the project result in: | | | | | |
| a. Substantial increase in demand for existing energy sources, or conflict with adopted policies or standards for energy use? | 1996 FEIR, section 3.0, page 3.0-46 | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| b. Use of non-renewable resources in a wasteful and inefficient manner | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| c. Loss of significant mineral resources sites designated in the Countywide Plan from premature development or other land uses which are incompatible with mineral extraction? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

- a) As discussed in the 1996 FEIR under the Energy and Natural Resources discussion (Section 3.8, Effects of No Significance), project implementation would require a one-time energy expenditure to build some uses and would represent a long-term energy commitment to operate a new development. The 1996 FEIR concluded that the amount of energy used by the project is considered to be less than significant. The Grady Ranch PDP is similar in scope to the previous project but does not include the previously proposed guest cottages. The size and intensity of use (number of employees) in the Main Building would be similar to what was analyzed in the 1996 FEIR. Therefore, the overall demands for energy use would be the same or would be less than the previous estimates. In addition, the PDP would include a ~~geothermal heat~~ geothermal heat geoechange system to heat and cool the main building, which would reduce the project’s electricity and natural gas consumption. The project’s demand for energy resources would be less than what was analyzed in the 1996 FEIR, and this would remain a less-than-significant impact.
- b) Non-renewable resources that would be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. As a standard condition of approval, the Community Development Agency would require the applicant to submit a Recycling and Reuse Plan to demonstrate that at least 50 percent of materials generated from the project would be reused or recycled. Prior to final inspections, the project applicant would be required to submit receipts and reports confirming that the project has been constructed in compliance with the Recycling and Reuse Plan. In addition to the ~~geothermal heat~~ geothermal geoechange system

mentioned above, the project would include solar thermal panels, and photovoltaic solar panels (as feasible), low-flow plumbing fixtures, variable frequency drives, heat recovery water heaters, automatic daylighting controls, high efficiency fixtures, occupancy sensors, and rainwater harvesting. These elements, along with compliance with County requirements would ensure that the use of non-renewable resources would not be wasteful or inefficient, and this would be a less-than-significant impact.

- c) See Item 12, Mineral Resources, below. Based on the 2007 Marin Countywide Update, the project site is not located on or near an area that contains significant mineral resources. No impact would occur.

MITIGATION MEASURES

No significant impacts related to energy and natural resources would occur as a result of the project. Therefore, no mitigation is required.

CONCLUSION

Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of significant impacts, because the proposed land uses, maximum number of employment/overnight guests, and project site are essentially the same as proposed in the Master Plan. In addition, the proposed project would include a ~~geothermal heat ge~~ geothermal heat ge exchange system and would not result in any significant impacts related to energy and non-renewable resources.

ALTERNATIVES

The 1996 FEIR did not analyze the potential energy and natural resource impacts from implementation of the project alternatives.

Under Alternative 1 (No Project), the one-time expenditure of energy resources, as well as the long-term energy commitment to operation of a new development would not occur. The consumption of non-renewable energy would not occur. Implementation of Alternatives 2 and 3 would result in energy and natural resources impacts that are similar to the proposed project. The severity of the impact of Alternatives 2 and 3 would be greater than the proposed Grady Ranch PDP because these alternatives would result in greater energy use than the proposed project. As discussed above, the overall demands for energy use of implementing the Grady Ranch PDP would be no more than and likely less than the energy demand of the previous 1996 Master Plan.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 7. Geology and Soils. Would the project: | | | | | |
| <p>a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <ul style="list-style-type: none"> i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides? | <p>1996 FEIR; Section 5.1; pages 5.1-5 through 5.1-9.</p> <p>1996 FEIR; pages 5.1-23-24</p> <p>See a.ii</p> <p>See a.ii</p> | <p>No</p> <p>No</p> <p>No</p> <p>No</p> | <p>No</p> <p>No</p> <p>No</p> <p>No</p> | <p>No</p> <p>No</p> <p>No</p> <p>No</p> | <p>N/A</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> |
| <p>b. Result in substantial soil erosion or the loss of topsoil?</p> | <p>1996 FEIR; pages 5.1-20 through 21)</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>Yes</p> |
| <p>c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in: on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?</p> | <p>1996 FEIR; pages 5.1-15 to 5.1-16; Impact 5.1-3; pages 5.1-23 to 24</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>Yes</p> |
| <p>d. Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?</p> | <p>Impact 5.1-5 (pages 5.1-26 to 24)</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>Yes</p> |
| <p>e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?</p> | <p>N/A</p> | <p>N/A</p> | <p>N/A</p> | <p>No</p> | <p>N/A</p> |

DISCUSSION

To address geology and soils impacts, Treadwell and Rollo reviewed all stream restoration and geotechnical - related materials, provided peer review, and provided the analysis discussion to answer the following Environmental Checklist questions. Treadwell and Rollo staff Cbec reviewed the proposed Precise Development Plan, the *Stream and Valley Floor Restoration Vision*, and additional application materials provided by the project applicant, as well as materials submitted for the Joint Aquatic Resource Permit Application (JARPA).

- a, b)** The project site is the same as what was addressed in the 1996 Master Plan FEIR; therefore, seismic and landslide risks would also be the same as previously evaluated. While the project design changes included in the proposed PDP would result in modified site grading, the area of disturbance is similar and the potential erosion risks would not change substantially. The previous discussion is still applicable and changes to the proposed project would not alter the previous conclusions.
- c)** The previous discussion is still applicable and changes to the proposed project would not alter the previous conclusions. While the 1996 EIR does not specifically address the impact of lateral spreading at the site, it does address the impact and mitigation of liquefaction. Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. If the liquefaction impact is mitigated, there is then no potential for lateral spreading. The 1996 addressed mitigation of subsidence as it relates to seismically-induced ground settlement and no additional mitigation is required.
- d)** The project site is the same as what was addressed in the 1996 Master Plan FEIR; therefore, soil conditions would also be the same as previously evaluated. While the project design changes included in the proposed PDP would result in modified site grading, the area of disturbance is similar and the potential expansive soil risks would not change substantially. The 1996 EIR included mitigation that would reduce this previously-identified impact, and no additional mitigation is required.
- e)** Although this item was not specifically addressed in the 1996 EIR, it is not applicable for this project because the new development would be connected to the municipal sewer system.

MITIGATION MEASURES

Mitigation Measures 5.1-1(a) and 5.1-1(b) from the 1996 Master Plan FEIR would reduce potential impacts related to slope stability and grading impacts to a less-than-significant level through the preparation of a comprehensive, detailed slope stabilization plan and a design-level geotechnical investigation and a comprehensive grading plan. Mitigation Measures 5.1-2 and 5.1-6 from the 1996 Master Plan FEIR would reduce potential erosion impacts and fill impacts, respectively, due to construction and creek bank stabilization to less-than-significant levels through the formulation of a detailed design-level onsite Erosion Control Plan. Please see Item 10, Hydrology and Water Quality for a discussion of the potential erosion impacts related to hydrology and the new proposed stream restoration plans. Mitigation Measure 5.1-4 from the 1996 Master Plan FEIR would reduce potential asbestos impacts to a less-than-significant level through the preparation and implementation of a Site Safety Plan for construction activity in asbestos-containing rock. Mitigation Measure 5.1-5 from the 1996 Master Plan FEIR would reduce potential impacts due to expansive soils to a less-than-significant level through the recommendation for mitigation of expansive soils in the design-level geotechnical investigation. Mitigation Measure 5.1-7 from the 1996 Master Plan FEIR would reduce potential water tank impacts on the Grady Ranch property to a less-than-significant level. No additional or revised mitigation is required. The text of the previous mitigation measures is listed below.

1996 FEIR Mitigation Measures

5.1-1 The following mitigations would reduce slope stability and grading impacts:

- 5.1-1(a) *The applicant's engineers should prepare a comprehensive, detailed slope stabilization plan as a part of the ~~Precise Development Plan~~, sufficient to meet County and State requirements. At a minimum, the plan should:*
- › *Define the site-specific design of all repairs needed to stabilize each of the landslides and areas of slope instability located inside the proposed development area discussed above, at the proposed water tank sites and along the associated access roads, ~~at the dam/reservoir site,~~ and along the Lucas Valley Road realignment.*
 - › *Describe in detail how each landslide or area of unstable slopes would be repaired (or removed) by identifying the area of slide debris to be excavated and reconstructed, the methods to be used to engineer the slopes with compacted fill (or grading), the surface and subdrainage ~~improvements,~~ retaining walls, buttresses, debris barriers, and other structures to be installed (and where) in order to stabilize slopes, based on information from boreholes and trenches.*
 - › *For example, at this Master Plan level, the proposed mitigation for the landslide at the north end of the Grady Ranch Main Office Building appears adequate, but boreholes and excavations are needed to determine the base of the slide and the possible need for an additional retaining wall. Similarly, it is possible that a small retaining wall would be needed downhill of the planned road at Grady Ranch.*
 - › *Describe and demonstrate how runoff from very steep and unstable slopes would be diverted, identify how natural vegetation would be retained, and provide for landscaping with plant species which require minimal irrigation.*
 - › *The final design of retaining walls would be required to borrow or repeat the form, line, color, and texture of the surrounding terrain, to appear as natural as possible. Final design would be approved by Marin Community Development staff.*
- 5.1-1(b) *The applicant's engineers should conduct a design-level geotechnical investigation and prepare a comprehensive, detailed grading plan as a part of the ~~Precise Development Plan~~, to be approved by the County. In order to provide adequate stability, the grading plan should include, at a minimum:*
- › *Design compacted filled slopes to be no steeper than 2 to 1 ratio (horizontal to vertical) –or flatter in some places –and design cut slopes to be rounded in the upper few feet.*
 - › *Terrace slopes, if structurally feasible, with non-cemented rip-rap and plant terraces and slopes with vegetation rather than designing uniformly graded slopes.*
 - › *Specify alternatives to blasting bedrock in order to loosen rock during grading, such as ripping the rocks mechanically, since the underlying Franciscan melange is highly fractured locally.*
 - › *Contours that closely resemble the current character of the hillside shall be used. Particularly in cut slope areas, it is important to reform the land in character with the rolling topography that exists, rather than constructing engineered-looking hillsides with even slopes and straight lines.*
 - › *The final design of slopes and berms would be required to borrow or repeat the form, line, color, and texture of the surrounding terrain, to appear as natural as possible. Final design would be approved by Marin Community Development staff.*
 - › *5.1-1(c) [Deleted] [1996 FEIR-R]*

5.1-2 A detailed design-level onsite Erosion Control Plan should be formulated and implemented to reduce existing erosion and minimize new opportunities for erosion of site slopes due to rainfall and offsite transport of eroded soil in stormwater runoff. The plan shall be designed to be sufficient to meet the requirements of the County, to be determined after consultation with the applicant.

The following mitigations as proposed by the applicant² to reduce erosion and stream siltation impacts are to be included in the Erosion Control Plan:

- › *All construction and grading would be restricted to the dry season, April May15 to October 15.³ All stabilization measures required to provide at least temporary protection against erosion during the rainy season would be installed by October 15.*
- › *All exposed, graded slopes would be seeded (hydroseeded or broadcast with belly grinder) and protected with a straw or other form of mulch to reduce raindrop impact and sheet/rill erosion. On steep slopes, brush wattling would be used to prevent slope unraveling and to provide a stable base for vegetation establishment.*
- › *Surface drainage in the overbank areas adjacent to graded slopes would be collected in grass-lined and/or rocked swales and diverted to prescribed locations where it can be discharged with adequate energy dissipation to preclude bank erosion and prevent the rilling of graded slopes.*
- › *Energy dissipaters constructed of a mix of Caltrans "light" and quarter-ton rock would be constructed at all culvert outlets.*
- › *Other riparian planting prescribed as part of the creek and tributary stabilization and restoration work would be undertaken under the guidance of the project landscape architect and hydrologist.*
- › *Any channel restoration or stabilization work involving the introduction of fill into a channel and/or alterations to the existing channel bed and banks would require the acquisition of a fill permit from the Army Corps of Engineers, water quality certificate from the Regional Water Quality Control Board, and a 1603 Stream Alteration Agreement from the California Department of Fish and Game.*
- › *The applicant's hydrologist would supervise all channel and tributary construction and would confer with the restoration contractor and the landscape architect on all decisions involving tree loss at stabilization sites. Trees would be spared wherever possible and measures would be taken to enhance the stability of locally threatened streambanks. Where a tree is in imminent danger of collapse or presents a real threat of extensive new bank erosion, removal would be considered.*

A five-year maintenance and monitoring program would be developed for the channel stabilization/restoration and erosion control measures implemented for the project. The program would include the following elements:

- › *A yearly maintenance inspection of erosion control plantings prior to the onset of each rainy season (October 15). Seeded areas that have not achieved 60 percent cover threshold would be reseeded and appropriate surface protection reapplied to prevent the erosion of still exposed ground.*

² *Hydrologic Assessment for the Lucasfilm Master Plan (Grady Ranch), pages 11 -12 and Hydrologic Assessment for the Lucasfilm Master Plan, Big Rock Ranch, pages 20-21 op. cit.*

³ *The applicant's materials states May 1 - October 1, but this was changed to remain consistent with County regulations.*

- › *All creek and tributary stabilization measures would be inspected by June 1 of each year of the monitoring period. Any remedial work that may be required would be permitted as would be completed by October 15. All proposed construction would be reviewed by the Marin County Flood Control and Water Conservation District.*

The following policies under The Marin Countywide Plan (Policies EQ-2.18, EQ-2.20 and EQ-2.21) should be included in the Erosion Control Plan and would reduce erosion and stream siltation impacts:

- › *Soil disturbance should be discouraged.*
- › *Where absolutely necessary, soil disturbance in the Stream Conservation Areas should be limited to the smallest surface area and volume practical and for the shortest practical length of time.*
- › *Sediment retention facilities should be provided for and maintained during construction, and if necessary upon project completion.*
- › *No soil or rock from road construction should be deposited within a Stream Conservation Area.*
- › *At road crossings, such as proposed for Grady and Big Rock ranches, a special effort should be taken to stabilize soil surfaces.*

The following additional mitigations to be included in the Erosion Control Plan would reduce erosion and stream siltation impacts:

- › *Leave existing vegetation undisturbed until construction is actually ready to begin.*
- › *Immediately revegetate (using drought tolerant, native, fire/freeze tolerant plants) all disturbed areas or otherwise protect them from both wind and water erosion upon the completion of grading activities.*
- › *Direct runoff away from all areas disturbed by construction.*
- › *Restrict the operation of vehicles or the riding of horses off of designated roads and trails.*
- › *Provide for erosion control on all bare areas during the potential rainy season (October 16 through April 14).*
- › *Construct temporary sediment basins, sediment ponds, and silt traps and basins where needed for use during project construction.*
- › *Limit the wet weather use of unpaved overflow parking areas to the extent necessary to avoid soil erosion and turf damage, and include inspection of the areas after each use to monitor their condition and ensure their readiness for the next time the areas are needed.*
- › *Manage long-term drainage control with suitably designed drainage control systems by sizing interceptor ditches and culverts to handle at least the 100-year design storm.*
- › *Minimize the use of heavy equipment near drainageways to prevent destruction of the local ecosystem and to prevent addition of sediment to the drainageways. [1996 FEIR – R]*

5.1-4 The following mitigations would reduce potentially significant asbestos impacts:

The applicant would be required to prepare and implement a Site Safety Plan for construction activities in asbestos-containing rock. This plan should be prepared in accordance with CAL-OSHA requirements as described in Title 8, Section 5192 of the California Code of Regulations, and would require approval from the BAAQMD prior to any grading or construction (the applicant is encouraged to examine previous Site Safety Plans recently submitted).

The plan should contain the means and methods for controlling and monitoring airborne asbestos. These measures should include, but are not limited to, the following:

- › A trained inspector would be onsite during excavation to identify serpentine rock*
- › Serpentine rock would be disturbed as little as possible*
- › Travel over exposed serpentine areas that could generate dust would be restricted to only that necessary for construction activities*

Other methods that would be included related to monitoring are discussed below.

Dust control on project site haul roads would be maintained at levels sufficient to prevent escape of fugitive dust out of the construction area. This would be achieved by watering in truck loading areas, vehicle access ramps, and wherever else on the project site dust would be generated. Dust control at active working serpentine faces would be maintained at levels sufficient to prevent escape of fugitive dust by frequent wetting and close monitoring of wind conditions. If wind conditions make adequate dust control infeasible, construction in the serpentine working face would be deferred until the wind subsides sufficiently.

The effectiveness of the asbestos control measures would be monitored by a collection of air samples during the excavation phase. Samples would be collected by an industrial hygienist at locations upwind, onsite, and downwind. If monitoring shows that exposure limits are exceeded, serpentine material exposed in active working areas would be subject to further dust control measures, such as covering the exposed material at the end of each work day, sealing exposed serpentine with a stabilizing emulsion, watering the material to minimize wind erosion, or construction in serpentine areas would be deferred until weather conditions allow the standard to be met.

Air monitoring would be conducted during post-construction to identify if any onsite sources contribute to airborne asbestos emissions pose a significant risk. Sources identified as posing a significant risk would be covered with clean fill and stabilized. Air monitoring would be conducted after mitigation to verify that the risk has been reduced to a less-than-significant level.

If serpentine is discovered during excavation at Big Rock Ranch, water quality testing should be implemented just downstream of Nicasio Creek erosion control measures (such as silt and sediment traps) throughout the construction period to ensure that asbestos is not reaching Nicasio Reservoir, and silt traps should be included in the Erosion Control Plan as discussed in Mitigation 5.1-2. If asbestos is reaching the reservoir, testing should be implemented at the reservoir to ensure that the US EPA and California Primary Maximum Contaminant Level (MCL) is not being exceeded (as of January 1995, Federal and State MCL asbestos levels were seven million fibers per liter of water). [1996 FEIR – R]

5.1-5 The following mitigation would lessen expansive soil impacts:

As part of the design-level geotechnical investigation in Mitigation 5.1-1(b), site-specific recommendations for mitigation of expansive soils under pavements and structures should be provided, if expansive soils are found to be present. This could include one or more of the following:

- › *Moisture-condition the upper two feet of expansive soils to the optimum water content as defined by standard engineering practices plus three percent. Expansive soils may also be lime-treated to produce nonexpansive fill.*
- › *Use nonexpansive fill in the upper two feet of building pads.*
- › *Bottom foundations shall be founded below the zone of seasonal moisture change, and/or use a structural floor system. [1996 FEIR – U]*

5.1-6 The following mitigation would lessen fill impacts:

As part of the design-level geotechnical investigation in Mitigation 5.1-1 (b), describe in detail specifications for site preparation, fill placement, compaction, and subdrainage. Specifications should be based upon subsurface investigations, laboratory testing, and engineering analysis. This shall include a provision that all existing fill will be removed and replaced with properly compacted engineered fill. [1996 FEIR-U]

5.1-7 The following mitigation would lessen potential water tank impacts:

5.1-7(a) The water lines should be designed to accommodate anticipated movement without breaking, or in the event of breaking, to automatically shut off to prevent loss of water, and to be rapidly repaired to restore service. Specific design criteria to accommodate movement would be determined during the design-level investigation, but considerations will include:

- › *Providing flexible joints / connections to allow for distortion, pipe thickness and strength (ductility) to allow for movement and anticipated loads;*
- › *Utilizing trench backfill that would yield or reduce passive pressures on the distorted pipe;*
- › *Reducing the depth of embedment and thus pressures on the pipe;*
- › *Providing automatic shutoff valves outside of the zones of potential movement;*
- › *Providing line gate shutoff (diversion) valves outside of automatic shutoff valves so that a fire hose connection can be made to temporarily restore service.*

5-1-7(b) An emergency plan should be developed to require inspection of the water line following an earthquake and clear signage indicating location and operation of emergency facilities

5.1-7(c) Alternately, landslides threatening the water line could be repaired. [1996 FEIR-U]

CONCLUSION

No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant geology and soils impacts, compared to the analysis presented in the Master Plan EIR. The previous discussions regarding geology and soils in the 1996 EIR are still applicable and changes to the proposed project would not alter the previous conclusions.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), geologic conditions would be unchanged. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) would result in similar geology and soils impacts as the 1996 Master Plan, but the severity of those impacts would likely be greater because the land area used by development would be larger. The 1996 FEIR concluded that implementation of Alternative 3 (Previous Proposed Project Alternative) could result in similar geology and soils impacts as the proposed Master Plan. The severity of these impacts would be a little less than the Master Plan, because Alternative 3 would not include the construction of water tanks.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the elements of the proposed PDP that would result in impacts from geologic or soil conditions would be similar to the elements of the 1996 Master Plan.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 8. Greenhouse Gas Emissions. Would the project: | | | | | |
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | N/A | No | Yes | Yes | No |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | N/A | No | No | Yes, but new or more severe significant effects would not occur | No |

DISCUSSION

To address greenhouse gas emissions impacts, the Precise Development Plan and project description-related materials provided by the applicant were peer reviewed by two air quality staff members with a combined total of over 19 years of professional experience in air pollution chemistry and climate change science, meteorology, GHG reduction plans, and environmental policy. The staff members reviewed all project description-related materials, consulted with staff from the Bay Area Air Quality Management District, and provided the analysis discussion to answer the following Environmental Checklist questions.

The 1996 Master Plan FEIR did not analyze greenhouse gas (GHG) emissions or associated climate change impacts of the proposed project, because GHG did not arise as a CEQA environmental impact issue until the declaration of global warming as a threat to the California environment in Assembly Bill (AB) 32, the Global Warming Solutions Act, signed into law in 2006. Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of impacts; however, the emergence of the issue of climate change since the time of prior environmental review would result in new circumstances and new information requiring analysis and verification to determine whether new significant impacts or substantially more severe significant impacts may occur.

Senate Bill (SB) 97 directed the California Natural Resources Agency to amend the State CEQA Guidelines to address a project’s GHG emissions and impact on climate change. The Natural Resources Agency subsequently amended the State CEQA Guidelines and Appendix G to incorporate GHG emissions and climate change into the CEQA process. BAAQMD adopted new significance thresholds and CEQA guidelines to assist lead agencies in the Bay Area with assessment of a project’s GHG and climate change impacts (BAAQMD 2010a). At the time of the 1996 Master Plan FEIR, assessment of climate change issues was not included in CEQA documents and climate change science was less widely understood as an environmental consideration than it is today. When assessed in light of these new circumstances, the proposed project’s GHG emissions need to be evaluated as to whether they would make a considerable contribution to cumulative climate change impact. Therefore, a revised analysis is presented here to evaluate the project’s impacts in the context of the current regulatory environment.

Environmental Setting - Greenhouse Gases and Global Climate Change

Unlike emissions of criteria air pollutants and TACs, which have local or regional impacts, emissions of GHGs that contribute to global warming or global climate change have a broader, global impact. Global warming is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global warming are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds. The primary GHGs of concern are summarized in Table GHG-1. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space. Among the potential implications of global warming are rising sea levels, and adverse impacts to water supply, water quality, agriculture, forestry, and habitats. In addition, global warming may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health. Like most criteria air pollutants and TACs, much of the GHG production comes from motor vehicles. GHG emissions can be reduced to some degree through improved coordination of land use and transportation planning on the city, county, and subregional level, and other measures to reduce automobile use. Energy conservation measures also can contribute to reductions in GHG emissions (BAAQMD 2010a:C-17).

Table GHG-1: Greenhouse Gases

| Gas | Sources |
|---|--|
| Carbon dioxide (CO ₂) | Fossil fuel combustion in stationary and point sources; emission sources includes burning of oil, coal, gas. |
| Methane (CH ₄) | Incomplete combustion in forest fires, landfills, and leaks in natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, and certain industrial processes. |
| Nitrous oxide (N ₂ O) | Fossil fuel combustion in stationary and point sources; other emission sources include agricultural soil management, animal manure management, sewage treatment, adipic acid production, and nitric acid production. |
| Chlorofluorocarbon (CFC), and Hydro-chlorofluorocarbon (HCFC) | Agents used in production of foam insulation; other sources include air conditioners, refrigerators, and solvents in cleaners. |
| Sulfur hexafluoride (SF ₆) | Electric insulation in high voltage equipment that transmits and distributes electricity, including circuit breakers, gas-insulated substations, and other switchgear used in the transmission system to manage the high voltages carried between generating stations and customer load centers. |
| Perfluorocarbons (PFC's) | Primary aluminum production and semiconductor manufacturing. |

Source: EPA 2009 as cited in BAAQMD 2010a:C-18.

California Greenhouse Gas Emissions Inventory

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution, respectively, two of the most common processes of CO₂ sequestration.

California produced 474 million metric tons (MMT) of carbon dioxide equivalent (CO₂e) averaged over the period from 2002-2004. CO₂e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential,

known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH₄ has the same contribution to the greenhouse effect as approximately 23 tons of CO₂. Therefore, CH₄ is a much more potent GHG than CO₂. Expressing emissions in CO₂e takes the contributions of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2002-2004, accounting for 38 percent of total GHG emissions in the state. This sector was followed by the electric power sector (including both in-state and out-of-state sources) (18 percent) and the industrial sector (21 percent) (BAAQMD 2010a:C-18).

California Greenhouse Gas Emissions Projections

The 1990 GHG emissions limit is approximately 430 MMT CO₂e, which must be met in California by 2020 per the requirements of AB 32 (discussed below in the Regulatory Setting). ARB's GHG inventory for all emissions sectors would require an approximate 28 percent reduction in GHG emissions from projected 2020 forecasts to meet the target emissions limit (equivalent to levels in 1990) established in AB 32. The AB 32 Scoping Plan, discussed further below, is ARB's plan for meeting this mandate (BAAQMD 2010a:C-19).

Bay Area Air Quality Management District Greenhouse Gas Emissions Inventory

BAAQMD completed a revised inventory of GHGs for sources within its jurisdiction for the year 2007 (BAAQMD 2010c). The GHG inventory showed that sources within BAAQMD generated approximately 95 MMT CO₂e in 2007. The transportation, industrial/commercial, and electric power sectors composed the majority of the Bay Area's GHG emissions (BAAQMD 2010c).

REGULATORY SETTING – GREENHOUSE GASES AND CLIMATE CHANGE

Federal Greenhouse Gas Regulations

Supreme Court Ruling

The EPA is the Federal agency responsible for implementing the Clean Air Act (CAA). The U.S. Supreme Court ruled in its decision in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120), issued on April 2, 2007, that CO₂ is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. This has led EPA to take actions to begin regulating and monitoring GHG emissions from mobile and stationary sources.

State Greenhouse Gas Regulations

Assembly Bill 32 (2006), California Global Warming Solutions Act

In September 2006, the Governor of California signed AB 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006, which enacted Sections 38500–38599 of the California Health and Safety Code. AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020. This equates to an approximate 15 percent reduction compared to existing statewide GHG emission levels or a 30 percent reduction from projected 2020 "business as usual" emission levels. The required reduction will be accomplished through an enforceable statewide cap on GHG emissions beginning in 2012.

AB 32 Climate Change Scoping Plan

In December 2008, ARB adopted its *Climate Change Scoping Plan*, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) of CO₂e, or approximately 22 percent from the state's projected 2020 emission level of 545 MMT of CO₂e under a business-as-usual scenario. This 2020 estimate has been reduced by 47 MMT CO₂e, or almost 10 percent, from emissions estimates developed in 2008 as a result of a projections update in 2011. ARB's original 2020 projection was 596 MMT CO₂e, but the updated 2020 projection takes into account the economic downturn that began in 2008

(ARB 2011). In August 2011, the Scoping Plan was re-approved by ARB, and includes the Final Supplement to the Scoping Plan Functional Equivalent Document (FED), which further-examined various alternatives to Scoping Plan measures. The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. ARB estimates the largest reductions in GHG emissions to be achieved by implementing the following measures and standards (ARB 2011):

- ▲ improved emissions standards for light-duty vehicles (estimated reductions of 26.1 MMT CO₂e),
- ▲ the Low-Carbon Fuel Standard (15.0 MMT CO₂e),
- ▲ energy efficiency measures in buildings and appliances (11.9 MMT CO₂e), and
- ▲ a 33 percent renewable portfolio standard for electricity production (23.4 MMT CO₂e).

ARB has not yet determined what amount of GHG reductions it recommends from local government operations; however, the *Scoping Plan* does state that land use planning and urban growth decisions will play an important role in the state's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions (meanwhile, ARB is also developing an additional protocol for community emissions). ARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The *Scoping Plan* states that the ultimate GHG reduction assignment to local government operations is to be determined (ARB 2008:17). With regard to land use planning, the *Scoping Plan* expects that approximately a 3.0 MMT CO₂e reduction will be achieved associated with implementation of SB 375, which aims to align regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation (ARB 2011).

Local Greenhouse Gas Regulations

Marin Countywide Plan

The following goal and policies are identified in the Marin Countywide Plan regarding reduction of GHG emissions.

- ▲ **Goal AIR-4:** Minimization of Contributions to Greenhouse Gases. Prepare policies that promote efficient management and use of resources to minimize greenhouse gas emissions. Incorporate sea level rise and more extreme weather information into the planning process.
 - /// **Policy AIR-4.1:** Reduce Greenhouse Gas Emissions. Adopt practices that promote improved efficiency and energy management technologies; shift to low-carbon and renewable fuels and zero emission technologies.
 - /// **Policy AIR-4.2:** Foster the Absorption of Greenhouse Gases. Foster and restore forests and other terrestrial ecosystems that offer significant carbon mitigation potential.

Marin County Greenhouse Gas Reduction Plan

Marin County completed a GHG reduction plan addressing emissions for both community and municipal operations. The plan inventoried emissions for both the incorporated and unincorporated areas of the County in 2006. The plan included an emissions inventory that estimated total countywide GHG emissions as approximately 2.6 million tons in 1990 and 3.1 million tons in 2000. The County established an emission reduction target of 15 percent below 1990 levels by 2020, and proposed a series of measures to achieve countywide GHG reductions (Marin County 2006).

As stated in Appendix G of the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to determine the significance of GHG or

climate change impacts. Pursuant to BAAQMD’s 2010 CEQA Air Quality Guidelines, the proposed project would result in a significant air quality impact if it would:

- ▲ Result in annual emissions greater than 1,100 metric tons per year (MT/yr) of CO₂e; or 4.6 MT CO₂e/service population/year (residents + employees).

If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change.

- a) Greenhouse gas emissions were not previously discussed in the 1996 Master Plan FEIR. The proposed project would result in GHG emissions during construction (short-term) and operation (long-term). BAAQMD does not have an adopted significance threshold for GHG emissions from construction. GHG emissions from construction were estimated and are disclosed here for informational purposes. GHG emissions from construction and operation are described separately below.

Short-Term Construction-Related Emissions

Construction of the proposed project would include the main building (with guest quarters, sound stage, and technical facilities), gate house, excavation for the proposed parking garage, wine cave, roadway improvements, and stream restoration. Construction activities are anticipated to last approximately three years. For the purpose of this analysis, construction was assumed to start in March 2011 per the construction master schedule, which is a conservative assumption since construction activities would not likely begin by that time. GHG emissions would not differ substantially if construction were to begin at a later time.

During construction of the proposed project, GHG emissions would be temporarily and intermittently generated, associated primarily with exhaust emissions from heavy off-road equipment, on-road trucks, and construction employee vehicle trips. Construction emissions were estimated using emission factors from the ARB, as contained in URBEMIS, based on information contained in the project description and model default settings where project-specific information was not available. Table GHG-2 summarizes construction-related GHG emissions.

| Table GHG-2: Summary of Construction-Related GHG Emissions | |
|---|-----------------------------|
| Construction Phase (Year) | CO ₂ e (MT/year) |
| Annual GHG Emissions during Year 1 (2011) | 696 |
| Annual GHG Emissions during Year 2 (2012) | 1,022 |
| Annual GHG Emissions during Year 3 (2013) | 332 |
| Total GHG Emissions During Construction Period (MT) | 2,049 |
| BAAQMD Significance Threshold | n/a |
| Notes: BAAQMD = Bay Area Air Quality Management District; CO ₂ e = carbon dioxide equivalent; GHG = greenhouse gas; MT = metric tons; n/a = not applicable. Detailed assumptions and modeling output files are included in Appendix B. Totals may not sum exactly due to rounding. Source: Ascent 2011. | |

Construction of the proposed project would result in approximately 2,049 metric tons of CO₂e over the construction period. Because construction would occur over a finite period of time (three years) after which all construction-related GHG emissions would cease, and the construction phase would not be the dominant source of GHG emissions from the project, this quantity of emissions is not cumulatively considerable, and therefore would not substantially contribute to the cumulative impact of climate change.

Long-Term Operation-Related Emissions

The net increase in operational emissions (regional area-, mobile-, and indirect-source emissions of GHGs) associated with implementation of the proposed project was estimated using URBEMIS, as recommended by BAAQMD, based on inputs from the Project Description and default model settings where project-specific information was not available. Regional mobile-source emissions for the proposed project were estimated based on the number of average daily vehicle trips to/from the project site, using an annual average of 170 employees per day (Wynne, Pers. Comm., 2011) and default settings and parameters contained in URBEMIS for Marin County. The project’s natural gas consumption was estimated at 3,522 therms per year, which accounts for the project’s proposed ~~geothermal heat ge~~ geothermal heat ge exchange system (Hochstrasser, Pers. Comm., 2011). Indirect emissions are GHG emissions that would occur off-site at utility providers associated with the generation of electricity to serve the project, including electricity associated with conveyance of water to the project site. The project’s electricity consumption was estimated at 4,154,810 kilowatt hours per year (KWh/yr) (Hochstrasser, Pers. Comm., 2011). The proposed project’s water demand was estimated at 18.1 acre-feet/year, according to the June 2010 Utility Plan for Grady Ranch (CSW/Stuber-Stroeh Engineering Group, Inc., 2010). The net increase in operational emissions is presented in Table GHG-3.

Table GHG-3: Summary of Net Increase in Project-Generated Operational Emissions

| Source | CO ₂ e (MT/year) |
|--|---|
| Area Sources | 24 |
| Mobile Sources | 351 |
| Electricity Consumption | 1,371 |
| Water Consumption | 9 |
| Net Increase in Operational Emissions | 1,755 |
| GHG Efficiency (GHG/Service Population) | 10.32 MT CO₂e/SP/year |
| BAAQMD Operational Emissions Significance Threshold - | 1,100 |
| BAAQMD Efficiency Threshold (GHG/Service Population) | 4.6 MT CO ₂ e/SP/year |
| Notes: BAAQMD = Bay Area Air Quality Management District; GHG = greenhouse gas; CO ₂ e = carbon dioxide equivalent; GHG = greenhouse gas; MT = metric tons; SP = service population. Service population was assumed to be 340 employees and 0 residences. Detailed assumptions and modeling output files are included in Appendix B. Totals may not sum exactly due to rounding. Source: Ascent 2011. | |

As shown in Table GHG-3, the operational emissions associated with implementation of the proposed project would exceed BAAQMD’s GHG thresholds of 1,100 MT CO₂e/year and 4.6 MT CO₂e/SP/Year.

The following attributes already incorporated into the proposed project would reduce the GHG estimates in Table GHG-3:

- ▲ The project would have a ~~geothermal heat ge~~ geothermal heat geexchange system to heat and cool the main building, which would reduce the project’s electricity and natural gas consumption, and associated GHG emissions.
- ▲ The project would implement a rideshare incentive program. The program would reward employees who arrive at work by means other than driving alone at least 10 workdays a month. The program at Skywalker Ranch and Big Rock Ranch is successful, with about 15 percent of employees carpooling to work (Parisi Associates 2010;12).
- ▲ Most Grady Ranch employees and contractors, similar to those at Skywalker Ranch and Big Rock Ranch, would have flexible work schedules. This allows employees to adjust their commute time or travel to better-accommodate carpooling or public transportation. The nearest bus stop to Grady Ranch is located on Lucas Valley Road about one mile to the east (Parisi Associates 2010;10, 12).

Table GHG-4 summarizes the effect of these attributes on the project’s GHG emissions. It was estimated that the above project design features would reduce the modeled emissions in Table GHG-3 by approximately 53 MT CO₂e/year. Thus, the total project-generated emissions would be approximately 1,702 MT CO₂e/year. Specifically, it was assumed that mobile-source emissions would be reduced by 15 percent associated with the rideshare incentive program.

| Table GHG-4: Revised Mitigated Operation-Related Greenhouse Gas Emissions Estimate for Grady Ranch | | | | | |
|--|------------------------------------|-------------------------------|--|-----------------------------------|---|
| Mitigation Measure | Applicable Emissions Source | % of Project Emissions | Measure Performance¹ | Scaled Measure Performance | Emission Reduction (MT CO₂e/year) |
| Rideshare incentive program | Mobile | 20.0% | 15% | 3.0% | 53 |
| Shuttle service to transit stop | Mobile | 20.0% | 15% | 3.0% | 53 |
| Total Emission Reduction | | | | | 105 |
| Total Mitigated GHG Emissions | | | | | 1,649 |
| BAAQMD Significance Threshold | | | | | 1,100 |
| GHG Emissions Above Threshold | | | | | 549 |
| Notes: MT CO ₂ e/year = metric tons carbon dioxide equivalent per year. Totals may not sum exactly due to rounding. ¹ The rideshare incentive program is already in effect at other Skywalker Properties facilities (Big Rock Ranch and Skywalker Ranch) and has approximately 15% participation (Parisi Associates 2010 [February]. <i>Transportation and Circulation Update for Grady Ranch</i>). It was assumed that the shuttle service measure would achieve the same level of participation as the rideshare incentive program. | | | | | |

Because the project’s operational GHG emissions would be dominated by electricity-related sources that would alone exceed BAAQMD’s operational emissions threshold of 1,100 MT CO₂e/year, the above measures would not reduce the project’s GHG emissions to below BAAQMD’s thresholds. Therefore, the project’s GHG emissions and associated cumulative contribution to climate change impacts would be significant. This would constitute a considerable contribution to the significant adverse cumulative impact of climate change, which would be a new significant impact not previously discussed in the 1996 Master Plan FEIR. Implementation of Mitigation Measure GHG-1 (a new mitigation measure identified

during the supplemental environmental review) would reduce the severity of this impact to a less-than-significant level.

- b) The proposed project is consistent with the land uses designated in the Marin Countywide Plan. The existing zoning for the proposed project site is RMP (Residential – Multiple Planned District), and the existing General Plan designation is Planned Residential. The project would be consistent with the existing zoning, and although it would not include residential development, the project would result in less intense uses than allowed under the General Plan designation.

BAAQMD conducted GHG emissions projections on which its CEQA thresholds of significance were based. The projections included assumptions about population growth based on land uses in local plans. Therefore, since the project would result in GHG emissions consistent with the growth assumptions in BAAQMD's analysis, the project would not conflict with BAAQMD's emission reduction approach used in its CEQA program.

In addition, the Marin Countywide Plan contains policies that would reduce or minimize GHG emissions and other environmental effects, as discussed in the Land Use Section. The proposed project would be consistent with the policies in the Marin Countywide Plan, as discussed individually below.

Policy AIR-4.1: Reduce Greenhouse Gas Emissions. Adopt practices that promote improved efficiency and energy management technologies; shift to low-carbon and renewable fuels and zero emission technologies.

The proposed project includes practices in the Precise Development Plan (PDP), and proposed in Mitigation Measure GHG-1, to reduce GHG emissions. The proposed project would include a ~~geothermal heating ge~~ geothermal heat ge ~~exchange system (PDP)~~, and other renewable energy/zero-emission technologies for energy consumption (per Mitigation Measure GHG-1). In addition, the proposed project would implement transportation control measures such as ride-share and flexible work schedules (PDP), and a shuttle to the nearest transit stop (per Mitigation Measure GHG-1) to reduce employee commute-related GHG emissions.

Policy AIR-4.2: Foster the Absorption of Greenhouse Gases. Foster and restore forests and other terrestrial ecosystems that offer significant carbon mitigation potential.

The proposed project would involve landscaping the project site with native vegetation and ~~installation of a vineyard~~ planting of grape vines on the terraced retaining walls west of the Main Building. The project would also involve the stream restoration component which would improve riparian vegetative conditions.

The project does not conflict with applicable policies adopted for the purposes of reducing GHG emissions. This impact is less than significant.

MITIGATION MEASURES

During preliminary review of the proposed PDP, the applicant incorporated all feasible on-site GHG reduction measures. Candidate reduction measures were discussed with County and Bay Area Air Quality Management District (BAAQMD) staff to ensure that the on-site measures represented all feasible options that could effectively result in a substantial reduction of GHG emissions. As described above, the on-site measures included the following: ~~geothermal heat ge~~ geothermal heat ge ~~exchange system~~, rideshare incentive program, applicant-operated reliable shuttle service between the bus stop located one mile to the east of the project and the project site, and flexible work

schedules. The feasible GHG reduction measures led to a substantial decrease in estimated GHG emissions from the operation of the proposed project; however, they did not diminish to the point of insignificance, as defined by BAAQMD thresholds of significance. For this reason, the applicant has committed to implement additional off-site mitigation. The mitigation measures are described below.

New Mitigation Measures

GHG-1a Off-site Mitigation Program Pilot Project Funding [N]

Prior to issuance of building permits, the project applicant shall pay Marin County an off-site mitigation fee of \$100,000 that will be used to fund feasible GHG emissions reduction projects in Marin County. Marin County will administer the funds to a program such as BAAQMD's pilot project for an off-site GHG emissions reduction project that will include retrofitting existing buildings for energy conservation and energy efficiency improvements in Marin County, or another program that achieves cost-effective, GHG reductions from within Marin County (e.g., Marin Carbon Project), or if not feasibly available in Marin County, another location within the air basin. If the BAAQMD pilot project is funded, BAAQMD shall administer the off-site mitigation program and shall implement the off-site GHG reduction project within two (2) years of receipt of funding from the applicant. The goal of the pilot program is to enable the development of empirical information about the cost and GHG reduction effectiveness of specific retrofit actions to aid BAAQMD in formulating feasible and effective off-site GHG reduction strategies for Bay Area applicants that need an off-site mitigation component. The mitigation would result in GHG reductions during the life of the pilot project and contribute to the state-of-the-science for future projects needing off-site mitigation. It shall be the responsibility of BAAQMD to ensure that the GHG reductions that occur as the result of the off-site mitigation fee are real, surplus, quantifiable, and permanent.

GHG-1b Marin County Climate Action Plan Funding [N]

Within 180 days of approval of the Grady Ranch Precise Development Plan, the project applicant shall pay Marin County \$175,000 that shall be used to fund preparation of a Countywide Climate Action Plan (CAP) that satisfies the criteria listed under State CEQA Guidelines Section 15183.5(b) and the BAAQMD CEQA Handbook. The requirements for the content of a CAP in these two guidelines establish performance standards, feasible approaches, and implementation actions that would ensure adequate mitigation of the GHG emissions of the proposed PDP. The CAP shall be completed and adopted within two (2) years of receipt of funding. At a minimum, the CAP shall include the following:

- › A baseline Countywide GHG emissions inventory;*
- › 2020 GHG emissions projections;*
- › A GHG reduction target, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the CAP would not be cumulatively considerable;*
- › Specific measures, or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis would collectively achieve the specified GHG emissions reduction target;*
- › A mechanism to monitor the plan's progress toward achieving the GHG emissions reduction target and require amendment if the plan is not achieving specified emission levels; and,*
- › Adoption in a public process following environmental review.*

Marin County prepared a GHG Reduction Plan that was adopted in 2006. This plan contains a GHG inventory for the year 2000, a municipal GHG reduction target of 15-20 percent below 2000 levels by 2020, a

Countywide GHG reduction target of 15 percent below 2000 levels by 2020, and measures that the County believes will achieve its municipal GHG reduction target (Marin County 2006). However, the County's 2006 GHG Reduction Plan does not meet criteria set forth in State CEQA Guidelines 15183.5(b) for a Plan for the Reduction of Greenhouse Gas Emissions or by BAAQMD for a Qualified GHG Reduction Plan, because it does not include GHG emissions projections, does not define sufficient communitywide measures that demonstrate how the Countywide GHG reduction target would be achieved, was not adopted in a public process, and did not undergo CEQA review.

The County's adoption of a qualified CAP would establish a framework that would be expected to reduce GHG emissions in Marin County by a much greater amount than the project's 549 MT CO₂e/year above BAAQMD's operational emissions significance threshold. For example, Sonoma County's countywide CAP includes an emission reduction goal of approximately 1.4 million MT CO₂e/year from 2005 levels by 2015 (Sonoma County 2008). Napa County's Draft CAP proposes to reduce Countywide emissions by approximately 161,000 MT CO₂e/year from 2005 levels by 2020 (Napa County 2011). According to Marin County's existing (2000) GHG inventory for the unincorporated area, 15 percent below 2000 levels would result in approximately a 467,000 MT CO₂e/year reduction (Marin County 2006).

The cost to prepare a CAP can vary widely depending on the quality and detail of technical analysis and the extent of the process of public participation and review. Napa County authorized \$89,290 for preparation of its CAP (Napa County 2010). Shasta County limited the project cost to prepare its countywide CAP to \$200,000 in its request for proposals (Shasta County 2010). Yolo County authorized \$150,000 for the preparation of its CAP (Morrisonj, pers. comm. 2011). The cost of other CAPs for California cities and counties are commonly in the range of \$100,000 to \$200,000 or more. Therefore, \$175,000 was considered a reasonable estimate to fund a comprehensive CAP preparation program for Marin County.

Mitigation Measure GHG-1a would reduce this impact by providing a one-time fee that would cover the life of the proposed project because the retrofit upgrades in the pilot project or the implementation of another approved project would have a similar economic lifespan as the proposed project, and the CAP would result in a framework that achieves permanent GHG reductions throughout the County. Thus, because the proposed project was estimated to exceed BAAQMD's project-level GHG threshold (i.e., 1,100 MT CO₂e) by 549 MT CO₂e, the cost of mitigating these emissions through fee payment of \$275,000 total would be conservatively expected to reduce far greater than 549 MT CO₂e. Therefore, within implementation of Mitigation Measure GHG-1 project-generated GHG emissions would be reduced to levels that would be less-than-cumulatively considerable, and thereby, less than significant.

CONCLUSION

The project would be consistent with applicable policies adopted for the purpose of reducing GHG emissions. However, GHG emissions from operation of the proposed project would exceed applicable thresholds of BAAQMD. Therefore, the project would make a considerable contribution of GHGs to the cumulative impact of climate change. Mitigation Measure GHG-1 is a new mitigation measure identified through environmental review that would minimize emissions to below BAAQMD's threshold. This would be a new significant impact that would be less than significant with mitigation incorporated.

ALTERNATIVES

The 1996 FEIR did not analyze the potential greenhouse gas emissions impacts from implementation of the project alternatives.

Under Alternative 1 (No Project), no additional GHG emissions would be generated, because no development would occur on the site. The reintroduction of agriculture on the Grady Ranch site could result in GHG emissions

from livestock and agricultural operations. The introduction of approximately 160 head of dairy cattle or 625 head of beef cattle could result in the generation of GHG emissions that would exceed the BAAQMD threshold. If the number of cattle introduced onto the project site would be less than those amounts, Alternative 1 would not result in a new significant impact from greenhouse gas emissions. As discussed above under Air Quality, implementation of Alternative 2 (Current Zoning Alternative) would cause greater emissions impacts than the project, because it would result in more daily trips. Similarly, the magnitude of the GHG emissions impact would be more severe. Mitigation Measure GHG-1 would still apply. Because Mitigation Measure GHG-1(b) is expected to reduce more than the proposed project's amount of greenhouse gas emissions, it would be adequate to reduce impacts under Alternative 2. Implementation of Alternative 3 would result in similar greenhouse gas emissions impacts as the proposed project. This would result in a new significant impact that would require implementation of Mitigation Measure GHG-1.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 9. Hazards and Hazardous Materials. Would the project: | | | | | |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | 1996 FEIR, Section 3.0, pages 3.0-47 and 3.0-48 | No | No | No | Yes |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | 1996 FEIR, Section 3.0, pages 3.0-47 and 3.0-48 | No | No | No | Yes |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working on the project area? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 9. Hazards and Hazardous Materials. Would the project: | | | | | |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | 1996 FEIR; Section 5.10, pages 5.10-5 through 5.10-7. | No | No | No | Yes |

DISCUSSION

In the 1996 Master Plan FEIR, hazards were briefly analyzed under Section 3.8, “Effects of No Significance”. With the original project, underground storage tanks and other fuel storage were proposed. The FEIR concluded the use of hazardous materials on the project site would result in a less-than-significant impact based on the comparable level of hazardous materials used on nearby Skywalker Ranch (i.e. fuel storage, use of paint and solvents) and on pre-existing County requirements (i.e. filing of a Hazardous Materials Disclosure Form with Marin County Office of Waste Management) that would be met by the Applicant.

Underground storage tanks and other fuel storage are proposed (PDP Sheet E402) with 1,740 gallons of fuel storage for emergency power generators as part of the Grady Ranch PDP. On November 25, 2009, the Applicant submitted a Facility Information / Business Activities form to the County of Marin Department of Public Works Waste Management Division. A Hazardous Materials Business Plan would be needed for the Grady Ranch project, because the use of underground storage tanks and other fuel storage is proposed. Any chemicals that would be used onsite would be in small quantities below the threshold reporting requirements, and would be disposed of properly.

The 2009 Construction Management Plan for the Grady Ranch PDP states that during construction activities, any hazardous waste encountered during soil excavation would be handled by a licensed hazardous waste vendor and an onsite hazardous material spill cleanup kit would be required by the contractor (TBD Consultants, 11/2/09, p. 12).

- a, b)** The 1996 Master Plan FEIR states that the anticipated types of hazardous materials on the project site would be similar to the existing use of hazardous materials on Skywalker Ranch (i.e. fuel storage, paints, solvents, etc) and that the use of any acutely hazardous materials, if any, would be similar to that which is used at Skywalker Ranch and below the County’s threshold planning quantity. The 1996 Master Plan FEIR concluded that all hazard and hazardous materials impacts would result in less-than-significant impacts. The Grady Ranch PDP would involve similar use of substances classified as hazardous materials (i.e. paints solvents) ~~and does not propose any fuel storage onsite~~. The impact would remain less-than-significant.
- c)** The previous EIR did not specify whether the Grady Ranch site was included on any hazardous material sites. However, a recent search of the EPA EnviroMapper database confirms the project site and immediate adjacent properties are not included on any hazardous materials sites (EPA 2011) and, as a

result, would not create a significant hazard to the public or the environment. The impact would be less-than-significant.

- d)** The previous EIR did not specifically address whether the project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The activities proposed for the project in the PDP do not include hazardous operational emissions or handling of significant amounts of hazardous materials, substances, or wastes (see Item 8a and 8b). Also, the nearest school is located approximately 1.4 miles from the Grady Ranch site (Dixie Elementary School, 1175 Idylberry Road, San Rafael, CA). Because proposed project facilities would not be expected to emit hazardous emissions or involve the handling of significant amounts of hazardous materials or substances and the nearest school would be located at a distance of more than one-quarter mile, this would be a less-than-significant impact.
- e, f)** The previous EIR did not specify whether the project would result in a safety hazard to a nearby airport or airstrip. The nearest public airport, Gness Field, is located approximately 7.5 miles northeast of the project site and 2 miles northeast of Novato. The closest private airstrip to the project site is San Rafael/Marin Ranch Airport, located 4.6 miles east of the project site. The Main Building would be built up to 51 feet from the floor of the first level to the top of the wall above the third level. The height of the building would extend an additional 34 feet to the highest point at the top of the towers. The building would be situated partially underground to minimize the aboveground mass. Also, the surrounding hills are considerably higher than the tallest points of the Main Building. Given the distance of the nearby airports from the project site, local topography, and the nature of the project (i.e. office uses in a three-story building), the proposed project would not require an airport obstruction analysis and would not result in a safety hazard for people residing or working in the project area. The impact would be less-than-significant.
- g)** The previous EIR did not analyze whether the project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

In the previous plan, a bridge over Grady Creek and improvements to East Fire Road were not proposed. In the proposed PDP, a bridge (i.e. Bridge 3) would be constructed to cross Grady Creek to the east of the main entry road on East Fire Road so that emergency vehicles do not travel through the creek. The proposed PDP includes sufficient property ingress and egress routes to ensure public safety in the event of an emergency. This would be a less-than-significant impact.

- h)** With respect to wildland fire risk, the Grady Ranch property is located within a State Responsibility Area classified as a Moderate Fire Hazard Severity Zone (CDF 2007). Most of the area within and surrounding Grady Ranch property is currently open space, except for a low-density residential neighborhood adjacent to the ranch on the southeast. The entire project site would be annexed into the Marinwood Community Services District (MCSD), and fire protection services around the developed building areas would be provided by the Marinwood Fire Department. Fire protection for the State Responsibility Areas (all other acreage/wildland on the property) would be provided by the Marin County Fire Department. The Skywalker Ranch Fire Brigade would supplement the fire protection provided by the MCSD and the Marin County Fire Department and would handle fire prevention coordination with the agencies.

The previous EIR analyzed project impacts to wildlands in Section 5.10, 'Public Services' (Impact 5.10-4 'Wildland-Building Fire Exposure Impacts'), page 5.10-5 of the 1996 Master Plan FEIR. Mitigation Measure 5.10-4 (page 5.10-7 of the 1996 Master Plan FEIR) would reduce the potential impacts of

wildland fires to a less-than-significant level. Changes to the project would not alter this conclusion and Mitigation Measure 5.10-4 would still be required to reduce this impact to a less-than-significant level.

MITIGATION MEASURES

Implementation of Mitigation Measure 5.10-4 'Wildland-Building Fire Exposure Impacts' (page 5.10-7 of the 1996 Master Plan FEIR) would reduce the impact to a less-than-significant level. Mitigation Measure 5.10-4 would require screen plantings that minimize the potential to spread a ground fire, the development of a Vegetation Modification Plan, and the implementation of fire prevention measures during the construction phase. Mitigation Measure 5.10-4 also required a back-up power source for the MMWD pump station, and adequate communications for proper firefighting capability. No additional mitigation is required. The text of the 1996 FEIR mitigation measures is included below.

1996 FEIR Mitigation Measures

5.10-4 The following mitigation would lessen the potential impacts of wildland fires :

5.10-4(a) *The applicant should design screen plantings with the least amount of vegetation and lowest density that is sufficient to mitigate visual effects. The determination of the minimum amount and density of vegetation necessary for mitigating visual effects will be determined by Marin County Community Development Agency staff after a review of the applicant's revised landscape plan (which includes a presentation of views from along various locations of Lucas Valley Road) as detailed in Mitigation 5.5-6(b). Areas with trees planted as screen plantings should not include smaller vegetation that can spread a ground fire into the canopy of the trees.*

5.10-4(b) *Trees and vegetation with a high fire risk (including pyrophytic species), such as California Bay (Umbellularia Californica), would be prohibited within the 30-foot setback zone of buildings. The Marin County Fire Department publishes a list of high-risk species. The applicant would be required to revise the landscape plan to avoid such species.*

5.10-4(c) *The applicant would need to develop both a Vegetation Modification Plan to describe the initial thinning or removal of flammable vegetation and a Vegetation Management Plan to describe the ongoing annual vegetative maintenance program for both Grady and Big Rock Ranches, as required by the MCFD. These reports would address the fire hazard within the project site based upon fuel load, slope, aspect, topography, and other factors, and should determine priority problem areas within the site where fire safety measures should be emphasized. Approval of the Vegetation Modification Plan by the MCFD would be required prior to construction, and implementation would be required prior to framing. Approval of the Vegetation Management Plan by the MCFD would be required prior to construction.*

5.10-4(d) *The applicant should implement fire prevention measures during the construction phase of the project. These prevention measures should include, but are not limited to, the following:*

The applicant should provide water trucks (such as the Skywalker Ranch Fire Brigade Wildfire Engine) onsite during all construction activities during times of wildfire danger. The number, type, and availability of trucks necessary shall be determined through consultation with the Marin County Fire Department.

Onsite fire response equipment (i.e. fire extinguishers, fire retardant blankets, shovels, buckets, etc.) should be maintained and clearly marked at each construction area.

The applicant should ensure that all construction workers are trained in the use of onset fire response equipment and workplace safety measures.

A cellular phone or other communication device should be located onsite and clearly identified at all time during project construction.

5.10-4(e) ~~The MWD proposed pump station to be designed, owned and constructed by the project applicant to that would~~ serve the Grady Ranch should include back-up power (such as a diesel generator) to avoid an electrical power failure that could reduce water supplies.

5.10-4(f) The applicant should ensure adequate communications on Grady and Big Rock Ranches. This could included [sic] local cellular repeater stations or similar equipment, including an independent power supply. "Adequate" communications is defined as communications available in all areas of Grady and Big Rock Ranches needed by the MCFD (responsible for areas outside of the development area) and MFD (responsible for areas inside of the development area) for proper firefighting capability. as determined by the MCFD and MFD. The need for such equipment should be evaluated by the MCFD and MFD. and included into the Precise Development Plan. Note that a recently installed GTE Mobilenet repeater was installed on Big Rock Ridge, which could alleviate the need for a repeater, if deemed adequate by the MCFD and MFD. [1996 FEIR-R]

CONCLUSION

No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant environmental impacts related to hazards and hazardous materials, as compared to the analysis presented in the Master Plan EIR. Implementation of Mitigation Measure 5.10-4, 'Wildland-Building Fire Exposure Impacts' (page 5.10-7 of the 1996 Master Plan FEIR), would reduce potential impacts of wildland fires to a less-than-significant level (see h above).

ALTERNATIVES

The 1996 FEIR did not analyze the hazards and hazardous materials impacts from implementation of the project alternatives, because it determined that implementation of the Master Plan would not result in the use, generation, or processing of significant amounts of hazardous materials on the project site (Section 3.8 Effects of No Significance). No additional alternatives analysis is required because the Grady Ranch PDP would not result in a significant impact.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 10. Hydrology and Water Quality. Would the Project: | | | | | |
| a. Violate any water quality standards or waste discharge requirements? | 1996 FEIR; pages 5.2-9, 5.2-17 to 5.2-19 | No | No | No | Yes |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | 1996 FEIR; pages 5.2-15 to 5.2-16 | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | 1996 FEIR; pages 5.2-11 to 5.2-14 | Yes | No | Yes, but new or more severe significant effects would not occur | Yes |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | 1996 FEIR; pages 5.2-14 to 5.2-15 | Yes | No | Yes, but new or more severe significant effects would not occur | NA |
| e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | 1996 FEIR; pages 5.2-14 to 5.2-15; 5.2-17 to 5.2-19 | No | No | No | Yes |
| f. Otherwise substantially degrade water quality? | 1996 FEIR; pages 5.2-17 to 5.2-19 | No | No | No | Yes |

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 10. Hydrology and Water Quality. Would the Project: | | | | | |
| g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | 1996 FEIR; pages 5.2-14 to 5.2-15 | No Yes | No | Yes, but new or more severe significant effects would not occur | NA |
| h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | 1996 FEIR; page 5.2-2 | No | No | No | NA |
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | 1996 FEIR; pages 5.2-8, 5.2-13 to 5.2-14 | Yes | No | Yes, but new or more severe significant effects would not occur | NA |
| j. Inundation by seiche, tsunami, or mudflow? | 1996 FEIR; pg 5.1-18 | No | No | No | Yes |

DISCUSSION

To address hydrology and water quality impacts, cbec Eco Engineering reviewed all stream restoration and hydrology-related materials, provided peer review, and provided the analysis discussion to answer the following Environmental Checklist questions. The Cbec staff members have over 50 years of combined experience in stream restoration design and are considered experts in the stream restoration field. Cbec reviewed the proposed Precise Development Plan, the Stream and Valley Floor Restoration Vision, and additional application materials provided by the project applicant, as well as materials submitted for the Joint Aquatic Resource Permit Application (JARPA).

- a, e, f) The 1996 Master Plan FEIR identified a potentially significant water quality impact because of an increase in non-point source pollutants in stormwater runoff. Mitigation Measure 5.2-8 would reduce this impact to a less-than-significant level. Construction of the proposed Grady Ranch Precise Development Plan would occur on the same 52-acre development area previously proposed under the Master Plan, and these impacts and mitigation measure would remain the same.
- b) A new component to the design of the proposed restoration of Miller Creek and its tributaries on the Grady Ranch property includes backfilling and raising the bed elevation of the degraded streambed. This action should theoretically allow for additional groundwater storage within the alluvial aquifer above the existing base level of the stream and improve the overall continuity of the aquifer. The 1996 EIR noted a less-than-significant impact to groundwater supply with no mitigation requirement. This proposed change to the project would potentially result in an improved condition in aquifer storage and

would not result in a new significant impact or an increase in the severity of the previously-identified impact related to groundwater supply.

- c, d, i)** A new component to the design of the proposed restoration of Miller Creek and its tributaries on the Grady Ranch property includes backfilling and raising the bed elevation of the degraded streambed. This would involve the placement of approximately 68,000 cubic yards of fill material primarily from on-site excavation into the bed of Miller Creek and its tributaries in an effort to eliminate fish passage barriers, reactivate floodplain area, and increase aquifer storage, all of which are essential to restoring the ecological function of the creek corridor while minimizing channel erosion and sediment delivery to the lower Miller Creek watershed. Boulder placement would be used to produce step-pool sequences, stabilize the fill material, and provide an increase in channel roughness that would help to reduce mean flow velocity and sediment transport rates. A small proportion of fill, including these boulders, may be obtained off-site.

Stream corridors are inherently dynamic and, with any stream restoration project, there is a potential that certain design components could fail in response to unpredictable circumstances. Under the proposed restoration plan, there is a slight risk that key grade control features (i.e. boulder steps / weirs) could be compromised during high flow events, which could result in the erosion and transport of fill material to downstream reaches in the Miller Creek watershed. Review of the restoration plan indicates that the applicant and stream restoration designers are aware of this potential risk and have incorporated appropriate and redundant elements into the design that would minimize this risk, such as the following: use of boulder step pools and boulder weirs to stabilize the channel in Miller Creek, as well as in portions of Landmark Creek, Grady Creek, and the N-2 and S-3 tributaries; replacing planned culverts with re-aligned, open channels; and the use of large wood within the channel and floodplain to increase channel complexity, slow and direct flows, and provide secondary channel and bed stabilization. The steps thus far in the design process are scientifically rigorous, demonstrating a clear understanding of stream processes.

Additionally, results from a preliminary and ongoing sediment transport study indicate the 2010 and 2011 annual sediment yields within the Miller Creek watershed were 10 and 27 times greater than that of the nearby San Geronimo watershed (Brown and Hecht 2011). The sediment transport study was completed in March 2011 and includes the findings from the first year of monitoring during water year 2010. The water year 2011 report provides further clarification and detailed analysis of monitoring activities within Grady Ranch (Woyshner et al. 2011). Sediment yield is an estimation of the amount of sediment that is transported through a watershed as a result of rainfall and the stream's interaction with the soil. The San Geronimo watershed makes for a good comparison, because it receives similar rainfall rates to Miller Creek, but is considered to be in a meta-stable condition in terms of active channel erosion. It should be noted that the size of the San Geronimo watershed is smaller than Miller Creek and the sediment transport study scaled the results for comparison purposes. The excessive sediment production in the upper portion of the Miller Creek watershed is thought to be a result of excessive bank erosion and active channel incision. The proposed project is expected to arrest incision, substantially reduce sediment inputs from bank erosion, and increase the sediment storage capacity of the channel. With the proposed actions, it is estimated that bedload transport would be reduced by 45 percent in a water year similar to 2011. Bedload transport is the portion of the total sediment load that is transported in the lower portion of the water column near the channel bed and is typically comprised of courser particles. The portion of the total load that is transported as bedload within Miller Creek is substantially higher than many of the surrounding watersheds, which is an indication that much of the load is derived from eroded bank material and active channel incision. It has also been estimated that suspended load transport would be reduced by 15 percent in a water year similar to 2011. The

suspended load is the portion of the total sediment load that is transported in suspension within the upper portion of the water column and is composed of sand and silt size particles.

This reduction in sediment transport rates would result in reduced sediment delivery to downstream reaches and would, thereby, reduce channel-capacity loss and flood risk in these lower gradient reaches. The reduced sediment delivery would also result in improved spawning habitat for anadromous fish.

Analysis has also shown that in the unlikely event of a single grade control failure, ~~approximately up to~~ 2,500 cubic yards of material could be transported to downstream reaches. This potential project-related increase (i.e., related to post-construction grade control failure) in the amount of sediment production is up to 2.5 times the anticipated reduction in sediment transported in a single year similar to water year 2011 (Brown and Hecht 2011). Therefore, as long as the rate of grade control failure is less frequent than once every 2-3 years, the project would result in a net reduction in sediment transport (relative to existing conditions) in the long-term. A failure rate of once per 2 – 3 years or greater would be highly unlikely, recognizing the redundancy of the design and the relatively infrequent recurrence of high enough flow events to cause a failure.

It should be noted however, that the release of sediment from a grade control failure would likely be more rapid than what would occur in a given year under existing conditions, because bank erosion and channel incision are more gradual processes. While detailed sediment transport modeling would be necessary to determine the spatial extent of aggradation that could be expected in downstream reaches as a result of a grade control failure, it is likely that immediate and substantial aggradation would only occur in the reaches immediately downstream of the failure. After the initial failure, the transport of the eroded material to the middle and lower portions of the watershed would likely occur more gradually during subsequent high flow events and in similar fashion to what is occurring under existing conditions.

To further minimize the risk of failure, the applicant has agreed that periodic inspections/surveys would be conducted by a qualified professional (hydraulic engineer/geomorphologist) to ensure that key design elements of the restoration project are intact and functioning as designed. These inspections would be conducted annually prior to the rainy season and following runoff events equal to or larger than the 5-year frequency storm. Repeated cross sectional surveys at key monitoring stations would be an effective method of examining changes that occur slowly over time, which may indicate if a particular element is trending towards failure. If the inspections/surveys discover any area of potential weakness or potential loss of integrity of the restored stream features, the applicant would notify Marin County Department of Public Works (DPW) and all applicable federal, state, and regional agencies in a timely manner with proposed actions to be implemented to prevent erosion and/or failure of key grade control features (see also Chapter 2, Project Description, of this Supplement).

To summarize, the proposed action to raise the bed elevation of the Miller Creek as a component of the restoration project would not result in a significant impact from sediment delivery, including the possibility of grade control failure, for the following reasons:

1. The restoration project is designed to minimize channel erosion and reduce sediment delivery the downstream portions of the Miller Creek Watershed.
2. Appropriate and redundant elements have been incorporated into the project design to minimize the risk of failure of key grade control features that serve to control the release of sediment during large storm events.

3. To further minimize the risk of failure, the applicant has agreed that periodic inspections / surveys would be conducted by a qualified professional (hydraulic engineer/geomorphologist) to ensure that key design elements of the restoration project are intact and functioning as designed before the start of each rain season and after larger flow events. If the inspection discovers any area of potential weakness or potential loss of integrity of the restored stream features, Marin County Department of Public Works (DPW) and all applicable federal, state, and regional agencies would be notified in a timely manner with proposed actions to be implemented to prevent erosion and/or failure of key grade control features. Following this notification and an opportunity for comment from Marin County DPW, the proposed preventative actions would be implemented.
4. The amount of sediment transport that would be expected to occur due to an unlikely failure of a key grade control structure under project conditions would be less than what is occurring under existing conditions on a long-term annual average basis.

This proposed change to the project would not result in a new significant impact or an increase in the severity of the previously-identified impact related to drainage patterns or flooding. As noted above under Checklist Item 7 (Geology and Soils), implementation of Mitigation Measure 5.1-2 from the 1996 Master Plan FEIR would reduce potential erosion impacts due to construction and creek bank stabilization to less-than-significant levels through the formulation of a detailed design-level onsite Erosion Control Plan. The 1996 Master Plan FEIR included Mitigation Measure 5.2-2. Implementation of this measure would continue to ensure that potential erosion impacts would be less than significant.

- g, h)** A new component to the design of the proposed restoration of Miller Creek and its tributaries on the Grady Ranch property includes backfilling and raising the bed elevation of the degraded streambed. This action is proposed to raise water surface elevations on the project site from what was originally anticipated in the 1996 EIR. Flood analysis presented in the application materials for the PDP incorporated these changes and showed that the proposed structures would be outside the 100-year flood hazard area. No new or substantially more severe significant impact would occur related to the existing 100-year flood hazard area.

MITIGATION MEASURES

Implementation of Mitigation Measure 5.2-8 from the 1996 Master Plan FEIR included a series of measures that required the installation and maintenance of oil and grease traps, a street and parking lot cleaning and sweeping program, monitoring of storage tanks and other hazardous materials sites, and a Surface Runoff Pollution Control Plan to reduce potential water quality impacts to a less-than-significant level. Mitigation Measure 5.2-2 would reduce potential erosion impacts to a less-than-significant level. The text of these mitigation measures is included below.

1996 FEIR Mitigation Measures

5.2-2 In order to mitigate potentially significant impacts to Miller Creek, the applicant, prior to construction impacts shall:

Implement Geology Mitigation Measure 5.1-2, which requires a detailed design-level onsite Erosion Control Plan. This shall be coordinated in cooperation with the County Public Services Agency, and California Department of Fish and Game, and Army Corps of Engineers.

Same as Mitigation Measure 5.3-7. [1996 FEIR, U]

5.2-8 The following mitigations as proposed and to be implemented by the applicant would lessen water quality impacts:

~~Oil and grease traps would be installed at prescribed points in the storm drain systems serving the perimeter driveway areas of the Main Office Building and the Ancillary Building to remove stormwater contaminants that would accumulate in the parking areas. Traps would be installed at selected gutter inlets. Other BMP's would be implemented in accordance with the compliance provisions of the RWQCB in order to obtain a NPDES General Construction Activity Permit for Stormwater Discharge.~~

~~A maintenance schedule for the oil and grease traps would be developed in consultation with the RWQCB and the Marin County Public Services Agency, the local agency that oversees the implementation of the NPDES permit provisions.~~

The project shall comply with Marin County Code 24.04.627 and shall include a stormwater pollution prevention plan (SWPPP) that addresses both temporary (during construction) and permanent (post construction) measures to control erosion and sedimentation and to prevent pollutants from entering storm drains, drainage systems, and watercourses. These measures are hereinafter referred to as best management practices (BMPs). The SWPP may incorporate the erosion and sediment control plan described in Section 24.04.625. The specific BMPs to be used shall be subject to the review and approval of the Community Development Agency and shall be in general accordance with current maximum extent practicable standards and technology for BMPs, the County's current municipal stormwater NPDES permit (as defined in Marin County Code Section 23.18.030), the current Action Plan Stormwater Management Plan for the cities and County of Marin, and the requirements of Chapter 23.18 of the Marin County Code.

A street and parking lot cleaning and sweeping program would be instituted to ensure the proper removal and disposal of accumulated contaminants, particularly in the parking lots, to minimize the risk of flushing of contaminated wash water from parking lots into adjacent drainageways.

The following additional mitigations implemented by the applicant would lessen water quality impacts:

~~Storm drain system outfalls in the underground parking garages and other parking areas should be equipped with grease traps to catch petrochemicals in water runoff. These traps would help prevent such materials from entering stormwater drainage facilities which discharge into the site's creeks.~~

Storage tanks and other hazardous material sites should be monitored in accordance with County and State regulations.

~~In conjunction with Mitigation Measure 5.1-2 the construction permits should include a Surface Runoff Pollution Control Plan which addresses both interim (during construction) and final (post construction) control measures. The specific measures to be utilized should be subject to the review and approval of the County Public Services Agency and should be in general accordance with the current "Surface Runoff Pollution Control Plan for the Cities and County of Marin". The plan should also be reviewed by the RWQCB, and the County Department of Public Works should take any comments in account during its own review.~~

~~If the final site Improvement Plans involve grading or otherwise disturbing more than a total of five acres (as is likely) then proof of filling a Notice of Intent for coverage by the State General Construction Activity Permit should be submitted prior to the start of grading operations.~~

Construction permit approval would be conditioned upon these mitigations as a condition of Master Plan approval. The Surface Runoff Pollution Control Plan should be included in the Precise Development Plan as a condition of Master Plan approval. [1996 FEIR, R]

CONCLUSION

Raising the bed elevation of Miller Creek and its tributaries using fill material as an element of the proposed restoration design was not a component of the 1996 EIR. This new feature is the key element of the proposed restoration plan that is intended to eliminate fish passage barriers, reactivate floodplain area, and increase aquifer storage while minimizing channel erosion and sediment delivery to the lower Miller Creek watershed, which are environmental benefits to the natural processes and functions of the creek. As with any stream restoration project, there is inherent risk that certain designed elements could fail, resulting in erosion and downstream sedimentation. The proposed project would result in a reduction in the amount of sediment transport that would likely occur during a failure from what is occurring under existing conditions (in terms of long-term annual averages). Therefore, the proposed action to raise the bed elevation of Miller Creek would not result in a significant impact. In an effort to minimize the inherent risk, the applicant has agreed to conduct periodic inspections/surveys of key design elements annually and following large storm events and to implement preventative actions if the inspection discovers any area of potential weakness or potential loss of integrity of the restored stream features, in consultation with Marin County DPW and all applicable federal, state, and regional agencies. The WRA 2011 report, *Contingency Plan (Habitat Mitigation and Monitoring Plan)*, contains more details of the inspection and maintenance plan. Hydrological monitoring would occur for a minimum of five years with a data report issued annually. Long-term management within the restoration area would be conducted annually, as needed, by the applicant's staff. The Monitoring Plan states that contingencies have been included in the financial assurances to provide a cushion for unforeseen costs of management activities in the event that a fire, flood, or other natural disaster should have a negative impact on preserved, enhanced, and/or restored habitat during the monitoring period. Remedial actions would include minor restoration of habitat from the effects of erosion, replacement of mitigation plantings that do not survive, and authorized access for removal of invasive plants.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), overall water quality could be worse than under the Master Plan because the streambank repair and revegetation would not occur, leading to a continuation of bank failure on Grady Ranch. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) would result in water quality impacts that would be worse than the Master Plan because vehicular traffic and auto-related non-point source contaminants would be greater. The 1996 FEIR concluded that implementation of Alternative 3 (Previous Proposed Project Alternative) could result in similar hydrology and water quality impacts as the Master Plan. Alternative 3 would create a basin to hold surface water in the lower reach of the unnamed drainage located just west of the proposed day care/recreation building and install a culvert at the outlet to transport water underground for 350 feet to a discharge point on Miller Creek. This was considered a potentially significant impact.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the elements of the proposed that would result in hydrology and water quality impacts would be similar to the elements of the 1996 Master Plan. In addition, the Grady Ranch PDP includes the provision of periodic inspections/surveys to ensure that key design elements of the restoration project are intact and functioning as designed. The current proposed stream conservation area restoration and enhancement elements would raise the base level of the Miller Creek channel. As explained above, this impact would be less than significant, and the proposed Grady Ranch PDP would result in hydrology and water quality impacts that would be less severe than Alternative 1, similar in severity to Alternative 2, and less severe than Alternative 3.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 11. Land Use and Planning. Would the project: | | | | | |
| a. Physically divide an established community? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | 1996 FEIR; Pg. 3.0-37 – 3.0-38; pg. 4.0-1 – 4.0-80. | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

The 1996 Master Plan FEIR analyzed consistency of the proposed project with the 1994 Marin Countywide Plan, Nicasio Valley Community Plan, Marin LAFCO policies, Marin County Zoning Ordinance, and San Rafael General Plan 2000. It was determined that the project was consistent with all of the policies in these documents. Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of impacts since the proposed land uses and project site are the same; however, Marin County completed and adopted a comprehensive update of its Countywide Plan in 2007. This constitutes new circumstances and new information requiring analysis and verification. Therefore, a revised analysis is presented here to evaluate the project’s impacts in the context of the current planning policy setting. Consistency of the proposed PDP with the goals, policies, and implementing programs is evaluated below, as the policies relate to potential environmental impacts of the project, consistent with the State CEQA Guidelines.

In addition, the 1996 Master Plan FEIR did not explicitly address checklist questions a) or c). These issues are evaluated below. Question c) was added to the State CEQA Guidelines Environmental Checklist after 1996.

Marin Countywide Plan

The Marin Countywide Plan (Plan) is the County's long-range guide for use of land and protection of natural resources. The Plan sets forth policies and programs to be used by the public, planning staff, and decision makers when reviewing and analyzing proposed development. The Plan strives to balance current and future

needs for urban, rural and natural uses of Marin's 520 square miles of land through the beginning of the 21st century. After several years of community participation and public hearings, the Plan was revised and updated by the Board of Supervisor's on November 6, 2007 (Marin County 2007).

- a) The proposed project would be located on a currently undeveloped site (Grady Ranch) surrounded by adjoining Big Rock Ranch, the Monahan property, the Lucas Valley Estates residential development, and lands of the Marin County Open Space District. Farther east of Lucas Valley Estates is additional residential development. The proposed project is consistent with surrounding land uses, and is not part of an established community. The project would not separate the existing residences to the east from other community amenities, which are also located further to the east. Therefore, the project would not divide an established community. This impact would be less than significant.
- b) The existing zoning for the proposed project site is RMP (Residential – Multiple Planned District), and the existing General Plan designation is Planned Residential. The planned land use is permitted by County zoning code with a conditional use permit approval. No changes to the proposed project's land uses and no changes to the zoning or General Plan designation have occurred since the 1996 Master Plan FEIR. The proposed land uses are allowed under the existing zoning and General Plan designation. Therefore, the proposed project would be consistent with the existing zoning and consistent with the less-than-significant conclusion in the 1996 Master Plan FEIR regarding consistency with land uses designated in the Marin Countywide Plan. The 1996 Master Plan approval established a valid site specific zoning for the project development that is vested as to the zoning.

The Marin Countywide Plan contains numerous goals, policies, and implementation strategies adopted for the purpose of avoiding or mitigating and environmental effect. The project was evaluated for consistency with the 1994 Plan's policies in the 1996 Master Plan FEIR and was determined to be consistent. The Countywide Plan was updated in 2007. The following policy areas have either changed since in the 2007 Plan and/or the project would have the greatest potential to affect these policy areas.

Greenhouse Gas Emissions.

Policies targeting GHG emissions are identified in the 2007 Plan, which were not evaluated in the 1996 Master Plan FEIR. GHG emissions are evaluated for the first time in Item 7, Greenhouse Gas Emissions, of this document. Other areas of policy identified in the 1994 and 2007 Plans are similar in focus. See Section 7 for an evaluation of GHG emissions and applicable mitigation measures to reduce GHG emissions.

Stream Conservation Areas.

The following policies and implementation program from the 2007 Plan relate to Stream Conservation Areas (SCAs):

- ▲ Policy OS-2.4 Support Open Space Efforts Along Streams.
- ▲ Policy BIO-4.1 Restrict Land Use in Stream Conservation Areas.
- ▲ Policy BIO-4.2 Comply with SCA Regulations.
- ▲ Policy BIO-4.4 Promote Natural Stream Channel Function.
- ▲ Policy BIO-4.5 Restore and Stabilize Stream Channels.
- ▲ Policy BIO-4.8 Reclaim Damaged Portions of SCAs.
- ▲ Policy BIO-4.7 Protect Riparian Vegetation.
- ▲ Policy BIO-4.11 Promote Riparian Protection.
- ▲ Implementation Program BIO-4.i Replace Vegetation in SCAs.

This issue was evaluated on pages 4.0-9 and 4.0-10 of the 1996 Master Plan FEIR. On Grady Ranch, Miller Creek and two of its tributaries (Grady Creek and Landmark Creek) are subject to the SCA policies and programs. A stream conservation zone of 100 feet has been established for the west side of Grady Creek. Proposed development would occur out of the stream conservation zone. In addition, the project would involve an element to restore Miller Creek, which would improve the existing function of the stream and riparian habitat value. Riparian plantings would be species suitable for riparian habitat.

Community Design

The following goal, policy, and implementation program relate to the project's effect on ridge and upland greenbelt properties:

- ▲ Goal DES-4: Protection of Scenic Resources. Minimize visual impacts of development and preserve vistas of important natural features.
- ▲ Policy DES-4.1 Preserve Visual Quality.
- ▲ Implementation Program DES-4.e Protect Views of Ridge and Upland Greenbelt Areas.

Section 5.5 of the 1996 Master Plan FEIR evaluates the proposed project's impacts on visual qualities and views. In addition, the project would involve construction of the knoll to minimize visual impacts to the neighboring residences. Finally, tree removal that would occur as a result of the project would be mitigated through landscape and vegetation plans that would protect and replace trees removed by the development.

In addition, the 1996 Master Plan FEIR evaluated consistency with the City of San Rafael General Plan (1988 as amended through 1994) because the project site is within the City's planning area and sphere of influence. The San Rafael General Plan was updated in 2006. The Land Use Diagram of the San Rafael 2020 General Plan designates the Grady Ranch project site as light industrial/office and open space (City of San Rafael 2006). The City has no land use authority over the proposed project site, and it would not be necessary for the project to conform to the City's General Plan.

Implementation of the proposed project would be consistent with applicable land use plans, policies, and regulations adopted by any agency with jurisdiction over the project for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant.

- c) Potential conflict with an adopted conservation plan was not included as an item in the environmental checklist of the 1996 State CEQA Guidelines, and therefore was not evaluated in the 1996 Master Plan FEIR. The question was added to the checklist in 1998. The project's consistency with an adopted habitation conservation plan (HCP) is discussed in Section 4, "Biological Resources." No federal, state, or local conservation plans that include the project site have been adopted. Therefore, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. No significant impact related to this checklist question would occur.

MITIGATION MEASURES

No mitigation measures were incorporated in the 1996 Master Plan FEIR to address land use impacts.

CONCLUSION

No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant environmental impacts related to land use plan and policy consistency, as compared to the analysis presented in the Master Plan EIR. The proposed project described in the PDP would be consistent with the current Marin County Zoning Ordinance and Marin Countywide Plan, and would not conflict with the San Rafael General Plan.

ALTERNATIVES

The 1996 FEIR did not analyze the land use impacts resulting from implementation of the project alternatives. The previous EIR not include a consistency analysis of the project alternatives to the project area planning documents and ordinances. No additional alternatives analysis is required because the Grady Ranch PDP would not result in a significant impact.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 12. Mineral Resources. Would the Project: | | | | | |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | Not analyzed. | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | Not analyzed. | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

Eight sites in Marin County have been designated by the State as having significant mineral resources for the North Bay region. The Grady Ranch property and surrounding project vicinity do not contain any of these mineral resource preservation sites (MCP 2007a).

- a, b) The previous EIR did not analyze whether the project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally-important mineral resource recovery site delineated in the Marin Countywide Plan. Based on the 2007 Marin Countywide Update, the project site is not located on or near an area that contains significant mineral resources. **No impact** would occur.

MITIGATION MEASURES

According to the Marin Countywide Update, no significant mineral resources are located on or in the vicinity of the project site (MCP 2007a). Therefore, no mitigation is required.

CONCLUSION

Although mineral resources were not discussed in the previous EIR, the project would not result in a significant impact related to mineral resources and no mitigation would be required.

ALTERNATIVES

The 1996 FEIR did not analyze the mineral resources impacts resulting from implementation of the project alternatives because it did not address mineral resources. No additional alternatives analysis is required because the Grady Ranch PDP would not result in a significant impact.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 13. Noise. Would the project result in: | | | | | |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | 1996 FEIR; pages 5.9-6 – 5.9-8. | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | N/A | No | No | No | N/A |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | 1996 FEIR; pages 5.9-6 – 5.9-8. | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | 1996 FEIR; pages 5.9-6 – 5.9-8. | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| e. For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | N/A | No | No | No | N/A |
| f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | N/A | No | No | No | N/A |

DISCUSSION

The 1996 Master Plan FEIR analyzed noise impacts from project-generated construction and traffic-source noise, and cumulative impacts. Changes to the current project and vicinity include the installation of a ~~geothermal~~ heating geothermal heating geoechange system and the location of noise-sensitive receptors (i.e., residences) closer to the project site, respectively. With respect to new information, Marin County adopted a comprehensive update of its Countywide Plan in 2007 that included a technical noise background report and Noise Element. In addition,

Marin County adopted Ordinance 3431 that added sections 6.70.030(5) and 6.70.040 to the Marin County Code related to construction activities and related noise. This constitutes new information requiring additional analysis. Therefore, a revised analysis is presented here to evaluate the project's impacts in the context of the current planning policy and regulatory environment.

Sensitive Land Uses and Ambient Noise Levels

Local circumstances have changed since the County certified the 1996 Master Plan FEIR because noise-sensitive receptors (i.e., residences) are now closer to the project site. The residential properties about the project site on the southeast. The homes on these properties were constructed and occupied after the completion of the 1996 Master Plan FEIR. New information regarding noise includes an updated technical noise background report for Marin County that was completed in October 2005. Applicable environmental setting-related information and data are presented below.

Noise-sensitive land uses are generally considered to include those where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Existing noise-sensitive land uses in the vicinity include numerous off-site residences primarily located to the east of the project site for which the closest is immediately adjacent.

The existing noise environment in the project area is primarily influenced by transportation noise from vehicle traffic on the local roadway system (e.g., Lucas Valley Road). Other noise sources that contribute to the existing noise environment, but to a much lesser extent, include the nearby residential areas (e.g., landscape maintenance activities, dogs barking, people talking) and cyclists pass-bys.

An ambient noise survey was conducted by the environmental consultant on February 21, 2011. The purpose of the survey was to establish existing noise conditions on the project site and in the vicinity. Short-term measurements were taken at two locations in accordance with American National Standards Institute (ANSI) standards using a Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meter (SLM). The SLM was calibrated before and after use with an LDL Model CAL200 acoustical calibrator. The equipment used meets all pertinent specifications of the ANSI for Type 1 SLMs (ANSI S1.4-1983[R2006]). Meteorological conditions during the measurement period were adequate for reliable noise measurements, with partly cloudy skies, temperature of approximately 62 °F, and light winds averaging 0.5 to 2.0 miles per hour (mph) with maximum gusts of 3.2 mph, and no precipitation. Refer to Table N-1 for a summary of the measurement data. The short-term measurement data reflect a fairly quiet noise environment, which is typical of rural areas affected by intermittent traffic noise.

Table N-1: Summary of Existing Ambient Noise Level Measurements

| Location Description | Start (Date/Time) | Stop (Date/Time) | dB | | |
|---|-------------------------------|------------------------------|------|------|------|
| | | | Leq | Lmax | Lmin |
| Site 1: On Grady Fire Road 130 feet east of Lucas Valley Road | February 21, 2011/10:30 am | February 2, 2011/10:45 am | 58.1 | 79.8 | 43.9 |
| Site 2: 33 feet northwest of Lucas Valley Road (~ 1,000 feet southeast of the Lucas Valley Road/Grady Fire Road Intersection) | February 21, 2011/10:50 am | February 2, 2011/11:05 am | 60.9 | 72.9 | 39.9 |

Notes: dB = A-weighted decibels; Leq = energy-equivalent noise level; Lmax = maximum noise level; Lmin = minimum noise level.
Source: Monitoring performed by Ascent Environmental, Inc. February 2011.

The 1994 Marin Countywide Plan presented existing traffic noise modeling results for roadway segments in the project vicinity. Modeled traffic noise for portions of Lucas Valley Road were approximately 70 and 69 A-weighted decibels (dBA) in day-night noise levels (L_{dn}) at 50 feet between Las Gallinas Avenue and Highway 101 and between Las Gallinas Avenue and Idylberry Road, respectively. L_{dn} is the 24-hour average noise level with a 10-dB penalty applied during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping. These noise levels assume no natural or human-made shielding (e.g., vegetation, berms, walls, buildings). Based on monitoring, the Noise Element of the 2007 Marin Countywide Plan states that traffic noise levels along major highways, primary arterials, and major county roads have not changed significantly in regards to those reported above for conditions in 1987.

a,c,d) Short-Term Construction Source Noise Levels

Construction noise levels in the vicinity of the proposed project would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete stages, each phase requiring a specific complement of equipment with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the equipment change the effect they have on the noise environment of the project site and in the surrounding community for the duration of the construction process.

To assess noise levels associated with the various equipment types and operations, construction equipment can be considered to operate in two modes: mobile and stationary. Mobile equipment sources move around a construction site performing tasks in a recurring manner (e.g., loaders, graders, dozers). Stationary equipment operates in a given location for an extended period of time to perform continuous or periodic operations. Operational characteristics of heavy construction equipment are additionally typified by short periods of full-power operation followed by extended periods of operation at lower power, idling, or powered-off conditions.

When construction-related noise levels are evaluated, activities that occur during the more noise-sensitive evening and nighttime hours are of increased concern. Because exterior ambient noise levels typically decrease during the late evening and nighttime hours as traffic volumes and commercial activities decrease, construction activities performed during these more noise-sensitive periods of the day can result in increased annoyance and potential sleep disruption for occupants of nearby residential uses.

The site preparation phase typically generates the most substantial noise levels because the on-site equipment associated with grading, compacting, and excavation are the noisiest. Site preparation equipment and activities include backhoes, bulldozers, loaders, and excavation equipment. Erection of large structural elements and mechanical systems could require the use of a crane for placement and assembly tasks, which may also generate noise levels. Although a detailed construction equipment list is not currently available, based on the types of construction activities associated with the proposed project (e.g., construction of the main building [with guest quarters, sound stage, and technical facilities], gate house, excavation for the proposed parking garage, wine cave, roadway improvements, and stream restoration) it is expected that the primary sources of noise would include backhoes, dozers, graders, and other related equipment. Noise emission levels from these types of construction equipment are shown in Table N-2 below.

Based on the information provided in Table N-2 and accounting for typical usage factors of individual pieces of equipment and activity types along with typical attenuation rates, on-site construction-related activities could result in hourly average noise levels of approximately 84 dBA L_{eq} at 50 feet (85 dBA maximum noise levels [L_{max}]) and potentially exceed 76 dBA L_{eq} (77 dBA L_{max}) at the sensitive receptor located closest to the center of an identified area of construction (e.g., 100 feet to the east). This is approximately 50 feet closer than analyzed in the 1996 Master Plan FEIR. In addition, as specified in the construction management plan, rock breaking and blasting may also be required at the site. Under typical conditions these activities could generate 81-94 dBA L_{max} (74-83 dBA L_{eq}) at 50 feet. As stated by NO-1i (Regulate Noise Sources) in the 2007 Marin Countywide Plan, sections 6.70.030(5) and 6.70.040 (Noise Ordinance 3431) of the Marin County Code establish allowable hours of operation for construction-related activities, which were established in 2005 after completion of the 1996 Master Plan FEIR. If construction activities were to occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) or best management practices not used, project-generated construction source noise levels could result in the exposure of persons (e.g., nearby residences to the east) to noise levels in excess of standards established in the local general plan and noise ordinance and that result in a substantial temporary increase in ambient noise levels. This impact was previously identified as significant in the 1996 Master Plan FEIR (Impact 5.9-1). Changes to the project and to the existing setting circumstances would not result in an impact level considered substantially more severe than described in prior environmental documents. Implementation of Mitigation Measure 5.9-1, identified in the previous EIR, would reduce the magnitude of this impact to a less-than-significant level.

Table N-2: Noise Emission Levels from Construction Equipment

| Equipment Type | Typical Noise Level (dBA) @ 50 feet |
|-------------------|-------------------------------------|
| Air Compressor | 78 |
| Asphalt Paver | 77 |
| Backhoe | 78 |
| Blasting | 94 |
| Compactor | 83 |
| Concrete Breaker | 82 |
| Concrete Pump | 81 |
| Concrete Saw | 90 |
| Crane, Mobile | 81 |
| Dozer | 82 |
| Front-end Loader | 79 |
| Generator | 81 |
| Grader | 85 |
| Hoe Ram Extension | 90 |
| Jack Hammer | 89 |
| Pneumatic Tools | 85 |
| Rock Drill | 81 |
| Scraper | 84 |
| Trucks | 74-81 |
| Water Pump | 81 |

Notes:

Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2006

Long-Term Operation-Related Traffic Source Noise Levels

Project implementation would result in an increase in average daily traffic (ADT) volumes on affected roadway segments and, consequently, an increase in traffic source noise levels. Typically, when the ADT volume is doubled on a roadway segment in comparison to existing conditions, the resultant increase is approximately 3 dB CNEL/L_{dn}. An increase in traffic noise levels of 3 dB CNEL/L_{dn} or greater at noise-sensitive receptors along affected roadway segments would be considered substantial because it would be perceivable to the human ear. According to the Transportation and Circulation Update (February 2010), implementation of the proposed project would result in a similar amount of ADT (i.e., 918 daily trips) to that estimated in the 1996 Master Plan FEIR (i.e., 928 daily trips). The addition of 928 daily trips would not result in a doubling of ADT on nearby affected roadway segments as discussed in the analysis presented in the 1996 Master Plan FEIR. Thus, the addition of 918 daily trips, as cited in the updated transportation report for this project, would likewise not result in a doubling effect. Consequently, operation of the proposed project would not result in a noticeable change in the traffic noise contours of area roadways. With respect to the access road and parking lots, these would be located over 500 feet from the nearest sensitive receptor and shielded by the proposed knoll fill site at the eastern portion of the site. Based on typical traffic noise levels and standard distance and shielding attenuation rate, non-truck noise levels would be well below 45 dBA and maximum truck noise levels below 55 dBA. Therefore, long-term operation-related traffic source noise would not result in the exposure of persons to or generation of noise levels in excess of applicable standards, or create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project. This impact less-than-significant impact identified in the previous EIR would remain less than significant.

Long-Term Operation-Related Stationary Source Noise Levels

The 1996 Master Plan FEIR did not analyze whether implementation of the proposed project would result in the operation of any stationary noise sources. Implementation of the proposed project could include the use of on-site stationary noise sources, including electrical motors, pumps, air compressors, and fans associated with the ~~geothermal heating ge~~ geothermal heating ge exchange system. Without proper noise control or enclosure such equipment could result in noise levels of more than 100 dBA at 3 feet from the source depending on the exact type and size (EPA 1971). Specifically, pumps could result in noise levels of more than 90 dBA at 3 feet and electrical motors more than 100 dBA at 3 feet, approximately 43 dBA L_{eq} (50 dBA L_{max}) at the nearest residence located 280 feet to the east of the proposed location for the ~~geothermal heating ge~~ geothermal heating ge exchange system. Also, filming operations would primarily occur within the main building with occasional filming outdoor. In either case, the building structure would be anticipated to result in a minimum reduction of approximately 12 dBA, in addition to reductions associated with the intervening terrain and distance attenuation (i.e., 6 dBA per doubling of distance). Thus, these would not exceed Marin County's benchmarks for allowable noise exposure from stationary source noise as noted in Figure 3-43 of the 2007 Marin Countywide Plan. In addition, on-site noise-generating stationary equipment would be enclosed and/or placed underground, which would substantially reduce noise levels at the nearest residence further below acceptable levels. Therefore, long-term on-site operation-related stationary-source noise would not result in the exposure of persons to or generation of noise levels in excess of applicable standards, or create a substantial permanent increase in ambient noise levels in the project vicinity without the proposed project. This impact is considered less than significant.

- b) Construction of the proposed project may result in varying degrees of temporary groundborne vibration and noise levels, depending on the specific construction equipment used and activities involved. The 1996 Master Plan FEIR did not analyze the exposure of sensitive receptors to excessive levels from the aforementioned sources. Groundborne vibration and noise levels associated with various types of construction equipment and activities are summarized in Table N-3. Although a detailed construction

equipment list is not currently available, based on the types of construction activities associated with the proposed project it is expected that maximum groundborne vibration and noise levels would be associated with the use of large dozers.

Table N-3: Representative Groundborne Vibration and Noise Levels for Construction Equipment

| Equipment | PPV at 25 feet (in/sec) ¹ | Approximate L _v (VdB) at 25 feet ² |
|------------------|--------------------------------------|--|
| Blasting | 1.13 | 109 |
| Large Dozer | 0.089 | 87 |
| Caisson Drilling | 0.089 | 87 |
| Trucks | 0.076 | 86 |
| Rock Breaker | 0.059 | 83 |
| Jackhammer | 0.035 | 79 |
| Small Dozer | 0.003 | 58 |

¹ Where PPV is the peak particle velocity
² Where L_v is the root mean square velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.
Source: FTA 2006

According to Federal Transit Administration (FTA), levels associated with the use of a large dozer are 0.089 inches per sec (in/sec) peak particle velocity (PPV) and 87 vibration decibels (VdB) at 25 feet. Based on FTA's recommended procedure for applying a propagation adjustment to these reference levels, construction-related project activities would not result in levels at the nearest sensitive land use that exceed Caltrans's recommended level of 0.2 in/sec PPV with respect to the prevention of structural damage for normal buildings or FTA's maximum acceptable level of 80 VdB with respect to human response for residential uses (i.e., annoyance). In addition, blasting may occur, but due to the distance to the nearest sensitive receptor associated groundborne levels would also not be anticipated to exceed the aforementioned applicable standards and would be intermittent. It also should be noted that maximum groundborne vibration and noise levels from operational-related activities (e.g., delivery trucks) would be similar to those discussed above for construction-related activities. Thus, implementation of the proposed project would not result in the exposure of existing sensitive receptors to excessive groundborne vibration or noise levels. Therefore, this impact is considered less than significant.

- e,f)** The 1996 Master Plan FEIR did not analyze whether implementation of the proposed would result in exposure of noise-sensitive receptors to excessive aircraft-related noise levels. The nearest public airport, Gness Field, is located approximately 7.5 miles south of the project site and two miles northeast of Novato. The closest private airstrip to the project site is San Rafael/Marin Ranch Airport, located 4.6 miles east of the project site. Thus, given the distance of these nearby facilities airports from the project site (e.g., greater than two miles), the proposed project would not result in the exposure of people residing or working in the project area to excessive aircraft-related noise levels. This impact would be considered less-than-significant.

MITIGATION MEASURES

Implementation of Mitigation Measure 5.9-1 (page 5.9-7 of the 1996 Master Plan FEIR) and the additional mitigation measure noted below would reduce the impact associated with project-generated construction-related noise levels to a less-than-significant level. Mitigation Measure 5.9-1 required that all equipment used on the project site be muffled and maintained in good operating condition, that powered construction

equipment be turned off when not in use, and that grading and impact tool use for the Main Building and easternmost berm on Grady Ranch be limited to specific hours. The text of Mitigation Measure 5.9-1 is included below.

1996 FEIR Mitigation Measure

5.9-1 The following mitigations as proposed and to be implemented by the applicant would lessen impact associated with project-generated construction-related noise levels:

- 5.9-1(a) *All equipment used on the project should be muffled and maintained in good operating condition. All internal combustion engine-driven equipment should be fitted with intake and exhaust mufflers which are in good condition. Good mufflers with quieted compressors should result in all non-impact tools generating a maximum noise level of 85 dB when measured at a distance of 50 feet. This mitigation would ensure that average noise levels would be less-than-significant.*
- 5.9-1(b) *Powered construction equipment should be turned off when not in use.*
- 5.9-1(c) *The applicant should notify adjacent off-site property owners within 800 feet of grading of the easternmost berm and the Main Office Building on Grady Ranch. Notices should describe the work to occur, equipment to be used, and the expected hours and duration of tasks. This mitigation would not reduce noise levels, but would make high construction noise levels predictable and easier for residents to avoid.*
- 5.9-1(d) *Grading and impact tool use (such as pile driving) for the Main Office Building and easternmost berm on Grady Ranch, should be limited to Monday through Friday, from 8:00 A.M. to 5:00 P.M., excluding holidays, unless the applicant can show that activity will not generate excessive noise levels in the Wetsel Property or residences in Lucas Valley Estates, or unless permission is granted by the affected homeowners. While unlikely, if other sources of construction noise are shown to exceed 60 dBA at residential properties, then the time limits above would apply to these activities as well. If complaints are received, the applicant should hire a noise specialist to take noise readings at affected sites.[1996 FEIR – U]*

New Mitigation Measures

Mitigation Measure Noise-1 is a new mitigation measure identified through environmental review.

Mitigation Measure Noise-1 [N]

Implement all of the construction noise suppression methods and techniques outlined in the construction management plan (TBD Consultants 2009).

CONCLUSION

Changes to the current project (e.g., installation of a ~~geothermal heating~~ geoexchange system) compared to the Master Plan, a new circumstance in the vicinity (e.g., location of noise-sensitive residential receptors closer to the project site), and new impacts not analyzed in the 1996 Master Plan FEIR (e.g., exposure to groundborne vibration and aircraft-related noise levels) would not involve new or substantially more severe significant impacts. In addition, the aforementioned new information requiring analysis and verification would not result in new significant impacts, more severe impacts, new feasible mitigation measures, and/or new information that requires analysis.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project), the existing noise levels on the site would remain unchanged. The 1996 FEIR concluded that implementation of Alternative 2 (Current Zoning Alternative) would result in greater noise impacts than the project because it would result in more construction and a greater number of daily trips. Alternative 3 (Previous-Proposed Project) would result in a similar potentially significant noise impact from construction and less-than-significant traffic noise impacts. The construction noise impact would be slightly more severe than the Master Plan because construction would be closer to neighboring residences.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the number of trips and construction area are similar to the 1996 Master Plan Project. Therefore, the noise impacts would be similar and the results of the comparison of alternatives would be the same.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 14. Population and Housing. Would the Project: | | | | | |
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | 1996 FEIR, Vol. 1, Section 3.0, pp. 3.0-46 | No | No | Yes, but new or more severe significant effects would not occur | No |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | Not analyzed. | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | Not analyzed. | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

Population and Housing was briefly analyzed in Section 3.8, “Effects of No Significance” (Nichols-Berman 1996, p. 3.0-46), of the 1996 Master Plan FEIR. The FEIR concluded that because the proposed project use was primarily office in nature, it would not individually or cumulatively adversely affect population growth rates projected for the project area. The 1996 Master Plan FEIR also indicated that Marin County’s zoning code requirements for low and moderate income housing were not applicable to the project, because residential uses were not proposed.

In the 1996 Master Plan, up to 456,100 square feet of building floor area for up to 340 employees and overnight guests were approved. The guest accommodations proposed in the Master Plan included seven detached accessory cottages. In the proposed PDP, 15 to 20 guest suites would be incorporated into the third floor of the Main Building.

- a) The proposed project would result in up to 340 employees and overnight guests. The Master Plan FEIR listed the following number of employees and guests at Grady Ranch per use: residential accommodations, 6; main building, 319; day care/recreation building, 10; and gate house building 5. The project applicant has indicated that the number of employees and guests under the Precise Development Plan would be similar to, and would not exceed, what was proposed under the Master Plan. The existing General Plan designation for the proposed project site is Planned Residential (at 1 unit per acre to 1 unit per 10 acres), consistent with proposed land uses allowed under the existing General Plan designation. In addition, the 2007 Marin Countywide Plan identifies this third phase of the

Lucasfilm project and acknowledges its approved master plan (p. 3-221 of the 2007 MCP). Therefore, development of the proposed intensity of use is consistent with the Marin Countywide Plan population forecast (because the Master Plan was an approved action at the time the population forecasts were prepared). Furthermore, the proposed project is an employment generating project and is not expected to spur significant indirect growth from secondary economic activity. As proposed and approved in the Master Plan, Grady Ranch would need to be annexed into 1) the Marin Municipal Water District (MMWD) to allow expansion of water services to the development, and 2) Las Gallinas Valley Sanitary District (LGVSD) for expansion of sanitary sewer services. These impacts were considered less-than-significant (Nichols-Berman 1996, pp.5.10-12 through 5.10-16). It is expected that MMWD currently has capacity to serve the development based on consultation between the project applicant and MMWD. These consultations resulted in an agreement on the amount of water required by the project, and the terms and cost of the project's contribution of MMWD's development of a sufficient water supply to offset the amount of water required for the project, ~~and on the~~ The terms and costs for the facilities that would be needed to supply water to the project site after it is annexed to the District will be determined after Skywalker Properties is eligible and applies for a pipeline extension with MMWD. The project applicant would need to apply for a wastewater allocation at the LGVSD's treatment plant. As discussed below under Item 17a, the 1996 Master Plan FEIR stated that there was sufficient capacity to serve the development. The County would not issue building permits without the project being granted a wastewater allocation from the LGVSD (Nichols-Berman 1996, pp. 5.10-16). Water and sewer systems would be extended to the development site from existing utility connections located along Lucas Valley Road. It is anticipated that utilities would be provided to the project site without the need to expand existing infrastructure or treatment capacities; therefore, the proposed project would not induce indirect growth resulting from the expansion or extension of infrastructure. Impacts associated with population growth would be less than significant for development of the project.

- b) No housing exists on the site. The project site is currently undeveloped. Therefore, the proposed project would not displace any existing homes. No impact would occur.
- c) The project site is currently undeveloped. Therefore, no demolition of housing or businesses would occur and the proposed project would not displace any existing people. No impact would occur.

MITIGATION MEASURES

No significant impacts to population and housing would occur as a result of the project. Therefore, no mitigation is required.

CONCLUSION

Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of significant impacts, because the proposed land uses, maximum number of employment/overnight guests, and project site are essentially the same as proposed in the Master Plan. The proposed project would be consistent with the current Marin Countywide Plan and would not result in any significant impacts related to population and housing.

ALTERNATIVES

The 1996 FEIR did not analyze the potential population and housing impacts from implementation of the project alternatives. No additional alternatives analysis is required because the Grady Ranch PDP would not result in a significant impact.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|--|---|---|---|---|
| 15. Public Services. | | | | | |
| a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any the public services: | | | | | |
| i. Fire protection? | 1996 FEIR; Section 5.10, pages 5.10-1 through 5.10-9 | No | No | No | Yes |
| ii. Police protection? | 1996 FEIR; Section 5.10, pages 5.10-10 through 5.10-11 | No | No | No | Yes |
| iii. Schools? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| iv. Parks? | 1996 FEIR; pages 5.10-17 through 5.10-22. | No | No | No | Yes |
| v. Other public facilities? | 1996 FEIR; pages 5.10-1 through 5.10-9 | No | No | No | Yes |

DISCUSSION

In the Grady Ranch PDP, the proposed Gate House to be located on the Main Entry Road beyond the bridge over Miller Creek, would also be used as headquarters for onsite fire service, maintenance, and security. MMWD's facilities in Lucas Valley Road would provide water to the property line of Grady Ranch. ~~MMWD would supply water for fire suppression.~~ The code-required fire flows would be met through the use of the onsite 400,000-gallon tank located on the hill behind the main building. If some or all of the required flow can be provided by

the MMWD system, this tank may be reduced or eliminated. Adequate fire flow would require private on-site facilities, including pumps and storage tank(s), the adequacy of which would be determined by the governing fire agency.

The 2007 Marin Countywide Trails Plan map identifies the northern half of Grady Fire Road as an existing trail and proposes construction of a trail that would connect northern Grady Fire Road to Luiz Fire Road, located east of Grady Fire Road (MCP 2007b). Since publication of the Countywide Plan, this trail has been constructed. Because of County trails standards, the entire trail has been constructed on the Big Rock Ranch using the Luiz Fire Road and other appropriate alignments.

- ai.** As described in both the Master Plan and proposed PDP, the project site is proposed for annexation into the CSD for fire protection services around the building areas from the Marinwood Fire Department. Fire protection for the State Responsibility Areas (all other acreage/wildland on the property) would be provided by the Marin County Fire Department (MCFD). Paramedic service would be provided by the City of San Rafael Fire Department as part of Paramedic Service Area B. As proposed in the Master Plan, the Skywalker Ranch Fire Brigade would supplement the fire protection provided by the CSD and the Marin County Fire Department and would handle fire prevention coordination with the agencies.

Fire and emergency medical response impacts were analyzed in the 1996 Master Plan FEIR (see Section 5.10, "Public Services", Impact 5.10-1 through 5.10-6: pp. 5.10-4 through 5.10-9). With the exception of Impact 5.10-4, "Wildland-Building Fire Exposure Impacts", the Master Plan EIR concluded that the project would result in less-than-significant fire and emergency medical response impacts. The 2007 Marin Countywide Plan identifies this third phase of the Lucasfilm project and acknowledges its approved master plan (p.3-221 of the 2007 MCP). Therefore, development of the site with a use similar in intensity to the proposed project was anticipated in the 2007 Marin Countywide Plan, and the impacts were analyzed in the Marin Countywide Plan EIR and the Master Plan EIR. The proposed project would not result in demand for fire protection beyond that which was analyzed in the Marin Countywide Plan EIR and Master Plan EIR.

- aii.** Similar to the Master Plan, the proposed PDP indicates that the project would include its own private security force. Police and protection service impacts were analyzed in the 1996 Master Plan FEIR (see Section 5.10, "Public Services", Impact 5.10-7 and 5.10-8: pp. 5.10-9 through 5.10-11). The Master Plan EIR concluded that the project would result in less-than-significant impacts to police and protection services. Similar to the discussion for fire protection service above, because development of the site with a use similar in intensity to the proposed project was anticipated in the 2007 Marin Countywide Plan, the impacts were analyzed in the Marin Countywide Plan EIR and the Master Plan EIR. The proposed project would not result in demand for police protection beyond that which was analyzed in the Marin Countywide Plan EIR and Master Plan EIR. Therefore, the project-related impact on police protection service would remain less than significant.
- aiii.** The project's potential impacts to schools were not analyzed in the Master Plan EIR. The project anticipates up to 340 employees and overnight guests, similar to what was proposed under the Master Plan. The proposed project is an employment generating use, consistent with the type and intensity designated for Grady Ranch in the 2007 Marin Countywide Plan and 1996 Master Plan FEIR. Therefore, the project-related impact related to schools is less than significant.
- aiv.** In the Master Plan, the Applicant offered fee ownership of 800 acres to the Marin County Open Space District. The Marin County Open Space District has accepted this fee ownership. Mitigation Measure 5.10-14, "Trails Impacts" (page 5.10-21 and 22 of the 1996 Master Plan FEIR), of the Master Plan stated

that, if the dedication of fee ownership of the public open space portion of Grady Ranch to a public agency is selected, mitigations that refer to the Grady Ranch trail system would be required to be implemented by that agency, and trail easements on Grady Ranch would not be necessary. Therefore, implementation of Mitigation Measure 5.10-14 from the 1996 Master Plan FEIR would not be required, and this would remain be less-than-significant impact. Changes to the project would not result in a new significant impact or an increase in the severity of previously-identified impacts.

MITIGATION MEASURES

No new significant impacts or an increase in the severity of previously-identified impacts to public services would occur as a result of the proposed project. Therefore, no new mitigation is required.

CONCLUSION

Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of impacts to public services because the proposed land uses, maximum number of employment/overnight guests, and project site are the same as discussed in the 1996 Master Plan FEIR. The proposed project would be consistent with the 2007 Marin Countywide Plan and would not result in any new significant impacts related to public services.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project) demands for public services and utilities would not increase. Under Alternative 2, it is probable that the public services impacts would be greater, because of the large amount of residential (rather than commercial) development proposed. Alternative 3 would result in similar impacts as the proposed Master Plan.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the area to be developed and the operations of the Grady Ranch Precise Development Plan would be similar to the previous project.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 16. Recreation. | | | | | |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | Not analyzed. | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | Not analyzed. | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

Recreation facilities were proposed under both project descriptions in the Master Plan and PDP. The only difference in the Grady Ranch PDP is that the recreation facilities would be proposed to be located within the proposed Main Building instead of a separate building.

a, b) The 1996 Master Plan FEIR did not analyze the project’s potential effects to existing neighborhood and regional parks or other recreational facilities. Recreational facilities are proposed within the Main Building of the project and no new adverse physical effects on the environment would occur from construction of the proposed recreational facilities, especially now that a separate building for such facilities is no longer proposed. In addition, the project would not directly result in the construction of new housing or the generation of new residents in Marin County that would necessitate the provision, deterioration, or expansion of recreational facilities. No impacts to recreational facilities are anticipated.

Potential impacts to recreational trails are addressed under the “Public Services” section of this checklist and the 1996 Master Plan FEIR.

MITIGATION MEASURES

No impacts to recreational facilities are anticipated. Therefore, no mitigation is required.

CONCLUSION

No impacts to recreational facilities are anticipated. No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant environmental impacts.

ALTERNATIVES

The 1996 FEIR did not analyze potential impacts on recreational resources resulting from implementation of the project alternatives, because it did not address this topic. No additional alternatives analysis is required because the Grady Ranch PDP would not result in a significant impact to recreational resources.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 17. Transportation/Traffic. Would the project: | | | | | |
| a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | 1996 FEIR; page 5.7-23 | No | No | No | Yes |
| b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | 1996 FEIR; pages 5.7-18 to 5.7-25 | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | Not analyzed | No | No | No | N/A |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | 1996 FEIR; page 5.7-39 | No | No | No | N/A |
| e. Result in inadequate emergency access? | 1996 FEIR; page 5.7-39 | No | No | Yes, but new or more severe significant effects would not occur | Yes, with updates |
| f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | 1996 FEIR; page 5.7-38 | No | No | No | N/A |

DISCUSSION

To address transportation and traffic impacts, W-Trans reviewed all project description and transportation-related materials, provided peer review, and provided the analysis discussion to answer the following Environmental Checklist questions. W-Trans staff reviewed the 2010 Transportation and Circulation Update report and consulted with Marin County Department of Public Works staff.

- a) Impact 5.7 and Mitigation Measure 5.7-1(e) in the 1996 EIR address the need for a Transportation Demand Management program as part of the project, including vanpools, buspools, and/or shuttle service. This is echoed in Mitigation Measures 5.7-2(e) and 5.7-3(f). According to the analysis provided in the February 2010 *Transportation and Circulation Update* submitted to the County by the applicant, the project would include continued use of the Transportation Demand Management techniques that are currently being applied at Skywalker Ranch and Big Rock Ranch. The techniques include rideshare incentive programs. Results from a survey conducted during 12 weekdays in October 2009 show that the program is successful, with approximately 15 percent of employees carpooling to work. Skywalker Ranch and Big Rock Ranch provide flexible work schedules for employees and contractors. Coupled with the off-peak times at which employees and guests typically travel, the project has a lower trip generation than would typically be associated with a development of this size. This impact would be addressed through implementation of Mitigation Measure 5.7-1(e) of the 1996 DEIR. No new significant impact or an increase in the severity of a previously identified significant impact would occur.
- b) Impact 5.7-1 in the 1996 Master Plan FEIR described Level of Service impacts at four intersections along Lucas Valley Road-Smith Ranch Road (Miller Creek Road, Los Gamos Road, US 101 South Ramps, and US 101 North Ramps). Mitigation Measures 5.7-1(a) through (d) addressed these impacts. The applicant has paid “fair-share” fees toward planned improvements at three of these locations and paid for the construction of a traffic signal at Miller Creek Road. Impact 5.7-2 includes the above locations as well as the two ramp intersections on Miller Creek Road at US 101. Mitigation Measure 5.7-2(f) requires signalization of both intersections at the Miller Creek Road interchange with US 101. Under long-range volumes, as detailed for Impact 5.7-3 and Mitigation Measure 5.7-3(a), improvements are needed at Lucas Valley Road/Mt. Lassen Drive, and Mitigation Measure 5.7-3(c) addresses improvements needed at Lucas Valley Road/Las Gallinas Avenue.

Since the publication of the 1996 Master Plan FEIR, changes along Lucas Valley Road include the signalization of the Miller Creek Road intersection, signalization of the US 101 southbound ramp intersection, and repaving of Lucas Valley Road from west of Las Gallinas Avenue to Westgate Drive, with the provision of Class II on-street bicycle lanes. The project, as evaluated in the February 2010 *Transportation and Circulation Update*, remains at 340 employees, which is the independent variable used for trip generation estimates. The Grady Ranch PDP would not result in numbers of new employees greater than the previous estimate. No new significant impact or an increase in the severity of a previously identified significant impact would occur as a result of the rate of trip generation.

In the 1996 Master Plan FEIR, the impact at Lucas Valley Road/Mt. Lassen Drive was projected under Long-Range Cumulative Conditions. However, in the *Transportation and Circulation Update* this intersection is projected to operate unacceptably during the AM peak hour under Existing plus Project volumes.

Although the applicant has paid “fair share” fees toward future improvements to address the previously expected, cumulative congestion impact based on the findings in the 1996 Master Plan FEIR, the *Transportation and Circulation Update* indicates that the impact at Lucas Valley Road/Mt. Lassen Drive is

now expected to occur under Existing plus Project volumes. This significant impact would change from a cumulative impact to a project-specific impact. This is not a new or substantially more severe significant impact; rather, it reflects a change in the timing of the significant impact identified and adequately addressed in the 1996 Master Plan FEIR.

Payment of “fair share” fees together with the construction of the traffic signal at Lucas Valley Road/Miller Creek Road was deemed adequate mitigation under the 1996 Master Plan FEIR. Lucasfilm Ltd. paid its “fair-share” fees to the Marin County Department of Public Works in September 2000 for road improvements at eight locations, including the Lucas Valley/Mt. Lassen intersection. The County has determined that payment of these fees remains adequate to address the previously identified project impacts. These impacts would remain less than significant after mitigation.

- c) As discussed above, the nearest public airport, Gness Field, is located approximately 7.5 miles northeast of the project site and 2 miles northeast of Novato. The closest private airstrip to the project site is San Rafael/Marin Ranch Airport, located 4.6 miles east of the project site. The Main Building would be built up to 51 feet from the floor of the first level to the top of the wall above the third level. The height of the building would extend an additional 34 feet to the highest point at the top of the towers. The building would be situated partially underground to minimize the aboveground mass. Local topography includes nearby ridgelines that are considerably higher than the tallest elements of the Main Building. Given the distance of the nearby airports from the project site, local topography, and the nature of the project (i.e. office uses in a three-story building), the proposed project would not result in a change in air traffic patterns or a change in location that results in substantial safety risks. The impact would be less than significant.
- d) The traffic circulation and project entrance features of the proposed PDP would improve local traffic safety conditions on Lucas Valley Road by realigning the road and providing intersections with proper sight distances. Further review of sight distance was performed and it appears that sight lines would be adequate to meet AASHTO minimum recommended sight distance for turning left from a minor street (555 feet) and turning right (480 feet) based on the grading plan provided. The previously-identified less-than-significant impact related to stopping sight distance (Impact 5.7-6) would remain less than significant.
- e) The 1996 DEIR addresses this issue as regards the site’s primary access point. Mitigation Measure 5.7-7 required the widening of Lucas Valley Road to provide an eastbound left-turn acceleration lane and a westbound right-turn deceleration lane. The project as currently proposed would include separate left-turn and right-turn lanes for egress from the site, resulting in acceptable operating conditions and eliminating the need for the westbound left-turn acceleration lane.

The *Transportation and Circulation Update* indicates that Mitigation Measure 5.7-7 is no longer necessary, but recommends installation of right-turn tapers for both inbound and outbound movements.⁴ An independent analysis was performed to determine the potential need for turn lanes based on criteria other than level of service. This analysis confirms that an eastbound left-turn pocket is not needed, but westbound right-turn tapers are warranted, as indicated in the updated traffic analysis. No new significant impact or an increase in the severity of a previously identified significant impact would occur related to emergency access. Modifying the previously identified mitigation with Mitigation Measure TRANS-1 (below) would update the recommended improvements to current needs and maintain this impact as less than significant after mitigation.

⁴ It should be noted that the analysis contains an error in that the eastbound through and left-turn p.m. peak hour volumes are reversed in the calculations, though the results for traffic exiting the site would be almost the same.

- f) The 1996 DEIR noted that the project would be expected to generate very few transit trips and little pedestrian traffic given that the project is not served by transit nor is it near any activity centers. Pedestrian activity would generally be limited to within the site itself. Bicycle trips were not addressed in the 1996 DEIR. The February 2010 *Transportation and Circulation Update* indicates that the project would generate little, if any, pedestrian traffic and some bicycle traffic. The volume of potential bicycle traffic on local roadways would probably be minimal; however, County policies promote support of bicycle transportation. The PDP includes spaces for 24 bicycles in the parking level of the main building. The Transportation Management Plan for the proposed project includes the encouragement of “alternative methods of transportation such as bicycles, public transit, and walking when possible. Safety will always be emphasized. While the absence of facilities to promote bicycle use would not be a significant environmental impact, some provisions to encourage bicycle trips could be considered as a project design issue in light of County policies.

MITIGATION MEASURES

Mitigation Measure 5.7-7 would no longer be required. The following mitigation measure has been identified through environmental review and would replace Mitigation Measure 5.7-7 to address potential impacts related to project access. Previous mitigation measures requiring the payment of fair share fees towards intersection improvements have been implemented and the project applicant has paid fees towards those improvements. Mitigation Measure 5.7-1(e) addressed the need for a Transportation Demand Management Program (TMP). Submittal of a TMP to the Department of Public Works will be coordinated with DPW staff to ensure the TMP provides adequate detail prior to issuance of the first building permit.

1996 FEIR Mitigation Measures

5.7-1(e) In order to address the issue of project impacts in the AM and PM peak hours at the impacted intersections, the project applicant would be responsible to implement the following measure:

The existing Transportation Demand Management Plan for Skywalker Ranch should be expanded to include proposed development on both Grady and Big Rock Ranches. In addition to programs currently included in the Skywalker Ranch Employee Transportation Program consideration shall be given to the establishment of a van/buspool or shuttle bus for employees at Grady, Big Rock and Skywalker ranches. The components of such a system could include the following:

Van/Buspools – Vanpools could be used to transport employees from their homes or pre arranged pick-ups points to the employment centers (Skywalker, Grady or Big Rock). Large vans typically have capacities for up to 16 passengers. Operational costs could be subsidized by Lucasfilm, or Lucasfilm employees. The typical cost for privately contracted shuttle service is \$50 to \$55 per vehicle hour. Annual operating costs are typically \$50,000 to \$75,000. Vehicles are usually owned by a private contractor, and the capitol cost is included in the hourly operating rate.

This type of service requires a high degree of administrative coordination in terms of route planning, vehicle scheduling and employee work schedules. Vanpool users would ideally be made up of employees who would tend to drive along if this service were not available. Conversely, a vanpool service should not supplant existing carpool arrangements (three to four employees per vehicle).

Shuttle Service – A shuttle van or bus service operating from a remote parking lot could be effective in reducing project trips on Lucas Valley Road. As noted, large vans can carry up to

16 passengers while mini buses typically seat between 25 to 30 passengers. A full size bus (capacity 50 plus passengers) would not be an option due to posted warning signs (limiting vehicles in excess of 40 feet) on Lucas Valley Road in the vicinity of the project site and Skywalker Ranch.

[Detailed text regarding two potential sites for shuttle operations and shuttle travel time deleted] [1996 FEIR – R]

New Mitigation Measures

TRANS-1

The project applicant shall construct, or ensure that project access includes, right-turn tapers on westbound Lucas Valley Road at the point of access onto the Grady Ranch project site.

CONCLUSION

No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant traffic and transportation impacts, compared to the analysis presented in the Master Plan EIR. Trip generation would be the same as previously evaluated and circulation features in the PDP would improve some safety conditions, compared to the Master Plan. Mitigation Measure TRANS-1, identified through environmental review, would replace the previously identified mitigation measures and would continue to reduce potential impacts to a less-than-significant level.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project) traffic and circulation impacts would be more severe than under the Master Plan because improvements would be required at several intersections but the mitigation measures requiring “fair-share” payments would not occur. Under Alternative 2, the traffic and circulation impacts would be similar, and the same mitigation measures would be needed. The magnitude of these impacts would be greater because Alternative 2 would result in a greater number of daily and p.m. peak trips than the Master Plan. The 1996 FEIR stated that traffic and circulation impacts under Alternative 3 would be similar to the Master Plan. However, analysis of the previously proposed project showed greater impacts during the p.m. peak hour under short and long-term conditions, in part because the previous project’s traffic analysis used different methodology to determine peak hour forecasts.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the trip generation under the PDP would be similar to the trip generation calculated for the Grady Ranch portion of the Master Plan. The February 2010 *Transportation and Circulation Update* generated a trip generation estimate for the Grady Ranch PDP based on a vehicle trip generation survey and 24-hour traffic counts from Skywalker Ranch. The maximum number of employees would be same as the previous project. Intersection and roadway level of service impacts would be similar to the proposed Grady Ranch PDP under the project alternatives; however the impacts would be more severe under the project alternatives, and implementation of the mitigation measures identified for the proposed project would be required.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|---|---|---|---|---|---|
| 18. Utilities and Service Systems. Would the Project: | | | | | |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | 1996 FEIR, page 10-16 | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | 1996 FEIR, page 5.10-16 | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | 1996 FEIR, page 5.2-11 | No | No | Yes, but new or more severe significant effects would not occur | Yes |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | 1996 FEIR, page 5.10-12 | No | No | Yes, but no new significant impact would occur | N/A |
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | 1996 FEIR, page 5.10-16 | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |
| g. Comply with federal, state, and local statutes and regulations related to solid waste? | Not analyzed | No | No | Yes, but new or more severe significant effects would not occur | N/A |

DISCUSSION

a, b, e) Wastewater Treatment

The 1996 Master Plan FEIR stated that the Las Galinas Valley Sanitary District (LGVSD) would provide sanitary service to the Grady Ranch project. The project site would be annexed into the LGVSD, and the project applicant would need to apply for a wastewater allocation at the District's treatment plant. The 1996 FEIR stated that there was sufficient capacity to serve the development and identified this as a less-than-significant impact. The 1996 FEIR determination was based on an estimated wastewater generation from the proposed facilities, including 1,500 gallons per day of wastewater from the seven detached guest cottages. The Grady Ranch PDP does not include the guest cottages, and the size and intensity of use (number of employees) in the Main Building would be similar to the previously proposed Grady Ranch project. Therefore, the overall wastewater generation would be the same or would be less than the previous estimates and this would remain a less-than-significant impact.

Water Treatment

The proposed project would be annexed into the Marin Municipal Water District (MMWD), and the MMWD would provide water and water treatment service. The 1996 Master Plan estimated that the Grady Ranch portion of the project would result in an increased demand of approximately 42 acre-feet of water per year. The 1996 Master Plan EIR stated that the MMWD water system would be adequate to serve the project, with implementation of improvements, including payment by the applicant for improvements, including a new pipeline, a new pump station, and a 120,000-gallon water tank. Payment by the applicant for improvements, including a new pipeline, a new pump station, and up to two water tanks (one 400,000-gallon and one 40,000-gallon) These improvements are included as part of the current Grady Ranch PDP. In addition, the current estimate of water demand is approximately 30 acre-feet of water per year, a reduction in the amount estimated under the Master Plan. Therefore, the Grady Ranch PDP would still result in a less-than-significant impact on water treatment facilities.

- c) The 1996 FEIR identified a potentially significant surface water drainage impact because the Master Plan would change some creek courses and alter drainage patterns on the project site. Please see Items 9c and 9d above regarding updated project details on the proposed stream restoration design and how the design could affect drainage on the project site. With the proposed restoration plan for the Grady Ranch PDP, there is a slight risk that key grade control features (i.e. boulder steps / weirs) could be compromised during high flow events, which could result in the erosion and transport of fill material to downstream reaches in the Miller Creek watershed. However, as discussed above under Checklist Item 10 (Hydrology and Water Quality) the proposed action to raise the bed elevation of the Miller Creek as a component of the restoration project would not result in a new significant impact or increase the severity of an existing impact.
- d) As discussed above, the current estimate for water demand for the Grady Ranch PDP is approximately 30 acre-feet per year of water, which would be a reduction in the amount estimated for Grady Ranch under the Master Plan. The 1996 Master Plan FEIR stated that MMWD had developed a firm water supply for water demand through 2025 and that the MMWD water supplies were adequate to serve the project (MMWD 2011). Also, as described under Item 14a above, it is expected that MMWD currently has capacity to serve the development based on consultation between the project applicant and MMWD. The change to the project would result in a reduction in the estimate water demand and this would continue to be a less-than-significant impact.
- f) The 1996 Master Plan EIR did not address solid waste generation or disposal. Approximately 18 solid waste sites exist in Marin County with one active disposal site, Redwood Landfill, located north of

Novato. Additional active sites include a materials recovery facility, a large volume transfer station, and a composting facility. The Marin County Integrated Waste Management Plan implements recycling programs necessary to meet the State's 25 percent and 50 percent recycling mandates and incorporates a Countywide Siting Element (CSE) and Regional Summary Plan (RSE). The County prepared and adopted its CSE in 1995 in accordance with provisions of the California Integrated Waste Management Act. According to the 2007 Marin Countywide Plan Final EIR, the County's *Integrated Waste Management Plan* indicates adequate capacity beyond 15 years and into the foreseeable future. The existing landfill would have adequate capacity to serve development on the proposed project site that is accounted for in the Marin Countywide Plan. Therefore, this would be a less-than-significant impact.

MITIGATION MEASURES

No mitigation measures were included in the 1996 Master Plan FEIR related to utilities.

CONCLUSION

No changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant environmental impacts related to water or wastewater services, compared to the analysis presented in the Master Plan EIR. No new significant impact would occur related to solid waste. There would be a new potentially significant impact related to drainage (erosion and downstream siltation that could cause flooding impacts) in the unlikely event of a grade-control failure.

ALTERNATIVES

The 1996 FEIR stated that under Alternative 1 (No Project) demands for public services and utilities would not increase. Under Alternative 2 (Current Zoning Alternative) public utilities impacts would be greater than the Master Plan project because of the large amount of residential (rather than commercial) development proposed. Alternative 3 would result in similar impacts as the proposed Master Plan.

These comparisons of the impacts of the alternatives to the previously proposed Master Plan would be similar when applied to the Grady Ranch PDP, because the area to be developed and the operations of the Grady Ranch Precise Development Plan would be similar to the previous project. As described above, the estimated water use would be less than the previous project, and it is likely that the wastewater generation would decrease also. Therefore, Alternative 2 would still result in public utilities impacts that are greater than the proposed project. Alternative 3 would remain similar in the magnitude of the potential impact to the proposed project.

| Environmental Issue Area | Where Impact Was Analyzed in 1996 Master Plan FEIR. | Do Proposed Changes Involve New Significant Impacts or Substantially More Severe Impacts? | Any New Circumstances Involving New Significant Impacts or Substantially More Severe Impacts? | Any New Information Requiring New Analysis or Verification? | Do 1996 Master Plan FEIR Mitigation Measures Address/Resolve Impacts? |
|--|---|---|---|---|---|
| 19. Mandatory Findings of Significance. | | | | | |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | See above | Yes | No | Yes, but new or more severe significant effects would not occur | See Above |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | See above | Yes | No | Yes | See Above |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | See above | Yes | No | Yes | See Above |

CONCLUSION

- a, c) Based on the analyses above, potentially new significant impacts or a significant increase in the severity of previously identified impacts could occur related to air quality, biological resources, greenhouse gas emissions, and hydrology due to changes in the project, changes in circumstances on or near the project site, or due to new information that has arisen since the preparation of the 1996 Master Plan FEIR. Mitigation measures would address these impacts and would reduce them to less-than-significant levels
- b) The 1996 Master Plan FEIR assessed the effects of implementing the proposed Master Plan under anticipated future conditions. Future conditions were defined by identifying development projects in the vicinity of the project site with a reasonable expectation of being built during the time frame of site development. Traffic was determined to present the greatest potential for causing cumulative impacts due to the conditions on Lucas Valley Road. Less-than-significant cumulative effects were identified for geologic and seismic risks, biotic resources, public services impacts to the Marin County Fire Department

and the Marinwood Fire Department, public services impacts to the Marin County Sheriff's Department and the California Highway Patrol, public utilities impacts to the Marin Municipal Water District and the Las Gallinas Valley Sanitary District, and regional air quality. Significant cumulative effects that could be mitigated to less-than-significant levels were identified for water quality, loss of agricultural land, and transportation. Changes in circumstances and revisions to the proposed project in the PDP would not result in new or substantially more severe significant cumulative environmental impacts, compared to the analysis presented in the Master Plan EIR, with the exception of cumulative air quality related to construction-related emission. Mitigation Measures AQ-1a and AQ-1b would reduce this impact to a less-than-significant level.

3.4 CUMULATIVE EFFECTS OF IMPLEMENTING THE PROPOSED MASTER PLAN

The 1996 Master Plan EIR assessed the cumulative effects of implementing the proposed Master Plan under anticipated future conditions. Future conditions were defined by identifying development projects in the vicinity of the project site (the "study area") with a reasonable expectation of being built during the time frame of site development. The 1996 Master Plan FEIR included a list of 10 future projects with a total expected buildout of 545 residential units, 122,528 square feet of office, 2,250 square feet of storage, 128,300 square feet of retail, and 94,400 square feet of office uses, and 6,350 square feet of other uses. The list includes the following:

1. Jaleh – Residential - 5 single family units
2. Regency Center II – Commercial – 122,528 square feet of office, 2,250 sq. ft. of storage, and 4,100 sq. ft. of child care
3. Smith Ranch Hills Marin – Residential – 160 units (240 units built)
4. Smith Ranch Apartments (Oak Ridge) – Residential – 171 units
5. Costco – Retail – 128,300 square feet
6. Lafranchi – Residential – 17 single-family units
7. Las Cumbres – Residential – 21 single-family units
8. Lucas Valley Estates – residential – 20 single-family units (154 units built)
9. Oakview – Residential and commercial – 71 single-family units, 94,400 square feet office
10. Rotary Housing – Residential – 80 units elderly housing

The 1996 FEIR stated that the cumulative impacts of the Master Plan Project, in combination with future conditions, would be less than significant or could be reduced to a less-than-significant level with mitigation. Mitigation measures were identified for potentially significant cumulative impacts related to water quality, loss of agricultural land, and transportation. These impacts are discussed below.

Since the preparation of the 1996 Master Plan FEIR, the Marin Countywide Plan Update has been adopted, and the Countywide Plan Update (CWP Update) EIR was completed in November 2007. The CWP Update EIR included a discussion of cumulative impacts from expected development in the unincorporated area of Marin County. In addition, the CWP Update EIR addressed regional cumulative impacts in adjacent counties from transportation and transportation-related air quality and noise. While the cumulative context of potential cumulative impacts under the CWP Update EIR is larger than the cumulative context of the proposed Grady Ranch PDP, the policies and programs included in the CWP Update to address these impacts would be applicable to the proposed project.

The 1996 FEIR stated that the magnitude of the cumulative water quality impacts would be reduced from the stream restoration and enhancement elements of project, which would decrease stream siltation created by bank failure. The significant cumulative impact from runoff from small amounts of urban pollutants would be mitigated with the use of Best Practical Pollutant Control Technology or Best Available Pollutant Control Technology. The Grady Ranch PDP would result in a similar cumulative water quality impact. As discussed above, implementation of Mitigation Measure 5.2-8 would reduce this potential cumulative impact to a less-than-significant level. In addition, as discussed in the Marin Countywide Update Final EIR, implementation of the Water Resources and Biological Resources would minimize erosion and downstream sedimentation and would minimize the generation of stormwater contaminants. This cumulative impact would remain less than significant with mitigation.

The significant cumulative impact from loss of agricultural land in the 1996 Master Plan FEIR included the loss of 56 acres of grazing land on Big Rock Ranch. The mitigation included a requirement that the applicant dedicate fee ownership of public open space on Grady Ranch to a public agency. As discussed in Chapter 2, Project Description, and under Item 15 above, the Applicant has offered (and the County has accepted) fee ownership of 800 acres to the Marin County Open Space District. Because this impact was related to the development of Big Rock Ranch, the proposed Grady Ranch PDP would not result in a contribution to this cumulative impact.

The 1996 FEIR stated that the significant cumulative transportation impacts would be reduced to less-than-significant levels with implementation of mitigation measures for specific intersection improvements. As discussed above under Item 17 and in the February 2010 Transportation and Circulation Update, the Applicant has paid “fair share” fees toward future improvements to address the previously identified cumulative congestion impacts. This cumulative impact would remain less than significant after mitigation.

Regarding the new impacts identified in the checklist above, the project would make a considerable contribution of GHGs to the cumulative impact of climate change. Mitigation Measure GHG-1, a new mitigation measure identified through environmental review, would minimize emissions to below BAAQMD’s threshold. This cumulative impact would be less than significant with mitigation incorporated. The cultural resources impacts to human remains would not result in a considerable contribution to a cumulative impact because, as discussed in the CWP Update EIR, impacts to cultural resources are typically limited to the proximity of development. Potential impacts to human remains on the project site would not compound or increase the severity of impacts to cultural resources. The biological resources impacts would not result in a considerable contribution to a cumulative impact because the impacts would include potential short-term disturbances to steelhead habitat from construction and initial channel response, construction-related disturbance or loss of special-status wildlife species, and construction-related disturbance or removal of special-status plants. In addition, implementation of the stream restoration elements would result in future benefits to biological resources due to enhanced biological resources habitat, including enhanced riparian habitat (see Mitigation Measure BIO-1).

3.5 SUMMARY FINDINGS OF CHECKLIST

3.5.1 SUMMARY

This environmental checklist review analyzes the proposed Grady Ranch Precise Development Plan and compares the potential impacts due to implementation of the PDP against the findings of the 1996 Master Plan FEIR. This analysis was completed to determine the requirement for further environmental documentation pursuant to CEQA Guidelines sections 15162, 15163, 15164, and 15168. This analysis has identified several issue areas where the proposed Grady Ranch PDP would not result in new or potentially more severe environmental impacts than those listed in the 1996 FEIR, including the following: Aesthetics, Agriculture and Forestry Resources; Cultural Resources; Energy and Natural Resources; Geology and Soils; Hazards and Hazardous

Materials; Hydrology and Water Quality; Land Use; Mineral Resources; Noise; Population, Employment and Housing; Public Services; Recreation; Transportation/Traffic; and Utilities and Service Systems. Based on the analyses above, potentially new significant impacts or a significant increase in the severity of previously identified impacts could occur in the following areas: Air Quality; Biological Resources; Cultural Resources; and Greenhouse Gas Emissions, ~~Hydrology and Water Quality, and Transportation/Traffic.~~

3.5.2 MITIGATION MEASURES

Mitigation measures from the 1996 FEIR and new mitigation measures, proposed on behalf of the applicant and identified through environmental review, are discussed below.

AESTHETICS

Mitigation Measure 5.5-3 from the 1996 Master Plan FEIR would reduce potential impacts resulting from new sources of light to a less-than-significant level. Mitigation 5.5-3 would restrict lighting types and lighting operations to reduce visual impacts. Mitigation Measure 5.5-8 would reduce potential impacts from the Grady Ranch water tanks to a less-than-significant level by requiring the applicant to follow design criteria as developed by the Marin Municipal Water District.

AGRICULTURE AND FORESTRY RESOURCES

Implementation of Mitigation Measure 5.3-2 from the 1996 Master Plan FEIR would continue to reduce potential impacts due to the loss of trees to less-than-significant levels. Mitigation Measure 5.3-2 requires that, where feasible, trees near the limits of anticipated grading should be preserved and protected. In addition, it required grading on Grady Ranch to accommodate existing trees and it required detailed guidelines to control possible damage to trees to be preserved. Finally, Mitigation Measure 5.3-2 required a tree replacement program to provide for replacement of native trees with trunk diameters exceeding 12 inches removed by proposed development.

AIR QUALITY

Mitigation Measures AQ-1a and AQ-1b are new mitigation measures identified through environmental review that would replace Mitigation Measure 5.8-1. Mitigation Measures AQ-1a and AQ-1b include an up-to-date list of all feasible mitigation strategies currently recommended by BAAQMD to reduce potential construction-related emissions to a less-than-significant level. Mitigation Measure AQ-2 would reduce the exposure of off-site residences to short-term construction-related TAC emissions, and associated health risks would be further minimized.

BIOLOGICAL RESOURCES

The 1996 Master Plan FEIR recommended six mitigation measures to reduce significant impacts to biological resources to less-than-significant levels (Mitigation Measures 5.3-1, 5.3-2, 5.3-3, 5.3-5, 5.3-6, and 5.3-7). Mitigation Measure 5.3-1 required a detailed Landscape and Vegetation Management Plan and prohibited vehicles, motorcycles, and bicycles from traveling off designated roadways to prevent further disturbance to grassland cover and other vegetation. Mitigation Measure 5.3-2 addressed potential tree loss. Mitigation Measure 5.3-3 addressed loss of native grasslands by requiring the preparation of a grassland restoration and enhancement program. Mitigation Measure 5.3-5 addressed impacts on wildlife habitat by limiting disturbance, such as pedestrian pathways, lighting, ornamental landscaping, and other improvements, within the stream corridors to protect their function as sensitive wildlife habitat. Mitigation Measure 5.3-5 also required

coordination with California Department of Fish and Game to develop methods to exclude deer from the proposed development areas. Mitigation Measure 5.3-6 addressed potential impacts on special-status taxa on the Grady Ranch site by requiring the preparation of a special-status plant protection program, and by requiring avoidance of any active raptor nests until young birds are able to leave the nest and forge on their own. Mitigation Measure 5.3-7 required the preparation of a detailed wetland protection, replacement, and restoration program by a qualified wetland consultant that meets with the approval of the County, the Corps, and CDFG.

In addition to measures from the 1996 FEIR, this checklist includes three mitigation measures for new potentially significant impacts to biological resources that were identified as a result of new information. Mitigation Measure BIO-1 includes general mitigation concepts for potential impacts to steelhead that were initially proposed on behalf of the Applicant. Mitigation Measure BIO-2 is a new measure identified through environmental review.

CULTURAL RESOURCES

Implementation of Mitigation Measure 5.6-4 from the 1996 Master Plan FEIR would mitigate disturbance of unknown cultural resources at Grady Ranch to a less-than-significant level. Mitigation Measure 5.6-4 requires all construction work to halt if cultural deposits are encountered and requires consultation with a qualified archaeologist, who shall conduct an independent review of the find. In addition to Mitigation Measure 5.6-4, the new Mitigation Measure CUL-1 would update and supplement the proposed project's mitigation to explicitly include responses if human remains were encountered during construction. This is a new cultural resources mitigation identified through the updated environmental review.

GEOLOGY AND SOILS

Mitigation Measures 5.1-1(a) and 5.1-1(b) from the 1996 Master Plan FEIR would reduce potential impacts related to slope stability and grading impacts to a less-than-significant level through the preparation of a comprehensive, detailed slope stabilization plan and a design-level geotechnical investigation and a comprehensive grading plan. Mitigation Measures 5.1-2 and 5.1-6 from the 1996 Master Plan FEIR would reduce potential erosion impacts and fill impacts, respectively, due to construction and creek bank stabilization to less-than-significant levels through the formulation of a detailed design-level onsite Erosion Control Plan. Mitigation Measure 5.1-4 from the 1996 Master Plan FEIR would reduce potential asbestos impacts to a less-than-significant level through the preparation and implementation of a Site Safety Plan for construction activity in asbestos-containing rock. Mitigation Measure 5.1-5 from the 1996 Master Plan FEIR would reduce potential impacts due to expansive soils to a less-than-significant level through the recommendation for mitigation of expansive soils in the design-level geotechnical investigation. Mitigation Measure 5.1-7 from the 1996 Master Plan FEIR would reduce potential water tank impacts on the Grady Ranch property to a less-than-significant level.

GREENHOUSE GAS EMISSIONS

Mitigation Measure GHG-1 would reduce the proposed project's GHG emissions impact by providing a one-time fee that would either fund a program to provide retrofit upgrades to existing homes or fund a similar program to offset the generation of GHG emissions, and because the qualified CAP would result in a framework that achieves permanent GHG reductions throughout the County. Therefore, within implementation of Mitigation Measure GHG-1, project-generated GHG emissions would be reduced to levels that are considered less-than-cumulatively considerable, and thereby, less than significant.

Mitigation Measure GHG-1 would reduce the proposed project's overall GHG emissions by providing a one-time fee that would cover the life of the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure 5.10-4 would require screen plantings that minimize the potential to spread a ground fire, the development of a Vegetation Modification Plan, and the implementation of fire prevention measures during the construction phase. Mitigation Measure 5.10-4 also requires a back-up power source for the ~~MMWD~~ proposed pump station, and adequate communications for proper firefighting capability.

HYDROLOGY AND WATER QUALITY

Implementation of Mitigation Measure 5.2-8 from the 1996 Master Plan FEIR included a series of measures that required a street and parking lot cleaning and sweeping program, monitoring of storage tanks and other hazardous materials sites, and a Surface Runoff Pollution Control Plan to reduce potential water quality impacts to a less-than-significant level. Mitigation Measure 5.2-2 from the 1996 Master Plan FEIR would reduce potential erosion impacts to a less-than-significant level.

NOISE

Implementation of Mitigation Measure 5.9-1 of the 1996 Master Plan FEIR and new Mitigation Measure NOISE-1 would reduce the impact associated with project-generated construction-related noise levels to a less-than-significant level. Mitigation Measure 5.9-1 required that all equipment used on the project site be muffled and maintained in good operating condition, that powered construction equipment be turned off when not in use, and that grading and impact tool use for the Main Building and easternmost berm on Grady Ranch be limited to specific hours.

TRANSPORTATION/TRAFFIC

Mitigation Measure TRANS-1, a new mitigation measure identified through environmental review would replace Mitigation Measure 5.7-7 from the 1996 FEIR. Mitigation Measure TRANS-1 would reduce the potential impacts related to project access by ensuring that project access includes right-turn tapers on westbound Lucas Valley Road at the point of access onto the Grady Ranch project site.

4 COMMENTS AND RESPONSES TO ENVIRONMENTAL ISSUES

In accordance with § 15088 of the State California Environmental Quality Act (CEQA) Guidelines, the Marin County Community Development Agency, as the lead agency, has reviewed the comments received on the Draft Supplement to the Environmental Impact Report (Draft SEIR) for the Grady Ranch Precise Development Plan Supplement to the 1996 Master Plan Final EIR and has prepared this Final SEIR, which includes written responses to the comments received.

On October 27, 2011, the Marin County Community Development Agency, as the lead agency, released for public review the Draft SEIR for the Grady Ranch Precise Development Plan Supplement to the 1996 Master Plan Final EIR. The Draft SEIR was submitted to the State Clearinghouse for review by state agencies. The Draft SEIR public review period and State Clearinghouse review period ended on December 13, 2011. Oral and written comments were accepted at a hearing on the Draft SEIR held by the Planning Commission on December 12, 2011. As required by CEQA Guidelines § 15088(b), the Marin County Community Development Agency is providing each public agency that submitted written comments on the Draft SEIR with proposed written responses to that public agency's comments at least 10 days prior to certifying the Final SEIR.

This chapter of the Final SEIR contains comment letters received during the public review period for the Draft Supplement to the 1996 Master Plan Final EIR (Draft SEIR), which concluded on December 13, 2011. It also contains comments received during the public hearing for the Draft Supplement to the Final EIR (held on December 12, 2011 before the County of Marin Planning Commission). This chapter presents responses to environmental issues raised in the written and oral comments (as required by the State CEQA Guidelines § 15132). The focus of the responses to comments is on the disposition of significant environmental issues that are raised in the comments, as specified by Section 15088(c) of the State CEQA Guidelines. Detailed responses are not provided to comments on the merits of the proposed project that do not raise significant environmental issues. However, when a comment is not directed to significant environmental issues, the response indicates that the comment has been noted and that no further response is necessary.

Each comment letter has been reproduced and is followed by the responses to the comments in order of occurrence. For example, the response to the second comment of the second letter would be indicated as Response to Comment 2-2. In some instances, responses to comments may warrant clarifications of the text of the Draft SEIR. In those cases, the text of the Draft SEIR is revised. Additionally, text changes have been made in response to County staff and Planning Commission input. All of the text changes are compiled in Chapter 5, Corrections and Revisions to the Grady Ranch Precise Development Plan Final Supplement to the 1996 Master Plan Final EIR. The text deletions are shown in double strikeout (~~double strikeout~~) and additions are shown in double underline (double underline).

This Responses to Comments document and the Draft SEIR (with text revisions) together constitute the Final SEIR, which will be considered for certification as adequate and complete pursuant to CEQA by the Marin County Planning Commission prior to a decision on whether to approve the proposed project. Before deciding whether to approve the proposed project, the Marin County Planning Commission, as required by CEQA Guidelines Section 15090, will certify that the Final SEIR was completed in compliance with CEQA's requirements, was reviewed and considered by the Planning Commission's decision-makers, and reflects the Planning Commission's independent judgment and analysis. However, certification of the Final SEIR does not require nor ensure approval of the project. The Planning Commission will also adopt findings of fact on the disposition of each significant environmental impact, as required by CEQA Guidelines §15091(a); a statement of overriding considerations for any significant unavoidable impacts, as required by CEQA Guidelines § 15093; and a Mitigation Monitoring and Reporting Program, as required by CEQA Guidelines §15091(d).

4.1 LIST OF COMMENTS RECEIVED ON THE DRAFT EIR

Comments received on the Draft SEIR consist of the following:

| Table 4-1. Comments Received on the Draft SEIR | | | |
|---|-------------------------------------|---|---------------------------------------|
| Letter Number | Name of Author | Agency / Organization | Date Received/ Post Marked |
| AGENCIES | | | |
| Federal | | | |
| | <i>None received</i> | | |
| State | | | |
| 1 | Arnold, Gary | California Department of Transportation | December 12, 2011 |
| 2 | Wilcox, Carl | California Department of Fish and Game, Bay Delta Region | December 13, 2011 |
| 3 | Morgan, Scott | State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit | December 13, 2011 |
| 4 | Morgan, Scott | State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (attached letters (copies of) from: California Department of Fish and Game and California Department of Transportation) | December 13, 2011 |
| Regional / Local | | | |
| 5 | Roggenkamp, Jean | Bay Area Air Quality Management District (BAAQMD) | December 8, 2011 |
| 6 | Anderson, Dain | Marin Municipal Water District (MMWD) | December 13, 2011 |
| ORGANIZATIONS | | | |
| 7 | Forman, George | Forman & Associates, Attorneys at Law | December 6, 2011 |
| 8 | Grassetti, Richard | GECO: Grassetti Environmental Consulting | December 8, 2011 |
| 9 | Board of Directors | Lucas Valley Estates Homeowners Association | December 12, 2011 |
| 10 | Salzman, Barbara and Peterson, Phil | Marin Audubon Society | December 12, 2011 |
| 11 | Stompe, Susan | Marin Conservation League | December 12, 2011 |
| 12 | Garcia, Angelo | Skywalker Properties Ltd. LLC | December 13, 2011 |
| 13 | Oloughlin, Alisha | Marin County Bicycle Coalition | December 13, 2011 |
| 14 | Peri, Andy | Marin County Bicycle Coalition | December 13, 2011 |
| INDIVIDUALS | | | |
| 15 | Lawrence, Alexander | n/a | November 22, 2011 |
| 16 | Ewing, Amy | n/a | November 29, 2011 |
| 17 | Fricke, Carl | n/a | December 8, 2011 |
| 18 | Helwee, George (3 letters) | n/a | December 9, 2011 |
| 19 | Jennings, Erica | n/a | December 9, 2011 |
| 20 | Kranenberg, Christina | n/a | December 9, 2011 |
| 21 | Monahan, Thomas and Susan | n/a | December 9, 2011 |
| 22 | Dale, Tim | n/a | December 11, 2011 |

| Letter Number | Name of Author | Agency / Organization | Date Received/ Post Marked |
|---------------|---|-----------------------|-------------------------------|
| 23 | Dahlgren, Joy | n/a | December 12, 2011 |
| 24 | Fulkerson, Constance | n/a | December 12, 2011 |
| 25 | Gallaher, Jean | n/a | December 12, 2011 |
| 26 | Hsu, Peter and Linda | n/a | December 12, 2011 |
| 27 | Miller, Dale | n/a | December 12, 2011 |
| 28 | Rozen, Barbara | n/a | December 12, 2011 |
| 29 | Simon, Doris (2 letters) | n/a | December 12, 2011 |
| 30 | Simon, Rueben | n/a | December 12, 2011 |
| 31 | Simon, Ted (2 letters) | n/a | December 12, 2011 |
| 32 | Watkins, Brenda | n/a | December 12, 2011 |
| 33 | Abedon, Stephen (3 letters) | n/a | December 13, 2011 |
| 34 | Berlin, Susan | n/a | December 13, 2011 |
| 35 | Carmedelle, Bruce | n/a | December 13, 2011 |
| 36 | Dale, Kenneth | n/a | December 13, 2011 |
| 37 | Franjeh, Paul and Kalynn | n/a | December 13, 2011 |
| 38 | Fulkerson, Constance | n/a | December 13, 2011 |
| 39 | Hicks, Penny | n/a | December 13, 2011 |
| 40 | Kamman, Rachel | n/a | December 13, 2011 |
| 41 | Kobalter, Amy | n/a | December 13, 2011 |
| 42 | Kornhauser, Sally | n/a | December 13, 2011 |
| 43 | Langford, Anne | n/a | December 13, 2011 |
| 44 | Lawrence, Alex and Sabrina | n/a | December 13, 2011 |
| 45 | Mackay, Laurel | n/a | December 13, 2011 |
| 46 | Matthews, Gail | n/a | December 13, 2011 |
| 47 | Monahan, Thomas and Susan (supplement to 12/9/11 letter) | n/a | December 13, 2011 |
| 48 | Paul, Heidi and Haggerty, Darren | n/a | December 13, 2011 |
| 49 | Rossi, Mitchell | n/a | December 13, 2011 |
| 50 | Shibata, Emily | n/a | December 13, 2011 |
| 51 | Steiner, Roberta and Farovitch, Allan | n/a | December 13, 2011 |
| 52 | Urry, David | n/a | December 13, 2011 |
| 53 | Van Dyke, Christopher | n/a | December 13, 2011 |
| 54 | Campbell, Charles | n/a | December 14, 2011 |
| 55 | Captanian, Ted | n/a | December 14, 2011 |
| 56 | Finn, Kimberly (2 letters) | n/a | December 14, 2011 |
| 57 | Mills, Janet | n/a | December 14, 2011 |
| 58 | Shibata, Fumio | n/a | December 14, 2011 |

| Table 4-1. Comments Received on the Draft SEIR | | | |
|--|-----------------------|---|-----------------------------------|
| Letter Number | Name of Author | Agency / Organization | Date Received/ Post Marked |
| PUBLIC COMMENTS GIVEN AT PLANNING COMMISSION MEETING, DECEMBER 12, 2011 | | | |
| 59 | Tom Taylor | Lucas Valley Estates Homeowners Association | December 12, 2011 |
| 60 | Hilary Sciarillo | n/a | December 12, 2011 |
| 61 | Liz Dale | Lucas Valley Estates Homeowners Association | December 12, 2011 |
| 62 | Joy Dahlgren | n/a | December 12, 2011 |
| 63 | Ken Dale | n/a | December 12, 2011 |
| 64 | Carolyn Lenert | North San Rafael Coalition of Residents | December 12, 2011 |
| 65 | Phil Kranenberg | Friends of Lucas Valley | December 12, 2011 |
| 66 | Carl Frick | n/a | December 12, 2011 |
| 67 | Rachel Kamman | Lucas Valley Homeowners Association | December 12, 2011 |
| 68 | Ron Marinoff | n/a | December 12, 2011 |
| 69 | Dale Miller | Lucas Valley Homeowners Association | December 12, 2011 |
| 70 | William Grady | n/a | December 12, 2011 |
| 71 | Herb Drake | n/a | December 12, 2011 |
| 72 | Shelly Munson | n/a | December 12, 2011 |
| 73 | Jean Gallagher | n/a | December 12, 2011 |
| 73 | Nona Dennis | Marin Conservation League | December 12, 2011 |
| 75 | Tom Monahan | n/a | December 12, 2011 |
| 76 | Adrian Simi | Carpenters Union | December 12, 2011 |
| 77 | Penny Hicks | n/a | December 12, 2011 |
| 78 | Barbara Rozen | Rotary Valley Senior Homes | December 12, 2011 |
| 79 | Susan Monahan | n/a | December 12, 2011 |
| 80 | Tom Forester | Skywalker Properties | December 12, 2011 |

4.2 COMMENTS ON THE DRAFT SUPPLEMENT TO THE FINAL EIR AND RESPONSES

The written and verbal comments received on the Draft Supplement to the Final EIR (Draft SEIR) and the responses to those comments are provided in this section. Each written comment letter is reproduced in its entirety and is followed by the response(s) to the letter. Where a commenter has provided multiple comments, each comment is indicated by a line bracket and an identifying number in the margin of the comment letter. Oral comments received at the public hearing are summarized in Table 2-2, followed by written responses to each of the oral comments (see Response to Oral Comments 59 through 80). In several instances, multiple comments from different commenters addressed the same subject. Master Responses were prepared to provide a comprehensive response to these comments. These are included below and referenced in the responses to comments.

4.2.1 GRADY RANCH MASTER RESPONSES

MASTER RESPONSE 1. CEQA NOTICE OF PREPARATION

A Notice of Preparation (NOP) was prepared for the Grady Ranch / Big Rock Ranch Master Plan Draft EIR when it was prepared in 1996. This current document is a Supplement to the EIR prepared in 1996. The CEQA Guidelines do not require that a new Notice of Preparation (NOP) be prepared for a Supplement to an EIR. CEQA Guidelines Section 15163 (c) states that “a supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.” Section 15087 refers to the Notice of Availability (NOA) required at the time the Draft SEIR is released for public comment, rather than the Notice of Preparation. This noticing requirement is logical recognizing that the current document is a supplement to the prior EIR (i.e., a new EIR process is not being initiated.) The direction provided in Section 15087 is as follows:

15087. PUBLIC REVIEW OF DRAFT EIR

- a) *The lead agency shall provide public notice of the availability of a draft EIR at the same time it sends a notice of completion to the Office of Planning and Research...Notice shall be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing, and shall also be given by at least one of the following procedures:*
- 1) Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project. If more than one area is affected, the notice shall be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas.*
 - 2) Posting of notice by the public agency on and off the site in the area where the project is to be located.*
 - 3) Direct mailing to the owners and occupants of property contiguous to the parcel or parcels on which the project is located. Owners of such property shall be identified as shown on the latest equalized assessment roll.*

An NOA and Notice of Public Hearing on the Draft SEIR were distributed on October 27, 2011, to members of the Planning Commission, Board of Supervisors, State Clearinghouse, state and local agencies and special districts, surrounding property owners, and other interested groups and individuals. The NOA and Notice of Public Hearing were also published in the *Marin Independent Journal* on October 27, 2011 to begin a 48-day public review and comment period on the adequacy of the Draft SEIR.

MASTER RESPONSE 2. CEQA PROCESS

NOTICING AND PUBLIC REVIEW PERIOD

As described in Master Response 1, a Notice of Preparation (NOP) is not required for a Supplement to an EIR. The required Notice of Availability (NOA) and Notice of Public Hearing on the Draft SEIR were distributed on October 27, 2011, to members of the Planning Commission, Board of Supervisors, State Clearinghouse, state and local agencies and special districts, surrounding property owners, and other interested groups and individuals. The NOA and Notice of Public Hearing were also published in the *Marin Independent Journal* on October 27, 2011 to begin a 48-day public review and comment period on the adequacy of the Draft SEIR. These activities complete the noticing requirements for a Supplement to an EIR as described in CEQA Guidelines Section 15087 and 15163.

Regarding the length of the public review period, State CEQA Guidelines Section 15163(c) states that “a supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.” Section 15087(e) states that “in order to provide sufficient time for public review, the review period for a draft EIR shall be as provided in Section 15105.” Section 15105(a) give the following public review requirements:

15105. PUBLIC REVIEW PERIOD FOR A DRAFT EIR OR A PROPOSED NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION

- a) *The public review period for a draft EIR shall not be less than 30 days nor should it be longer than 60 days except under unusual circumstances. When a draft EIR is submitted to the State Clearinghouse for review by state agencies, the public review period shall not be less than 45 days, unless a shorter period, not less than 30 days, is approved by the State Clearinghouse.*

As noted above, the public comment period for the Draft SEIR was 48 days. This meets the 45-day requirements of CEQA and the State Clearinghouse. On November 9, 2011, the County Interim Environmental Coordinator sent an email response to all interested parties, who up until that date had requested, via email, a comment period extension. The response included the following justification for denying the extension request:

Regarding this project, specifically, the project sponsor is seeking to meet deadlines for the project that are set by other agencies, and the County is making a best effort to keep on track with the schedule and, in doing so, could not extend the comment period beyond 48 days. An extension is also not reasonable or practical for the following reasons:

This Draft SEIR constitutes supplemental environmental review to the previously certified 1996 Master Plan Final EIR (which included Grady Ranch); it is not the voluminous, original 1996 Final EIR that, itself, was afforded extensive public participation (document distribution, review/comment periods, multiple hearings, etc.) when it was undergoing the CEQA review process. The 1996 Final EIR comprises the magnitude of development plans and extensive amount of documentation; however, the only document that is the subject for comment currently is the recently released Draft SEIR and not the 1996 Final EIR. The State CEQA Guidelines do not require Lead Agencies to circulate the previous Final EIR, as noted in Section 15163(b) and (d). The Draft SEIR is the only document subject to further public review and comment during the supplemental environmental review period. Nonetheless, as additional background, the 1996 Final EIR for Grady Ranch was included on the CDs that were distributed with the Draft SEIR.

In addition to reviewing and commenting on the Draft SEIR, members of the public will have the opportunity to review and comment on the Final SEIR and attend the public hearing at the Planning Commission for consideration of the Final SEIR and the project merits. As noted in the Notice of Availability for the Final SEIR, comments can be sent via email to envplanning@marincounty.org or faxed to the Community Development Agency Office at (415) 499-7880. Responses to public comments on the Final SEIR’s responses to Draft SEIR comments will also be provided prior to consideration of EIR certification, in accordance with County EIR procedures.

DOCUMENT AVAILABILITY

As stated in the Notice of Availability and in accordance with State CEQA Guidelines Sections 15150 and 15087, all relevant documents incorporated into the SEIR by reference or cited in the SEIR were made available at the Marin County Community Development Agency office for public review between the hours of 8:00 a.m. to 4:00 p.m., Monday through Thursday and 8:00 a.m. to 12:00 noon on Friday. Copies of the Draft SEIR were also

obtainable from the Community Development Agency for after-hours review. In addition, a copy was available for review at the Marin County Civic Center Library. A copy of the Draft SEIR along with the 1996 Final Environmental Impact Report for the Lucasfilm, Ltd. Grady Ranch/Big Rock Ranch Master Plan was also available on the Community Development Agency's website. Supporting reports and project documents that are referenced in the Draft SEIR are now also available on the Community Development Agency website at <http://www.co.marin.ca.us/depts/CD/main/comdev/eir.cfm>.

MASTER RESPONSE 3. PROJECT DESCRIPTION DETAILS

GEOEXCHANGE SYSTEM

The name of the proposed geothermal heat exchange system has caused some misinterpretations and confusion regarding the character of the system. In the Draft SEIR, it was called "geothermal exchange system," "geothermal heat exchange system" or "unit," or "geothermal heating exchange system" or "unit." Commonly, the term "geothermal" refers to a facility that uses naturally heated groundwater, such as in a geothermal power plant. This type of geothermal facility is entirely different from what is proposed for the Grady Ranch PDP. Therefore, to resolve the confusion, the Final SEIR will use the term "geoexchange system" to describe the Grady Ranch facility.

The proposed geoexchange system uses a system of coiled pipes buried in the earth and a heat pump to alter the indoor air temperature. At the shallow depths proposed, the coiled pipes would be under the filled knoll and would remain at the relatively constant temperature of the soil. The system would not draw from or use groundwater. In summer, the pipes would at times be cooler than air temperature, allowing for the cooling of building air. In winter, the pipes would at times be warmer than air temperature, allowing for the energy-efficient warming of building air. The geoexchange system is not a geothermal energy production system and no wells would be drilled. Additional text has been added to the project description to describe this aspect of the project. The following text is added on page 2-33 (Section 2.6.13, "Geoexchange System"):

2.6.13 GEOEXCHANGE SYSTEM

A geoexchange system and heat pump would be used for heating and cooling the building. The geoexchange system uses a system of coiled pipes buried in the earth and a heat pump to alter the indoor air temperature. Rather than burning fuel to heat the building, the geoexchange system circulates fluid through the coils which are warmed by the relatively constant temperature of the earth. This warmed fluid is carried to the geoexchange system heat pump that uses electrically-driven compressors and heat exchangers in a vapor compression cycle to concentrate the energy, warm the air in the compressor, and release it inside the building. Duct fans then distribute the warmed air to various rooms. In summer, the process is reversed in order to cool the building air. Excess heat is drawn from the building's indoor air, expelled to the cooler fluid in the looped pipes, and absorbed by the earth.

Geoexchange coils would be buried under at least six feet (6 ft) of fill, southeast of the building. Piping from the building to the coil field would follow the route of the trench provided for the East Fire Road. The spacing and quantity of coils would be dependent on the thermal conductivity of the soil material. Coils would be located outside of the Stream Conservation area, and a 100-foot setback from the stream would be required during all construction and operation activities.

HOURS OF OPERATION AND EMPLOYEE COUNTS

Several questions were raised from commenters regarding potential exceptions to the regular work hours listed in the Project Description. The text on page 2-7 is revised to read as follows to clarify potential schedule exceptions:

The Master Plan FEIR listed the following number of employees and guests at Grady Ranch per use: residential accommodations, 6; main building, 319; day care/recreation building, 10; and gate house building, 5. The project applicant has indicated that the number of employees and guests under the Grady Ranch PDP would be similar to, and would not exceed, what was proposed under the Master Plan. Business hours of the site administration would be expected to adhere to a typical Monday through Friday work schedule from 9 a.m. to 5 p.m. However, the hours and activities occurring onsite during film production would vary depending on the needs of the film production schedule at the time. As with any business operation, occasional employee hours may extend past this time on an individual basis. As noted above, there would be residential accommodations in the Main Building. A small number of employees could be available around the clock for guest services. Potential exceptions to these business hours for more than a few people would be rare, because of the costs of extending employee hours past the typical workday for a production. Typical existing operating hours for Skywalker and Big Rock Ranches, including for film production work, fall within the 9 a.m. to 5 p.m. work schedule.

OUTDOOR STAGE

Several commenters expressed concerns about the use of the outdoor stage, particularly in regards to nighttime lighting and amplified sound. The text on pages 2-7 and 2-8 are revised as follows to provide additional clarification:

The first level of the Main Building would include the entrance lobby, reception/security, offices, a general store, kitchen and dining areas, screening rooms, costume storage, make-up/dressing rooms, a set shop, equipment storage area, and stages, including an outdoor stage (see Exhibit 2-4). The production stages at the rear of the Main Building would vary from 25 to 55 feet in height. These production stages would be used at times for the production of sequences that require techniques possible only in such a large space. Costume storage, make-up rooms, and dressing rooms would be located adjacent to the production stages at the rear of the building. A set shop, equipment storage, and an outdoor stage would be located on the west side of the building, adjacent to the production stages. The outdoor stage would include both safety/security and work light features. Approximately seven work light fixtures are planned for this outside area. The outdoor stage would not be a sound stage or a concert stage. Rather, the outdoor stage would be used for digital motion and still photography for the production of television shows, motion pictures, and related entertainment media. For the past decade, LucasFilm, Inc. has used outdoor stage facilities primarily for motion and still photography of miniature model sets, and of props and actors situated in front of "green screen" scrims (i.e., fabric screen wall). These activities can be accommodated in a compact area, as reflected in the relatively small size of the outdoor stage, which would measure approximately 150 feet wide by 50 feet deep. Such facilities are used on a very infrequent basis; for example, it is estimated that LucasFilm, Inc. has used such facilities for the filming of only one motion picture in the past five years. Amplified sound would not be included in the use of the outdoor stage. Pursuant to Marin County Code section 6.70, any amplified sound or loud noises that could be heard at a distance of 50 yards from the building would require approval of a separate permit by the Community Development Director.

MASTER RESPONSE 4. MARIN COUNTYWIDE PLAN AND MARIN COUNTY ZONING ORDINANCE CONSISTENCY

The 1996 Master Plan and Use Permit (MP/UP) identified a variety of uses for the Grady property, including overnight accommodations and underground parking. The 1996 MP/UP also described the office uses occupying the Main Office Building as follows:

This building will house offices to be used for advanced, digital technology-based film production. (This business will either be separate from or will complement the pre & post-production film activities conducted by Lucasfilm Ltd., and Lucas Digital Ltd. At the nearby Skywalker Ranch and the “special effects” business currently conducted by Lucas Digital Ltd. in San Rafael.

At the very rear of the Main Office Building will be production stages, varying from 25 to 55 feet in ceiling height, which will on occasion be utilized for the filming of sequences which require production techniques possible only in such a large space.

Even considering the rapidly-evolving nature of the business, the 1996 description of the office and film production uses in the Main Building remains a very accurate description of the uses proposed at this time.

The question of allowable uses under the governing Countywide Plan and Zoning was discussed and settled in the 1996 MP/UP. At that time (and currently), under the (RMP) Residential, Multiple Planned zoning designation governing the property ‘office’ uses are among the range of conditionally permitted uses. The Board of Supervisors approved the Master Plan and Use Permit for office uses including a facility for digital film production and related uses at Grady Ranch. As noted above, the office and digital film production uses currently proposed remain consistent with the uses approved under the 1996 MP/UP. The “Theater and Meeting Hall” use alleged by commenters to be the closest use in the Development Code to the proposed use actually covers public assembly uses such as commercial movie theaters, not the private production facility and ancillary functions entailed in the previous and current applications.

The Countywide Plan (CWP) land use designation for the property at the time of the 1996 MP/UP is “Planned Residential” (PR). This land-use designation remains unchanged in the current CWP adopted in 2007. Although the PR land use designation falls under a Rural/Residential category, the generally stated purpose of which is residential development, CWP Policy CD-8.6 clarifies this further as follows:

For nonresidential uses permitted in a residential land use category, the FAR established for that land use category shall apply.

...

Some examples of zoning designations that are consistent with various general plan residential designations are provided below (these may not be the only possible consistent zoning designations) and the zoning maps and Development Code provide additional details regarding allowed uses and development standards. Other uses that may be permitted in residential land use designations include, but are not limited to, parks, playgrounds...

In other words, the CWP states that the Development Code provides the “details regarding allowable uses”. The Development Code, as noted above, allows the digital technology-based film production office uses previously approved in the 1996 MP/UP with findings that the use would be functionally equivalent to a professional office use. As noted in the 1996 MP/UP analysis, the proposed development contains an exceptionally low-density and floor area ratio, consistent and in furtherance with the Development Code and zoning classification, factors that weighed favorably in the County’s 1996 MP/UP approval.

MASTER RESPONSE 5. ALTERNATIVES

Several comments were raised regarding alternatives to the proposed project. These included suggestions for off-site alternative locations, including the existing LucasFilm facilities at the San Francisco Presidio, Skywalker and Big Rock Ranches, and more urban or industrialized areas. A suggestion was made for an off-site alternative that is consistent with applicable General Plan and zoning designations. Additional suggestions included an alternative with smaller-scale building designs and a residential alternative. Comments stated that the alternatives are drawn from the Master Plan EIR rather than focusing on impacts of the Grady Ranch Project.

As stated in CEQA Guidelines Section 15126.6, an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. An EIR need not consider every conceivable alternative to a project. These guidelines were recognized in Chapter 6 of the 1996 Master Plan EIR in its discussion of alternatives to the proposed Master Plan. The alternatives analyzed in the 1996 Master Plan EIR were selected to compare the outcome of the alternatives with the effects of the proposed Master Plan. The Grady Ranch project was a part of the proposed Master Plan. Because Grady Ranch was included in the proposed Master Plan, the 1996 Final EIR addressed a reasonable range of alternatives, and the Grady Ranch PDP does not introduce larger-scale development or different locations that were not previously evaluated in the 1996 Final EIR, the existing evaluation of alternatives in the 1996 Final EIR is adequate and need not be supplemented. The alternatives discussion has been updated in the SEIR to focus specifically on the potential impacts of the Grady Ranch PDP.

Regarding off-site alternatives, the 1996 Master Plan EIR evaluated 16 alternative sites and discussed the feasibility of these alternative locations. The alternative site locations were found to be infeasible for reasons such as topography, size, availability (sites already approved for other development, not able to be acquired), infrastructure constraints, and inability to meet project objectives. Existing LucasFilm facilities are currently occupied and operating. Existing buildings on Skywalker and Big Rock Ranches and at the Presidio have been constructed for different aspects of LucasFilm operations. As stated in the Project Description in the SEIR, the Main Building would be used for advanced, digital technology-based film production and production stages for the filming of sequences that require production techniques possible only in such a large space. The subleasing of spaces in existing buildings are separate operating decisions and may be specific to the types of uses in those facilities.

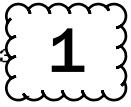
The 1996 Master Plan FEIR did not include a mitigated design alternative because this alternative was included in the 1992 Draft EIR, and it formed the basis of the proposed LucasFilm Grady Ranch/Big Rock Ranch Master Plan. Also, it was determined that implementation of the mitigation measures in the 1996 Master Plan FEIR would not result in a significantly modified site plan, and it was not necessary to develop an additional mitigated design alternative. The proposed Grady Ranch PDP includes building heights that are taller than the previously proposed building. However, the overall footprint of buildings on the project site has decreased. The PDP also includes the construction of two above-ground water tanks rather than one (see Table 2-2 in the Project Description). The analysis in the Environmental Checklist determined that potential visual impacts from the proposed buildings and the water tanks would be less than significant with implementation of mitigation measures.

The 1996 Master Plan FEIR included a residential alternative. As discussed on page 3-3 of the SEIR, Alternative 2 is the current zoning alternative. Under Alternative 2, the site would be developed residentially, consistent with residential density maximums of the current zoning. An updated discussion of the potential effects of Alternative 2 in relation to the Grady Ranch Precise Development Plan is contained in each of the technical sections in the Environmental Checklist.

Sent By: CALTRANS TRANSPORTATIO PLANNING; 510 286 5560;

Dec-12-11 4:54PM;

Page 1/3



STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5541
FAX: (510) 286-5559
TTY: 711



*Flex your power!
Be energy efficient!*

December 12, 2011

MRN-101-14.70
MRN101417
SCH 1995033021

Mr. Ben Berto
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Dear Mr. Berto:

Grady Ranch (Skywalker Properties, Ltd) – Draft Supplement to Final Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the project referenced above. One of the Department's ongoing responsibilities is to collaborate with local agencies in order to avoid, eliminate, or reduce to a level of insignificance potential adverse impacts to traveler safety on the State's highways. The Department anticipates potential adverse impacts on US Highway (US) 101 if and when an intensification of traffic-generating development occurs at the project location.

1-1
1-2
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1-4

Therefore, the Department would like to reiterate the comments from the April 5, 2010 letter regarding traffic:

1. Please address the project generated traffic impacts on the US-101/Miller Creek Road intersection.
2. Please provide an exhibit that illustrates the existing peak-hour turning volumes at all intersections in the study area.
3. Please provide an exhibit that illustrates the Existing Plus Project peak-hour volumes at all intersections in the study area.

Furthermore, please submit SYNCHRO files of the study locations for all conditions for our review. The SYNCHRO files observe the level of service (LOS), queue lengths, green times, and delays for each movement at signalized intersections. SYNCHRO also observes the coordination of signals existing at these study locations.

"Caltrans improves mobility across California"

12/12/2011 MON 16:47 [TX/RX NO 7943] 001

Sent By: CALTRANS TRANSPORTATIO PLANNING; 510 286 5560; Dec-12-11 4:54PM; Page 2/3

Mr. Ben Berto/Marin County Community Development
December 12, 2011
Page 2

Should you require further information or have any questions regarding this letter, please contact
Connery Cepeda of my staff at (510) 286-5535.

Sincerely,



GARY ARNOLD
District Branch Chief
Local Development – Intergovernmental Review

c: Scott Morgan (State Clearinghouse)

Attachment: Letter dated April 5, 2010 addressed to Mr. Ben Berto

"Caltrans improves mobility across California"

12/12/2011 MON 16:47 [TX/RX NO 7943] 002

Sent By: CALTRANS TRANSPORTATIO PLANNING; 510 286 5560;

Dec-12-11 4:54PM;

Page 3/3

STATE OF CALIFORNIA - BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
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OAKLAND, CA 94623-0660
PHONE (510) 622-5491
FAX (510) 286-5559
TTY 711



Flex your power!
Be energy efficient!

April 5, 2010

MRN-101-14.70
MRN101417

Mr. Ben Berto
Marin County Community Development
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Sent by

Dear Mr. Berto:

DL

111 K
P.O. BOX
OAKLA
PHONE
FAX (510)
TTY 711

Grady Ranch (Skywalker Properties, Ltd) – Transportation and Circulation Update

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the proposed project. We have reviewed the Transportation and Circulation Update and have the following comments to offer.

Highway Operations

The project applicant has already paid "fair share" mitigation fees for the US-101 Southbound (SB) Ramps / Los Gamos Road improvements, as well as the additional left turn lane at US-101 Northbound (NB) Ramps. Please note that the highway improvements should be in place before the opening of the development.

1-5

Traffic

- 1) Please address the project generated traffic impacts on the US-101/ Miller Creek Road intersection.
- 2) Please provide an exhibit that illustrates the existing peak hour turning volumes at all intersections in the study area.
- 3) Please provide an exhibit that illustrates the existing plus project peak hour volumes at all intersections in the study area.

1-6
1-7
1-8

Should you require further information or have any questions regarding this letter, please contact Jose Olveda of my staff at (510) 286-5535.

Sincerely,

LISA CARBONI
District Branch Chief
Local Development – Intergovernmental Review
c: L.Carboni/ EGestuvo/ PVan/ Chron File/ JOlveda/ File

"Caltrans Improves mobility across California"

12/12/2011 MON 16:47 [TX/RX NO 7943] 003

**Letter
1
Response** **California Department of Transportation
Gary Arnold
December 12, 2011**

- 1-1 Impacts at the Miller Creek Road interchange can reasonably be expected to be less than significant because the project would add primarily right-turns from the off-ramp to westbound Miller Creek Road, a movement that typically operates with relatively little delay, and left-turns to the northbound on-ramp, another movement with relatively low delays due to the limited volume of opposing traffic. Given the movements affected and the current and expected traffic volumes and intersection operation, further analysis is not needed.
- 1-2 Information regarding existing peak-hour turning movements was included in the “Traffic Count Data” appendix in the February 2010 *Transportation and Circulation Update*. The appendix includes figures for each of the six intersections (Lucas Valley Road at Mt. Lassen Drive, Miller Creek Road, Las Gallinas Avenue, Los Gamos Drive, the US 101 southbound ramps, and the US 101 northbound ramps) for the a.m. and p.m. peak hours. The 2010 report is included in this Final SEIR as Appendix B.
- 1-3 The SYNCHRO files in the appendix of the *Transportation and Circulation Update* include existing and existing plus project turning movement volumes at study intersections.
- 1-4 The February 2010 *Transportation and Circulation Update*, with appendices, is included in Appendix B of this Final SEIR. The “Intersection Level of Service Results” Appendix includes the SYNCHRO files.
- 1-5 The comment is noted that highway improvements to the US 101 Southbound Ramps/Los Gamos Road intersection, as well as the additional left-turn lane at US 101 Northbound Ramps, should be in place before the operation of the Proposed Project. Also, as noted in the SEIR, the applicant has paid its fair share for the improvements.
- 1-6 Please see Response to Comment 1-1.
- 1-7 Please see Response to Comment 1-2.
- 1-8 Please see Response to Comment 1-3.



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



DEC 18 2011 PM 2:20 Planning

December 12, 2011

Ms. Rachel Warner
Marin County Community Development Agency
Planning Division
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Dear Ms. Warner:

Subject: Grady Ranch Precise Development Plan - Draft Supplemental Environmental Impact Report to the 1996 Grady Ranch/Big Rock Ranch Master Plan Final Environmental Impact Report, SCH #1995033021, Marin County

The Department of Fish and Game (DFG) has reviewed the draft Supplemental Environmental Impact Report (EIR) to the 1996 Grady Ranch/Big Rock Ranch Master Plan Final EIR. DFG is providing comments on the draft Supplemental EIR as a Trustee Agency and Responsible Agency. As Trustee for the state's fish and wildlife resources, DFG has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California.

Project Description

The proposed project would construct an approximately 270,000-square foot digital technology-based film production studio with appurtenant elements and facilities. Approximately 240,000 cubic yards of excavation would occur from the construction of the building. All of the cut material would be used as fill on-site to create a visual screen mound and to fill incised portions of Miller Creek and its tributaries.

Comments

The project would impact Miller Creek and its tributaries. For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river, stream, or lake, or use material from a streambed, DFG may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to the California Environmental Quality Act (CEQA). DFG, as a responsible agency under CEQA, will consider the CEQA document for the Project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of

2-1
2-2

Conserving California's Wildlife Since 1870

Ms. Rachel Warner
December 12, 2011
Page 2

the agreement. To obtain information about the LSAA notification process, please access our website at <http://www.dfg.ca.gov/habcon/1600/>; or to request a notification package, contact the Lake and Streambed Alteration Program at (707) 944-5520.

2-2
Cont'd

DFG has reviewed the September 2011 Rare Plant Survey Report for Grady Ranch. It is not clear if the study area included all of the construction staging areas that will be required for the Project. Excavated material will be screened and sorted for creek restoration activities. All construction staging areas need to be surveyed for rare plants or need to be located within the surveyed study area. Avoidance measures should be implemented if any rare plants are identified in staging areas.

2-3

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

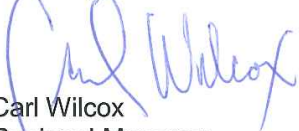
2-4

Mitigation Measure 5.3-6(b) should be changed to include surveys for all nesting bird species. If grading or tree removal occurs more than 14 days after a nest survey, then a new survey shall be completed.

2-5

If you have any questions, please contact Mr. Timothy S. Dodson, Environmental Scientist, at (707) 944-5513 or by email at tdodson@dfg.ca.gov; or Mr. Greg Martinelli, Senior Environmental Scientist, at (707) 944-5570.

Sincerely,



Carl Wilcox
Regional Manager
Bay Delta Region

cc: State Clearinghouse

| | |
|-------------------------|--|
| Letter 2 Response | California Department of Fish and Game, Bay Delta Region Carl Wilcox December 13, 2011 |
|-------------------------|--|

- 2-1 The comment is noted. As part of the project permitting process, a Lake and Streambed Alteration Agreement application would be prepared by the applicant and submitted to the Department of Fish and Game.
- 2-2 The information presented in the combination of the 1996 Final EIR and this Final Supplement to the EIR (Final SEIR) would be the source of stream and riparian habitat information useful for supporting the environmental review of a future Streambed Alteration Agreement application. This would include referenced materials, such as surveys conducted as part of the project application to Marin County. Pursuant to CEQA, this combination of information is intended to be adequate for use by the Department of Fish and Game as a responsible and trustee agency. As stated on page 2-21 of the Draft SEIR, the intended goals for the restoration plan are to reduce sediment delivered to San Francisco Bay; enhance the stability of Miller Creek and the network of tributary creeks; expand the habitat accessible to steelhead; increase aquifer storage thereby increasing spring and summer baseflows; enhance the vigor, extent, and resilience of riparian vegetation; and maintain channel functions and form during episodic events. Several technical reports were prepared by the project applicant addressing the existing stream conditions and riparian resources, describing the proposed stream restoration elements, providing examples of similar restoration projects, and explaining the mitigation and monitoring that would be conducted as part of the proposed restoration. The technical reports are available for review (see Master Response 2, Document Availability) and were peer reviewed by the SEIR preparers who have over 50 years of combined experience in stream restoration design, are reputable firms, and are considered experts in the stream restoration field.
- 2-3 The proposed staging areas were included in the survey study area. The proposed construction staging areas are located within the study area surveyed for rare plants in 2011. No rare plants were observed within the study area. The rare plant survey is available for review on CDA's Environmental Impact Review website at <http://www.co.marin.ca.us/depts/CD/main/comdev/eir.cfm> (see WRA Inc. 2011c - *Rare Plant Survey Report, Grady Ranch, Marin County California*, September 2011).
- 2-4 The comment is noted. It is not anticipated that the project would result in the "take" of species of plants or animals listed under the California Endangered Species Act.
- 2-5 Mitigation measures in the Draft SEIR were developed only for new or more severe significant impacts; impacts to common species were not considered significant per the CEQA criteria used. However, the project applicant has been informed that appropriate timing of construction events for the Grady Ranch project can reduce impacts to native species that may occur in the project area. Suggested construction timing related to biological issues have been drafted and, if followed, would avoid or minimize potential impacts to common nesting birds.

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Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

3

December 13, 2011

Rachel Warner
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Subject: Grady Ranch Precise Development Plan Draft Supplement to the 1996 Grady Ranch/Big Rock Ranch Master Plan
SCH#: 1995033021

Dear Rachel Warner:

The State Clearinghouse submitted the above named Supplemental EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 12, 2011, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency

3-1

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report
State Clearinghouse Data Base**

SCH# 1995033021
Project Title Grady Ranch Precise Development Plan Draft Supplement to the 1996 Grady Ranch/Big Rock Ranch
Lead Agency Master Plan
 Marin County

Type SIR Supplemental EIR
Description The project is the primary phase of the Grady Ranch development proposal consistent with the Big Rock Ranch/Grady Ranch Master Plan and Use Permit that the Marin County Board of Supervisors approved in 1996 after certifying an EIR. The Grady Ranch project is a proposal to construct an approximately 270,000 s.f. digital technology-based film production studio (main building) with appurtenant elements, including administration offices, employee restaurant, general store, wine tasting room, screening rooms, costume storage, dressing rooms, 20 overnight employee guest suites, and a basement parking garage.

Lead Agency Contact

Name Rachel Warner
Agency Marin County Community Development Agency
Phone 415 499 6269 **Fax**
email
Address 3501 Civic Center Drive, Room 308
City San Rafael **State** CA **Zip** 94903

Project Location

County Marin
City San Rafael
Region
Lat / Long 38° 2' 48.2" N / 122° 37' 6.77" W
Cross Streets Lucas Valley Road and Miller Creek Road
Parcel No. 164-310-15, -17, -19

| Township | Range | Section | Base |
|----------|-------|---------|------|
| | | | |

Proximity to:

- Highways**
- Airports**
- Railways**
- Waterways**
- Schools**
- Land Use** RMP-0.031, Residential Multiple-family, one unit per 32 acres maximum density zoning district.

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 10/27/2011 **Start of Review** 10/27/2011 **End of Review** 12/12/2011

Note: Blanks in data fields result from insufficient information provided by lead agency.

**Letter
3
Response**

**California State Clearinghouse
Scott Morgan
December 13, 2011**

3-1

This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

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4



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

December 13, 2011

Rachel Warner
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Subject: Grady Ranch Precise Development Plan Draft Supplement to the 1996 Grady Ranch/Big Rock Ranch Master Plan
SCH#: 1995033021

Dear Rachel Warner:

The enclosed comment (s) on your Supplemental EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on December 12, 2011. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (1995033021) when contacting this office.

4-1

Sincerely,

Scott Morgan
Director, State Clearinghouse

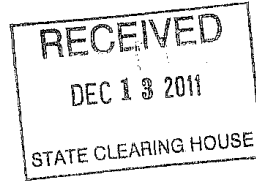
Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
7329 Silverado Trail
Napa, CA 94558
(707) 944-5500
www.dfg.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



December 12, 2011

Ms. Rachel Warner
Marin County Community Development Agency
Planning Division
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

*Dear
12/13/11
late*

Dear Ms. Warner:

Subject: Grady Ranch Precise Development Plan - Draft Supplemental Environmental Impact Report to the 1996 Grady Ranch/Big Rock Ranch Master Plan Final Environmental Impact Report, SCH #1995033021, Marin County

The Department of Fish and Game (DFG) has reviewed the draft Supplemental Environmental Impact Report (EIR) to the 1996 Grady Ranch/Big Rock Ranch Master Plan Final EIR. DFG is providing comments on the draft Supplemental EIR as a Trustee Agency and Responsible Agency. As Trustee for the state's fish and wildlife resources, DFG has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California.

4-2

Project Description

The proposed project would construct an approximately 270,000-square foot digital technology-based film production studio with appurtenant elements and facilities. Approximately 240,000 cubic yards of excavation would occur from the construction of the building. All of the cut material would be used as fill on-site to create a visual screen mound and to fill incised portions of Miller Creek and its tributaries.

Comments

The project would impact Miller Creek and its tributaries. For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river, stream, or lake, or use material from a streambed, DFG may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to the California Environmental Quality Act (CEQA). DFG, as a responsible agency under CEQA, will consider the CEQA document for the Project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
 P. O. BOX 23660
 OAKLAND, CA 94623-0660
 PHONE (510) 286-5541
 FAX (510) 286-5559
 TTY 711



*Flex your power!
 Be energy efficient!*

December 12, 2011

MRN-101-14.70
 MRN101417
 SCH 1995033021

Mr. Ben Berto
 Marin County Community Development Agency
 3501 Civic Center Drive, Room 308
 San Rafael, CA 94903

Dear Mr. Berto:

Grady Ranch (Skywalker Properties, Ltd) – Draft Supplement to Final Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the project referenced above. One of the Department's ongoing responsibilities is to collaborate with local agencies in order to avoid, eliminate, or reduce to a level of insignificance potential adverse impacts to traveler safety on the State's highways. The Department anticipates potential adverse impacts on US Highway (US) 101 if and when an intensification of traffic-generating development occurs at the project location. 4-3

Therefore, the Department would like to reiterate the comments from the April 5, 2010 letter regarding traffic:

1. Please address the project generated traffic impacts on the US-101/Miller Creek Road intersection.
2. Please provide an exhibit that illustrates the existing peak-hour turning volumes at all intersections in the study area.
3. Please provide an exhibit that illustrates the Existing Plus Project peak-hour volumes at all intersections in the study area.

Furthermore, please submit SYNCHRO files of the study locations for all conditions for our review. The SYNCHRO files observe the level of service (LOS), queue lengths, green times, and delays for each movement at signalized intersections. SYNCHRO also observes the coordination of signals existing at these study locations.

"Caltrans improves mobility across California"

Mr. Ben Berto/Marin County Community Development
December 12, 2011
Page 2

Should you require further information or have any questions regarding this letter, please contact
Connery Cepeda of my staff at (510) 286-5535.

Sincerely,



GARY ARNOLD
District Branch Chief
Local Development – Intergovernmental Review

c: Scott Morgan (State Clearinghouse)

Attachment: Letter dated April 5, 2010 addressed to Mr. Ben Berto

4-3
cont'd

"Caltrans improves mobility across California"

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 622-5491
FAX (510) 286-5559
TTY 711



*Flex your power!
Be energy efficient!*

April 5, 2010

MRN-101-14.70
MRN101417

Mr. Ben Berto
Marin County Community Development
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Dear Mr. Berto:

Grady Ranch (Skywalker Properties, Ltd) – Transportation and Circulation Update

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the proposed project. We have reviewed the Transportation and Circulation Update and have the following comments to offer.

Highway Operations

The project applicant has already paid “fair share” mitigation fees for the US-101 Southbound (SB) Ramps / Los Gamos Road improvements, as well as the additional left turn lane at US-101 Northbound (NB) Ramps. Please note that the highway improvements should be in place before the opening of the development.

Traffic

- 1) Please address the project generated traffic impacts on the US-101/ Miller Creek Road intersection.
- 2) Please provide an exhibit that illustrates the existing peak hour turning volumes at all intersections in the study area.
- 3) Please provide an exhibit that illustrates the existing plus project peak hour volumes at all intersections in the study area.

Should you require further information or have any questions regarding this letter, please contact Jose Olveda of my staff at (510) 286-5535.

Sincerely,

LISA CARBONI
District Branch Chief
Local Development – Intergovernmental Review
c: LCarboni/ EGestuvo/ PVan/ Chron File/ JOlveda/ File

“Caltrans improves mobility across California”

4-3
cont'd

**Letter
4
Response** **California State Clearinghouse
Scott Morgan
December 13, 2011**

- 4-1 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 4-2 This comment is a duplicate letter received under separate cover directly from the California Department of Fish and Game. Please see "Letter 2 Response," above.
- 4-3 This comment is a duplicate letter received under separate cover directly from the California Department of Transportation. Please see "Letter 1 Response," above.



BAY AREA
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DISTRICT
SINCE 1955

December 8, 2011

Rachel Warner
Marin County Community Development Agency
Planning Division
3501 Civic Center Drive
San Rafael, CA 94903

Subject: Draft Supplement to the Grady Ranch/Big Rock Ranch Master Plan 1996 Final Environmental Impact Report

ALAMEDA COUNTY
Tom Bates
(Chairperson)
Scott Haggerty
Jennifer Hosterman
Nate Miley

CONTRA COSTA COUNTY
John Gioia
(Vice-Chair)
David Hudson
Mark Ross
Gayle B. Uilkema

NAPA COUNTY
Brad Wagenknecht

SAN FRANCISCO COUNTY
John Avalos
Edwin M. Lee
Eric Mar

SAN MATEO COUNTY
Carole Groom
Carol Klatt

SANTA CLARA COUNTY
Susan Garner
Ash Kalra
(Secretary)
Liz Kniss
Ken Yeager

SOLANO COUNTY
James Sperling

SONOMA COUNTY
Susan Gorin
Shirlee Zane

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

Dear Ms. Warner:

Bay Area Air Quality Management District (District) staff reviewed your agency's Draft Supplement to the Grady Ranch/Big Rock Ranch Master Plan 1996 Final Environmental Impact Report (SEIR). We understand that a final environmental impact report for the *Lucasfilm, Ltd. Grady Ranch/Big Rock Ranch Master Plan* was certified by the Marin County Board of Supervisors in 1996, and that the proposed *Grady Ranch Precise Development Plan* (Plan) details a second phase of the implementation of the Master Plan. The Plan proposes development on 52 acres of the 239-acre Grady Ranch property, with the remaining 187 acres being preserved as private open space.

The District appreciates the principles that will guide development of the Plan area, such as incorporating low impact development practices, emphasizing restoration, preservation and conservation in development areas, utilizing highly efficient energy systems, offering a rideshare incentive program to employees and shuttle service to the nearest bus stop.

The SEIR finds that operational greenhouse gas (GHG) emissions associated with implementation of the proposed Plan would total 1,755 metric tons (MT) of CO₂e per year, or 10.32 MT CO₂e per year per service population. These amounts exceed the District's significance thresholds of 1,100 MT CO₂e/year and 4.6 MT CO₂e/year/service population. Mitigation measures such as the rideshare incentive program and the shuttle service would reduce total annual GHG emissions to 1,649 MT.

In order to avoid a significant and unavoidable impact for GHGs, the SEIR proposes an off-site mitigation measure to reduce annual GHG emissions below the District's threshold of significance. This mitigation would include an off-site mitigation fee of \$100,000 to fund feasible GHG reduction projects in Marin County that are real, surplus, quantifiable and permanent (e.g., energy efficiency upgrades in affordable housing). The project applicant would also provide \$175,000 to Marin County to be used to fund the preparation of a Countywide Climate Action Plan that satisfies the criteria for "Qualified GHG Reduction Strategies" included in the District's CEQA Guidelines.

5-1

5-2

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Ms. Rachel Warner

-2-

December 8, 2011

The District acknowledges that an aggressive and comprehensive climate action plan can serve to reduce countywide GHG emissions well into the future. We support the County's efforts to develop a communitywide climate action plan, as we believe that long-range planning is the best way to ensure permanent reductions in GHG emissions. Such countywide reductions would likely far exceed the 549 MT needed for this Plan to meet the District's threshold of significance. However, it is the District's experience that climate action plans can be developed at significantly less cost than the \$175,000 figure included in the SEIR. It is also the District's experience that achieving significant emission reductions that are real, surplus, quantifiable and permanent is likely to require more than the \$100,000 allotted in the SEIR. District staff therefore recommends that the majority of the off-site mitigation funds be used to fund direct, near-term GHG-reducing activities, with the balance allocated to the preparation of the Countywide Climate Action Plan.

5-3
5-4

District staff is available to discuss any of the issues raised in this letter. If you have any questions, please do not hesitate to contact Abby Young, Principal Environmental Planner, at (415) 749-4754.

Sincerely,



Jean Roggenkamp
Deputy Air Pollution Control Officer

**Letter
5
Response** **Bay Area Air Quality Management District
Jean Roggenkamp
December 8, 2011**

- 5-1 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment supporting the sustainability principles included in the project is noted. No response is required.
- 5-2 This comment summarizes the greenhouse gas impact findings and mitigation in the Draft SEIR and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 5-3 This comment supports the County's mitigation measure to fund the preparation of a countywide climate action plan (CAP) and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 5-4 BAAQMD has requested the allocation of a majority of the GHG mitigation funding to the retrofit program to achieve more near-term GHG reduction. The initial cost estimate for a countywide CAP is valid, based on examples of similar, recent efforts in other northern California jurisdictions, so it reflects reliable data. District staff previously indicated during consultations related to the Draft SEIR that implementation of an off-site mitigation program for greenhouse gas emissions would require additional funding beyond the proposed \$100,000. The goal of the amount included in Mitigation GHG-1a is to help the District (or other program implementer) start the program, but not fund it completely. Even if the majority of the proposed mitigation funds were allocated to the off-site program, it is likely that the additional amount of funds in Mitigation Measure GHG1-b would still not approach full financing of the off-site program. The value of the proposed \$100,000 would be to initiate this beneficial off-site program with some initial seed money. As a budget estimate, however, flexibility would exist in the precise scope and funding required to complete a countywide CAP (and, if needed, some funding from other sources could potentially be applied to a CAP). Therefore, it would be feasible to allocate the majority of the recommended funding to the retrofit program and still carry out the CAP preparation. The County will make the final decision about the allocation of GHG mitigation funding to specific actions.

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MARIN MUNICIPAL WATER DISTRICT

220 Nellen Avenue Corte Madera CA 94925-1169

DEC 13 2011 www.marinwater.org

December 13, 2011

Ms. Rachel Warner, Interim Environmental Coordinator
Marin County Community Development Agency
Planning Division
3501 Civic Center Drive, Room 308
San Rafael, California, 94903

SUBJECT: Comments on Draft Supplement to the Grady Ranch/Big Rock Ranch Master Plan 1996 Final Environmental Impact Report

Dear Rachel,

The Marin Municipal Water District (MMWD) staff has reviewed the Draft Supplement to the Grady Ranch/Big Rock Ranch Master Plan 1996 Final Environmental Impact Report and offer the following comments:

General Comment, Water Service – Water service to the project site will require that the project proponent enter into a pipeline extension agreement with MMWD to extend an existing water pipeline located within Lucas Valley Road to the project site. The length of the extension and the details concerning the size of the pipeline has not been specifically defined. It is expected that MMWD would install two water services to the edge of the project site; one domestic water service and one irrigation water service. The need for a separate fire service has not been determined or if fire protection would be provided by the private on-site 400,000-gallon water storage tank. The Draft supplemental EIR’s statements concerning the length of the pipeline extension, the size (diameter) of the pipeline extension, the number and types of services are estimates made without input from MMWD.

6-1

General Comment, Ownership of Water Facilities – Review of the Draft Supplemental EIR suggests that MMWD would in some manner own, design, guide the design, maintain, or operate water facilities required to serve the proposed project. All on-site water systems and facilities (pipelines, pump stations, back flow preventers, and tanks) would be designed, constructed, operated, and maintained by the project proponent and not by MMWD. MMWD’s responsibility would be to extend an existing water pipeline located within Lucas Valley Road to the project site. Further, construction of the pipeline extension is likely to be conducted by the project proponent’s contractor, with inspection by MMWD field inspectors.

6-2

Page 2-20, Section 2.6.6, Water Tanks – The two tanks identified in this section should be specifically described as private tanks to be designed, owned, constructed, and maintained by Skywalker Properties. This section of the document states that the proposed 40,000-gallon tank would be filled by rainwater for irrigation and other non-potable uses; elsewhere (in Table 2-2 and in the paragraph following Table AES-1) it is

6-3



Ms. Rachel Warner
December 13, 2011
Page 2

stated that water stored in the 40,-000-gallon tank would be used for domestic consumption and other potable uses.

6-3
|
cont'd

Page 2-28, Section 2.6.10, Landscape Plans – It should be noted that all landscape plans, including planting and irrigation plans, must be reviewed and approved by MMWD prior to granting water service to the property.

6-4
|

Page 2-29, Exhibit 2-11, Onsite Utility Improvements – The governing fire district will determine the fire flow requirements for the proposed project, not MMWD as stated in Exhibit 2-11 concerning the size of the proposed 400,000-gallon water storage tank. The reference to a determination that the size of or the need for a proposed 400,000-gallon water storage tank intended to provide fire suppression would be MMWD's is incorrect. Finally, MMWD does not "stack" water services over each other, due to the maintenance and service issues it presents. All water services to the project site will be located within their own separate trench with no other utility services above or below.

6-5
|

Page 2-31, Exhibit 2-12, Off-site Utility Improvements – Backflow devices are not permitted to be installed in vaults. Exhibit 2-12 should be revised to reflect a compliant location for the required backflow device. Further, the length and diameter of the pipeline extension has not been determined, nor has the size of the water services to the project site.

6-6
|

Further, the water services are depicted on Exhibit 2-12 as being located across Lucas Valley Road from the property being served. MMWD installs services in the public right of way adjacent to the parcel frontage. The location of the water meters will be addressed at such time as MMWD designs the water facilities for the proposed project, including the proposed pipeline extension in Lucas Valley Road that will be necessary to serve the property.

6-7
|

Page 2-33, Section 2.6.12 Public Services (Water) – The text of this section should be revised to clarify that the proposed private (not owned or maintained by MMWD) pump station to be located on the project site is needed to convey water from the terminus of the proposed Lucas Valley Road pipeline extension to proposed on-site improvements. While some of the lower elevation portions of the project site could be served via gravity flow, the proposed building floor elevations are too high to be served by gravity-flow from the end of the pipeline extension or from any existing MMWD facilities in Lucas Valley. As such, the pump station is needed to move the water uphill to the private water storage tanks. Like the water storage tanks, the pump station would be designed, owned, constructed, and maintained by Skywalker Properties.

6-8
|

The size of the domestic and irrigation services has not been determined at this time. Also, it has not yet been determined if the District will provide a fire line service to the project site. The District may require that the 400,000-gallon tank be supplied by the proposed domestic service.

6-9
|

While the Draft Supplemental EIR cited the length of the planned pipeline extension as 1,800-feet, the extension has not yet been designed by MMWD and its length is at this time unknown. It should also be noted that the length of the pipeline extension is cited on Exhibit 2-12 as being 1,950-feet in length.

6-10
|

Ms. Rachel Warner
December 13, 2011
Page 3

Page 2-35, Table 2.8, Changes from the Previous Master Plan to the Proposed Grady Ranch Precise Development Plan – The table identifies construction of a new MMWD pump station to be constructed south of existing Lucas Valley Road. This is incorrect. The pump station, which as noted previously is required to convey water uphill from the end of the proposed pipeline extension, would be designed, owned, constructed, and maintained by Skywalker Properties.

6-11

Page 3-7, 1996 FEIR Mitigation Measures Mitigation Measure 5.5-8 – MMWD will not develop the design criteria or the specific designs for any of the private water storage tanks or the pump station to be constructed on the project site. Further, MMWD will not be involved in any review of the tank by the adjacent community, property owners, or the Marin County Community Development Agency.

6-12

Page 3-71, 1996 FEIR Mitigation Measure 5.10.4e – The pump station will not be designed, owned, constructed, or maintained by MMWD, nor would a diesel backup generator be designed, owned, installed, operated, or maintained by MMWD.

6-13

Page 3-9, Population and Housing, Discussion a) – The terms and costs of the facilities needed to supply water to the project site after annexation will be determined after Skywalker Properties is eligible and applies for a pipeline extension with MMWD.

6-14

Page 3-95, Public Services, Discussion – MMWD’s facilities in Lucas Valley Road will provide water to the property line of Grady Ranch; adequate fire flow will require private on-site facilities, including a pump and storage tank(s), the adequacy of such will need to be determined the governing fire agency.

6-15

Page 3-106, Utilities and Service Systems, Water Treatment – The text could confuse the reader by suggesting that the originally considered 120,000-gallon water storage tank remains a part of the project. It is our understanding that there would be two private water storage tanks as part of the currently proposed project – a 400,000-gallon tank and a 40,000-gallon tank.

6-16

Page 3-113, Section 3.5.2, Mitigation Measures, Hazards and Hazardous Materials – The backup power source will supply the private pump station; the pump station will not be designed, owned, constructed, or maintained by MMWD. There will be no MMWD designed, owned, constructed, or maintained pump station supplying the project site.

6-17

Rachel, if you have any questions about any of MMWD’s comments on the Draft Supplemental EIR please contact me at your convenience.

Sincerely,

Dain Anderson
Environmental Services Coordinator

Cc: Paul Helliker Mary Casey
 Michael Ban Jon LaHaye
 Tanya Sandberg Una Conkling

Letter
6
Response

Marin Municipal Water District (MMWD)
Dain Anderson
December 13, 2011

6-1 The comment is noted. The Draft SEIR acknowledges that water supply for fire protection could be provided by the proposed 400,000-gallon tank or that some or all of the required flow could be provided by the MMWD system. The text on page 2-35 of the Draft SEIR is changed to clarify this as follows:

WATER SERVICE

As provided for in the approved Master Plan, water service for Grady Ranch would be supplied by the Marin Municipal Water District (MMWD). The project would be annexed into the MMWD, and the project applicant would enter into a pipeline extension agreement with MMWD. MMWD expects that it would install two water services to the edge of the project site; one domestic water service and one irrigation water service. The length of the extension and the details of the size of the pipeline/s have not been specifically defined. The 12-inch water main ~~would~~ may be extended east along Lucas Valley Road to the project entrance from its current terminus adjacent to Westgate Drive, a distance of approximately 1,800 to 1,900 feet. The length and diameter of the pipeline extensions has not been determined.

The three water lines (8-inch fire, 3-inch irrigation and 4-inch domestic) ~~would~~ could cross Lucas Valley Road attached to the walls of a 6-foot diameter reinforced concrete pipe tunnel. The tunnel would terminate to the east of the Main Entry Road on the Grady Ranch property and pipes would be constructed in a trench after this point. A private pump station would be built in an underground vault on the project site. The pump station would be needed to convey water from the terminus of the proposed Lucas Valley Road pipeline extension to proposed on-site improvements. While some of the lower elevation portions of the project site could be served via gravity flow, the proposed building floor elevations would be too high to be served by gravity-flow from the end of the pipeline extension or from any existing MMWD facilities. The pump station would be needed to move water uphill to the private water storage tanks. MMWD would supply water for ~~fire suppression,~~ domestic use, and irrigation, all of which would have separate plumbing within the project. It is intended that ~~The~~ code-required fire flows would be met through the use of the onsite 400,000 gallon tank located on the hill behind the Main building. If some or all of the required flow can be provided by the MMWD system, this tank may be reduced or eliminated. Captured rain water runoff from the roof of the main building would be pumped up to the smaller 40,000 gallon tank for irrigation use.

6-2 The comment is noted. Mitigation Measure 5.5-8 on page 3-7 is revised to read as follows:

5.5-8 The following mitigations would be required to lessen visual impacts:

For the Grady Ranch tanks, the applicant would be required to follow design criteria developed by the applicant's professionals and reviewed for approval by the Department of

~~Public Works (DPW) and Community Development Agency staff. as developed by the MMWD. The MMWD develops specific design criteria for each new tank after consultation with concerned local groups or individuals, such as with residents of Lucas Valley Estates.~~

The final design of the water tanks and pump stations as developed by the MMWD and the applicant would be required to either hide the tank from view, or to borrow or repeat the form, line, color, and texture of the surrounding area.

For the Grady Ranch ~~Big Rock Ranch~~ tanks, the applicant would be required to submit a color scheme for the tank to the Marin County Community Development Agency staff as a part of the Precise Development Plan. The color scheme would be required to minimize color contrasts with the surrounding terrain. ~~While the applicant and not the MMWD is responsible for the Big Rock Ranch tank the applicant should coordinate with the MMWD in the design review process for the Grady Ranch tank so that community input can be also [sic] obtained for the design review of the Big Rock Ranch tank.~~ The color of the tank should match the color of the surrounding area, but in slightly darker tones to minimize shadow effects. Plantings would be required to minimize the viewpoints in which the tank is visible and to break up the line and form of the tank. Trail use views should be interrupted with foreground trees.

~~When the future public access trails across Grady and Big Rock Ranches are designed, they should take advantage of local topography, existing trails, and tree masses to minimize views of the water tank and project buildings. [1996 FEIR-R]~~

6-3 The comment is noted. The text on page 2-22 of the Draft SEIR is changed to read as follows:

Two water tanks would be constructed onsite. The water tanks would be private tanks that would be designed, owned, constructed, and maintained by Skywalker Properties.

The text in Table 2-2 on page 2-39 of the Draft SEIR is revised to read as follows, clarifying that the 400-gallon tank is intended for irrigation use:

| | | |
|-------------|--|---|
| Trees | Extensive grading and loss of trees for new alignment of West Fire Road and location of ancillary building | West Fire Road would be kept in existing alignment to reduce environmental impacts, including loss of specimen-sized trees |
| Water Tanks | 120,000-gallon above-ground water tank, 32 feet diameter and 20 feet in height at elevation 500 | 400,000-gallon above-ground water tank for fire protection, 58 feet diameter, 22 feet in height at elevation 400 and 40,000-gallon above-ground water tank for <u>domestic irrigation</u> use, 22 feet diameter, 15 feet in height at elevation 400 |
| Wine Cave | A wine cave was not part of the Master Plan | Wine cave is proposed for storage of wine from grapes on other Lucasfilm properties |

The text on page 3-6 is revised to read as follows, also to clarify the use of the 40,000-gallon tank:

Potential aesthetics impacts of the proposed water tank would be similar to the previously proposed project. The Master Plan proposed a 120,000-gallon above-ground water tank, 32 feet diameter and 20 feet in height, at elevation 500 feet. The Grady Ranch PDP includes two water tanks. A 400,000-gallon above-ground water tank for fire protection would be 58

feet diameter, 22 feet in height, at elevation 400 feet. A 40,000-gallon above-ground water tank for ~~domestic~~ irrigation use would be 22 feet diameter, 15 feet in height, at elevation 400 feet.

- 6-4 The comment that all landscape plans must be reviewed and approved by MMWD prior to granting water service to the property is noted.
- 6-5 Exhibit 2-11 has been revised to remove the statement that MMWD is responsible for verifying that municipal supply will meet fire flow demand.
- 6-6 Please see Response to Comment 6-1 regarding the suggested text change. Exhibit 2-12 has been revised to show a relocated backflow preventer.
- 6-7 This comment addresses project description details that do not affect environmental impact conclusions. The comment is noted and will be considered during further project planning and design development.
- 6-8 Please see Response to Comment 6-1 regarding this text change.
- 6-9 The comment is noted. Please also see Response to Comment 6-1.
- 6-10 The comment is noted. Please see Response to Comment 6-1 regarding the text change to clarify this point.
- 6-11 The reference to the MMWD pump station was describing the previous Master Plan. The text of Table 2-2 on page 2-35 is revised to read as follows to respond to MMWD’s request:

| | | |
|-----------------|--|--|
| Public Services | Applicant offered fee ownership of 800 acres to Marin County Open Space District | 800 acres was dedicated to, and accepted by, the Marin County Open Space District |
| Public Services | New MMWD pump station to be constructed near Creekside tank | The pump station would be constructed south of existing Lucas Valley Road. <u>The pump station would be designed, owned, constructed, and maintained by the project applicant.</u> |
| Public Services | Overhead electric and telephone/data service | Overhead lines to be undergrounded between eastern property line and western gate. |

- 6-12 Please see Response to Comment 6-2 regarding changes to this mitigation measure.
- 6-13 The text of Mitigation Measure 5.10-4(e) on page 3-71 of the Draft SEIR is revised to read as follows:

5.10-4(e) ~~The MMWD proposed pump station to be designed, owned and constructed by the project applicant to that would~~ serve the Grady Ranch should include back-up power (such as a diesel generator) to avoid an electrical power failure that could reduce water supplies.
- 6-14 The text on page 3-93 of the Draft SEIR is revised to read as follows:

It is expected that MMWD currently has capacity to serve the development based on consultation between the project applicant and MMWD. These consultations resulted in an

agreement on the amount of water required by the project, and the terms and cost of the project's contribution of MMWD's development of a sufficient water supply to offset the amount of water required for the project, ~~and on the~~ The terms and costs for the facilities that would be needed to supply water to the project site after it is annexed to the District would be determined after Skywalker Properties is eligible and applies for a pipeline extension with MMWD.

6-15 The text on page 3-94 of the Draft SEIR is revised to read as follows:

In the Grady Ranch PDP, the proposed Gate House to be located on the Main Entry Road beyond the bridge over Miller Creek, would also be used as headquarters for onsite fire service, maintenance, and security. MMWD's facilities in Lucas Valley Road would provide water to the property line of Grady Ranch. ~~MMWD would supply water for fire suppression.~~ The code-required fire flows would be met through the use of the onsite 400,000-gallon tank located on the hill behind the main building. If some or all of the required flow can be provided by the MMWD system, this tank may be reduced or eliminated. Adequate fire flow would require private on-site facilities, including pump and storage tank(s), the adequacy of which would be determined by the governing fire agency.

6-16 The text on page 3-106 of the Draft SEIR is revised to read as follows:

Water Treatment

The proposed project would be annexed into the Marin Municipal Water District (MMWD), and the MMWD would provide water and water treatment service. The 1996 Master Plan estimated that the Grady Ranch portion of the project would result in an increased demand of approximately 42 acre-feet of water per year. The 1996 Master Plan EIR stated that the MMWD water system would be adequate to serve the project, with implementation of improvements, including payment by the applicant for improvements, including a new pipeline, a new pump station, and a 120,000-gallon water tank. Payment by the applicant for improvements, including a new pipeline, a new pump station and up to two water tanks (one 400,000-gallon and one 40,000-gallon) ~~These improvements~~ are included as part of the current Grady Ranch PDP. In addition, the current estimate of water demand is approximately 30 acre-feet of water per year, a reduction in the amount estimated under the Master Plan. Therefore, the Grady Ranch PDP would still result in a less-than-significant impact on water treatment facilities.

6-17 The text on page 3-113 is revised to read as follows:

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure 5.10-4 would require screen plantings that minimize the potential to spread a ground fire, the development of a Vegetation Modification Plan, and the implementation of fire prevention measures during the construction phase. Mitigation Measure 5.10-4 also requires a back-up power source for the ~~MMWD proposed~~ pump station, and adequate communications for proper firefighting capability.

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December 6, 2011

Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Re: Draft Supplement to the 1996 Grady Ranch/Big Ranch Master Plan FEIR

Dear People:

As a long-time (1977) resident of Nicasio who will be directly and adversely impacted by this project as currently described in the Draft SEIR that is to be the subject of a Planning Commission hearing on December 12, 2011, I deeply appreciate the Planning Commission staff's work in requiring a SEIR on this project, rather than allowing the project to proceed on the basis of an environmental report that was prepared more than fifteen years ago. Recognizing that the County is bound and determined to allow the transformation of the western end of Lucas Valley from a rural agricultural/low-density residential area into an elegant industrial park that is completely out of character for the area, I nonetheless submit the following comments on deficiencies in the draft SEIR:

Section 2.3.1, General Setting:

Section 2.3.1 describes the area west of the Grady Ranch as follows, in relevant part:

West of Grady Ranch are Big Rock Ranch and Skywalker Ranches (the former Bull Tail Ranch). The area south of Lucas Valley Road is mostly undeveloped, with a few individual residential properties.

This is incorrect. In fact, there are numerous residential properties all along Lucas Valley Road west of the Grady Ranch, and in particular west of Big Rock Ranch, with more individual residences being proposed in the immediate vicinity of the Grady Ranch. It would appear that the consultant who prepared this section of the SEIR either did not visit the area west of the Grady Ranch, or ignored what should have been obvious if s/he did inspect the area.

This is not a trivial omission. Although the change in water supply from wells that would

7-1
7-2

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deplete the Nicasio Creek watershed to annexation to MMWD (although where the District would get the additional freshwater required for the project is not explained) and effluent disposal from septic system to annexation by the Las Gallinas Valley Sanitary District (presumably no additional infrastructure would be required to handle the additional load from the development) appears to have alleviated the threat of long-term impacts that might well have rendered many residences along Lucas Valley Road west of the Grady Ranch uninhabitable, the Draft SEIR fails to consider the substantial adverse impacts that the project will have on the many Nicasio-area and Lucas Valley residents who must use Lucas Valley Road to access Highway 101 during the project's extended construction phase, as well as the adverse impacts on the air quality of a narrow, confined valley that the large-scale emission of particulate-dense diesel exhaust by construction equipment, and thereafter by diesel delivery trucks and tour buses that already use Lucas Valley Road to access Big Rock and Skywalker Ranches on a regular basis.

7-2
cont'd
7-3
7-4

Section 2.3.2, Aesthetics Setting:

The description of the existing setting fails to mention the relationship of the Grady Ranch to views into Lucas Valley from the fire roads that traverse the crest of Big Rock Ridge from Queenstone in Marinwood to the summit of Big Rock Ridge. As proposed, the project will radically change those views.

7-5

Section 2.3.3, Air Quality Setting:

The description accurately describes various air quality agency jurisdictional boundaries, but the discussion of mitigation measures fails to consider or address the role that the topography of the project site on the rate at which diesel exhaust and dust generated during construction will disperse during calm weather conditions, especially on cold winter days. Had the consultant spent any time on site on such a day, s/he would have noted that diesel exhaust can remain essentially undiluted for a considerable time. This is likely to have a noticeable impact on cyclists, nearby residents and automobile drivers, particularly when the latter are delayed by road construction.

7-6

Section 2.6.5, Road Improvements:

Section 2.6.5 states that,

A recommended mitigation in the Lucasfilm Ltd. Big Rock Ranch/Grady Ranch Master Plan EIR . . . was to realign a portion of Lucas Valley Road near the project site entrance. As part of the PDP, an approximately 1,200 linear-foot section of Lucas Valley Road would be realigned to eliminate two sharp curves and

7-7

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improve sight distances near the main entrance to the project. The realigned Lucas Valley Road would cross over a realigned tributary of Miller Creek instead of placing the tributary in a culvert, as approved in the Lucasfilm Ltd. Grady Ranch/Big Rock Ranch Master Plan.

The Draft SEIR fails to address three impacts of the proposed mitigation measure: 1) straightening the two sharp curves will result in increased vehicle speeds, especially motorcycle traffic, increasing the likelihood of traffic accidents; 2) road work and bridge construction will subject residents and others using Lucas Valley Road to access Highway 101 from west of the project site to substantial traffic delays during construction of these modifications; and 3) trucks hauling dirt and equipment to and from the site also will impede traffic flows on Lucas Valley Road, as well as posing a greatly increased hazard to vulnerable bicyclists on one of the main bicycle access routes to western Marin County. The Draft SEIR does not propose any means by which those who suffer lost earnings by reason of these delays are to be compensated for those losses, or for the element of unpredictability that sporadic construction delays will introduce to what normally would be a brief drive to Highway 101 or the Northgate Industrial Park. The consultant who prepared the Draft SEIR obviously never has ridden a bicycle on a heavily-traveled narrow road, particularly during times of the day when visibility is impaired by the glare from the setting sun.

7-7
cont'd

At a minimum, limits should be imposed on the hours during which traffic delays may occur; specifically, no delays should be permitted between the hours of 6:30 a.m. and 9:30 a.m., and between the hours of 4:00 p.m. and 6:30 p.m.

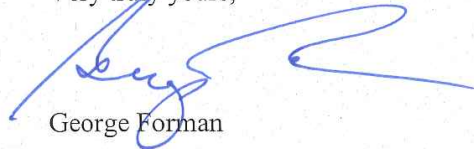
7-8

The Draft SEIR also assumes that because the project does not now propose an increase in the number of employees and guests, and because three intersections east of the project site have been signalized, the project as currently proposed will not have a significant cumulative impact on traffic on Lucas Valley Road. There are two deficiencies in this analysis: 1) there does not appear to have been an updating of actual increases since 1996 in traffic on Lucas Valley Road, including vehicle trips between the Big Rock Ranch and Skywalker Ranch and the number of additional trips between either of those properties and the Grady Ranch, Lucasfilm properties; and 2) signalization of intersections east of the Grady Ranch may have mitigated some traffic impacts from westbound traffic, but those signals do nothing to reduce the constant flow of eastbound traffic that prevents vehicles from turning left onto Lucas Valley Road from side streets in the Upper and Lower Lucas Valley subdivisions.

7-9

7-10

Very truly yours,



George Forman

**Letter
7
Response** **Forman & Associates, Attorneys at Law
George Forman
December 6, 2011**

- 7-1 The existing setting (page 2-3 of the Project Description) states: “West of Grady Ranch are Big Rock Ranch and Skywalker Ranch (the former Bull Tail Ranch). The area south of Lucas Valley Road is mostly undeveloped, with a few individual residential properties.” Although the commenter states this information is incorrect, reviews of current aerial mapping, as well as in-person site visits have confirmed the information provided in the project description is accurate for the immediate vicinity of the project site. The comment may be making reference to a broader area along Lucas Valley Road more distant to the west where additional residences are located near Nicasio Valley Road.
- In regards to the portion of the comment which states individual residences are proposed in the immediate vicinity of Grady Ranch, refer to Section 3.4, “Cumulative Effects of Implementing the Proposed Master Plan” (page 3-109 of the Draft SEIR) which describes project impacts as combined with other proposed projects in the vicinity of the project site. Known, proposed and reasonably foreseeable development has been included in the cumulative analysis.
- 7-2 This comment provides statements about wells and septic systems that are not applicable to the proposed project. The comment is noted.
- 7-3 Construction traffic operations would be subject to the Construction Management Plan (CMP) prepared for the project, which would manage construction traffic arrival and departure and provide all traffic controls necessary to maintain safe travel for users of local roadways. The CMP is intended to provide a consistent framework and to set the guidelines under which certain physical aspects of construction management would be implemented. A proposed draft CMP was prepared by the project applicant in 2009, and references to the draft CMP are included in this Final SEIR. It should be noted that the proposed draft CMP has not been approved by DPW. A final CMP would be subject to DPW review, conditions, and approval.
- . The final CMP would include guidelines for, among other things, days and hours of construction, construction parking, vehicle access, construction traffic control, delivery requirements, and seasonal restrictions of various construction activities (tbd Consultants 2009). In addition, as part of project permitting, site construction work and work in the County’s right-of-way would be subject to conditions of the encroachment permit.
- The volume of traffic that would be generated during construction, including by heavy trucks, is expected to be less than that anticipated for project operation after completion of construction. The maximum operational trip generation would be 918 trips per day after construction (Parisi Associates 2010). Based on construction worker trip generation rates from the URBEMIS air quality emissions modeling, the construction of up to 274,521 square feet (Main Building, gate house, and wine cave) would result in approximately 115 trips per day, using the conservative industrial generation rate (0.42 workers trips per day rather than 0.32 worker trips per day for commercial uses). For a more conservative estimate of construction workers trips, the expected construction-generated trips could be estimated from the potential construction parking demand. The construction parking would accommodate an average of 100 vehicles per day with a peak of 240 vehicles. Based on a trips-per-vehicle rate of 2.5 to 3, the number of average

daily trips from construction workers would be from 250 to 300. The potential peak number of construction worker daily trips would be from 600 to 720. Grading and earthworks on the project site is estimated to take 50 weeks, and the number of truck trips for potential soil hauling and materials transport would average 40 trips per day (tbd Consultants 2009). The impacts resulting from construction-related trips would, therefore, be less than what was evaluated for post-construction trip generation. The traffic analysis specifically addressed operation of the intersections along Lucas Valley Road providing access to US 101 and, with the exception of the intersection at Los Gamos Road, all would operate well within acceptable standards and would continue doing so upon adding project traffic. Access to US 101 by area residents would be minimally impacted by construction phase traffic, as demonstrated by the results of the Level of Service analysis for operational traffic (an increase in delays up to 0.5 seconds in the a.m. peak hour and up to 0.3 seconds in the p.m. peak hour), which would involve more trips than construction-phase traffic.

Please also refer to the response to Comment 7-8 regarding construction traffic.

- 7-4 This comment states that the Draft SEIR fails to consider the substantial adverse impacts the project would have on air quality, considering that emissions of diesel PM from construction and operation would occur in a confined valley.

The analysis of exposure of offsite sensitive receptors to diesel PM on page 3-19 of the Draft SEIR used a screening analysis provided by the BAAQMD. The screening level analysis is intended to determine whether adverse air quality impacts could conceivably occur, based on certain observable factors and broad calculations. If project impacts fall within the limits of the screening analysis, air quality impacts would be less than significant and no further analysis is required. If a project's air quality impacts exceed the screening limits, further analysis is required to determine significance.

BAAQMD's screening-level analysis was based on worst-case meteorological conditions, and very conservative emission factors and assumptions (i.e., tending to overstate impacts). The worst-case assumptions used in the screening methodology adequately characterize the conditions at the project site that would result from associated topography and prevailing winds. Only a portion of the project's construction activity would be within the screening-level distance to sensitive receptors, and would thereby not meet BAAQMD's screening level. According to BAAQMD, the proposed Mitigation Measures AQ-1a, AQ-1b, and AQ-2 would substantially reduce emissions of diesel PM, (e.g., specifically, use of Tier III or better engines and diesel particulate traps). This impact would be less than significant with mitigation measures AQ-1a, AQ-1b, and AQ-2 incorporated (Vintze, pers. comm. 2011b).

As described on page 3-21 of the Draft SEIR, operational emissions of diesel PM would result in a less-than-significant impact on offsite sensitive receptors.

- 7-5 The EIR describes changes in view from sensitive viewpoints where the number or type of viewers warrant evaluation, such as public areas, including Lucas Valley Road, and from private residences located adjacent to the project site. While a remote fire road, trail, or path along ridgelines may provide an overlook of Grady Ranch, the number of viewers would be expected to be limited, so it would not become a sensitive viewpoint for potential aesthetic effects.

As a specific response to the issue raised in this comment, the view across the project site from the Big Rock Ridge fire road would change from some viewpoints along the road, with the

addition of a new landscape element (the proposed building), while others would be screened by intervening topography and vegetation. However, due to the distances and differences in elevation (the ridgeline fire road at a higher elevation than the Grady Ranch site), the appearance of the building in long-range views across the valley would not be prominent. Also, views from the fire road already contain elements of built environments, including residential buildings. Based on the limited number of viewers from remote ridgeline viewpoints and the landscape conditions, the aesthetic effect would be less than significant.

- 7-6 This comment states that the description of air quality mitigation measures fails to consider the role that topography of the project site will play in dispersion of diesel exhaust and dust emissions generated during construction, and the associated effect on residents and visitors to the project area.

Please see Response to Comment 7-4, above regarding air quality effects.

- 7-7 The proposed realignment of Lucas Valley Road is part of the Precise Development Plan because of a design element of the Master Plan to improve stopping sight distance at the Grady Ranch access point to meet minimum sight distance design guidelines set by AASHTO (American Association of State Highway and Transportation Officials). Any work done to improve the alignment of Lucas Valley Road would be designed and constructed to meet applicable State and local standards. While this may result in some increases in vehicular travel speeds over the short distance of the less curving segment of the road, it is expected that the safety implication is a positive one in that the roadway would be designed to accommodate such speeds with improved width and sight distance. Travel speeds on other segments of Lucas Valley Road would not change, because localized conditions would still control driver behavior. No evidence has been identified that indicates a correlation between making roadway improvements and increasing safety hazards; in fact, the correlation is the opposite of what is asserted in this comment.

Any road work or bridge construction would be performed under an encroachment permit issued by the County of Marin. While some delay may be encountered due to construction activities, the encroachment permit conditions can be established to minimize delay and ensure continued access for area residents. The CMP would provide the direction for implementing traffic controls to maintain safety and minimize delay. Please also refer to Response 7-3.

As noted in Response to Comment 7-3 above, the volume of traffic and impacts due to construction-related trips would be less than what was evaluated based on the post-construction trip generation, with minimal additional delay projected. Bike lanes or shoulders of adequate width to serve cyclists are provided east of Westgate Drive. Though there are not comparable facilities west of this area, conditions on Lucas Valley Road are similar to those encountered by cyclists using SR 1 along the coasts of Marin and Sonoma Counties. Construction traffic and bicyclists traveling on Lucas Valley Road would need to follow the same rules of the road during construction periods as regular drivers passing through the area or traveling to a residence or business on the road. In addition, the expected haul route for trucks traveling to and from the project site would be to exit the Grady Ranch property and turn eastbound on Lucas Valley Road towards US 101 (tbd Consultants 2009). Therefore, the majority of construction traffic is expected to occur on the portion of Lucas Valley Road that includes bike lanes or shoulders.

7-8 Traffic delay due to construction would be a temporary impact and would be guided by implementation of a CMP for Grady Ranch, reviewed and approved by Marin County DPW, to address transportation issues and access during construction of the project. Please also refer to Response 7-3.

Section 6.0 of the CMP addresses traffic control. Traffic control would include fulltime flagmen employed at all road access points during construction hours to manage access to and from site (until the planned Lucas Valley Road amendments are completed). Other traffic control methods will include barricades, barriers, signs and temporary traffic lights. Additionally, project haul routes have been oriented to minimize traffic congestion and maximize pedestrian safety onsite and adjacent to the construction site. All trucks greater than 40' would be restricted from going West from the site on Lucas Valley Road. Heavy haul loads and oversized truck trips would be limited to weekday off-peak hours or weekend deliveries. A detailed Traffic Control Plan would be implemented and enforced throughout the construction process by several means:

1. Safety Meetings detailing the restrictions on the use of Lucas Valley Road, the primary truck route.
2. Subcontractor Coordination Meetings, which are held weekly, will acquaint personnel and subcontractors with safety requirements, project specific rules and procedures, will include specific instructions on allowed and recommended routes for deliveries and employees.
3. Car pooling and use of public transportation where possible will be required.
4. Traffic routes will be discussed as a standing agenda item in regular site supervision meetings
5. Implementation of conditions of Marin County encroachment permit.

Section 7.0 of the CMP addresses pedestrian protection on and adjacent to the project site. Protection measures shall include temporary barriers, walkways, covered walkways, railings, fencing and signage. These measures, or similar measures reviewed and approved by Marin County DPW, would be implemented prior to any construction operations being commenced in those areas affecting pedestrian travel. These protective measures would be maintained for the duration of the construction activity in those areas.

7-9 According to the Marin County Noise Ordinance 3431 (Marin County Code sections 6.70.030(5) and 6.70.040), construction activity hours shall be limited to 7a.m. to 6 p.m. Monday through Friday and 9 a.m. to 5 p.m. on Saturday. The use of loud noise-generating construction-related equipment is limited to 8 a.m. to 5 p.m. Monday through Friday. Exceptions are limited to minor jobs (e.g., painting, hand sanding, sweeping) with minimal/no noise impacts on surrounding properties and when written permission of the Community Development Director has been obtained. The proposed CMP would create and outline additional standards of operation. Heavy haul loads and oversized truck trips will be limited to weekday off-peak hours or weekend deliveries. Additionally, during major off-haul operations, trucks will be restricted from leaving the site within a five minute period in order to mitigate traffic congestion at the intersections on Lucas valley Road. These restrictions will help reduce traffic delays during weekday peak-hours. However, traffic delays may still occur during normal construction hours. There are no Marin County requirements that would limit general construction and site

access/egress during these times, and these hours are standard construction hours in the County.

7-10

The traffic study prepared for the project (Parisi and Associates 2010) included updated traffic counts, and indicated that volumes near the project site increased only four percent (from 6,800 to 7,060) between 1996 and 2009. This four percent increase in traffic volume has not resulted in a change in the level of service of road segments or intersections in the vicinity of the project site. Traffic conditions under which the previous project was approved have not changed substantially. In addition, new traffic counts were taken at all of the study intersections in 2009 for the updated analysis. The analysis is, therefore, based on updated volumes and not 1996 data, as suggested by the comment. The *2010 Transportation and Circulation Update* is included in this Final SEIR as Appendix B and is currently available at CDA's Environmental Impact Review website (see Response to Comment 2-3).

With the exception of residents of Mt. Muir Court, all of the residents living on the north side of Lucas Valley Road either already have or will have access to a signalized intersection to enter Lucas Valley Road once the intersection at Mt. Lassen Drive is signalized. Further, the analysis performed based on 2009 traffic counts indicates that the average delay experienced by drivers turning left out of Mt. Lassen Drive is currently within the range that is considered acceptable under the County's level of service standards. As noted in the Environmental Checklist, because delay for drivers exiting Mt. Lassen Drive is expected to reach unacceptable levels with project-traffic added, it was determined that the project would have an impact at Lucas Valley Road/Mt. Lassen Drive. As discussed on page 3-102 of the Draft SEIR, payment of "fair share" fees together with the construction of the traffic signal at Lucas Valley Road/Miller Creek Road was deemed adequate mitigation under the 1996 Master Plan FEIR. Lucasfilm Ltd. paid its "fair-share" fees to the Marin County Department of Public Works in September 2000 for road improvements at eight locations, including the Lucas Valley/Mt. Lassen intersection. The County has determined that payment of these fees remains adequate to address the previously identified project impacts and that there are no forecasted changes in buildout/future traffic volumes that were not foreseen when the previous project was approved.



DEC 8 2011 AM 11:31 Planning

Ms. Rachel Warner
Interim Environmental Coordinator
Planning Department
Marin County Community Development Agency
3501 Civic Center Drive
San Rafael, CA 94903

December 7, 2011

SUBJECT: COMMENTS ON GRADY RANCH PRECISE DEVELOPMENT PLAN
DRAFT SUPPLEMENT TO THE GRADY RANCH/BIG ROCK RANCH MASTER
PLAN 1996 DRAFT ENVIRONMENTAL IMPACT REPORT

Dear Ms. Warner;

The Friends of Lucas Valley has retained Grassetti Environmental Consulting (GECO) to conduct a peer review of the Draft Supplement to the Grady Ranch/Big Rock Ranch 1996 Final Environmental Impact Report (DSEIR) for the Grady Ranch Precise Development Plan (Project). This letter summarizes the results of our review and provides comments on the DSEIR. The comments herein are based on my review of the DSEIR, review of portions of the 1996 Final EIR, revise of applicable portions of the County General Plan and Development Code, and my 30 years of experience preparing and reviewing CEQA documents. My qualifications are attached to this letter.

My review focuses on the DSEIR's compliance with CEQA statutes and Guidelines. I also have reviewed the project for conformance with Land Use designations established in the Marin County Countywide Plan and Development Code (zoning). My review has found a number of substantive procedural and analytical deficiencies both in terms of CEQA and general plan and zoning compliance. Procedural problems include failure to issue a Notice of Preparation, inappropriate use of a program-level EIR for a specific development project, and improper deferral of analyses to future plans and studies. In addition, numerous technical analyses are of insufficient detail to provide the reader with adequate information on the project's potential effects. The analysis does not consider the "whole of the action", as required under CEQA Guidelines Section 15378.

8-1

In addition to the CEQA issues, the project land uses as currently proposed are not within the range of allowable land uses specified by the site's General Plan and Zoning designations. My detailed comments are provided by topic, below.

Failure to Prepare a Notice of Preparation

I requested a copy of the Notice of Preparation (NOP) from the County on November 17, 2011 and was informed that the County does not consider an NOP as required under CEQA for an SEIR (emails with Rachel Warner, Interim Environmental Coordinator, November 17, 2011). It is common practice by most lead agencies to issue NOPs for

8-2

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SEIRs in the interest of transparency and public engagement. As discussed below, although there is some ambiguity in the CEQA Guidelines on this issue, an NOP appears to be required for a Supplemental EIR.

As stated in DEIR p. 1-2, a Supplemental EIR is subject to “the same kind of notice and public review as is given to a draft EIR under section 15087, (Guidelines Section 15163(c)).” While Section 15087 does not specifically reference the NOP requirements set forth in Section 15082, the NOP is the first notice required for a Draft EIR, and is essential to providing agencies and interested parties with the opportunity to comment on the proposed scope of the DSEIR. This is essential in this project, because it includes a major creek restoration plan, requiring permits from several state agencies including the Department of Fish and Game and Regional Water Quality Control Board. Those Responsible Agencies will likely use this SEIR in their permitting actions and, as such, should have been provided the opportunity to comment on its scope.

As specified in Section 15082, the DEIR may not be issued prior to 30 days after issuance of the NOP. Because the County failed to issue an NOP at the required time and provide 30 days for public and agency comment prior to issuance of the DSEIR, it must issue one, then wait another 30 days before re-issuing the DEIR for public and agency review. Failure to prepare and circulate the NOP has resulted in a substantive curtailment of the CEQA process, effectively removing the first agency and public review and comment step from the process.

Inappropriate Use of a Program-Level EIR to Address a Specific Project

The 1996 Big Rock Ranch/Grady Ranch Master Plan EIR was a program-level EIR (prepared pursuant to CEQA Guidelines section 15168) on the overall Master Plan for the two ranches. Section 15168(c) specifies that, for use with later activities, the following process is required:

Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to a new EIR or a negative Declaration

(4) Where the subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

Guidelines Section 15168(d) addresses the use of a program-level EIR with Subsequent EIRs and Negative Declarations. Although this section does not specifically call out “Supplements” to EIRs, it can be inferred to apply to those documents. This section allows the “tiered” CEQA documents to focus on changed impacts and to incorporate portions of the program EIR as currently applicable to the new project.

Rather than being a tiered project-level EIR addressing in detail the effects of the PDP, the current document is merely an update of the program-level document. It provides a general comparison of the impacts of the current project and conditions with those evaluated in the 1996 FEIR, and adds mitigations where deemed necessary. As such, it

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cont'd

8-3

fails to provide adequate, project-level analysis commensurate with the available information on the project design presented in the PDP, which is the basis of the requested approvals. This overly generic analysis fails to provide the readers with adequate information to fully evaluate the project's effects and determine the adequacy of proposed mitigation measures. The specific deficiencies of this approach are documented in the following discussions of project description and analytical deficiencies, including impermissible deferral of analyses.

8-3
cont'd

Failure to Comply with CEQA Requirements for an EIR

The subject DSEIR is a peculiar hybrid of an Initial Study and an EIR. It is essentially a completed CEQA Initial Study checklist with an added existing conditions discussion. It does not include a clear setting, impacts, and mitigation discussion. It includes some discussion of alternatives, but no alternatives that can be applied to the Grady Ranch site. The setting and alternatives issues are described further below.

8-4

Project Segmentation Issues

CEQA refines a project as the "whole of the action", that may adversely affect the physical environment (CEQA Guidelines Section 15378; see also Laurel Heights Improvement Assn v. Regents of the University of California, 1988). There are a number of tests to determine if an action is part of a project or an independent activity; the two most common tests are 1) if the project is dependent on the other action to move forward (i.e. no independent utility), and 2) if the project causes another action. The DSEIR identifies the project only as the Grady Ranch PDP and focuses on impacts of the project on the Grady Ranch site and a small nearby area of Lucas Valley Road. However, the project as currently proposed is dependent upon substantial expansion of off-site water supply facilities. It is my understanding (although not described in the DSEIR) that the project would require extension of recycled water pipelines and associated facilities to a golf course distant from the site. It also would require a new pump station and extension of both potable water and wastewater lines to the site. Although not described in the EIR, the project may also require upgrading/extensions/expansions of other off-site utilities. Because these extensions/expansions would be a direct requirement of the project, and because the project cannot proceed without them, they must be described and fully evaluated in the EIR (See Laurel Heights Improvement Assn. v. Regents of the University of California, 1988 and Del Mar terrace v. City of San Diego, 1992).

8-5

In addition, the DSEIR should identify any potential further planned LucasFilm facility or infrastructure expansions in the area on or adjacent to the Skywalker Ranch, Big Rock Ranch and Grady Ranch that may be related to this project.

8-6

Project Description Issues

An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." The primary harm caused by shifts among different project descriptions is that the inconsistency confuses the public and the commenting agencies, thus vitiating the usefulness of the process "as a vehicle for intelligent public participation." (County of Inyo v. City of Los Angeles, 1977; Discussion following CEQA Guidelines §15124). In addition to lacking a description of the off-site water supply improvements necessary to provide water for the project, the DSEIR project description is lacking the following necessary components:

8-7

- Cut and fill estimates for offsite water and wastewater improvements
- Description and map of realignment of 1200-foot length of Lucas Valley Road, including existing vegetation to be affected and cut and fill estimates
- Elevations of the new buildings, without which project visual effects are difficult to assess
- Photosimulations of the proposed project buildings and roadway alterations from Lucas Valley Road and nearby residences and ridges
- Detailed design of the water tank, including color, shape, height, bulk, etc.
- Elevations of the gatehouse, which may be visible from Lucas Valley Road
- Landscaping and re-vegetation plans
- Construction truck trips, equipment, numbers of construction workers, seasons when grading would occur, staging areas, truck fueling and maintenance areas, soil stockpile areas, construction parking areas, construction lighting, etc.
- Phasing and timing of construction
- Potential for nighttime work both during construction and operation of the facilities. The SEIR must identify hours of operation; absent that information, it must assume 24-hour operation of the facilities and address noise, traffic, lighting, and other issues associated with nighttime operation.
- Description of onsite generators (necessary to determine extent of diesel particulate and other emissions)
- A detailed stormwater treatment plan, which is essential to determining whether the project's impacts to stormwater quality and downstream cumulative flood hazards, as well as whether the project can be constructed in compliance with Regional Water Quality Control Board C.3 standards. Note that the RWQCB's Statewide Stormwater Permit states that these plans should be available for review in CEQA documents (Section C.3 (4.)).

8-7
cont'd

Some of these items are in the PDP but not in the SDEIR; others are not included in the PDP, and instead have been deferred to future studies (as discussed under Technical Deficiencies", below). The ultimate result is that the project description does not contain the necessary adequate and complete information to fully consider the potential impacts of approving the Precise Development Plan. This may be caused by the fact that this document is a program-level supplement to the 1996 EIR rather than a more detailed, tiered, CEQA analysis of the PDP.

Inadequate Existing Setting Discussion

CEQA requires that an EIR describe the existing conditions (setting) in enough detail that "permit[s] the significant effects of the project to be considered in their full environmental context" (Guidelines Section 15125(c)). The setting discussions on pp. 2-3 through 2-6 are very general, broad brush discussions of typically 1-2 paragraphs that fail to provide the reader with useful, meaningful metrics of actual setting conditions and, therefore, are insufficient to allow comparison of existing and post-project conditions (aka "impacts"). The environmental checklist discussion adds to this discussion in some areas, but overall the setting discussions do not provide adequate information upon which to determine impacts. For example, the DSEIR contains no past and existing data on down stream flow data in Miller Creek, which provides no baseline upon which to determine the project's runoff impacts to the creek. Compounding this problem, the checklist discussions are bifurcated with respect to the environmental

8-8

setting – some of those discussions use existing conditions as the setting (as required by CEQA), while others consider impacts solely in terms of a comparison with the 1996 impacts (for example, water supply and traffic). This is an impermissible baseline. Additional examples of this problem are provided in the listing of technical deficiencies, below.

8-8
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Alternatives

The CEQA Guidelines make clear that the project objectives drive the agency’s selection of a reasonable range of alternatives. Alternatives must *meet most of the project objectives and avoid or substantially lessen* one or more of the project’s significant impacts (CEQA Guidelines Section 15124). CEQA (Guidelines Section 15124) requires that the lead agency, as the entity responsible for implementing the CEQA process, vet the project objectives for compliance with CEQA. Project objectives may not be so narrowly construed so as to preclude meaningful consideration of alternatives (City of Santee v. San Diego County, 1989). The Project Objectives listed on pp. 2-5 of the DSEIR are too narrowly defined to allow adequate and meaningful consideration of alternatives.

8-9

The alternatives included in this DSEIR are those included in the Master Plan EIR. However, given that this is an EIR on the Grady Ranch Precise Development Plan, and not the entire Master Plan, the alternatives should focus on reducing impacts to the Grady Ranch property and from the proposed Grady Ranch development. Those alternatives could include off-site options (such as elsewhere in San Rafael), reduced-project options, and reduced-unit or clustered residential options (the residential alternative included is the maximum number of houses, but provides single-family houses rather than the multiple-family units for which the site is zoned).

In addition, since approval of the Master Plan, a major changed condition has occurred with respect to potential alternative sites for the project uses. LucasFilm (ILM) has moved many of the uses originally proposed for this site to the former Letterman Hospital building at the San Francisco Presidio. I have been informed that much of that building has been leased out for non-ILM uses. This both calls into question the need for the Grady Ranch project at all, and introduces a potential alternative site for many of the uses currently proposed at Grady Ranch. The SEIR should address this changed condition with respect to alternatives and fully address the potential use of Letterman building for many of the project land uses (with and without some possible reduced use of the Grady Ranch site).

Additional alternatives requested for inclusion in the DSEIR by the neighbors include:

- 1) An off-site alternative consistent with the applicable General Plan and zoning. This could be at another underutilized LucasFilm facility (the SEIR should examine the potential to locate some or all of the proposed uses to the underutilized (currently rented out) Letterman facility in San Francisco or on underutilized facilities on the Big Rock Ranch site. At a minimum, if some of the uses proposed for the Grady Ranch site were to be relocated to other existing facilities, then a reduced-size Grady Ranch alternative would be realistic and feasible. In addition, an off-site facility in an existing industrial part of the County (i.e. along the Highway 101 corridor) should be considered as an alternative in the SEIR.

8-10

- 2) Alternative grading and building designs should be addressed that meet the 30-foot height limit typically applied to this residential zoning district as well as the zoning's use restrictions (i.e. no stages).
- 3) An alternative that breaks the one large building into several smaller ones. This could allow reduced grading and reduced building heights, and could facilitate a more sensitive site plan with respect to existing conditions and resources.

8-10
cont'd

Please note that the DSEIR's alternatives discussion (p. 3-3) seems to acknowledge that the project is not consistent with existing zoning. The "Current Zoning Alternative" states, "The site would be developed residentially, consistent with residential density maximums of the current zoning." This implies that the proposed film studio use is not consistent with the existing zoning, as we have noted above.

8-11

Technical Deficiencies

Our review identified a number of technical deficiencies in the DSEIR. These are listed by topic, below. Please note that many of the deficiencies fall into the categories of inadequate discussion of impacts and/or improperly deferred studies. Both of these have the same end result, namely that impacts are not fully disclosed to the public and decision-makers. Deferral of impact analysis to future studies or plans identified in mitigation measures is expressly prohibited by CEQA case law (e.g., Sundstrom v. Mendocino County).

Aesthetics

Because the 1996 EIR was a program-level document, it included only massing simulations of the major buildings proposed at that time. It also considered a far smaller water tank and lower grading heights than currently proposed. The DSEIR discusses these changes but provides no evidence to support its conclusions of non-significance. In addition, the 1996 EIR provided only massing simulations, and not simulations of the actual structures proposed. Please update the simulations to show the new water tanks and actual building designs.

8-12

As noted on p. 3-5 of the DSEIR, a number of new homes with views of the site have been constructed in the project vicinity since 1996. Please add a map showing the locations of those homes and simulations indicating how views from those homes would change, including nighttime lighting. The last full paragraph on p. 3-5 starts this analysis but does not provide adequate information to support a conclusion of insignificance. Also, please note that, since 1996, California courts have ruled that impacts to private views may be significant.

Mitigation 5.5-8, which defers design of the water tanks, may have been appropriate for a program-level EIR but is not appropriate for a project-level document, particularly in light of the new 400,000 gallon water tank, which would be a major visual element. It is an impermissible deferral of information/analysis; this DSEIR should provide a description of the tank design and assess its impacts to the visual environment.

8-13

The DSEIR also states that lighting impacts would be reduced compared with 1996, however this assessment fails to address the proposed nearly 7,000 sq. ft. outdoor stage. Will that stage be used for nighttime activities? If not, the DSEIR should include a mitigation prohibiting such nighttime use.

8-14

Finally, the EIR should consider cumulative impacts to views including past buildout of LucasFilm facilities on Lucas Valley Road, the proposed project, and the proposed Rocking Horse projects.

8-15

Agriculture

Please identify any substantial change in location of tree removal compared with the 1996 plans.

Mitigations 5.3-2a, b, c, and d, which defer final tree removal plans, guidelines, and replacement plans may have been appropriate for a program-level EIR but are not appropriate for a project-level document. These represent an impermissible deferral of information/analysis; this DSEIR should provide the maps of trees proposed for removal and tree removal guidelines for public and agency review.

8-16

Finally, the EIR should consider cumulative impacts to trees with the proposed project and the proposed Rocking Horse projects, as well as past loss of agricultural land from prior phases of the LucasFilm development.

8-17

Air Quality

The construction emissions "analysis" concludes that new mitigation measures AQ-1a and AQ-1b would reduce the project's significant construction emissions are reduced to less-than-significant levels. However no calculations or analyses are provided to support this conclusion. Similarly, the health-risk assessment called for in mitigation AQ-2 should be included in this project-level document, and not deferred to a future mitigation.

8-18

Biological Resources

The current project has added 1.5 miles of stream restoration to the project. While we concur that this would provide long-term benefits, the construction of these improvements could result in significant impacts to biological resources on and downstream of the site during and post construction. The DSEIR includes three sentences (p. 3-29) acknowledging these potential impacts, but fails to provide the reader with any meaningful analysis of their potential magnitude on any of the sensitive species in the area. Construction effects of grading and vegetation removal in and near the creeks should be clearly described. The DSEIR acknowledges this in the first paragraph on p. 3-30, stating, "Project construction-related disturbance or loss of special status wildlife species would be a substantial increase in the severity of the previously identified significant impact on special status species." The DSEIR then states that this impact would be reduced to less than significant by new mitigation Bio-2. However, mitigation Bio-2 is fatally compromised by the use of the phrases "to the extent practicable" and "attempt to focus". The mitigation should clearly state what will and will not be done.

8-19

Biological impacts relative to pre-project baseline conditions, and mitigation measures associated with high flow (urbanization) and low flow (headwater storage) hydromodifications should be clearly described. Biological and riparian impacts downstream of the proposed project should be considered with equal weight to on-site impacts. This is particularly important given that Miller Creek is a steelhead-bearing stream (unlike the streams draining Big Rock and Skywalker ranches).

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In addition, on Mitigation BIO-2, the badger buffer distance should be spelled out, as was done for the bats.

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Specific areas of native grassland to be removed should be identified (DSEIR p. 3-31).

8-22

The Wetland Mitigation and Monitoring Plan, Tree Preservation Guidelines Report, and Tree Replacement Report should be summarized as they relate to the Grady Ranch PDP. Reporting the existence of such reports does not constitute an adequate analysis or assure mitigation of impacts to those resources. Please provide an actual description of the impacts pre-and post- mitigation.

8-23

The Landscape and Vegetation Management Plan, Special- Status Plant Protection Program, and detailed Wetland Protection, Replacement, and Restoration Program called for in the 1996 program EIR’s mitigations should have been prepared prior to issuance of this DSEIR, and a summary included in this DSEIR. Absent these plans, it is not possible to determine how effective they would be in reducing impacts to biological resources on site and downstream.

8-24

Mitigation 5-2 is missing (p. 3-35).

Geology and Soils

The SDEIR includes no analysis of the detailed grading plan proposed in the PDP. In addition, it fails to document any changes in geologic conditions since 1996 (for example, any new or reactivated landslides or changes in anticipated seismic shaking severity). It fails to evaluate the stability of the proposed grading plan. It also fails to evaluate the erosion potential associated with construction of the creek restoration. Instead, it defers any such analyses to future design-level geotechnical investigations and slope stabilization and erosion control plans. At a minimum, a detailed slope stability assessment should be included in the DSEIR. This is an impermissible deferral of analysis to future mitigation and fails to provide the reader with any substantive evidence that the impacts would be less than significant. Again, this sort of deferral may be allowable in a program-level EIR, but not in a project-level (PDP) assessment.

8-25

Please add a discussion of the potential hazards if the proposed 400,000-gallon water tank were to fail in an earthquake. The proposed restoration plan utilizes engineered fill and large rock, without identification of the source of fill material. The EIR should determine potential sources of engineered fill, as well as estimate of hauling for the import and/or export of material, such as weir boulders, required to meet design specification. The information provided is not sufficient to determine the risk of downstream mobilization of fill material placed within the stream corridor.

8-26

The DSEIR provides minimal information on the potential impacts on geologic stability of the proposed geothermal heating facility. Apparently, this facility would require drilling of a large wellfield including hundreds of wells and then placement of over 300,000 cubic yards of excavated material over the wellfield. The potential erosion, slide condition, and drainage impacts from the 300,000 CY of fill proposed to create a large hill at the east side of the project are not addressed. Given the slide situation that was created at the Buck Center project some years back, the County should assure that these issues are addressed in the EIR. The DSEIR should evaluate the potential effects of the

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wellfield and filling on geologic stability, including differential settlement and liquefaction.

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Greenhouse Gas Emissions

The project's greenhouse gas (GHG) emissions are more than twice the BAAQMD's "Efficiency Threshold" levels. Part of this high emissions number is due to the site's location distant from residential areas or mass-transit hubs. This argues for the DSEIR to consider an alternative site location in a more urbanized area of the County.

8-28

In addition, this estimate was based on "an annual average of 170 employees per day" (p. 3-61). However the DSEIR states that actual project employment would be double that number (340 employees - as stated on p. 3-93, Population and Employment). Therefore the GHS (and possibly overall air pollutant emissions) appear to be substantially underestimated in this DSEIR.

8-29

Item (b) on p. 3-63 states that the project is consistent with zoning and therefore would have impacts consistent with those anticipated in the BAAQMD air quality plan. However, as described earlier in this letter, the project does not appear to be consistent with the Countywide Plan or zoning. Further, table GHG-3 indicates that the vast majority of project GHG emissions result from the high electricity use associated with the light industrial activities proposed for the site. The DSEIR should evaluate whether residential uses would result in similarly high per-capita emissions.

8-30

The DSEIR's mitigation measures fail to provide any actual mitigation for its GHG emissions. Rather, they seem to represent a *quid pro quo* of providing funding to the County in exchange for permission to emit high levels of GHGs. The DSEIR includes no evidence that funding the pilot program or CAP will actually reduce or offset project emissions. If the project funding were not in place, would the county still do a CAP? Is the CAP required in any case under other County and state policies and regulations? If so, the project is not adding to existing requirements and, therefore, is not offsetting its impacts. The Endangered Habitats League, Inc. v. County of Orange (2005) decision found that a fee program is not an adequate CEQA mitigation if the actions proposed for funding by the measure are vaguely defined or not fully funded. In that case, the appellate court held that there was no evidence of a firm and certain plan for improvements because the record showed only the existence of a fee program as well as a planned study to identify needed improvements. The court said, "Since there is no evidence here of what improvements will be funded by the fee programs...we cannot find the mitigated project is consistent with the general plan," and held that the fee program was not adequate mitigation under CEQA. Under this decision, the GHG mitigation is inadequate.

8-31

Hazardous Materials

On p. 3-68 there is a conflict between the statements that "...fuel storage tanks are proposed with 1740 gallons..." and "The Grady Ranch PDP...does not propose any fuel storage onsite." Please clarify.

8-32

The proposed Vegetation Modification Plan (p. 3-70) is inappropriately deferred and should be presented and evaluated in this project-level DSEIR.

8-33

Hydrology and Water Quality

Construction impacts to water quality from the creek restoration plan are not evaluated. Similarly, the DSEIR contains no project-specific analysis of potential impacts associated with the PDP grading plan, SCA restoration plans and the associated changes in channel grade, storm and low flow conditions on site or downstream. Please add these analyses to this section.

8-34

The project description does not define existing baseline hydrologic conditions against which project impacts can be measured (as required under the Sunnyvale decision). The hydrologic or hydraulic analysis is not sufficient to support the premise that proposed stormwater controls, and restoration efforts adequately address water quality, high flow hydro-modification impacts on site and downstream. Similarly, there is insufficient information to determine project impacts to groundwater resources and summer baseflow regimes critical to sustain downstream populations of steelhead and other resident biological resources. Proposed erosion control plans lack requirements for hydraulic and geomorphic assessment of increased erosion risks onsite and downstream, and the potential impacts on biological resources and riparian vegetation.

8-35

Land Use and Planning

As described previously, the project appears to conflict with the site's land use and zoning designations. The DSEIR includes no actual evaluation of the changed site uses with respect to these land use plans and designations, but rather just a statement that the plan conforms to them (p. 3-80). This appears to be both erroneous and unsupported by any analysis or evidence.

8-36

Noise

A number of new houses have been constructed in the project area since 1996. Therefore the DSEIR noise analysis should be expanded to evaluate potential impact to nearby sensitive receptors, particularly for construction noise. At a minimum, it should identify each potential receptor (preferably with a map), its distance from the proposed grading and construction areas, and an evaluation of the increase in noise levels at the receptor during the 2.5-year construction period. Impacts of single-event noise (such as blasting) should be evaluated consistent with the Berkeley Keep Jets Over the Bay v. Board of Port Commissioners decision. In addition, the DSEIR should evaluate any noise associated with the proposed outdoor stage or other anticipated uses. The DSEIR uses the 3dB CNEL level as its criteria of significance for operational noise because that is "perceivable to the human ear." The problem with this approach is that the 3dBA is time-averaged, which allows numerous much-louder single-event noise incidents to occur. These events may include both construction and operational noise. For example, passing big-rig trucks may substantially exceed the 3dBA limit, and could disturb nearby residents, but would not result in the 24-hour average noise level to exceed a 3dBA increase. Similarly use of the proposed outdoor stage may result in single-event noise levels that exceed the 3dBA increase at each event. Please provide evidence that lower CNEL increases are not significant. Given this substantial omission in the DSEIR, we suggest that a single-event noise criteria that is protective of local residential land

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uses be added to this document, and that potential single-event project noise incidents be compared to this standard.

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Please provide evidence that significant blasting vibration levels will not extend to the nearby receptors. Also, please expand the noise analysis to identify potential impacts to existing Skywalker and Big Rock Ranch facilities and occupants.

8-40

Population and Housing

This section erroneously states that the 2007 Countywide Plan (p. 3-22) identifies the proposed land uses on the site. That page addresses affordable housing and does not mention the Master Plan. Does the Countywide Plan assume housing on the site or industrial development? If the Countywide Plan assumes housing, as suggested by the site's general plan and zoning designations, will the project adversely affect the County's ability to implement its Housing Element? In addition, the SEIR should address the project's compliance with the County's affordable housing goals and policies.

8-41

With respect to water, this section states, "It is expected that MMWD currently has capacity to serve the development based on consultation between the project applicant MMWD." Additional discussion follows, stating that the applicant would fund undisclosed water supply offsets. No evidence is presented to support these assertions. CEQA is not a "trust us" exercise, rather, it is a "show us" process. Please provide evidence and analysis supporting these assertions. The 1996 EIR's evaluation of water supply is out of date and needs to be updated to current water supply/demand conditions to provide an adequate CEQA analysis. Please provide a Water Supply Assessment of the combined Big Rock and Grady Ranch Master Plan projects as discussed under Utilities and Service Systems, below.

8-42

If the project will require installation of new water, sewer or other utility lines to the proposed project area, adjoining downstream locations or alternative sites, the impacts associated with utility construction should be evaluated.

8-43

Transportation and Traffic

The traffic analysis in the DSEIR repeatedly refers to a February 2010 Transportation and Circulation Update but fails to summarize that update or include it as an appendix. In addition, there's no analysis comparing the project with existing conditions (as required under the recent Sunnyvale decision). Instead, the EIR includes a "plan to plan" analysis, which is impermissible under CEQA (See Guidelines Section 15125(e))¹. The DSEIR should include a peer review of that update by the County.

8-44

Additionally, the follow list of addition intersections between the project site and Miller Creek road should be evaluated to determine whether the project requires mitigation for traffic impacts

- o Sequeteria
- o Huckleberry

8-45

¹ Note that many other sections of this EIR also use a "plan-to-plan" type of assessment, thereby failing to meet the CEQA requirement of an "existing condition" setting.

- o Mt Lassen Dr.
- o Mt Muir Ct.
- o Mt. Shasta Dr.
- o Maoli Drive
- o Mt McKinley Drive
- o Bridgegate Drive
- o Creekside Drive
- o West Gate Drive
- o North Gate Drive

8-45
cont'd

Utilities and Service Systems

The "Water Treatment" discussion (p. 3-106) references the 1996 EIR's 120,000-gallon water tank; it needs to be updated to account for the current project's 400,000-gallon tank plus 40,000-gallon additional tank. The utilization of these tanks and any associated groundwater pumping, and their potential impacts on summer and fall flow regimes for steelhead should be defined.

8-46

The water supply evaluation in this DSEIR is entirely inadequate. The DSEIR references the 1996 EIR's outdated evaluation of MMWD's water supplies. This needs to be updated to discuss current water supplies, revised 2011 water supply conditions and the impacts associated with construction of new infrastructure. Also, please see previous comments on water supply in the Population and Housing discussion, above. That discussion indicates that water supply offsets are being sought by the applicant, resulting in the need to build new offsite facilities. Those offsets and facilities must be fully disclosed and evaluated in this DSEIR.

8-47

The combined 1996 EIR was prepared prior to the adoption of requirements that Water Supply Assessments (WSA) for large development projects (e.g. over 250,000 square feet of office space or an industrial park on over 40 acres of land – see CEQA Guidelines Section 15155(a)) be conducted and incorporated into CEQA documents. The WSA should include all components identified in Guidelines Section 15155, and should consider all potential sources of water demand, including the geothermal facility, fire water supply, and irrigation uses. Section 15155(e) specifies that "a city or county lead agency shall include the water assessment, and any water acquisition plan in the EIR, negative declaration, *or any supplement thereto* [emphasis added] prepared for the water-demand project..." (See also sections 10910 through 10915 of the California Water Code).

8-48

If additional water supply is required for the project, then the DSEIR should evaluate the potential secondary effects of providing that water, including possible effects on groundwater and surface water resources, as well as fisheries in local streams from which the water is being withdrawn (See Vineyard Area Citizens v. City of Rancho Cordova decision).

8-49

Absent the above analyses, this SEIR fails to meet CEQA requirements.

Mandatory Findings of Significance

The Cumulative Impacts discussion is outdated and incomplete. Please update this discussion to describe the current conditions – which of the projects identified on p. 3-

8-50

109 have been constructed? Are new projects proposed? Please add the proposed Rocking Horse Phase 1 and 2 projects to the cumulative projects list and include evaluations of their impacts in this EIR. Please add a discussion of cumulative impacts to each technical section or to this final section. Currently, there is no such evaluation in the DSEIR; the "evaluation" on pp. 3-109-110 is merely a statement of conclusions and not an evidence-based evaluation of cumulative impacts.

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cont'd

General Plan and Zoning Compliance Issues

The 1996 Master Plan described the site as for 'office and accessory buildings'. The current 'office space' now only 12% of square footage, and by volume, even less-- so office is no longer the primary facility 'use'. The project site is designated Planned Residential (PR) in the 2007 Countywide Plan and zoned Residential, Multiple Planned (RMP) in the Development Code (Article II, Zoning Districts, Section 22.10.020). According to the Countywide Plan, this is a "Rural Residential" land use designation, allowing one residential unit for every 1 to 10 acres. (Built Environment Element, p. 3-38). Specifically, the Plan states that this category is established "for single-family and multiple-family residential development in areas where public services and some urban services are available and where properties are not typically limited by hazards or natural resources." The Countywide Plan does not identify any non-residential uses as being permitted in this land use designation.

8-51

The specific permitted uses for the RMP zoning district are specified in the Section 22.10.020 (G) of the Development Code:

The RMP zoning is intended for a full range of residential development types... including single-family, two-family dwellings, multi-family residential development, and limited commercial use in suburban settings, along with similar and related compatible uses.....

The Development Code includes a number of tables listing allowed uses and required permits. Table 2-4 lists the uses as including a range of agricultural uses, child care, community centers, outdoor recreation (e.g. golf and equestrian), parks, libraries, schools, affordable housing, accessory retail, cemeteries, hotels, medical clinics and hospitals, business and professional offices, and utility lines. The Development Code has separate designations for "Theaters and Meeting Halls", and those uses are not permitted in the RMP district. The proposed uses do not meet the definition of "Offices" or "Studios for Art, Dance, Music, Photography, etc.", as defined on pp. VIII-40 and 41 of the Development Code, respectively. The Development Code defines art, dance, music, and photography uses as "consist[ing] of the provision of individual and group instruction and training....". The project would not engage in such training as its primary use.

8-52

Neither the site's Countywide Plan nor the Development Code designations permit use of the site for stages, shops, restaurants, screening rooms, or associated uses. Such uses would generally be considered "light industrial" uses. Therefore, the project does not appear to be permissible under the site's zoning and general plan designations. The previously proposed (1996) project was comprised primarily of office space, which would be allowed under the site zoning, although it may not have been consistent with

8-53

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the residential general plan designation. (In cases where general plan and zoning designations substantially diverge, the general plan prevails.)

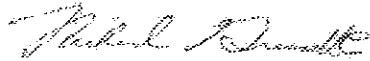
8-53
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Conclusions

The net effect of all of the above-referenced issues is a DSEIR that fails to adequately identify the project's environmental impacts. Equally problematic is the project's apparent non-compliance with the site's general plan and zoning classifications. Finally, the failure of the County to issue a Notice of Preparation (NOP) has resulted in curtailed public and agency review of this large project. This document therefore fails to serve its CEQA-mandated purposes of informing the public and decision-makers of the actual impacts of the project, fairly evaluating alternatives in light of the project, and proposing mitigation for significant impacts. As such, it must be revised and re-circulated for public review, no sooner than 30 days after publication of the NOP.

We look forward to working with the County to assure that the EIR meets all CEQA requirements. Please feel free to contact me at (510) 849-2354 if you have questions or comments on this letter.

Sincerely;



Richard Grassetto
Principal
Grassetto Environmental Consulting

GECO QUALIFICATIONS

A. INTRODUCTION TO THE FIRM

Grassetti Environmental Consulting (GECO) is a specialty environmental planning firm with expertise in environmental assessment, CEQA/NEPA compliance analyses, third party review, CEQA project management, and preparation of geologic and water resource studies. The firm focuses on working with clients towards full disclosure of environmental impacts and development of practical mitigation measures for those impacts. Our working ethic is to efficiently ensure full compliance with CEQA/NEPA regulations and guidelines while minimizing duplicative studies and regulatory confusion. We are proficient in preparing responsive environmental documentation for technically complex projects, and can provide our clients with a working understanding of the appropriate level of effort needed to comply with applicable environmental regulations. We strive to provide our clients with a level of personal service not generally found in larger firms.

The firm's Principal, Mr. Richard Grassetti, has 30 years of experience preparing and reviewing environmental documents throughout California. Mr. Grassetti has worked on over 250 environmental impact reports, initial studies, environmental assessments, and environmental impact statements. He has substantial expertise reviewing environmental assessments for regulatory compliance and technical adequacy, has conducted over 50 peer reviews of NEPA and CEQA documents, and has testified as an expert witness regarding CEQA adequacy issues. He also has prepared various other environmental analyses including environmental constraint assessments and feasibility studies. Mr. Grassetti has experience in both technical analysis and project management for environmental impact assessments of many types of projects including industrial development, power generation projects, airports, waste management and pollution control projects, mixed use urban development, residential projects, recreation/resort developments, planning studies, transportation improvements, and other infrastructure development.

GECO works with a group of affiliated environmental professionals on a regular basis. This collaboration provides our clients with a broad range of expertise, without the overhead burden of a large consulting firm. Our goal is to provide our clients with personalized service tailored to their specific needs. Each individual included on a GECO project team is a highly experienced, senior-level professional with extensive experience working for both public- and private-sector clients. Our services range from initial project scoping through project implementation and monitoring. Our staff and affiliates are highly qualified to assist clients in negotiating the maze of environmental compliance regulations. Through these reciprocal working arrangements, we offer technical experts of the highest caliber at modest cost. Our combined skills and experience offer a complete range of environmental assessment services.

GECO provides a variety of services in preparation and review of environmental documents and issues. A sampling of our services is provided below. References are available on request.

GECO QUALIFICATIONS**Richard Grassetto****PRINCIPAL****Expertise**

- CEQA/NEPA Environmental Assessment
- Project Management
- CEQA/NEPA training

Principal Professional Responsibilities

Mr. Grassetto is an environmental planner with 30 years of experience in environmental impact analysis, hydrologic and geologic assessment, project management, and regulatory compliance. He is a recognized expert on California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes, and has served as an expert witness on CEQA and planning issues. Mr. Grassetto regularly conducts peer review and QC/QA for all types of environmental impact analyses, and works frequently with public agencies, citizens groups, and applicants. He has managed the preparation of over 50 CEQA and NEPA documents, as well as numerous local agency planning and permitting documents. Mr. Grassetto has prepared over 200 hydrologic, geologic, and other technical analyses for CEQA and NEPA documents. He has analyzed the environmental impacts of a wide range of projects including ecological restoration projects, waste management projects, mixed-use developments, infrastructure improvements, energy development, military base reuse projects, and recreational facilities throughout the western U.S. In addition to his consulting practice, Mr. Grassetto regularly conducts professional training workshops on CEQA and NEPA compliance, and is a lecturer at California State University, East Bay, where he teaches courses on environmental impact assessment, among others.

Professional Services

- Management and preparation of all types of environmental impact assessment and documentation for public agencies, applicants, citizens groups, and attorneys
- Peer review of environmental documents for technical adequacy and regulatory compliance
- Expert witness services
- Assisting clients in CEQA and NEPA process compliance

GECO QUALIFICATIONS

- Preparation of hydrologic and geologic analyses for EIRs and EISs
- Preparation of project feasibility, opportunities, and constraints analyses, and mitigation monitoring and reporting plans

Education

University of Oregon, Eugene, Department of Geography, M.A., Geography (Emphasis on Fluvial Geomorphology and Water Resources Planning), 1981.

University of California, Berkeley, Department of Geography, B.A., Physical Geography, 1978.

Professional Experience

| | |
|--------------|--|
| 1992-Present | Principal, GECO Environmental Consulting, Berkeley, CA |
| 1994-Present | Adjunct Professor, Department of Geography and Environmental Studies, California State University, Hayward, CA |
| 1988-1992 | Environmental Group Co-Manager / Senior Project Manager, LSA Associates, Inc. Richmond, CA |
| 1987-1988 | Independent Environmental Consultant, Berkeley, CA |
| 1986-1987 | Environmental / Urban Planner, City of Richmond, CA |
| 1982-1986 | Senior Technical Associate - Hydrology and Geology - Environmental Science Associates, Inc. San Francisco, CA |
| 1979-1981 | Graduate Teaching Fellow, Department of Geography, University of Oregon, Eugene, OR |
| 1978 | Intern, California Division of Mines and Geology, San Francisco, CA |

Professional Affiliations and Certifications

Member and Past Chapter Director, Association of Environmental Professionals, San Francisco Bay Chapter

GECO QUALIFICATIONS**Publications
and Presentations**

Member, International Association for Impact Assessment

Grassetti, R. *Round Up The Usual Suspects: Common Deficiencies in US and California Environmental Impact assessments*. Paper Presented at International Association for Impact Assessment Conference, Vancouver, Canada. May 2004.

Grassetti, R. *Understanding Environmental Impact Assessment – A Layperson's Guide to Environmental Impact Documents and Processes*. (in press).

Grassetti, R. *Developing a Citizens Handbook for Impact Assessment*. Paper Presented at International Association for Impact Assessment Conference, Marrakech, Morocco. June 2003

Grassetti, R. *CEQA and Sustainability*. Paper Presented at Association of Environmental Professionals Conference, Palm Springs, California. April 2002.

Grassetti, R. and M. Kent. *Certifying Green Development, an Incentive-Based Application of Environmental Impact Assessment*. Paper Presented at International Association for Impact Assessment Conference, Cartagena, Colombia. May 2001

Grassetti, Richard. *Report from the Headwaters: Promises and Failures of Strategic Environmental Assessment in Preserving California's Ancient Redwoods*. Paper Presented at International Association for Impact Assessment Conference, Glasgow, Scotland. June 1999.

Grassetti, R. A., N. Dennis, and R. Odland. *An Analytical Framework for Sustainable Development in EIA in the USA*. Paper Presented at International Association for Impact Assessment Conference, Christchurch, New Zealand. April 1998.

Grassetti, R. A. *Ethics, Public Policy, and the Environmental Professional*. Presentation at the Association of Environmental Professionals Annual Conference, San Diego. May 1992.

Grassetti, R. A. *Regulation and Development of Urban Area Wetlands in the United States: The San Francisco Bay Area Case Study*. Water Quality Bulletin, United Nations/World Health Organization Collaborating Centre on Surface and Ground Water Quality. April 1989.

Grassetti, R. A. *Cumulative Impacts Analysis, An Overview*. Journal of Pesticide Reform. Fall 1986.

1986, 1987. Guest Lecturer, Environmental Studies Program, University of California, Berkeley.

**Letter
8
Response** **GECO: Grassetti Environmental Consulting
Richard Grassetti
December 8, 2011**

- 8-1 This is a prefatory comment that refers to topics raised later in the letter. Please see Responses to Comments 8-2 through 8-53 below.
- 8-2 Please see Master Responses 1 and 2 regarding public noticing and availability of documents .
- 8-3 As noted in the comment, the process regarding use of a Program EIR with later activities, as outlined in State CEQA Guidelines Section 15168(c), was followed in the preparation of the Draft Supplement to the 1996 Master Plan FEIR (Draft SEIR). As discussed on pages 1-2 and 1-3 of the Draft SEIR, an Environmental Checklist was completed, and it was determined that changes to the Grady Ranch PDP, in combination with other changed conditions, would result in new or more severe significant effects related to air quality, biological resources, cultural resources, and greenhouse gas emissions. Otherwise, the environmental impacts of the Grady Ranch PDP were found to be adequately addressed by the impact analysis and mitigation requirements defined in the 1996 Master Plan EIR. The Grady Ranch SEIR addresses the specific elements of the Precise Development Plan and compares them to the updated existing conditions on and around the project site.
- The environmental review approach employed for the Grady Ranch PDP is in specific accordance with CEQA. Section 21166 of the statute limits the preparation of later EIRs for projects already subject to a prior EIR. The specific conditions under which a subsequent or supplemental EIR may be prepared were reflected in the Environmental Checklist evaluation. Based on this evaluation, the determination was made that a Supplement to the 1996 Master Plan FEIR was the appropriate CEQA document for the proposed project.
- 8-4 The Draft SEIR provides information to update the previous Master Plan EIR, based on changes to the project, the existing conditions on and near the project site, and updates and changes to the regulations. As stated under State CEQA Guidelines Section 15163(b), a supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised. The analysis contained in the Environmental Checklist is based on existing setting information at the time of start of the analysis (from 2009 for the traffic analysis to November 2010 for other checklist item subjects). The existing setting information is summarized in Chapter 2 of the Draft SEIR.
- 8-5 The Marin Municipal Water District has stated in a letter to the Marin County Community Development Agency on October 21, 2011 that, in addition to recycled water projects, the source of water supply for the proposed Grady Ranch Project may be District water conservation projects or other measures as selected by MMWD that would reduce potable water demand within MMWD's service area and that would be funded by a fee paid by the project applicant (see Comment Letter 12, comment 12-44). Potential extensions of water and wastewater pipelines near and adjacent to the project site are addressed in the Draft SEIR. The Draft SEIR also addresses undergrounding of electrical utilities in the project vicinity and the realignment of Lucas Valley Road.

MMWD's 2010 *Urban Water Management Plan (UWMP)* was completed in June 2011 and adopted by MMWD's Board of Directors on July 6, 2011. The UWMP will be implemented to meet the 2015 and 2020 urban water use targets. The UWMP states (page 4-9) that the District's existing water supply sources, in combination with the conservation program, are projected to be sufficient to meet the needs of the MMWD service area for the planning horizon of this UWMP.

The comment states that the proposed project would require extension of recycled water pipelines and associated facilities to a golf course distant from the site. The comment does not specify which golf course or recycled water project. The UWMP (page 4-12) refers to MMWD's expansion over the past 20 years of its recycled water system. All customers on the system are served recycled water from the Las Gallinas Recycling Plant operated in conjunction with the Las Gallinas Valley Sanitation District. In 2009, MMWD's Board of Directors directed staff to pursue a diverse portfolio of water supply opportunities, which included expansion of the recycled water system to the Peacock Gap area of east San Rafael and particularly to the Peacock Gap Golf Course. This project would add another 34 recycled water users to the system and serve an additional 320 ac-ft of recycled water to offset existing potable water use. The UWMP states that about two-thirds of the potential recycled water use from the Peacock Gap Recycled Water Project will be at the existing Peacock Gap Golf Course. Additionally, recycled water piping will be installed in Peacock Gap to serve condominium and public landscaping. At this time, this expansion project is not a requirement of the proposed Grady Ranch project.

MMWD has thoroughly explored ways to expand water recycling. However, with few large users of non-potable water (such as golf courses and heavy industry) within the District's service area, the District's remaining water recycling options are more expensive and less feasible. As more customers improve irrigation efficiency, reduce turf areas, switch to native and drought-tolerant landscapes, and convert parks and athletic fields to artificial turf, there are fewer opportunities and lower demand for recycled water (MMWD 2011, page 4-24). The UWMP states that the District's commitment to water conservation and implementation of its Water Conservation Master Plan, as well as its commitment to complying with the Water Conservation Bill of 2009 are projected to maintain the water demand at a level that can be supplied from existing water sources for the planning horizon of the UWMP. As a result, no future potable water supply projects are necessary at this time to increase the amount of available potable water supply (MMWD 2011, page 4-25)

- 8-6 There are no additional facilities or infrastructure planned for either Skywalker or Big Rock Ranches related to the proposed project. The potential for additional archival storage on Grady Ranch is addressed on page 2-39 of the Draft SEIR.
- 8-7 Section 15124 of the State CEQA Guidelines includes the requirements for a project description, explaining that the "description of the project shall contain the following information but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact." The Draft SEIR Project Description contains the information necessary to describe the existing setting and the components of the proposed project that could result in physical changes to the environment. The Project Description includes all relevant aspects of the proposed Grady Ranch Project, including reasonably foreseeable future activities that are part of the Proposed Project. The Project Description has been updated from the 1996 Master Plan FEIR to identify the proposed changes to the project and changes to the existing setting. The

Project Description, as included in the Draft SEIR, is used consistently throughout the analysis in the Environmental Checklist.

Several of the elements listed in the comment are included in the Project Description. Some construction details, including design of the buildings and water tanks, landscaping details, and a detailed stormwater treatment plan, would be completed through consultation with Marin County DPW and CDA staff. Mitigation measures contained in the Draft SEIR would apply to the development and design of these elements. In accordance with CEQA Guideline Section 15126.4(a)(1)(B), these mitigation measures specify performance standards that would ensure sufficient mitigation of significant effects.

- 8-8 The 1996 Master Plan FEIR and the Draft SEIR contain the existing setting information at the time of preparation of each of these documents, respectively. Please see Response to Comment 8-4 regarding setting.
- 8-9 Please see Master Response 5 regarding Project Alternatives.
- 8-10 Please see Master Response 5 regarding Project Alternatives.
- 8-11 Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.
- 8-12 As stated on page 3-4 of the Draft SEIR, case law has been mixed in determining whether private views are valid for evaluation in CEQA environmental review; however recognizing that multiple residences are present next to the project site, the potential for altering multiple private viewers warrants consideration. The EIR evaluates potential changes in views to existing residential properties. The discussion under Item 1, Aesthetics, of the Environmental Checklist provides sufficient information (including an illustration of grading sections for the proposed knoll) to describe these changes in views. The discussion describes the location of the adjacent residences. The checklist discussion compares the potential change in views to applicable Marin Countywide Plan policies and implementing programs. Based on this analysis, the Draft SEIR concluded that potential changes to views from adjacent private residences would remain a less-than-significant impact, because views of the buildings would not be visible behind the proposed knoll, and the knoll would not be inconsistent with implementing programs addressing construction on ridgelines. Additionally, the checklist concluded that, based on the proposed water tank locations, topography, and existing vegetation, Implementation of Mitigation Measure 5.5-8 would continue to mitigate potential visual impacts to a less-than-significant level.
- 8-13 As stated in the Project Description, construction of the 400,000-gallon tank for fire protection may not occur, depending on the provision of these services. Specific design details have not been completed; however, the proposed mitigation measure would ensure that the tank is designed to hide the tank from view or to blend it into the existing texture of the surrounding area.
- 8-14 The hours of operation of the indoor and outdoor stage facilities would generally follow the hours listed in the Project Description. The project applicant would also adhere to mitigation measures requiring that all outdoor lights be turned off by 11 p.m. Please see Master Response 3 regarding hours of operation and outdoor stage use.

- 8-15 The 1996 Master Plan EIR included an analysis of the Grady Ranch and Big Rock Ranch projects. Similar to the Proposed Project, the other LucasFilm facilities on Lucas Valley Road (including the completed Big Rock Ranch) have very limited visibility from Lucas Valley Road, typically consisting of fencing and landscaping along the road and, in the case of Big Rock Ranch, a very brief view of a portion of the main building when traveling on Lucas Valley Road. The 1996 Master Plan EIR did not identify a significant cumulative impact related to aesthetics and visual resources. According to the Marin County CDA website, the project description for the proposed Rocking H1 Ranch Vesting Tentative Map included a proposal to subdivide approximately 60 acres previously designated for residential development into six lots. Although the proposed Rocking H1 Ranch project was previously determined to be incomplete, construction of a car/barn complex on Parcel 3 has already occurred under the approved precise development plan. Marin County planners were subsequently consulted for an updated status of the Rocking H1 Ranch Project. The application has been withdrawn and no application is currently pending. Therefore, the project is not reasonably foreseeable and is not included as a probable future project, per Section 15130(b)(1)(A) of the State CEQA Guidelines regarding elements that are necessary for an adequate discussion of significant cumulative impacts.
- 8-16 A draft Tree Removal Plan has been prepared and is subject to review and approval by the Marin County CDA. The mitigation measures include performance standards to outline the requirements of the removal and replacement plans. In accordance with State CEQA Guideline Section 15126.4(a)(1)(B) and applicable court decisions, a mitigation measure is adequate when a mitigation commitment is made through adoption of a plan of future actions, the plan specifies performance standards that would mitigate the significant effect of the project, and potentially feasible approaches to accomplish the performance standard are presented.. The final versions of these plans and programs would be required to comply with the mitigation measures to reduce the potential impacts to a less-than-significant level. Implementation of the mitigation measures will be monitored through the Mitigation Monitoring and Reporting Program prepared for the project.
- 8-17 Please see Response to Comment 8-15 regarding the status of the Rocking Horse project. The 1996 Master Plan FEIR considered potential impacts from Big Rock Ranch as well as from Grady Ranch.
- 8-18 This comment states that there were no calculations or analysis provided to support the conclusion that mitigation measures AQ-1a and AQ-1b would reduce the project's significant construction emissions to a less-than-significant level. The BAAQMD has identified thresholds of significance below which project-generated construction emissions would be considered to have less-than-significant health impacts on nearby sensitive receptors. According to the quantitative analysis on pages 3-17 and 3-22 through 3-24 of the Draft SEIR, construction-generated emissions would be reduced to less-than-significant levels with mitigation measures incorporated. This comment also states that a health risk assessment (HRA) should be included in the project level analysis. Please see Response to Comment 7-4, above.
- 8-19 The impact discussion referenced in the comment was intended to focus specifically on steelhead habitat and not other sensitive species; potential impacts to other special-status species and sensitive habitats are addressed elsewhere under the Biological Resources checklist item. Exhibits 2-8 (SCA Restoration and Enhancement Plan) and 2-13 (1996 Master Plan Preliminary Grading and Drainage Plan (for comparison purposes) display proposed creek work and improvements up Grady Creek, along Miller Creek, several tributaries, and along Lucas

Valley Road. Exhibit 2-13 was part of the 1996 Master Plan and Use Permit (MP/UP) and Exhibit 2-8 is part of the Grady Ranch PDP. Exhibit 2-13 shows the overall extent of restoration work proposed at the MP/UP phase and, as noted, the exhibit is provided for comparison purposes. The extent of work for the proposed PDP would be similar. However, the text on pages 3-29 and 3-30 of the Draft SEIR is revised to read as follows to include some additional discussion of potential impacts to riparian and aquatic habitat as a result of stream restoration:

The project includes proposed restoration and enhancement of Miller Creek, Grady Creek, and Landmark Creek with the goals of restoring bank-full equilibrium channel interaction with floodplains; installing fish-friendly rock and log structures to stabilize channel bed material and improve upstream fish passage; laying back most vertical banks to allow planting of riparian vegetation that will help stabilize streambanks and provide shade to the channel; raising the grade of most portions of Miller Creek bed and its tributaries with rock and log structures to reverse much of the incision that has already occurred; and stabilizing knickpoints that are propagating up the side tributaries from Miller Creek. Substantial fill, rock, and biotechnical material are proposed to be placed in the creek corridor. The proposed stream restoration would extend for approximately 1.5 miles and is expected to improve habitat conditions and fish passage for steelhead, and habitat for other aquatic resources over the long term. However, construction activities could temporarily degrade water quality, aquatic habitats, and the aquatic community, such as by the mobilization of sediment and temporary increases in turbidity. Effects could also occur during the initial channel-response and riparian revegetation period within the construction area and downstream. Impacts to riparian and aquatic habitat would result from temporary loss of riparian vegetation, which could increase stream temperatures and erosion potential; and removal of in-channel large woody debris, which would reduce habitat structure and cover for steelhead, invertebrate prey, and other aquatic species. If steelhead are present in or downstream of restored stream reaches during construction, individuals could be harmed or killed by construction activities. Any adverse impact to steelhead, a federally threatened species, would be significant. Potential short-term disturbance to steelhead habitat resulting from construction and initial channel response would be a substantial increase in the severity of the previously-identified significant impact on special-status species. Mitigation Measure BIO-1 (below) would reduce the severity of this impact to a less-than-significant level. Additionally, implementation of Mitigation Measure 5.1-2 from the 1996 Master Plan FEIR would reduce potential erosion impacts due to construction and creek bank stabilization to less-than-significant levels through the formulation of a detailed design-level onsite Erosion Control Plan (see checklist item 10, Hydrology and Water Quality, below).

The comment states that “Mitigation Bio-2 is fatally compromised by the use of the phrases ‘to the extent practicable’ and ‘attempt to focus.’” Mitigation Measure BIO-2 prescribes the following three-tier approach.

(1) First, minimize impacts to wildlife habitat in general and avoid construction during sensitive life history periods (e.g., nesting, roosting, etc.) for special-status species as much as possible, while recognizing that tree and other vegetation removal is a proposed and required element of the project.

(2) For any construction activities that do occur within suitable habitat for a special-status species and during sensitive life history periods, conduct pre-construction surveys to determine presence/absence of the species and attempt to avoid loss of habitat confirmed to be occupied by special-status wildlife species.

(3) If avoiding occupied habitat is not feasible, implement limited operating periods or other measures to avoid the potentially significant impact identified in the Draft SEIR, which is the loss of individuals or nests of special-status bird species; removal of active roost sites for, or injury to, special-status bat species; and loss of American badger.

It should be noted that the phrases “to the extent practicable” and “attempt to focus,” as referenced in the comment, are part of a commitment to evaluate opportunities to minimize or avoid impacts upfront. However, they do not apply to the third tier of the measure, which requires specific implementation of limited operating periods or other protective measures, if such measures are necessary to avoid the significant impact after implementation of the first two tiers. Mitigation Measure BIO-2 would reduce the potential impact to a less-than-significant level and is adequate, reasonable, and achievable.

- 8-20 As discussed on page 3-28 of the Draft SEIR, the Grady Ranch project site occurs within the range of the Central California Coast steelhead distinct population segment, and steelhead has been documented in Grady Creek and Miller Creek on the site since 2008. The Hydrology and Water Quality section notes that the potential reduction in sediment transport rates from the proposed stream restoration would result in reduced sediment delivery to downstream reaches and would, thereby, reduce channel-capacity loss and flood risk in these lower gradient reaches. The reduced sediment delivery would also result in improved spawning habitat for anadromous fish (see page 3-75 of the Draft SEIR).
- 8-21 Because an appropriate and effective buffer distance for American badger dens would depend on specific landscape features and topography around the den, as well as the type of project activity that could disturb a den, the mitigation measure states that the buffer for American badger shall be developed in consultation with CDFG based on site-specific variables that are evaluated in the field. Pursuant to CEQA, when it is infeasible to include precise, site-specific mitigation details at the time the environmental document is prepared, a mitigation program providing for a commitment to mitigate, performance standards that would achieve reduction of the impact to a less-than-significant level, and further review of available means of mitigating the impact and a plan for implementation may be used. This mitigation strategy will ensure that adequate mitigation measures are implemented by establishing the necessary parameters ahead of time during the CEQA process.
- 8-22 In 2008, WRA surveyed areas of native grassland within the entire development area on Grady Ranch to determine percent cover of native grasses (*Native Grassland Restoration and Enhancement Report, Grady Ranch, Marin County, California*). While the majority of the grassland on the Project site would not be impacted by proposed development, there are thirteen distinct areas where impacts would occur. These areas total approximately 21,500 square feet (0.49 acre) of native grassland habitat ranging from five to 20 percent cover, which is the equivalent of 1,975 square feet of 100 percent native grassland habitat cover when combining the area of proposed impacts with the percent cover of native bunchgrasses. The majority of the potentially affected native grassland is located in three areas: one area is located to the southwest of the Main Building between the building and the wine cave on the

site of the proposed service road and wine cave; one area is located to the immediate northwest of the Main Building at the site of the northwest corner of the building and the upper fire road; the third area is located at the site of the proposed water tanks.

- 8-23 The Wetland Mitigation and Monitoring Plan was available for review with the references cited in the Draft SEIR. Please see Master Response 2 regarding availability of documents. The remaining reports were draft reports and were incorporated by reference to streamline the preparation and presentation of the Draft SEIR.
- 8-24 The mitigation measures for the provision of additional plans and reports include performance standards to outline the requirements of the plans. In accordance with State CEQA Guideline Section 15126.4(a)(1)(B), mitigation measures may specify performance standards that would mitigate the significant effect of the project and that may be accomplished in more than one specified way. The final versions of these plans and programs would be required to comply with the mitigation measures in order to reduce the potential impacts to a less-than-significant level. Implementation of the mitigation measures will be monitored through the Mitigation Monitoring and Report Program prepared for the project.
- The comment also states that “Mitigation 5-2 is missing (p. 3-35).” On page 3-34 of the Draft SEIR, the paragraph under the header “Mitigation Measures” states that the text of Mitigation Measure 5.3-2 is included under Checklist Item 2, Agricultural and Forestry Resources.
- 8-25 A preliminary geotechnical evaluation for the Grady Ranch PDP was prepared in November 2008 (AMEC Geomatrix 2008) and is available for public viewing at CDA’s website (see Master Response 2, Document Availability, for website address) . The report evaluated potential geotechnical hazards for the site, including slope stability and landsliding, ground shaking, surface fault rupture, liquefaction, and possibly swelling or shrinking soils. AMEC also prepared a response in November 2009 that included findings from site investigations and testing conducted earlier in 2009. The number of landslides and the potential for slope stability in the study area are comparable to other hillside area in the San Francisco Bay Area. The geotechnical report includes recommendations for project earthwork, subgrade preparation, fill materials, fill placement and compaction, keyway construction, excavations, stabilization of landslides and colluvial slopes, dewatering requirements for groundwater, and surface water drainage and erosion control. The site geology, cross sections, and preliminary slope stabilization plans are also included in the Precise Development Plan as sheets C.1.1 and C.1.2.
- 8-26 The geotechnical evaluation provides specific recommendations for construction of the knoll and other proposed grading onsite. These recommendations include specific requirements for the type of material that may be used as fill, requirements for construction a “keyway” into the existing ground for the fill slope to be built into, compaction requirements for the placed fill, and limitations on the slope of the finished surface. The design and construction of the knoll would incorporate these recommendations so that the final grade would be stable. Please also see Response to Comment 8-25 regarding stabilization of grading.
- 8-27 The proposed geoexchange unit is discussed in the project description. This facility is not proposed as a geothermal energy generator and would not include any wells or use of groundwater. Please see Master Response 3 regarding project description details.
- 8-28 Please see Master Response 5 regarding Project Alternatives.

- 8-29 The project description and Population and Housing discussions include the maximum number of employees and guests that could be expected to arrive and depart the project site during the year. For the 1996 Master Plan, the 456,100 square feet of building floor area was approved for up to 340 employees and overnight guests. The Grady Ranch Precise Development Plan would result in the construction and operation of an approximately 270,000 square foot Main Building, but a conservative estimate of 340 employees and guests was retained for the project. Based on existing operations at other LucasFilm facilities, an estimated average of 170 employees per day was obtained. This is an estimate of the average number of employees and guests that would be expected at the project site at any one point of time during the day. The traffic analysis for the project used the conservative maximum number of 340 employees and guests and analyzed the potential trip distribution based on the maximum number.
- 8-30 Please see Master Response 4 regarding zoning consistency. Please see page 3-66 of the Draft SEIR for a discussion of a residential alternative.
- 8-31 The comment states that the mitigation measures fail to provide any actual mitigation for the project's GHG emissions, and that there is no evidence that providing funding to the County would actually reduce or offset emissions.
- The County has specifically noted that it does not have funding to prepare a Climate Action Plan, and would not have a foreseeable funding source. Thus, if not for this project's proposed mitigation measure to provide funding to prepare a Countywide CAP, there is no foreseeable opportunity for the County to do so. Importantly, the CAP would result in GHG emissions reductions throughout the County far exceeding (by orders of magnitude) the project's increment (i.e., 549 MT CO₂e/year) above BAAQMD's GHG threshold. The BAAQMD supports the funding of a countywide CAP as an effective mitigation measure for the project (please refer to Comment 5-3), and CAPs have been included, and to date upheld, as adequate mitigation measures in other EIRs to offset potential project GHG emissions.
- 8-32 The text on page 3-68 is revised to read as follows:
- a, b) The 1996 Master Plan FEIR states that the anticipated types of hazardous materials on the project site would be similar to the existing use of hazardous materials on Skywalker Ranch (i.e. fuel storage, paints, solvents, etc) and that the use of any acutely hazardous materials, if any, would be similar to that which is used at Skywalker Ranch and below the County's threshold planning quantity. The 1996 Master Plan FEIR concluded that all hazard and hazardous materials impacts would result in less-than-significant impacts. The Grady Ranch PDP would involve similar use of substances classified as hazardous materials (i.e. paints solvents) ~~and does not propose any fuel storage onsite.~~ The impact would remain less-than-significant.
- 8-33 Please see Response to Comment 8-24 regarding mitigation.
- 8-34 Construction impacts to water quality from stream restoration construction activities would be minimal because these would be completed under non-flowing conditions between July 1st and October 15 over a two-year period. Additional information on the feasibility of restoration construction activities is included in a 2011 Balance Hydrologics memorandum regarding the feasibility of restoration concepts at Grady Ranch. This memo is available for review in the project file with the Marin County CDA.

As documented in the environmental checklist, the project shall comply with Marin County Code 24.04.627 and shall include a stormwater pollution prevention plan (SWPPP) that addresses both temporary (during construction) and permanent (post construction) measures to control erosion and sedimentation and to prevent pollutants from entering storm drains, drainage systems, and watercourses.

- 8-35 The hydrologic setting is included in the project description in section 2.3.6. Please also see Response to Comment 12-8 for text changes to add additional existing hydrologic condition information. Baseline hydrologic conditions are also characterized in the following documents, which are available for review in the project site with the Marin County CDA:
- ▲ CSW / ST2. 2009. Preliminary Hydrology Report (Revised). Grady Ranch Precise Development Plan. Section 2. Prepared for Skywalker Ranch, Ltd.
 - ▲ Balance Hydrologics. 2008. Preliminary Stormwater Control Plan. Grady Ranch Project. Section 2. County of Marin, California. Prepared for Skywalker Ranch, Ltd.
 - ▲ Balance Hydrologics. 2008. Hydrologic and Geomorphic Recommendations for Stream Conservation Areas at Grady Ranch, Marin County, California. Section 2.1. Prepared for Skywalker Ranch, Ltd.
- 8-36 Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.
- 8-37 The comment states that the Draft SEIR should evaluate the potential impacts of the new houses constructed in the project area, particularly for construction noise. The comment also states single-event noise from blasting should be evaluated. The analysis presented does account for the new receptors now closer to the project site in comparison to the conditions present when the County certified the 1996 Master Plan FEIR. Please refer the discussion presented on Page 3-85 under the “Sensitive Land Uses and Ambient Noise Levels” heading. All of the corresponding analyses, including that for construction noise, take into account the worst-case distance between project-generated noise sources and sensitive receptors. Noise from blasting activities is evaluated under the “Short-Term Construction Source Noise Levels” impact discussion starting on Page 3-86. This analysis not only addresses average noise levels, but also maximum (peak) noise levels. This analysis considers all applicable standards; and reference noise levels for specific equipment and activities are well documented and the usage thereof common practice in the field of acoustics. This impact was previously identified as significant in the 1996 Master Plan FEIR (Impact 5.9-1). Changes to the project and to the existing setting circumstances would not result in an impact level considered substantially more severe than described in prior environmental documents. Implementation of Mitigation Measure 5.9-1, identified in the previous EIR, would reduce the magnitude of this impact to a less-than-significant level. In addition, implementation of these in addition to the new mitigation presented on Page 3-90 would prevent noise-disturbing activities from occurring during the more noise-sensitive hours of the day in addition to reducing overall average and maximum noise levels during the daytime even though such are allowed by County Code and considered temporary in nature.
- 8-38 The comment states that noise associated with the outdoor stage or other anticipated uses should be evaluated. Please refer to the “Long-Term Operation-Related Stationary Source Noise Levels” impact discussion starting on Page 3-88. Please also see Master Response 3 regarding use of the outdoor stage.

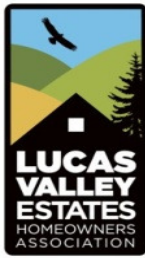
- 8-39 The comment states that the Draft SEIR uses a level of 3 dB CNEL as its criteria of significance which allows for much-louder single-event noise incidents. The use of an increase of 3 dB CNEL is common practice in the field of conducting environmental noise analyses, because human perception of noise increases above ambient levels begins at this degree of difference. The analysis contains assessments of all of the sources mentioned in the comment and considers all applicable standards; and reference noise levels for specific equipment and activities are well documented and the usage thereof common practice in the field of acoustics. Implementation of the proposed project would not result in an increase in aircraft over flights or increases in pass-by noise during the more noise-sensitive nighttime hours, which are the driving factors for examining single-event noise levels. However, please note that in the “Long-Term Operation-Related Traffic Source Noise Levels” impact discussion maximum truck noise levels are assessed. In addition, under the “Long-Term Operation-Related Stationary Source Noise Levels” impact discussion, maximum noise levels are also discussed in addition to average noise levels.
- 8-40 The comment requests evidence that significant blasting vibration levels will not extend to nearby receptors and identify noise impact to existing facilities and occupants. Please refer to impact discussion (b) starting on Page 3-88 for an analysis of vibration levels, which specifically addresses blasting. As stated, project-generated vibration levels would not exceed the applicable standards at the nearest residence. Page 3-88 of the Draft SEIR addresses long-term operation-related traffic source noise levels. The analysis states that the addition of projected traffic trips would not result in a noticeable change in the traffic noise contours of area roadways. Traffic noise would therefore not change significantly for existing uses, including Skywalker and Big Rock Ranches.
- 8-41 The Countywide Plan land use designation of PR, Planned Residential, is for housing, but the project would not interfere with implementation of the Housing Element, because the site is not identified as an opportunity site. The site does not have characteristics to qualify as an opportunity site, because it is not located near commercial areas or transit facilities. The applicant has proposed, and the County has accepted, compliance with the affordable housing goals and policies through payment of an in-lieu affordable housing fee to the County.
- 8-42 Please see Response to Comment 8-5 regarding water supply and 8-48 regarding a Water Supply Assessment.
- 8-43 The proposed off-site improvements for the project are included in the Project Description in the Draft SEIR. The 1996 Master Plan EIR included the necessary off-site improvements required for the project including: the Lucas Valley Road realignment; the extension of MMWD facilities to the project site; the extension of gas, electric, and telephone facilities to the site; and the undergrounding of existing electric and telephone lines. These elements are similar for the proposed PDP.
- 8-44 The February 2010 *Transportation and Circulation Update* is included in this Final SEIR as Appendix B. Please see Responses to Comments 7-10 and 8-4. The traffic study prepared for the project included updated traffic counts, and indicated that volumes near the project site increased only four percent (from 6,800 to 7,060) between 1996 and 2009. Similarly, new traffic counts were taken at all of the study intersections in 2009 for the updated analysis. The analysis in the Draft SEIR was therefore based on updated volumes.

- 8-45 The traffic impact analysis provides an evaluation of the intersection of Lucas Valley Road and Mt. Lassen Drive, a location very similar to those listed in the comment, including the “traffic-shed” or number of homes whose drivers would use it as their primary access route. Because the volumes and movements at all of these other locations would be similar to the volumes and movements at the Mt. Lassen intersection, it can reasonably be deduced that the impacts would be similar, and less than significant, particularly at the more westerly locations where the volume on Lucas Valley Road is lower than it is closer to US 101 and specifically at Mt. Lassen Drive.
- 8-46 As noted in the comment, the previously proposed 120,000-gallon water tank has been replaced with one 400,000-gallon and one 40,000-gallon tank. Also noted on page 3-106 of the Draft SEIR, the current estimate of water demand is approximately 30 acre-feet of water per year, a reduction of 12 acre-feet per year from the amount estimated under the Master Plan. Water would be provided from MMWD, not from groundwater pumping.
- 8-47 Please see Responses to Comment 6-1 and 8-5 and Comment Letter 6 regarding water supply and water service. Please also see Comment 12-44 in Letter 12 for updated correspondence from MMWD.
- 8-48 Section 10910 of the Water Code, enacted as part of SB 610, provides that any county that determines that a “project,” as defined in Section 10912, is subject to CEQA must comply with the SB 610 requirements. (Wat. Code, § 10910, subd. (a).) Section 10912, subdivision (a), a Water Supply Assessment would be required if the proposed project consisted of one of the following non-residential or non-hotel/motel uses : a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area; or a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The County has determined that the proposed project does not constitute a “project” under these criteria, and a Water Supply Assessment is not required for the following reasons:

Pursuant to subdivision (a)(3), Grady Ranch PDP is not a “proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.” Although the project could be characterized as a “business establishment” because it includes employment-generating uses, Grady Ranch would not employ more than 1,000 persons or have more than 500,000 square feet of floor space. Of the 52-acre portion of the project site shown as developed area in the project application, the area to be occupied by developed uses would actually be less than 40 acres. Three acres would be occupied by buildings. Additional acreage would be occupied by roads, parking lots, and other infrastructure. Additional acreage would be disturbed during project construction, but following construction would not be actively used. More than 12 of the 52 acres would never be graded or otherwise disturbed, much less “occupied” as part of a developed, industrial use. Finally, pursuant to subdivision (a)(7), the Grady Ranch PDP is not a “project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.”

- 8-49 Please see Response to Comment 8-46 regarding water supply.
- 8-50 Please see Response to Comment 8-15 regarding the status of the proposed Rocking H1 Ranch Vesting Tentative Map. In addition to updating the cumulative impact discussion from the 1996 Master Plan EIR to address the current project, the cumulative discussions are updated to incorporate the cumulative analyses contained in the 2007 Marin Countywide Plan Update. As stated on page 3-109 of the Draft SEIR, the Countywide Plan Update has been adopted since the preparation of the 1996 Master Plan FEIR. Regarding the list of projects from the Draft SEIR, the first four projects (Jaleh, Regency Center II, Smith Ranch Hills, and Smith Ranch Apartments) would be located in the City of San Rafael. The Costco, Lafranchi, Lucas Valley Estates, and Rotary Housing projects have been built. The Las Cumbres and Oakview projects were not built. One additional project that has been built is the San Rafael Airport Recreation Facility (85,000 square feet). The discussion of potential cumulative effects on pages 3-109 and 3-110 would represent a worst-case scenario with the assumption that the full list of projects would be constructed. The Rocking H1 Ranch project is not reasonably foreseeable and is not included as a probable future project, per Section 15130(b)(1)(A) of the State CEQA Guidelines regarding elements that are necessary for an adequate discussion of significant cumulative impacts.
- 8-51 Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.
- 8-52 Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.
- 8-53 Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.



December 12, 2011

Ms. Debra Stratton, Planning Commission
Ms. Rachael Warner, Interim Environmental Coordinator
Marin County Planning Department
Marin County Civic Center 308
3501 Civic Center Drive
San Rafael, CA 94903

HAND DELIVERED

Copy Via US Mail and Via Email

RE: Lucas Valley, Marin County: Comment on the Lucas Film Properties 'Grady Ranch' DSEIR

Dear Ms. Stratton and Ms. Warner,

The Lucas Valley Estates Homeowners Association would like to submit the following written comments on the Draft Supplemental Environmental Impact Report (DSEIR) for the Grady Ranch application.

9-1

We have received a copy of the Richard Grassetto GECO comment letter (copy attached) and we do hereby endorse and reiterate all of the comments, points and new information requests written therein.

We would like to take this opportunity to emphasize and to add to the comments made in the attached letter with the following specific comments:

- 1- Inadequate traffic impact information or traffic mitigation details are provided in the DSEIR. A 'Transportation and Circulation Update' is cited, but not included in the report. There appears to be no information provided to include traffic impact analysis for the construction phase of this development, nor for public and service vehicles for the proposed wine tasting facility, nor for all potential future tenant uses, nor for the likely lunch hour employee travel trips to and from Highway 101. Traffic impacts also do not appear to include all future cumulative traffic impacts which will result from future full occupancy of Skywalker Big Rock offices, nor the potential new Hetfield 1 and 2 developments. There is no detailed, confirmed information of the probability nor precise location(s) of new traffic signals at intersection(s) along Lucas Valley Road, nor clarity as to whether other measures, such as road widening, will likely be required;

9-2
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- 2- As noted in the attached letter, there is also insufficient information provided to explain Noise Impacts, notably the decibel of sound affecting new homes built after 1996. We do also request that a study should be required to further evaluate noise impacts in the context of the acoustical sound effects and true noise impacts in the Lucas Valley corridor. Noise impacts vary and echo in a narrow valley area, so the noise impacts on homeowners in all surrounding neighborhoods should be studied to account for the true acoustical impacts, which may also be altered by the construction of a hill or knoll as described in the revised Master Plan.
- 3- The Impacts of noise pollution and night time light pollution are unacceptable for this residential zoned area if hours of operation are allowed to be 24/7, especially if an outdoor stage is proposed;
- 4- PUBLIC SAFETY IMPACTS are not considered for truck traffic impacts during construction, which may take years. Construction traffic is not evaluated in the DSEIR, particularly in terms of impact on fire and medical rescue vehicle response time. Please note that heavy truck traffic during construction and during operations thereafter is significantly different than car or van vehicle impacts. The shoulder of the Lucas Valley Road is not wide enough to allow slow moving heavy trucks to 'pull over' to allow emergency vehicles to pass. In an area of highest risk for wildfires, and with a large population of residents and motorists who may require emergency medical rescue, the residents of Lucas Valley Estates have concerns that the response time of all emergency vehicles could be dangerously delayed due to a huge increase in large truck vehicle traffic, and this impact requires closer study;
- 5- Additional traffic impacts need to be studied in light of the fact that Lucas Valley Road cannot be widened at several key junctures. The inevitable permanent bottleneck areas which could result would add to both increases green house gas emissions and further impact public safety and emergency vehicle travel response time to residential neighborhoods along Lucas Valley Road;
- 6- The DSEIR fails to consider impacts to downstream hydrology including changes to the volume and temperature of water available to resident downstream steelhead populations and the overall ecological health of Miller Creek. Furthermore, the downstream impacts of head water development should be defined relative to existing conditions and the current high level of channel instability and ongoing erosion in downstream reaches. These erosion impacts will potentially have direct impact on our individual homeowner private properties as well as our community's infrastructure.
- 7- There is no information regarding conditions for future permitted hours of operation, tenant uses, nor new owner potential uses for this light industrial facility in a residential area. The Grady Ranch project was originally described as an office with accessory buildings with five days per week of 9:00am-5:00pm hours of operation. There is not sufficient information in the DSEIR to fully define the new use, potential tenant use, nor hours of operation of this facility which now includes overnight accommodations, wine cave, restaurant, sound stages, outdoor stage and less than 12% office. Additional information about the planned uses and defined limitation and conditions of all future uses of this facility should be required;
- 8- There is no information about duration of road closures of Lucas Valley Road, particularly for all west-bound vehicle and bicycle traffic, during road straightening construction;
- 9- There is no information about duration of potential power outages or roadside construction detours which will impact residents during installation of underground utilities for such a large facility along our narrow, single lane sole access route of Lucas Valley Road.

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Page 3 of 3

10- Land Use Impacts are significant on this residential area, zoned as a night time quiet bedroom community. The residential land use designation for this area is a vital planned component of the County-wide Plan, intended to provide the essential residential areas to house those who work for existing or new Marin County employers, and those who patronize all of the existing retail, entertainment, recreation and service businesses throughout Marin County. The land use impact of this project is to have our existing Lucas Valley residential neighborhoods essentially book-ended by two, detached commercial land use centers: at Highway 101 to the east, and an isolated Grady Ranch commercial facility to the west. The residential neighborhoods between these commercial hubs will necessarily be impacted, and exist as mere adjacent properties to a permanent commercial traffic corridor. This land use impact on all of our residents is so significant that this proposed land use of the Grady Ranch project should not be permitted;

9-12

Finally, we would also like to take this opportunity to comment on the inadequate quality of communication to the community and public;

- 1- There has never been any community meeting held to inform the residents of the Lucas Valley Estates neighborhood (see attached Appendix 1 to this letter for full summary of this comment);
- 2- The Community’s written requests for a New EIR, rather than supplemental EIR, were rejected without explanation or notice;
- 3- The emailed Notices of Availability of the draft SEIR, sent to interested parties only, was not dispatched until Nov. 23, 2011
- 4- No Notice of Preparation was done;
- 5- On-line viewing of application, 1996 EIR and DSEIR were fraught with technical difficulties during the comment period
- 6- Written requests for an extension to the 45 day review period were denied without explanation;

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In conclusion, we do hereby request that the residential land use zoning, as provided in the County-Wide Plan, be respected. We also do hereby request that any allowable uses for the development of the Grady Ranch site be required to provide more detailed studies and more complete information regarding impacts to our community, as specifically mentioned above.

9-19

Respectfully,

The Board of Directors
 Lucas Valley Estates Homeowners Association

Enclosure: 1
 Attachment: 1

CC: Supervisors Susan Adams, Supervisor Katie Rice, Supervisor Kathrin Sears, Supervisor Steve Kinsey, Supervisor Judy Arnold

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APPENDIX 1:

Comment on the Grady Ranch DSEIR
Lucas Valley Estates Homeowners Association
Summary of No Communication, Notifications or Community Meetings
For Lucas Valley Estates Neighborhood 1988 – 2011

Community notification and Community meetings regarding the Lucasfilm Grady Ranch project have never been performed for the immediate neighboring residential subdivision of Lucas Valley Estates. We learned during the Public Hearing on the Grady Ranch DSEIR that Lucasfilm stated that they have fulfilled their requirement for community outreach by having contact and community meetings with the Lucas Valley Homeowners Association (LVHA) and with the Marinwood CSD. However, the Applicant has performed NO such outreach to the Lucas Valley Estates community throughout all of the years 1988 through 2011.

We wish to inform and clarify for the Planning Commission that the Lucas Valley Estates neighborhood, located closest and nearly adjacent to the proposed Grady Ranch facility, was built and did exist for many years before the 1995 original Grady Ranch application. The Lucas Valley Estates homeowners have had NO known notices, communication nor Community Meetings about Grady Ranch, ever, since 1988; not for nor during the 1995 – 1996 original Masterplan Application nor since, until this year. Some Community Development Agency documents which were filed by the Applicant in 2009 and 2010 show a cc: Lucas Valley Estates Homeowners Association, with a disclaimer: all of the cc parties were notified if a valid mailing address was available. The applicant was fully aware that the LVEHOA, first established in 1989, had become inactive and that there was no official LVEHOA organization address at the time of these correspondences, and that residents of Lucas Valley Estates were therefore not being informed nor receiving any notifications. The list of US postal mailing addresses of all Lucas Valley Estates homeowners was available throughout this time.

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The Grady Ranch applicant, Lucasfilm Properties, was fully aware of the existence of the Lucas Valley Estates neighborhood well before the original Grady Ranch application. The Lucas Valley Estates development was built in phases, some built and sold as early as 1988 and the majority of the 174 homes were completed and sold well before 1995. The Applicant certainly was aware of a residential neighborhood of 174 homes, which would be immediately adjacent to Grady Ranch, long before and during the original Grady Ranch original Masterplan application in 1995 and again in submitting new documents in 2009 and 2010.

The only known attempt for indirect communication to the residents who have lived here for over twenty years was made to the Marinwood CSD. The Marinwood CSD, a Community Service District for over eight neighborhoods, including Lucas Valley Estates, did not contact residents of the Lucas Valley Estates nor invite us to any Community Meetings about Grady Ranch, nor notify Estates residents of any applications, notices or public hearings. Unlike the Lucas Valley Estates, all other neighborhoods within the Marinwood CSD are located approximately 2 to 5 miles in distance from the proposed Grady Ranch.

Lucas Valley Estates homeowners, who purchased their homes from 1988 onward through the present, have never been given notices nor invitations to community meetings, nor tours of any Skywalker properties, and there was no disclosure to them that a Masterplan was under application at the Grady Ranch immediately next door, during or since the 1995 original Masterplan application.

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APPENDIX 1(cont'd)

Comment on the Grady Ranch DSEIR

Page 2 of 2

Certainly, after over twenty years, Lucasfilm Skywalker Properties are aware of our existence here, aware that no residents of the Lucas Valley Estates has ever been present at any Community Meetings, and aware that there was no active mailing address for an LVEHOA until it was re-activated in June of 2011. Certainly, if they relied on the Marinwood CSD to inform us, then that should be documented.

The applicant Lucasfilm Properties, was directly and immediately notified of the official contact information for the reactivated LVEHOA, and the information at that time was that a Marinwood CSD Community Meeting which had been cancelled in March, 2011, was being rescheduled and would be announced. No such Community Meeting ever materialized, although there was a comment at the Public Hearing on December 12, 2011 that another Community meeting is being planned for Marinwood in January 2012. The LVEHOA has received no direct communication regarding this.

Many residents of the Lucas Valley Estates who have moved here since 1989 have never heard of the Grady Ranch project or Masterplan, and are hearing about it for the very first time now or no earlier than March of 2011, when a large community meeting was held at the Marinwood Community Center for the Hetfield H2 pre-application and it was announced there would be a community meeting in March 2011 for Lucasfilm to describe Grady Ranch—a meeting which was cancelled and never re-scheduled.

Many think it is a joke when residents of the Lucas Valley Estates express shock and amazement that a Grady Ranch application and Masterplan even exists. It is not a joke, it is the truth.

We believe it is required to directly inform the neighboring community of 174 homes, the Lucas Valley Estates, of an application for a proposed major development. If not in 1995 and 1996, then certainly in 2009 and 2010, when we now see documents submitted to the Community Development Agency which were noted as copied to a known undeliverable address for the Lucas Valley Estates community.

We hereby confirm that to the best of our knowledge Lucas Valley Estates residents and homeowners have never been officially notified, nor invited to any community meetings about Grady Ranch, ever. We also wish to affirm that the Lucas Valley Estates did exist for many years prior to 1995.

The LVEHOA was re-activated in June 2011 in order to re-establish a singular official mailing address for our community, and yet we still have had no invitation since for a Community Meeting regarding the Grady Ranch.

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cont'd

**Letter
9
Response** **Lucas Valley Estates Homeowners Association
Board of Directors
December 12, 2011**

- 9-1 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. Commenter endorses and reiterates comments made by Richard Grassetto of GECO (Letter 8). See “Letter 8 Response” for responses to those comments. This comment is noted. No additional response is required.

- 9-2 Please see Response to Comment 1-2 regarding the inclusion of the Transportation and Circulation Update in this Final EIR.

- 9-3 The Transportation report includes measures to mitigate the potential impacts of the proposed project. Road widening has not been identified, nor is it necessary, for the project.

- 9-4 The comment states that there is insufficient information provided to explain noise impacts, notably the decibel of sound affecting new homes built after 1996. Please refer to Response to Comment 8-37. The analysis considers all applicable standards; and reference noise levels for specific equipment and activities are well documented and the usage thereof common practice in the field of acoustics.

- 9-5 The Environmental Checklist (page 3-88) notes that filming operations would primarily occur within the main building with occasional filming on the outdoor stage. In either case, the building structure would be anticipated to result in a minimum reduction of approximately 12 dBA, in addition to reductions associated with the intervening terrain and distance attenuation (i.e., 6 dBA per doubling of distance). Thus, these would not exceed Marin County’s benchmarks for allowable noise exposure from stationary source noise as noted in Figure 3-43 of the 2007 Marin Countywide Plan.

 In regards to nighttime light pollution, the Environmental Checklist (page 3-6) notes that “potential nighttime lighting impacts may be reduced because the project no longer includes outdoor tennis courts, which were identified as potentially illuminating the surrounding trees and the spur ridge immediately behind the previously proposed courts location. Other sources of light would be similar to the approved Master Plan, and no additional significant impact, or an increase in the severity of a previously-identified impact, would occur.” Additionally, Mitigation Measure 5.5-3 states that “all outdoor lighting should be turned off after 11:00 p.m. if not in use unless needed for safety and security. Safety and security lighting (except street lighting) can usually be at lower levels when the area is not at use.” Please also see Master Response 3, Project Description Details, regarding additional details about the use of the outdoor stage.

- 9-6 The existing conditions on Lucas Valley Road are of vehicular traffic. By law, all drivers on both sides of the road are required to pull as far to the side of the road as possible to allow for the passage of emergency vehicles. The speed of vehicle traffic is not relevant to the passage of emergency vehicles due to this requirement. Some areas have less shoulder width than others, however, this does not impact emergency response time as emergency vehicles are able to use both sides of the road for access. Traffic control plans included in the final CMP to be reviewed and approved by DPW would incorporate provisions for accommodating clear passage of emergency vehicles through road construction areas at all times.

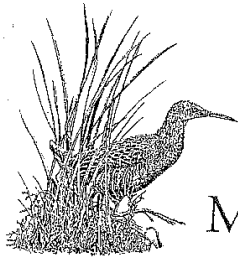
- 9-7 Traffic impacts are addressed in the Draft SEIR under Environmental Issue Area 17, “Transportation/Traffic.” Signalization improvements have been identified to address potential impacts. Aside from the addition of right-turn tapers on westbound Lucas Valley Road at the point of access onto the Grady Ranch project site (Mitigation Measure TRANS-1, page 3-103 of the Draft SEIR), no road widening was identified as required mitigation to reduce impacts. No other road widening will occur.
- 9-8 As documented in the environmental checklist, the project shall comply with Marin County Code 24.04.627 and shall include a stormwater pollution prevention plan (SWPPP) that addresses both temporary (during construction) and permanent (post construction) measures to control erosion and sedimentation and to prevent pollutants from entering storm drains, drainage systems, and watercourses.
- Please see Response to Comment 8-19 regarding text changes to include some additional discussion of potential impacts to riparian and aquatic habitat as a result of stream restoration. New potentially significant impacts to biological resources include potential short-term disturbance to steelhead habitat resulting from construction and initial channel response, and construction-related disturbance or loss of special-status wildlife species. Mitigation Measures BIO-1 and BIO-2 would reduce the impacts to less-than-significant levels.
- 9-9 Hours of operation and uses are described in the project description (Section 2.6, “Project Characteristics” of Chapter 2 of the Draft SEIR). See also Master Response 3 regarding Project Description Details.
- 9-10 Project construction would not include the closure of any portion of Lucas Valley Road. There may be temporary lane closures that would provide one-lane, two-way alternating traffic control, subject to review and approval by DPW of the CMP.
- 9-11 No construction detours are proposed as part of the project. No power outages are planned at this point. Any construction related effects to utilities would be temporary and individuals would be noticed in advance of any occurrences.
- 9-12 This comment is a general statement opposing approval of the project and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. Master Response 4 addresses the issues identified in this comment regarding land use designation, zoning, and allowable uses. No further response is required.
- 9-13 A community meeting for nearby residents is not required under CEQA. See Master Response 2 for a description of the public noticing required by CEQA.
- 9-14 A new EIR is not required under the State CEQA Guidelines. Chapter 1, “Introduction,” of the Draft SEIR states that pursuant to Section 15163 of the State CEQA Guidelines, the Lead Agency may choose to prepare a supplement to the EIR rather than a subsequent EIR if: 1) any of the conditions described in Section 15162 would require the preparation of a subsequent EIR (see page 1-2 and 1-3 of the Draft SEIR for the complete list of conditions), and 2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.
- Upon review of the proposed project, the County determined that the proposed project is consistent with the criteria for preparation of a supplemental EIR. This determination was based

on the analysis included in Chapter 3, Environmental Checklist, of the SEIR. The Environmental Checklist evaluates the CEQA checklist categories in terms of any “changed condition” (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a different environmental impact significance conclusion from the certified Master Plan Final EIR. As discussed in Chapter 3 of the Draft, the changes to the Grady Ranch PDP, in combination with other changed conditions would not result in new or more severe significant effects in the following areas: Aesthetics, Agriculture and Forestry Resources, Energy and Natural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, and Utilities. The changed conditions would result in new potentially significant impacts or an increase in the severity of previously identified significant impacts related to Air Quality, Biological Resources, Cultural Resources, and Greenhouse Gas Emissions. New mitigation measures, identified through environmental review, included in this SEIR would reduce the magnitude of these impacts to less-than-significant levels.

- 9-15 Please see Master Response 2 regarding public noticing.
- 9-16 See Master Response 1 regarding the CEQA Notice of Preparation.
- 9-17 Please see Master Response 2 regarding public noticing.
- 9-18 See Master Response 2 regarding public noticing and the extension of the public comment period..
- 9-19 This comment is a general statement and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. Master Response 4 addresses the issues identified in this comment regarding zoning and allowable uses. No further response is required.
- 9-20 See Master Response 2 for a description of the public noticing required by CEQA. CEQA Guidelines Section 15202 states that CEQA does not require formal public hearings at any stage of the environmental review process. Marin County’s Environmental Impact Review Guidelines require at least one public hearing on the adequacy of the Draft EIR prior to, or at the close of, the public review period. As noted above in the introduction to this section, oral and written comments were accepted at a hearing on the Draft SEIR held by the Planning Commission on December 12, 2011. In addition to reviewing and commenting on the Draft SEIR, members of the public will have the opportunity to review and comment on the Final SEIR and attend the public hearing at the Planning Commission for consideration of the Final SEIR and the project merits.

Handwritten signature: Harold Silver

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Marin Audubon Society

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December 12, 2011

Peter Theran, DVM, Chair -
Planning Commission
3501 Civic Center Drive
San Rafael, CA 94903

RE: GRADY RANCH PRECISE DEVELOPMENT PLAN DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

Dear Dr. Theran and Commissioners:

The Marin Audubon Society appreciates your consideration of our comments on the Grady Ranch Precise Development Plan Draft Supplemental Impact Report. While some impacts have been reduced by the project revisions, a number of mitigation measures are vague and inadequate. Our comments focus on the impacts to biological and aquatic resources impacts:

1. Creek Restoration -

Our primary concern is about the untested creek restoration design. Sixty-eight thousand cubic yards of fill material would be placed in the creek for a length of one and one-half miles. As it is a balance cut and fill, it sounds as though a primary reason for this action might be to use up material excavated from elsewhere on the property.

The DSEIR supports the design explaining that it recognizes there is a "slight risk of problems but thus far in the designers of the restoration plan are demonstrating a clear understanding of the stream processes." (page 7-74) It is not clear whether the EIR preparers have a background that would qualify them to make this evaluation, but at any rate understanding stream processes is not the same as designing a successful restoration.

According to the DSEIR, "Appropriate and redundant elements have been incorporated" (p 3-7) and it concludes that the creek restoration would be successful and there would be no significant impacts from raising the bed elevation of the creek. No evidence is provided to support this evaluation.

As we understand, this design has been used in a few other creeks, but for much shorter lengths. The EIR should discuss other places where this design has been used, the length of creek it was used on, the success of the design, and problems that have resulted. Using this relatively untried design on a Creek with an important special status species population is fraught with risks to the species and to downstream habitats, if it does not function as hoped or expected.

10-1
10-2

A Chapter of the National Audubon Society

In addition we recommend the following:

- the design, including the length, be peer reviewed by a recognized scientific expert in stream restoration. The SEIR should contain a review of this evaluation. The results of the evaluation should be subject to review by the public and not just presented behind the scenes to agencies. The SEIR should not be released until that evaluation is completed and is included in the information provided.

10-3

- permit conditions should require the property owner to allow the relevant county staff and/or qualified engineer/geomorphologist assigned by the county, as well as applicable agencies (Corps, DFG, and RWQCB) on the property to inspect and evaluate the condition of the restoration as often as deemed appropriate by County Public Works.

10-4

The mitigation discussion on 5-1-2 Page 3-52, fifth point riparian planting oversight should be conducted by a riparian biologist or ecologist - not a landscape architect as is recommended here. Point 7 calls for consideration of removal of any tree that threatens the stability of the streambanks. Downed trees provide important habitat functions in streams and should not be removed automatically.

10-5

Impact 5.3.5 p (3-36) Simply because a creek is degraded does not mean the buffer width should be degraded. A 100-foot setback should be provided along the west bank of Grady Creek

10-6

2. Tree Impacts -

While we applaud the significant reduction in trees that would be removed, 411 is still too many. On this large parcel, it is hard to believe that a project could not be designed to save all existing trees, as it has been redesigned to save 2,374 with a diameter of 14 inches or more. Planting young trees, even in great numbers and even if they survive, is never an adequate mitigation for the loss of mature trees because mature native trees have habitat and other values that are not replaced for many years, if they ever are. The magnitude of tree loss impacts is likely minimized because the DSEIR does not say how many smaller trees would be lost. How many smaller trees would be removed?

10-7

Our first preference is avoidance of impacts by redesigning the project. As the next alternative, existing trees should be relocated as mitigation. Mature trees could be transplanted to a suitable location if development truly can't be relocated. The DSEIR should discuss the success of transplanting mature trees which we understand has been done successfully in the Monterey area.

10-8

New Mitigation measure for creek restoration, on page 3-39: Large trees should be retained to the greatest extent feasible. This is unclear direction. The county stream ecologist should evaluate trees to be removed, not the applicant's consultant (3-39).

10-9

3. Deer Fencing -

We strongly object to excluding native species with fencing. We agree that native wildlife should not be fenced from water, and the creek should be open as a movement corridor for all wildlife. To do otherwise would be a significant adverse impact.

10-10

What is the acreage that would be excluded? A figure should be included showing the area to be

fenced.

10-10
cont'd

The SEIR should discuss the cumulative impact of this fencing, along with the areas fenced on other Lucas properties on native terrestrial species. What is the total of the existing area fenced on the other two Lucas properties?

10-11

We recommend that fencing be permitted around buildings and building envelope.

4. Mitigation delayed for preparation of future plans

Many mitigations are put off for the development of plans to some future time. These plans should be developed now and the information provided in the SEIR to for public review. At least the following plans are delayed for some future time, meaning that their content will not be available for review by the public.

10-12

- Landscape and Vegetation Management Plan should be prepared in preliminary and discussed in the SEIR. A number of aspects are to be included in the Plan. All should be

10-13

- Grassland restoration and enhancement Program should be provided. Where the native grasslands are now and in what areas would the development invade the grassland , should be discussed. These areas should be shown on a figure.

- Detailed Wetlands Protection, Replacement and Restoration plan- According to the DSEIR "some direct loss of wetland would occur (and) secondary impacts may result from erosion and water quality degradation". The acreage and locations where wetlands would be lost should be shown on a map. The location of the wetlands that would be lost should be discussed, shown on a figure and where the mitigation would take place should also be discussed and shown. The suitability of site mitigation site, e.g. primarily presence of water, etc.) should be discussed. Performance criteria and the implementation schedule should all be provided, not put off for some future time and plan.

10-14

5. Raptor Impacts -

5.3.6 - Raptor nests -

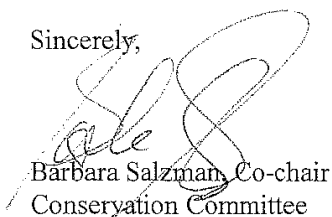
All grading should be required to be scheduled outside of nesting season period.

There should be no reason why this is not feasible, as allowed in the mitigation. Work in the creeks, woodland and grassland habitats should be required to be conducted out of nesting season.

10-15

Thank you for considering our comments.

Sincerely,


Barbara Salzman, Co-chair
Conservation Committee

Phil Peterson, Co-chair
Conservation Committee

**Letter
10
Response** **Marin Audubon Society
Barbara Salzman and Phil Peterson
December 12, 2011**

- 10-1 As stated on page 2-21 of the Draft SEIR, the intended goals for the restoration plan are to reduce sediment delivered to San Francisco Bay; enhance the stability of Miller Creek and the network of tributary creeks; expand the habitat accessible to steelhead; increase aquifer storage thereby increasing spring and summer baseflows; enhance the vigor, extent, and resilience of riparian vegetation; and maintain channel functions and form during episodic events. Several technical reports were prepared by the project applicant addressing the existing stream conditions and riparian resources, describing the proposed stream restoration elements, providing examples of similar restoration projects, and explaining the mitigation and monitoring that would be conducted as part of the proposed restoration. The technical reports are available for review (see Master Response 2, Document Availability) and were peer reviewed by the SEIR preparers who have over 50 years of combined experience in stream restoration design, are reputable firms (cbec Eco Engineering and Ascent Environmental), and are considered experts in the stream restoration field.
- 10-2 Components of the proposed restoration design have been implemented regionally. Example projects include Miller Creek at Lucas Valley Estates; Spirit Rock and Flanders Properties; numerous stream gully restoration projects to restore Sierran meadow stream and valley conditions, including on Dixie and Red Clover Creeks, and in the upper Feather River watershed in Plumas County; and Stevens Creek in Santa Clara County. Regional analogs for the proposed method of restoration are included in the following document, which can be accessed at CDA's Environmental Impact Review website at <http://www.co.marin.ca.us/depts/CD/main/comdev/eir.cfm>.
- ▲ Balance Hydrologics. 2011. *Regional Analogs to Proposed Restoration of Miller Creek, Grady Ranch, Marin County, California*.
- 10-3 Please see Response to Comment 10-1. Cbec Eco Engineering peer reviewed the proposed Precise Development Plan, the *Stream and Valley Floor Restoration Vision*, and additional application materials provided by the project applicant, as well as materials submitted for the Joint Aquatic Resource Permit Application (JARPA). JARPA is a permit application form that consolidates federal, state, and local permits and simplifies the permit process for applicants proposing construction, fill placement, public access impingement, and other development activities in or near aquatic environments and wetlands in the San Francisco Bay Area. JARPA participating agencies include the California Coastal Commission, California Department of Fish and Game, San Francisco Bay Conservation and Development Commission, San Francisco Bay Regional Water Quality Control Board, State Lands Commission, State Water Resources Control Board, U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Environmental Protection Agency Region 9, U.S. Fish and Wildlife Service, and the U.S. National Marine Fisheries Service, San Francisco Bay Region. 10-4 As stated on page 3-75 of the Draft SEIR, the applicant has agreed that periodic inspections/surveys of the stream restoration would be conducted by a qualified professional to ensure that key design elements of the restoration project are intact and functioning as designed. The terms of these inspections are detailed on page 3-75, including the notification of Marin County DPW staff and all applicable federal, state, and

regional agencies if the inspections discover any area of potential weakness or potential loss of integrity of the restored stream features.

- 10-5 The mitigation measure referenced in the comment was approved as part of the 1996 FEIR, and has still been deemed adequate and therefore incorporated into the Draft SEIR.

The comment about the importance of down trees to stream habitat function is noted and consistent with the project. Under the mitigation measure referenced in the comment, tree removal would be considered where a tree is in imminent danger of collapse or presents a real threat of extensive new bank erosion. The restoration design incorporates the use of woody debris for additional channel complexity and, where added as secure structures, to help dissipate flow energy and increase bank stability. Also, Mitigation Measure BIO-1 (page 3-39 of the Draft SEIR) requires that “large trees removed on the project site or existing in-channel large woody debris (LWD) will be incorporated into creek restoration to the greatest extent feasible. LWD in areas outside of the project site will be avoided and left in place.”

- 10-6 Master Plan Condition of Approval 9 approves a 50-foot stream conservation area for Grady Creek due to the disturbed conditions of the creek with limited riparian vegetation from previous ranching activities and a finding that the reduced setback would not result in impacts to the creek. See Finding VII.B. in Exhibit 2 of Master Plan Ordinance 3237:

“.....A 50-foot SCA on Grady Ranch is appropriate because: (1) past land management practices have extensively degraded and damaged creek channels, increased erosion and sedimentation, reduced riparian vegetation, and limited wildlife access; and (2) extensive measures to naturally repair, stabilize and restore degraded and damaged creek channels to greatly enhance habitat value, improve water quality, reduce erosion and sedimentation, and maintain flood runoff capacities would be implemented by the project. Thus the overriding objectives of SCA policies would be met.”

- 10-7 A large portion of the reduction in the potential tree loss is a result of changes to the fire access roads for the project. However, it is not feasible to avoid all potential impacts to trees on the project site. Of the 411 surveyed impacted trees, 306 are native trees larger than 12 inches DBH that would require compliance with Mitigation Measures 5.3-2.

- 10-8 Removing and relocating mature trees is not proposed as part of the project, and would be a new substantial impact requiring environmental analysis. Implementation of the Tree Preservation Guidelines Report and Tree Replacement Report (available on the Community Development Agency website at <http://www.co.marin.ca.us/depts/CD/main/comdev/eir.cfm>), as part of FEIR Mitigation Measure 5.3-2, is expected to meet the mitigation requirements of the 1996 Master Plan FEIR and County policies for tree and woodland protection. Implementation of these reports (as revised to reflect final tree removal estimates, if needed), would mitigate for tree removal and loss of oak woodland. No new mitigation would be required.

- 10-9 The mitigation measure noted in the comment (Mitigation Measure BIO-1) states that large trees removed on the project site or existing in-channel large woody debris (LWD) would be incorporated into creek restoration to the greatest extent feasible. This measure addresses use of tree materials after removal, but is not intended to provide direction regarding which trees are removed or how the evaluation of trees for removal would occur. The comment is noted.

10-10 Deer fencing is no longer proposed as potential mitigation. While a portion of the text of Mitigation Measure 5.3-5(d) was revised as part of the Draft SEIR, the full text change was not included. The text of Mitigation Measure 5.3-5(d) on page 3-36 is further revised to read as follows:

~~5.3-5(d) Methods to exclude deer from the proposed development areas should be coordinated with and meet with the approval of the California Department of Fish and Game. The importance of maintaining wildlife corridors along stream channels and across the valley floors must be balanced with long-term management problems and property damage to landscape improvements from deer. The proposed location of deer fencing around the perimeter of the development areas should be adjusted to preserve important wildlife movement corridors on Grady Ranch and to maintain partial access to the reservoir on Big Rock Ranch. Modifications to the alignment of exclusionary fencing should include the following:~~

~~1) Wildlife access along Landmark Creek should be maintained by ending the proposed exclusionary fencing at the northeast bank of this stream. This would leave the Ancillary Building and surrounding hillside slopes outside the exclusionary fencing, reducing the extent of restricted habitat by almost 30 percent and providing access along an important tributary drainage.~~

~~2) A north-south wildlife movement corridor should be provided between the eastern property boundary and Grady Creek to maintain wildlife access across the eastern edge of the site. Exclusionary fencing could follow the east side of Grady Creek from the confluence with Miller Creek to an elevation of approximately 240 feet, then up the spur ridge along the eastern edge of the dense forest habitat. A minimum of 100 feet should be provided between the property boundary and the exclusionary fencing at an elevation of approximately 335 feet to maintain the top of the spur ridge as an open corridor. At an elevation of approximately 400 feet, the fencing should veer from the spur ridge and drop back down to the Grady Creek channel, following the contour interval, crossing the creek channel, and intersecting with the proposed fence alignment on the west side of Grady Creek.~~

- ~~3) Wildlife access should be maintained on the south side of the expanded reservoir on Big Rock Ranch. Exclusionary fencing could be screened behind proposed Riparian Tree Mass plantings on the southern end of the new dam and drop down into the reservoir. The fencing could then continue near the tributary drainage which converges with Dairy Creek just south of the western structure of the Main Office Building. Cattle should still be restricted from the sensitive native grasslands associated with the serpentine outcrops, as recommended in Mitigation Measure 5.3.3. [1996 FEIR - R]~~

10-11 Please see Response to Comment 10-10 regarding fencing.

10-12 Please see Response to Comment 8-24 regarding mitigation measures for the provision of additional plans and reports.

10-13 Please see Responses to Comments 8-22 and 8-24 regarding the *Native Grassland Restoration and Enhancement Report* that has already been prepared, as well as mitigation measures for the provision of additional plans and reports.

- 10-14 Please see Response to Comment 8-23 regarding the Wetland Mitigation and Monitoring Plan.
- 10-15 Please see the response to comment 8-19 regarding Biological Resources mitigation language and commitments.

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Ms. Rachel Warner
Interim Environmental Coordinator
Planning Department
Marin County Community Development Agency
3501 Civic Center Drive
San Rafael, CA 94903



December 12, 2011

SUBJECT: GRADY RANCH PRECISE DEVELOPMENT PLAN DRAFT SUPPLEMENT TO THE GRADY RANCH/BIG ROCK RANCH MASTER PLAN 1996 DRAFT ENVIRONMENTAL IMPACT REPORT

Dear Ms. Warner:

Marin Conservation League (MCL) appreciates this opportunity to comment on the adequacy of the Draft Supplement to the Grady Ranch/Big Rock Ranch 1996 Final Environmental Impact Report (DSEIR) for the Grady Ranch Precise Development Plan (Project).

The SEIR is just one part of the extensive administrative record on which the merits of the Grady Ranch project will be evaluated. It is a key part of the record, however, in that it should provide enough information to clearly describe the project, and sufficient analysis to assure the public and decision makers that all potentially significant impacts have been identified, that mitigation measures are fully analyzed and found to be reliable and feasible, and that alternatives that might lessen any significant impacts have been fully considered. Mitigation measures are of particular importance, for they are the basis of conditions that will be attached to any project or alternative that might be approved.

11-1

The purpose of these comments is to identify areas in the Draft SEIR that, in MCL's view, either do not comply with CEQA Guidelines or do not provide sufficient data or analysis to support informed decision making and therefore must be corrected or amplified in the Final SEIR. In its present form, the Draft SEIR is not adequate. We refer you also to a letter from Grasseti Environmental Consulting, dated December, 2011, which reviews the Draft SEIR in detail. In addition to our own observations, we have selected and summarized key points discussed by Mr. Grasseti.

General Comments on the Draft SEIR

The majority of deficiencies in the DSEIR stem from reliance on the conceptual program-level Master Plan EIR for what should be detailed project-level analysis of the Grady Ranch PDP. We agree that a supplement to an EIR need contain only the information necessary to

11-2

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Marin Conservation League was founded in 1934 to preserve, protect and enhance the natural assets of Marin County.

make the previous EIR adequate for the project as revised (CEQA Guidelines Section 15163(b)). However, since the subject of the Draft SEIR is a PDP (“Project”), we do not agree with the DSEIR’s assertion that it evaluates the potential impacts of the revised Grady Ranch Project at a project-specific level. The DSEIR provides a general comparison of the impacts of the current project and conditions with those evaluated in the 1996 FEIR; and it incorporates the Program EIR mitigations and adds new mitigation measures as warranted, but It does not provide project-level analysis commensurate with the available information on the project design presented in the PDP.

11-2
cont'd

The lack of project-specific analysis is evident in omissions in the project description such that potentially significant impacts are overlooked; analyses and/or mitigation measures are deferred to future plans and studies so that the adequacy of proposed mitigation measures cannot be determined; and technical analyses do not provide sufficiently detailed information to evaluate the project’s potential impacts.

11-3

MCL is not challenging the County’s notification procedure for the DSEIR. Although 20 years have elapsed since the County issued a Notice of Preparation in 1991 for the first EIR on the Grady Ranch/Big Rock Ranch Master Plan, compliance with CEQA Guidelines requires only that the County issue a Notice of Availability for the recently-published Draft SEIR. However, in consideration of the long hiatus since the NOP was issued, and in the interest of transparency and the spirit of “early public consultation” (CEQA Guidelines Section 15083), an informal “notification” that a Supplemental EIR would be prepared would have been a useful means of providing responsible agencies and interested parties the opportunity to comment on the scope. For example, the major creek restoration plan will require permits from several responsible agencies, including the U.S. Army Corps of Engineers, Department of Fish and Game, San Francisco Bay Regional Water Quality Control Board. These agencies will likely use this SEIR in their permitting actions and, therefore, should have been provided the opportunity to comment at an early stage – *or were they consulted in some manner during preparation of the SEIR?*

11-4

The long gap in time since issuance of the NOP, which normally establishes the baseline for impact analysis, also has created confusion as to what baseline should be used in the DSEIR (See further discussion below).

11-5

Specific Comments on the Draft SEIR

1. The Project Description (DSEIR Chapter 2.) lacks information on important onsite and offsite components.

The DSEIR focuses on impacts of the project facilities on the Grady Ranch site and a small nearby area of Lucas Valley Road. The project description mentions but does not discuss the expansion of off-site water supply facilities, such as extension of recycled water pipelines to a golf course distant from the site, a new pump station and extension of both potable water and wastewater lines to the site. The project may also require upgrading/ extensions/expansions of other offsite utilities, which are not mentioned.

11-6

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Because the project is dependent on these utility improvements, they must be described in the Final SEIR and any impacts identified and mitigated if they are potentially significant. If any of these improvements have been addressed in other environmental documents (i.e., prepared by MMWD, the water provider), they should be noted and incorporated by reference. (See also discussion of Water Supply under Utilities, below.) In addition, the Final SEIR should identify whether the Grady Ranch facility will require any infrastructure expansions on or adjacent to the existing Skywalker Ranch or Big Rock Ranch facilities

11-6
cont'd

The Project Description also lacks typical project-level EIR details of project components, and therefore may overlook or understate impacts of both construction-phases and operation of the project. These are listed on Pages 3 and 4 of Grasseti (December 2011). The following should be added to that list:

- Irrigation system and water source for non-producing (i.e., landscape) vineyard, as compared to other irrigation for plantings described as “enhancing native vegetation”
- Geothermal heating exchange system, frequently mentioned as mitigation for energy use but never described
- 40,000 square-foot wine cave (tunnel): the rationale for its size, its use, and details of its excavation

11-7

Some of the missing items are in the PDP but not in the DSEIR. The PDP submittals include project details as well as technical studies and reports that have been made available to the public only during business hours. These should be briefly summarized in the Project Description and included in technical appendices. Other project description items apparently were not included in the PDP because they have been deferred to future studies. As a result, the project description does not contain adequate information to fully consider the potential impacts of the project, as required in analysis of a PDP. These omissions must be addressed in the Final SEIR.

11-8

2. The descriptions of setting conditions are not sufficient to allow comparison of existing and post-project conditions and impacts, and baseline is not defined.

For example, the DSEIR contains no past and existing flow data for Miller Creek, and therefore provides no baseline at all upon which to evaluate the project’s runoff impacts to the creek. Some of the checklist discussions use existing conditions as the setting baseline, while others compare impacts with the 1996 conditions, for example, water supply and traffic. The NOP 1991 baseline year is not evident in any analysis (“Where an EIR is required for a project, the baseline for assessing impacts will normally be the environmental setting for the project at the time a notice of preparation was issued” [Remy, Thomas, et al. Guide to CEQA, 2007]). This confusion of baselines should be explained in the Final SEIR, since CEQA offers some latitude in choice of baseline for supplemental and subsequent EIRs.

11-9

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3. The Project Objectives listed on pp. 2-5 of the DSEIR are too narrowly defined to allow meaningful consideration of alternatives.

The CEQA Guidelines make clear that the project objectives drive the agency’s selection of a reasonable range of alternatives. The Project Objectives listed on Page 2-6 and 2-7 are crafted so narrowly that they effectively limit the range of alternatives to the existing site. The alternatives “analyzed” in the DSEIR are drawn from the Master Plan EIR rather than focused on reducing impacts to the proposed Grady Ranch development site itself. Project alternatives could include off-site options (such as elsewhere in San Rafael), or reduced or redesigned project options to break up mass or lower the height. (Additional alternatives have been suggested by neighbors. [See Grasseti, December 2011])

11-10

4. Technical analyses are either inadequate or improperly defer analyses and/or plans

Aesthetics

The DSEIR does not provide design details or visual simulations of buildings, the enlarged water tank, or revised grading elevations. In particular, the new 400,000 gallon water tank would be a major visual element. In addition, a number of new homes with views of the site have been constructed in the project vicinity since 1996. The discussion does not provide adequate information to support a conclusion of insignificance. Mitigation 5.5-8 defers design of the water tanks to a later stage. The Final SEIR should describe the tank design and assess its impacts to the visual environment. It should also show the locations of the new homes and, through simulation, indicate how views from those homes would change.

11-11

Agriculture

We appreciate that the number of trees to be removed under the Master Plan has been substantially reduced in the current project. Nonetheless, Mitigations 5.3-2a, b, c, and d inappropriately defer final tree removal plans, guidelines, and replacement to a later approval stage. The Final SEIR should provide maps of trees proposed for removal and tree removal guidelines for public and agency review.

11-12

Air Quality

Since approval of the Master Plan EIR in 1996, new residences in the immediate neighborhood have become potential receptors of air pollutants. The construction emissions discussion concludes that new mitigation measures AQ-1a and AQ-1b that would reduce the project’s significant construction emissions to less-than-significant levels. However, no calculations or analyses are provided to support this conclusion. The health-risk assessment (HRA) called for in mitigation AQ-2 should be included in the project-level Final SEIR and not deferred to a future time.

11-13

Biological Resources

The most obvious revision to the current project is the addition of 1.5 miles of stream restoration. While the objective is to gain long-term benefits, the construction of these

11-14

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improvements has inherent risks and could result in significant impacts to biological resources on site and downstream of the site during and post construction. The DSEIR briefly acknowledges that “construction-related disturbance or loss of special status wildlife species would substantially increase the severity of the previously identified significant impact.” The DSEIR then concludes that this impact would be reduced to less than significant by new mitigation Bio-2. However, mitigation Bio-2 includes the phrases “to the extent practicable” and “attempt to focus, adding doubt as to the predictability of performance of the mitigation as well as its feasibility. A revised measure in the Final SEIR should include performance standards and clearly state what will and will not be done to reach them.

11-14
cont'd

Biological impacts relative to pre-project baseline conditions, and mitigation measures associated with high flow (urbanization) and low flow (headwater storage) changes to the flow regime should be clearly described in the Final SEIR. Biological and riparian impacts downstream of the proposed project should be given equal weight to on-site impacts.

11-15

Numerous plans are referenced in the DSEIR but they are not summarized or provided in an Appendix. These include among others: Wetland Mitigation and Monitoring Plan, Tree Preservation Guidelines Report, and Tree Replacement Report; Landscape and Vegetation Management Plan, Special- Status Plant Protection Program, and detailed Wetland Protection, Replacement, and Restoration Program, called for in the 1996 program EIR’s mitigations. These should have been prepared prior to issuance of this DSEIR (or were they?) and summarized in the Final SEIR. Without reviewing them, it is not possible to determine how effective they would be in reducing impacts to biological resources on site and downstream.

11-16

Greenhouse Gas Emissions

The project’s greenhouse gas (GHG) emissions are more than twice the BAAQMD’s “Efficiency Threshold” levels, due in part to the site’s location distant from residential areas or mass-transit hubs. This estimate was based on “an annual average of 170 employees per day,” whereas the actual project employment would be double that number to 340 employees. Therefore, the GHS (and possibly overall air pollutant emissions) appear to be substantially underestimated in this SDEIR. Further, table GHG-3 indicates that the vast majority of project GHG emissions result from the high electricity use associated with the light industrial activities proposed for the site.

11-17

The DSEIR’s mitigation measures fail to provide any actual mitigation for its GHG emissions. The best explanation of how the project’s greenhouse gas emissions might be *offset* through funding a County-wide Climate Action Plan (CAP) is provided in a letter from the BAAQMD, dated December 8, 2011. The details of that letter should be provided in the Final SEIR or the letter attached, as a clear explanation of how the CAP offset would work. Otherwise the mitigation is not adequate to reduce the impact to less-than-significant.

11-18

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Hydrology and Water Quality

The DSEIR does not provide project-level analysis of construction impacts on water quality from the creek restoration plans and the associated changes in channel grade, nor impacts on storm and low flow conditions onsite or downstream. In the absence of baseline hydrologic conditions, the project impacts cannot be measured. The analyses are not sufficient to conclude that proposed stormwater controls, and restoration efforts will mitigate potential impacts on water quality or high flow regime on site and downstream. Similarly, potential impacts to groundwater resources and summer baseflow regimes critical to sustain downstream populations of steelhead and resident biological resources are not sufficiently analyzed. The Final SEIR must fully address these critical issues.

11-19

Noise

A number of new houses constructed in the project area since 1996 now qualify as sensitive receptors of both construction noise and potential single-event noise, such as blasting or uses of the outdoor stage. Therefore, the noise analysis should be expanded in the Final SEIR to evaluate the increase in noise levels at the receptors during the 2.5-year construction period. Given its omission in the DSEIR, we suggest that a single-event noise criterion that is protective of local residential land uses be added to the Final SEIR, and that potential single-event project noise incidents be compared to this standard.

11-20

Transportation and Traffic

The traffic analysis in the DSEIR refers to a February 2010 Transportation and Circulation Update but fails to summarize that update or include it as an appendix. In addition, there's no analysis comparing the project with existing conditions. Instead, the DSEIR defers the analysis and promises a "plan to plan," which is impermissible under CEQA. The Final SEIR should include a peer review of the Transportation and Circulation Update by the County.

11-21

Utilities and Service Systems

The water supply discussion in the DSEIR is entirely inadequate. At the simplest level, the discussion on Page 3-106, which references the 1996 EIR's 120,000-gallon water tank, should have been updated to account for the project's 400,000-gallon tank plus 40,000-gallon additional tank and how these tanks are to be utilized and how they will impact views of the site.

11-22

With respect to water supply, the 1996 EIR's evaluation is out of date and must be updated in the Final SEIR to current water supply/demand conditions. The discussion in the DSEIR is far from complete in stating: "It is expected that MMWD currently has capacity to serve the development based on consultation between the project applicant and MMWD." In fact, MMWD would not have the capacity to serve the project, absent an offset funded by the applicant to enable expansion of recycling facilities elsewhere in the District. Further, the 2007 Countywide Plan contains policy program PFS-2.r that states: "In water districts where there is insufficient water to serve new construction or uses requiring an additional water meter or increased water supply . . .the County shall require new construction or uses to offset demand so that there is no net increase in demand." The Final SEIR must provide evidence and analysis supporting the DSEIR's claim, and explain how the new water demand complies with the Countywide Plan.

11-23

ADV_LUT_GradyRanchSDEIR_MCL_12.13.2011

The discussion indicating that water supply offsets are being sought by the applicant must fully disclose the arrangement with MMWD and evaluate any offsite impacts in the Final SEIR. If supplemental water supply is required for the project, then the Final SEIR must identify its source and evaluate the possible effects on groundwater and surface water resources, if these are utilized, and, if so, the effects on fisheries in local streams.

11-24

4. Mandatory Findings of Significance

The Cumulative Impacts discussion is outdated and incomplete. The Final SEIR should describe the current conditions – which of the projects identified on p. 3- 109 have been constructed? Are new projects proposed? The proposed Rocking Horse Phase 1 and 2 projects should be added to the cumulative projects list and preliminary evaluations of their impacts included in cumulative impact discussion under each technical section, or in a final discussion. Currently, there is no such evaluation in the DSEIR; the “evaluation” on pp. 3-109-110 is merely a statement of conclusions and not an evidence-based evaluation of cumulative impacts.

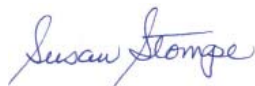
11-25

5. Conclusion

The net effect of the above-referenced deficiencies is that the DSEIR fails to adequately identify the project’s potentially significant environmental impacts, and, more seriously, afford assurances that impacts will be mitigated in a timely manner. The Final SEIR must come back to the public and decision makers with a full analysis that enables informed decisions on the project’s merits.

11-26

Sincerely,



Susan Stompe
President

ADV_LUT_GradyRanchSDEIR_MCL_12.13.2011

**Letter
11
Response**

**Susan Stompe
Marin Conservation League
December 12, 2011**

- 11-1 The comment is a preamble to the remainder of the letter.
- 11-2 Please see Response to Comment 8-3 regarding the appropriateness of a Supplement to an EIR in this case.
- 11-3 The comment does not include specific omissions in the project description or specific potentially significant impacts that have been overlooked in the analysis. Additional information regarding the conduct of the analyses is included in this Final SEIR, including the text of the updated transportation and circulation study (see Appendix B). Additional details have also been added to the Project Description (see Master Response 3).
- 11-4 The comment is noted. Please also see Master Response 2 regarding public noticing. Please also see Comment Letter 3 regarding receipt and distribution of the Draft SEIR by the California State Clearinghouse. In addition to the consultations with public agencies conducted by the project applicant, Marin County CDA staff have consulted with the following agencies:
- ▲ California Department of Fish and Game
 - ▲ San Francisco Bay Regional Water Quality Control Board
 - ▲ Sonoma/Marin Mosquito and Vector Control District
 - ▲ US Fish and Wildlife Service
 - ▲ US Army Corps of Engineers
 - ▲ US NOAA National Marine Fisheries Service
 - ▲ Caltrans
 - ▲ Bay Area Air Quality Management District
- 11-5 Please see Responses to Comment 8-4 and 8-7 regarding the existing setting information (baseline) for the Draft SEIR.
- 11-6 Please see Responses to Comment 8-5 and 8-7. The Proposed Project would not require infrastructure extensions from the existing Skywalker Ranch or Big Rock Ranch facilities.
- 11-7 Please see Response to Comment 8-7 regarding the requirements for the project description.
- 11-8 Please see Response to Comment 8-7 and Master Response 2 regarding document availability.
- 11-9 Consistent with CEQA, the impact discussions in the Draft SEIR compare the proposed Grady Ranch Precise Development Plan to the baseline conditions (existing setting) in place at the beginning of the current technical environmental analyses (2010 to 2011). Where applicable, the SEIR then analyzes the adequacy of the previously proposed mitigation measure to assess if the mitigation measures would still reduce the current impacts to less-than-significant levels. Appropriate mitigation measures are carried forward, with some modifications to reduce the potential impacts to less-than-significant levels. New mitigation measures are included to further reduce impacts and to mitigate impacts that were not identified in the 1996 Master Plan

- EIR. Please also see Response to Comment 8-4 and 8-7 regarding the existing setting information (baseline) for the Draft SEIR.
- 11-10 Please see Master Response 5 addressing Project Alternatives.
- 11-11 Please see Response to Comment 8-12 regarding the aesthetics discussion. The discussion under Item 1, Aesthetics, of the Environmental Checklist provides sufficient information (including an illustration of grading sections for the proposed knoll) to describe potential changes in views.
- 11-12 Please see Response to Comment 8-24 regarding mitigation measures for the provision of additional plans and reports.
- 11-13 This comment suggests that a quantitative analysis (HRA) should be prepared to support the conclusion that mitigation measures AQ-1a and AQ-1b would reduce the project's significant construction-related TAC emission to less than significant. Please see Response to Comment 7-4, above.
- 11-14 Please see Response to Comment 8-19 regarding Biological Resources mitigation language and commitments.
- 11-15 Please see Response to Comment 8-20 regarding downstream impacts.
- 11-16 Please see Responses to Comments 8-23 and 8-24 regarding status and availability of additional plans and reports.
- 11-17 This comment suggests that GHG emissions appear to be substantially underestimated. GHG emissions were estimated based on project-specific information wherever possible (e.g., energy consumption and employee commute estimates) and conservative assumptions. Specifically, mobile-source emissions associated with employee vehicle trips to the project site were based on the annual average employees per day (i.e., 170 employees/day). Use of the project's total employment (i.e., 340 employees) for annual mobile-source GHG emissions modeling would substantially over-estimate annual GHG emissions associated with operation of the project. The assumptions used to estimate project-generated GHG emissions are reasonably conservative.
- 11-18 The commenter requests details of how the project's GHG mitigation measure regarding offsite mitigation would be implemented. Please see the letter from BAAQMD dated 12/8/11 included as Comment Letter 7 in the Final SEIR.
- 11-19 Please see Responses to Comments 8-35 and 9-8 regarding baseline hydrologic conditions and potential erosion and sedimentation impacts, respectively. Raising the bed elevation of Miller Creek should theoretically improve aquifer storage and lengthen the duration of summer baseflows within the watershed. Miller Creek is highly incised and the channel's relatively low elevation has likely lowered groundwater levels in the alluvial aquifer adjacent to the creek, with the lower stream elevation acting as a 'drain' cutting through the middle of the alluvium. Lower groundwater levels have led to stranding of banktop vegetation, decreased aquifer storage volume, and decreased baseflow in downstream reaches of Miller Creek. Raising the bed elevation should improve aquifer storage compared to existing conditions and, therefore, enhance riparian and aquatic habitat in the creek. Additional information on the project's impacts to groundwater resources and summer baseflow regimes can be found in the 2011

- Balance Hydrologics Regional Analogs document (see Response to Comment 10-2 for a full citation).
- 11-20 The comment states the analysis should consider construction and single-event noise at new houses. Please refer to Response to Comment 9-4.
- 11-21 The traffic analysis included in the Draft SEIR does not compare the proposed Grady Ranch PDP to the previously proposed Master Plan. The analysis compares potential impacts from implementation of the PDP to existing conditions that were present at the start of the transportation and circulation update. The updated report is included in this Final SEIR as Appendix B. No additional traffic analysis has been deferred. Please see updated text in the Environmental Checklist regarding the peer review of the 2010 Transportation and Circulation Update that was provided for the Draft SEIR transportation analysis.
- 11-22 Please see Responses to Comments 8-13 and 8-46 regarding status and visual impact of the 400,000 gallon tank.
- 11-23 Please see Response to Comment 8-5 and Comment Letter 6 regarding water supply.
- 11-24 Please see Response to Comment 8-5 regarding water supply.
- 11-25 Please see Response to Comment 8-50 regarding the cumulative discussion.
- 11-26 The comment is noted. Please see Responses to Comment 11-1 through 11-25. The Draft SEIR identifies the potential impacts of the proposed project based on updated existing conditions and identifies mitigation measures to reduce potentially significant impacts to less-than-significant levels.



December 13, 2011

Ms. Rachel Warner, Interim Environmental Coordinator
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94930

RE: Grady Ranch Precise Development Plan
Applicants Comments "Draft Supplement to the Grady Ranch/Big Rock Ranch
Master Plan 1996 Final Environmental Impact Report - October 2011

Dear Rachel:

Thank you for the opportunity to provide comments on the Draft Supplement to the
Grady Ranch/Big Rock Ranch Master Plan 1996 Final Environmental Impact Report
prepared by Ascent Environmental, Inc. independent county consultants.

12-1

Our comments are organized in two parts (I & II). First, we have provided "General
Comments". Secondly, we have provided "Specific Comments". The specific comments
were collected from our various technical consultants and are presented in the attached
Exhibit A.

I. General Comments

Generally we find the document to be well written, concise and to the point. The
document meets all the requirements of CEQA and includes thorough and detailed
analysis of all potential environmental effects. The focus is clearly and appropriately
directed to the Grady Ranch Precise Development Plan project elements that have
changed since the 1996 Master Plan was approved. The document follows the CEQA
Guideline Section 15163 that applies to the preparation of a supplemental EIR and
contains information necessary to make the previous EIR adequate for the project
revisions pursuant to CEQA Guideline Section 15163(b).

12-2

II. Specific Comments

Exhibit A attached herewith includes detailed and specific comments. The comments are
provided to clarify and amplify on the points made in the DSEIR that our team thinks will
further facilitate the purpose and intent of the CEQA process. The purpose of these

12-3

P.O. Box 10877, San Rafael, California 94912-0228

Ms. Rachel Warner
December 13, 2011
Page Two

detailed comments is to correct minor text errors and further inform the public and decision makers of the facts and evidence. The comments are organized to follow the documents table of contents, page numbering and specific sections, paragraphs and sentences to facilitate ease of review.

Thank you for your continued assistance and cooperation regarding this process. Please feel free to contact our team leader and project manager John Wynne by phone 415-746-6774 or email at john.wynne@lucasfilm.com if you have questions related to the comments provided herein.

12-3
cont'd

Sincerely,



Angelo Garcia
Authorized Signatory
Skywalker Properties Ltd. LLC

Attachment:
Exhibit A – Skywalker Properties Specific Comments – Grady Ranch DSEIR

EXHIBIT A

SKYWALKER PROPERTIES - COMMENTS ON GRADY RANCH PDP DSEIR

2 PROJECT DESCRIPTION

2.1 Project Overview

Page 2-1, second paragraph, line 13: Development would be located within the 52-acre development area. It will not cover 52 acres.

12-4

2.3 Existing Setting

Page 2-3, 2.3.2 Aesthetics Setting: First sentence “Rock Ranch” should be “Rock Ridge”. The following could be added: “A second access fire road runs between the fire access and a secondary entrance to Lucas Valley Road, approximately a half mile west of the main entrance, paralleling Miller Creek.”

12-5

Page 2-4, 2.3.5 Geology and Seismicity Setting, first paragraph, line 10: The possibly active fault is the “Rogers Creek Fault” not the “Rogers Fault.”

12-6

Page 2-5, 2.3.6 Hydrology Setting, line 7: The acreage listed for the Miller Creek watershed above the Monahan Bridge should be approximately the same as that listed for the most downstream point of the Grady Ranch, e.g. 1786 acres.

10-7

2.3.6 Hydrology Setting contains no mention of groundwater or baseflow, one of the intended conditions which are proposed to be enhanced, consistent with the Marin Countywide Plan.

12-8

2.3.6 Hydrology Setting does not identify channel incision as a widespread and recent condition in the region which may be the source of much or most of the sediment impairing downstream reaches of salmonid streams in Marin and southern Sonoma Counties, among others (see Haible, 1976, and a number of other recent publications cited in Balance reports), or explore the values of reversing incision.

12-9

2.6 Project Characteristics

Page 2-19, 2.6.5 Road Improvements, fourth paragraph, last sentence: The Upper Fire Road would also provide access to the back of the building and the new water tanks on the hillside above, and would connect to the existing fire road which accesses Big Rock Ridge.

12-10

Page 2-20, 2.6.5 Road Improvements, fifth paragraph: Changes in two sentences

“Bridges 5 and 7 would cross two unnamed tributaries on West Fire Road.”

12-11

“Bridge 9 would cross the G-2 tributary and would be a maintenance bridge located adjacent to the Main Building on Upper Fire Road.”

Page 2-20- 2.21, 2.6.7 Grading, second paragraph on page 2-21 states “Compaction of 0-5% of the volume of cut material when used as fill could result in little or no off-haul.” A footnote should be added to clarify the meaning of “little or no off haul” – to include the actual number stated later in the document (+- 12,000 cubic yards). 12-12

Page 2-21, last paragraph, the sentence beginning with “Total sediment transport . . . “ is unclear to the lay reader. Is there a way to explain a bit more what it means that sediment transport is “high”? 12-13

Page 2-25, 2.6.9, I do not believe that “LID” is defined earlier in the document, so should be defined here. 12-14

Page 2-33, 2.6.12 Public Services and Off-site Improvements, Water Service, second paragraph: “A private pump station would be built in an underground vault on the project site south of the realigned Lucas Valley Road.” 12-15

Page 2-33, second paragraph, there is a typo after the third sentence, where two periods are shown. 12-16

2.8 Changes to the Previously-Approved Master Plan

Page 2-36, Table 2.2, Water Tanks, Proposed Precise Development Plan, line 3: The 40,000-gallon above-ground water tank is for irrigation use, not domestic use. 12-17

3. ENVIRONMENTAL CHECKLIST FOR SUPPLEMENTAL - ENVIRONMENTAL REVIEW

1. Aesthetics

Page 3-4, Discussion c), last sentence to top of page 3-5: Please revise the statement to replace “the potential for altering multiple private view warrants consideration” with the statement “this DSEIR takes the most conservative approach and analysis regarding potential impacts to private views” 12-18

“ The number of buildings on the site would be fewer than previously proposed.” (change to) The Main Building would be smaller and located in the same place as approved under the Master Plan. “ 12-19

Page 3-6, Table AES-1, the information presented on this table appears to contradict the statement on page 2-21 that the knoll would be between 240 and 312 feet in height. 12-20

4. Biological Resources

Page 3-29, first paragraph, line 3: Add “special status” after “11 other” 12-21

Page 3-29, second paragraph, the statement “the recent presence/absence status of the 11 special status species . . . is not confirmed”. This statement is misleading to readers and sounds a little like some additional work needs to be done to actually confirm the presence/absence of these species. 12-22

A footnote should be added that states that the SEIR takes the conservative approach by assuming that these species exist on the site.

12-22
cont'd

Page 3-30, second paragraph, third to last line: Add “However, when the Master Plan was approved, the County reduced the Stream Conservation Area (SCA) setback on the west side of Grady Creek to 50 feet for this project.”

12-23

Page 3-39, first bullet, the word “is” needs to be added before “channel(s)”. Also, after “October 31st”, need to add the phrase “whichever is earlier.”

12-24

5. Cultural Resources

Pages 3-42 through 3-45. No comment.

12-25

6. Energy and Natural Resources

Page 3-47, top paragraph: The DSEIR is stating that solar thermal panels and photovoltaic solar panels are definitely going to be part of the project. Although the project will meet or exceed the County’s energy requirements as stated in the DSEIR, the feasibility of the use of photovoltaics has not yet been established. Accordingly, to avoid misleading and incorrect information the following statement should be modified as note in **bold**:

12-26

“In addition to the geothermal exchange system mentioned above, the project would include solar thermal panels **and** photovoltaic solar panels (**as feasible**), low - flow plumbing fixtures, variable frequency drives, heat recovery water heaters, automatic daylighting controls, high efficiency fixtures, occupancy sensors, and rainwater harvesting.”

8. Greenhouse Gas Emissions

Page 3-63, Policy AIR-4.2, first paragraph: “installation of a vineyard” should be revised to “planting of grape vines on the terraced retaining walls west of the Main Building.”

12-27

10. Hydrology and Water Quality

Page 3-73, c,d,i) “...placement of approximately 68,000 cubic yards of fill material from on-site excavation into the bed of Miller Creek and its tributaries...” Note: A small proportion the fill material (mainly, boulders to be used in stabilization structures) may not be entirely from on-site excavation.

12-28

Page 3-74. As it may help readers interested in further depth of analysis, it might be useful to note that the second full paragraph, first sentence, draws substantially from the following memo, which is not cited in the DSEIR: Brown, S., and Hecht, B., 2011, *Pre- and post-project comparative analysis of sediment transport in Miller Creek and effects on downstream reaches and San Pablo Bay, Grady Ranch, Marin County, California*. Technical memorandum prepared by Balance Hydrologics, May 30, 2011, 20p.

12-29

Page 3-74, second full paragraph, second sentence, refers to the WY2010 groundwater report. It may help readers interested in further ground water details to know that the WY2011 report provides further clarification and detailed analysis of monitoring activities within Grady Ranch. Woysner, M., Richmond, S., Boyes, T., Owens, J., and Hecht, B., 2011, *Surface water, groundwater, and sediment transport monitoring, water year 2011, Grady Ranch, Marin County, California*. Consulting report prepared by Balance Hydrologics, dated October 31, 2011. 145p.

12-30

Page 3-74 second full paragraph, line 8: "It should be noted that the size of the San Geronimo watershed is smaller than Miller Creek and that the sediment transport study scaled the results for comparison purposes. . ."

We believe that these values were inadvertently reversed. In actuality, the San Geronimo station has a drainage area of 8.7 square miles, and the property-line gage at Grady has a drainage area of 2.8 square miles. Overall, the DSEIR notes that the Miller Creek watershed is about 8 square miles, essentially similar to the San Geronimo Valley at the gage, located near its mouth. The Historical Ecology of Miller Creek website states that the total watershed area is 11.6 square miles (7440 acres) at San Pablo Bay. (<http://www.nbwatershed.org/millercreek/index2.html>). With the exception of the reversal, we believe that the analysis and conclusions of the DSEIR are both useful and valid.

12-31

Page 3-74, fourth paragraph: "Analysis has shown that in the unlikely event of a single grade control failure, approximately 2500 cubic yards of materials could be transported to downstream reaches. This potential project-related increase (i.e. related to post-construction grade control failure) in the amount of sediment production is up to 2.5 times the anticipated reduction in sediment transport in a single year."

12-32

Replace 'approximately' with 'up to'. Under the current plan, which uses steps of 6 inches or less, volumes associated with a failure would be substantially less.

Amend the second sentence to read "...transport in a single year similar to water year 2011." That addition is critical as we don't want to suggest that the number refers to an

12-33

average year of sediment transport. Long-term records from San Geronimo indicate that average sediment yield is 2 to 3 times what is transported in an 'average' rainfall year. Peak flow in WY2011 was about a 1.3-year event (based on annual peak series analysis of the San Geronimo records), and we expect WY2011 sediment transport to be somewhat less than the long-term average annual sediment load.

12-33
cont'd

This section should cite the 'Pre- and post-project comparative analysis...' memo (citation provided above).

12-34

It would have been helpful to note that similar structures in the area have performed well since installation 20 to 30 years ago. Discussion of such structures on Miller Creek at Upper Lucas Valley Estates and Lucas Valley Estates, and at Flanders Ranch and Spirit Rock on San Geronimo Creek is provided in Balance's 'Analog's' memo: Brown, S, and Hecht, B, 2011a, *Regional analogs to proposed restoration of the Miller Creek valley, Grady Ranch, Marin County, California*: Balance Hydrologics technical memorandum, dated May 26, 2011, 34 p.

12-35

Page 3-75, first full paragraph "It should be noted however, that the release of sediment from a grade control failure would likely be more rapid than what would occur in a given year under existing conditions because bank erosion and channel incision are more gradual processes."

As it pertains to upper Miller Creek and its tributaries, this statement is not necessarily true. Rapid bank retreat and incision (especially in the tributaries) has been documented through aerial photograph analysis and other field indicators, typically associated with high-flow events of a magnitude that might result in grade control failure. Additionally, the banks contain several highly unstable landslide and mudflow deposits exposed by incision, and which now fail by collapse during floods into the creek system. There is no reason to suspect or evidence to support the conclusion that incision behind a grade control structure would occur more rapidly than existing rates of bank failure and headcutting.

12-36

11. Land Use and Planning

Page 3-80, b), first paragraph: The DSEIR states:

"The existing zoning for the proposed project site is RMP (Residential – Multiple Planned District), and the existing General Plan designation is Planned Residential. (add) The planned land use is permitted by county zoning code with a conditional use

12-37

permit approval. No changes to the proposed project’s land uses and no changes to the zoning or General Plan designation have occurred since the 1996 Master Plan FEIR. The proposed land uses are allowed under the existing zoning and General Plan designation.” (add)

12-37
cont'd

Marin Countywide Plan 2007 (CWP)– Lucas Valley Environs Land Use Policy Map 2.1” shows in the Legend that the property is designated for “Planned Residential” PR 1 unit to 1-10 acres”. Page 1.23 of the CWP explains that “In order to provide a forum for comprehensive community-based planning, projects in this land use category are subject to approval of a specific master plan and consistency with the Countywide Plan, including policies promoting affordable housing, and innovative, environmentally friendly, transit – oriented and energy efficient designs.”

In 1996 the County Board of Supervisors found that the Grady Ranch project promotes innovative and environmentally friendly design, accordingly they approved a 1996 Master Plan and Use Permit allowing the Grady Ranch land use being implemented in the 2009 Precise Development Plan.

CWP Consistency – Built Environment Element – Goal PA-2 (PA-2.1) specifically identifies the third phase of the Lucasfilm project approved master plan and specifically notes “the Lucasfilm project has an approved master plan and is considered legally vested.”

12-38

Marin County Development Code – Section Title 22.10.020 lists allowable residential uses in various districts. As noted above the site is designated “Planned Residential”. Development Code Section 22.10.020 notes (E. & G.)that planned residential properties have other allowable land uses including but not limited to “ related compatible uses” and “limited commercial uses” provided through a Master Plan approval. The 1996 Master Plan allows limited commercial use of the Grady Ranch property consistent with the CWP and Development Code.

“Resolution 96-151 for approval of the Use Permit on Grady Ranch states in Section 3 that Use Permit approval is required for offices and related accessory buildings and other uses in RMP zoning districts. The adoption of Resolution 96-151 that approved the Lucasfilm Use Permit application (UP 95-058) for Grady Ranch that allows the proposed land uses. “

Page 3-81, top paragraph, line 3: A stream conservation zone setback of 50 feet, not 100 feet, has been established for the west side of Grady Creek.

12-39

15. Public Services

Page 3-96, first paragraph above ai.:

“The 2007 Marin Countywide Trails Plan map identifies the northern half of Grady Fire Road as an existing trail and proposes construction of a trail that would connect northern Grady Fire Road to Luiz Fire Road, located east of Grady Fire Road (MCP 2007b).”

12-40

It should be noted that the trail has been constructed and because of county trail standards the entire trail has been constructed on the Big Rock Ranch using the Luiz Fire road and other appropriate alignments.

17. Transportation/Traffic

Page 3-100: Mitigation Measure TRANS-1 is reflected in the current PDP design, and is acceptable.

12-41

Page 3-103, top paragraph:

“While the absence of facilities to promote bicycle use would not be a significant environmental impact, some provisions to encourage bicycle trips could be considered as a project design issue in light of County policies.”

12-42

Bike facilities are not required by the County Code, and this statement should be removed from the DSEIR. In addition, the comment is somewhat confusing as the project provides 24 bicycle parking spaces in its below grade garage.

18. Utilities and Service Systems

Page 3-106 – paragraph d), second sentence states:

“The 1996 Master Plan FEIR stated that MMWD had developed a firm water supply or water demand through 2025 and that the MMWD water supplies were adequate to serve the project.”

12-43

(add) a footnote that references the MMWD supplemental water availability faxed letter dated October 21, 2011, addressed to Neal Osborne, Marin County Community Development Agency.



220 Nellen Avenue Corte Madera, CA 94925-1169
 www.marinwater.org

October 21, 2011
 File No. S10005

FAX: (415)499-7880

Neal Osborne
 Marin County Community Development Agency
 3501 Civic Center Drive – Room 308
 San Rafael, CA 94903

Subject: Supplemental to August 4, 2010 Water Availability Letter
 Skywalker Properties, Ltd.
 Grady Ranch Precise Development Plan
 Assessor's Parcel No. 164-310-15, -17 and -19
 2828 Lucas Valley Road, San Rafael, CA

Dear Mr. Osborne:

This letter supplements the District's letter of August 4, 2010 regarding the District's ability to provide a water supply for the above-referenced project. Currently, the District and Skywalker Properties are negotiating a Water Service Agreement (WSA) based upon an estimated annual water demand of 30 acre feet for this project. That estimate is calculated on representations made to the District and the District's current understanding of the breadth of the project. Agreement on the terms for the WSA, execution of that document, annexation of the project into the District's service area and District Board approval of the WSA are all necessary before water would be supplied to the project.

This letter supplements specific terms of the District's August 4, 2010 letter as follows:

1. Add the following sentence to the end of the third paragraph beginning on Page 1:

"In addition to recycled water projects, the source of the new water supply for Grady Ranch may be District water conservation projects or other measures as selected by the District that would reduce potable water demand within the District's service area and would be funded by a fee paid by Skywalker."

recycled
 recyclable

12-44

Neal Osborne
Marin County Community Development Agency
Page 2

- 2. Add the following sentence to the end of Numbered Paragraph 1 on Page 2 entitled "Affordable Housing":

"Alternatively, if affordable housing is not a condition of project approval and the property owner is allowed to pay an in lieu fee, then the additional 7 acre feet of additional water supply would not be required."

Please note the District may again update the County on this matter after we receive the Draft Supplemental EIR for the project, which we understand will be issued later this month.

Thank you for your attention to this matter. If you have any questions or need additional information, please contact Una Conkling at (415)945-1532 or uconkling@marinwater.org.

Sincerely,


Michael Ban, P.E.
Division Manager Environmental & Engineering Services

- xc: Paul Helliker, General Manager
- Mary Casey, General Counsel
- Tanya Sandberg, Assistant Manager Environmental and Engineering Services Division
- Una Conkling, Engineering Support Services Manager
- Jon LaHaye, Principal Engineer

12-44
cont'd

Letter
12
Response

Angelo Garcia
Skywalker Properties Ltd. LLC
December 13, 2011

- 12-1 This comment is a preamble to the remainder of the letter.
- 12-2 This comment supports the adequacy of the document and the environmental review process.
- 12-3 This comment addresses the purpose and organization of the comments to follow in the letter.
- 12-4 Text in the project description on page 2-1 (Section 2.1, "Project Overview") has been changed, as follows, to address this comment:
- Development would be located within the on 52-acre 52-acre development area.
- 12-5 Text in the project description on page 2-3 (Section 2.3.2, "Aesthetic Setting") has been changed, as follows, to address this comment:
- Grady Ranch is undeveloped except for a transmission line and fire access road that traverse the site from Big Rock ~~Ranch~~ Ridge to the valley floor. A second access fire road runs between the fire access and a secondary entrance to Lucas Valley Road, approximately a half mile west of the main entrance, paralleling Miller Creek.
- 12-6 Text in the project description on page 2-4 (Section 2.3.5, "Geology and Seismicity Setting") has been changed, as follows, to address this comment:
- No active faults are known to be present on the project site, but active and possibly active faults in the vicinity include the active San Andreas fault zone (located about eight miles southwest of the site), the possibly active Healdsburg-Rodgers Creek fault (located about 11 miles northeast of the project site), and the active Hayward and Calaveras faults (located six and nine miles east of the site, respectively).
- 12-7 Text in the project description on page 2-5 (Section 2.3.6, "Hydrology Setting") has been changed, as follows, to address this comment:
- Upstream (west) of the Monahan bridge, the Miller Creek watershed drains ~~1,700~~ 1,786 acres primarily north of Lucas Valley Road, and a smaller sub-basin south of the road.
- 12-8 & 12-9 The comments are noted. The text in Section 2.3.6 (Hydrology Setting) on page 2-5 has been changed, as follows, to address these two comments:
- Grady Ranch is located in the upper reaches of the 5,100-acre (eight-square-mile) Miller Creek Watershed. The portion of the Miller Creek watershed that lies upstream of its most downstream point on the Grady Ranch property is 1,786 acres. Miller Creek leaves the Grady Ranch property at the southeastern corner of the ranch adjacent to the Monahan Property. Surface runoff on the project site primarily flows into two intermittent streams that function as major tributaries to Miller Creek. Miller Creek is a major stream in Marin County and flows east through the Las Gallinas Valley for six miles to San Pablo Bay. Upstream (west) of the Monahan bridge, the Miller Creek watershed drains ~~1,700~~ 1,786 acres primarily north of Lucas Valley

Road, and a smaller sub-basin south of the road. Natural hydrological sources for the project area include direct precipitation and surface run-off from adjacent lands. Small areas (less than 0.05 acre) of riparian, seasonal freshwater emergent, and perennial freshwater wetlands have formed on gravel bars within the bed of Miller Creek. Seasonal wetlands in the project area are located in a vegetated depression that collects flows from an unnamed ephemeral drainage during the rainy season (WRA, Inc. 2009).

Miller Creek is the principal source of recharge to the local groundwater system. The water table rises to the level of the creek bed during the winter. In spring, groundwater drains into the creek, sustaining low stream flow into early summer. The vertical drop at the bridge at Grady Fire Road (an approximately vertical 9-foot drop in the creek-bed elevation) creates a stair-step in the creek-bed profile where groundwater discharge generates a small volume of stream flow that typically continues to the downstream property line. Also, Miller Creek upstream of the Grady Fire Road bridge goes dry relatively early in the summer because the water table rapidly declines to the groundwater level below the bridge which has been depressed.

Miller Creek, Grady Creek, Landmark Creek, Loma Alta Creek and several smaller drainageways throughout Grady Ranch are steeply incised and show signs of heavy erosion along their banks. This process of down-cutting and erosion is likely due to logging and grazing activities in the watershed over the last century. Both activities can promote soil compaction, reduced vegetative cover and increased soil instability in upland areas, which in turn promote higher, more powerful flows through adjacent stream channels, stream bank slumping, and channel scouring. Streams affected by scouring and slumping provide poor habitat for aquatic and riparian vegetation and associated wildlife species such as salmonids and other fish species. Evidence of these erosive processes are most apparent in lower reaches of Grady Creek and just downstream of Grady Bridge in Miller Creek where the creek channel bed is 11 feet lower than the channel bed upstream of the bridge (WRA, 2008d).

In addition, the following reference is added to Chapter 6, Bibliography:

WRA, Inc. 2008d. *Stream Restoration and Monitoring Report, Grady Ranch, Marin County, California*, prepared by WRA, Inc., November 2008.

- 12-10 Text in the project description on page 2-22 (Section 2.6.5, "Road Improvements") has been changed, as follows, to address this comment:

The Service Road off of the Main Entry Road would provide access to the yard and stages. The Upper Fire Road would be realigned around the west side of the Main Building and then connect to the existing alignment above the Main Building. This Upper Fire Road would also provide access to the back of the building and the new water tanks on the hillside above, and would connect to the existing fire road which accesses Big Rock Ridge.

- 12-11 Text in the project description on page 2-22 (Section 2.6.5, "Road Improvements") has been changed, as follows, to address this comment:

The project would include the construction of nine bridges for crossing the creeks and tributaries on the project site. The bridges would include eight clear span bridges and one bridge with a center abutment. Bridge 1 would cross tributary S-4 on the realigned Lucas Valley Road. Bridge 2 would cross Miller Creek on the main entry road leading to the Main Building and would include the construction of two abutments. Bridge 3 would cross Grady Creek to the east

of the main entry road on East Fire Road so that emergency vehicles do not travel through the creek. Bridge 4 would cross the proposed realigned tributary on the main entry road leading to the Main Building. Bridges 5 and 7 would cross ~~an~~ two unnamed ~~tributary~~ tributaries on West Fire Road. Bridge 6 would cross Landmark Creek on the West Fire road. Bridge 8 would cross Miller Creek at the western end of West Fire Road. Bridge 9 would cross the G-2 tributary and would be a maintenance bridge located adjacent to the Main Building on Upper Fire Road.

12-12 Text on page 2-22 is revised as follows:

Grading would involve approximately 240,000 cubic yards of cut and 240,000 cubic yards of fill. The fill would include approximately 68,000 cubic yards that would be used as material for stream restoration activities. Compaction of 0-5% of the volume of cut material when used as fill could result in little or no off-haul (+/- 12,000 cubic yards). Most of the excavation would occur during the construction of the Main Building, Service Road, and Upper Fire Road.

12-13 The cited statement on page 2-21 of the Draft SEIR that sediment load in the creek is “high” means more than optimal sediment is moving through the stream as a result of excessive bed and/or bank erosion. Excess sediment can decrease water quality, degrade aquatic habitat, and alter hydrology downstream in the creek. The noted sentence is modified as follows:

Total sediment transport (suspended- and bedload-sediment) under existing conditions at Grady Ranch is higher than optimal, because of excessive bed and/or bank erosion, with bedload-sediment comprising between 40 and 75 percent of the total sediment load.

12-14 The acronym LID (Low Impact Development) that begins the first sentence in Section 2.6.9, “Stormwater Control,” is previously spelled out on page 2-1 in Section 2.1, “Project Overview.”

12-15 Please see Response to Comment 6-6 regarding placement of the underground vault. Exhibit 2-11 has been revised to respond to MMWD’s direction offsite utility placement.

12-16 Please see Response to Comment 6-1 regarding this text correction.

12-17 Please see Response to Comment 6-3 regarding this text correction.

12-18 This comment does not address the adequacy of the SEIR. This comment is noted.

12-19 Text on page 3-5 (Environmental Issue Area 1. “Aesthetics,” Discussion “c”) is revised, as follows, to address this comment:

Most of the development proposed in the Grady Ranch Precise Development Plan would be similar to the previously proposed project. ~~The number of buildings on the site would be fewer than previously proposed, and the Main Building would be located in the same place as under the 1996 Master Plan.~~ The Main Building would be smaller and located in the same place as approved under the Master Plan. The potential change in views onto and across the project site due to grading on the site and the proposed berm east of Grady Creek was identified as a less-than-significant impact in the 1996 Master Plan FEIR.

12-20 Text on page 2-23 (in the first full paragraph) is revised, as follows, to address this comment:

The knoll ridge fill area would be approximately five acres and would be higher than the existing grade, ranging from just few feet up to approximately 37 feet above the existing grade. After

completion, the knoll ridge fill area would start at approximately 240 feet above mean sea level at the southern portion and increase in height to approximately ~~342~~ 327 feet above mean sea level at the northern portion.

- 12-21 Text on page 3-29 (in the bullet titled “Presence or Potential Occurrence of Other Special-Status Species”) is revised, as follows, to address this comment:

Based on recent studies, two special-status animal species – steelhead and golden eagle – have been documented at Grady Ranch, and 11 other special status animal species have a moderate or high potential to occur there.

- 12-22 Text on page 3-29 (in the bullet titled “Presence or Potential Occurrence of Other Special-Status Species”) is revised, as follows, to address this comment:

With the exception of recent California red-legged frog (*Rana aurora draytonii*) surveys, protocol or focused surveys for special-status animal species have not been completed for the project in nearly 20 years. (Focused surveys were conducted for the Grady Ranch Master Plan FEIR during 1992 and 1993.) A protocol survey for California red-legged frog was completed by WRA in 2010. The survey determined that this species was not present in the survey area, and that overall habitat suitability for red-legged frog was low (WRA 2010). Therefore, the recent presence/absence status of the 11 special-status animal species now considered to have a moderate or high potential to occur at Grady Ranch is not confirmed. Also, several of these species did not have a special-status designation in 1996; therefore, they were not addressed in the original FEIR surveys or impact analysis. This SEIR takes a conservative approach by assuming that these species do exist on the site. If any special-status species occurs on the project site, project construction could result in the loss of individuals or populations, occupied habitat, or active breeding and roosting sites. Depending on the species affected, potential effects of project implementation on special-status species known or with moderate to high potential to occur on the project site would differ from the previously-identified special-status species impact identified in the 1996 EIR and could be significant.

- 12-23 The text on page 3-30 is revised to read as follows:

For example, whereas SCAs at Grady Ranch in 1996 (subject to the 1994 Countywide Plan) were defined as a 100-foot development setback on each side of the stream centerline, the SCAs are now defined as a minimum 100-foot setback on each side of the top of bank. However, when the Master Plan was approved, the County reduced the Stream Conservation Area setback on the west side of Grady Creek to 50 feet for this project.

- 12-24 Text on page 3-39 (in the first bullet of Mitigation Measure BIO-1) is revised, as follows, to address this comment:

- Construction activity within potential steelhead habitat will not begin until the channel(s) is dry, or within the NOAA Fisheries work window, between July 1 to October 31, whichever is earlier. If no water is present in the channel after October 31, it may be possible to continue work until the first predicted rainfall of one half inch of rain or more within a 24-hour period.

- 12-25 This comment does not address the adequacy of the SEIR. This comment is noted.

- 12-26 Text on page 3-47 (Environmental Issue Area 6. “Energy and Natural Resources,” Discussion “b”) is revised, as follows, to address this comment:
- Non-renewable resources that would be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. As a standard condition of approval, the Community Development Agency would require the applicant to submit a Recycling and Reuse Plan to demonstrate that at least 50 percent of materials generated from the project would be reused or recycled. Prior to final inspections, the project applicant would be required to submit receipts and reports confirming that the project has been constructed in compliance with the Recycling and Reuse Plan. In addition to the geothermal exchange system mentioned above, the project would include solar thermal panels, ~~and photovoltaic solar panels~~ (as feasible), low-flow plumbing fixtures, variable frequency drives, heat recovery water heaters, automatic daylighting controls, high efficiency fixtures, occupancy sensors, and rainwater harvesting. These elements, along with compliance with County requirements would ensure that the use of non-renewable resources would not be wasteful or inefficient, and this would be a less-than-significant impact.
- 12-27 Text on page 3-63 (discussion under Policy AIR 4.2) is revised, as follows, to address this comment:
- The proposed project would involve landscaping the project site with native vegetation and ~~installation of a vineyard~~ planting of grape vines on the terraced retaining walls west of the Main Building. The project would also involve the stream restoration component which would improve riparian vegetative conditions.
- 12-28 Text on page 3-73 (Environmental Issue Area 10. “Hydrology and Water Quality,” Discussion “c, d, i”) is revised, as follows, to address this comment:
- c, d, i) A new component to the design of the proposed restoration of Miller Creek and its tributaries on the Grady Ranch property includes backfilling and raising the bed elevation of the degraded streambed. This would involve the placement of approximately 68,000 cubic yards of fill material primarily from on-site excavation into the bed of Miller Creek and its tributaries in an effort to eliminate fish passage barriers, reactivate floodplain area, and increase aquifer storage, all of which are essential to restoring the ecological function of the creek corridor while minimizing channel erosion and sediment delivery to the lower Miller Creek watershed. Boulder placement would be used to produce step-pool sequences, stabilize the fill material, and provide an increase in channel roughness that would help to reduce mean flow velocity and sediment transport rates. A small proportion of fill, including these boulders, may be obtained off-site.
- 12-29 Text in the second full paragraph on page 3-74 (Environmental Issue Area 10. “Hydrology and Water Quality,” Discussion “c, d, i”) is revised, as follows, to address this comment:
- Additionally, results from a preliminary and ongoing sediment transport study indicate the 2010 and 2011 annual sediment yields within the Miller Creek watershed were 10 and 27 times greater than that of the nearby San Geronimo watershed (Brown and Hecht 2011).
- The following reference is added to Chapter 6, Bibliography:

Brown, S. and Hecht, B. 2011. Pre- and post-project comparative analysis of sediment transport in Miller Creek and effects on downstream reaches and San Pablo Bay. Grady Ranch, Marin, California.

12-30 Text on page 3-74 (second full paragraph) is revised, as follows, to address this comment:

Additionally, results from a preliminary and ongoing sediment transport study indicate the 2010 and 2011 annual sediment yields within the Miller Creek watershed were 10 and 27 times greater than that of the nearby San Geronimo watershed. The sediment transport study was completed in March 2011 and includes the findings from the first year of monitoring during water year 2010. The water year 2011 report provides further clarification and detailed analysis of monitoring activities within Grady Ranch (Woyshner et al. 2011). Sediment yield is an estimation of the amount of sediment that is transported through a watershed as a result of rainfall and the stream's interaction with the soil.

The following addition is made to the Bibliography (Chapter 6):

Woyshner, M., S. Richmond, T. Boyes, J. Owens and B. Hecht. 2011. Surface water, groundwater and sediment transport monitoring, water year 2011, Grady Ranch, Marin County, California. Balance Hydrologics, October 31, 2011.

12-31 The comment is noted.

12-32 Text on page 3-74 (final paragraph) is revised, as follows, to address this comment:

Analysis has also shown that in the unlikely event of a single grade control failure, ~~approximately~~ up to 2,500 cubic yards of material could be transported to downstream reaches.

12-33 & 12-34 Text on page 3-74 (final paragraph) is revised, as follows, to address these two comments:

This potential project-related increase (i.e., related to post-construction grade control failure) in the amount of sediment production is up to 2.5 times the anticipated reduction in sediment transported in a single year similar to water year 2011 (Brown and Hecht 2011).

12-35 See Response to Comment 10-2 regarding regional analogs for the proposed method of restoration.

12-36 The statement on page 3-75 noted by the comment does not refer to the comparative erosion rates of the stream locations of grade controls compared to other stream reaches. Rather, the statement is related to the higher rate of erosion that could occur temporarily, because of the rapid failure of bank and/or bed at the point of the grade control.

12-37 Text on page 3-80 is revised, as follows, to address this comment:

b) The existing zoning for the proposed project site is RMP (Residential – Multiple Planned District), and the existing General Plan designation is Planned Residential. The planned land use is permitted by County zoning code with a conditional use permit approval. No changes to the proposed project's land uses and no changes to the zoning or General Plan designation have occurred since the 1996 Master Plan FEIR. The proposed land uses are allowed under the existing zoning and General Plan designation. Therefore, the proposed project would be consistent with the existing zoning and consistent with the less-than-significant conclusion in the 1996 Master Plan FEIR regarding consistency with

land uses designated in the Marin Countywide Plan. The 1996 Master Plan approval established a valid site specific zoning for the project development that is vested as to the zoning.

12-38 The comment is noted. Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.

12-39 The comment is noted. Please see Response to Comment 10-6 regarding an explanation of the 50-foot setback on the west side of Grady Creek.

12-40 Text on page 3-95 (above discussion “ai”) is revised, as follows:

The 2007 Marin Countywide Trails Plan map identifies the northern half of Grady Fire Road as an existing trail and proposes construction of a trail that would connect northern Grady Fire Road to Luiz Fire Road, located east of Grady Fire Road (MCP 2007b). Since publication of the Countywide Plan, this trail has been constructed. Because of County trails standards, the entire trail has been constructed on the Big Rock Ranch using the Luiz Fire Road and other appropriate alignments.

12-41 This comment does not address the adequacy of the SEIR. This comment is noted. No response is required.

12-42 This comment does not address the adequacy of the SEIR. The text of the EIR cited is not a mitigation measure. No text change is necessary, but this comment is noted.

12-43 Text on page 3-106 (discussion “d”) is revised, as follows, to address this comment:

- d) As discussed above, the current estimate for water demand for the Grady Ranch PDP is approximately 30 acre-feet per year of water, which would be a reduction in the amount estimated for Grady Ranch under the Master Plan. The 1996 Master Plan FEIR stated that MMWD had developed a firm water supply for water demand through 2025 and that the MMWD water supplies were adequate to serve the project (MMWD 2011). Also, as described under Item 14a above, it is expected that MMWD currently has capacity to serve the development based on consultation between the project applicant and MMWD. The change to the project would result in a reduction in the estimate water demand and this would continue to be a less-than-significant impact.

The following addition is made to the Bibliography (Chapter 6):

Marin Municipal Water District (MMWD). 2011. Personal Communication – Letter via facsimile to Neal Osborne, Marin County Community Development Agency, regarding supplemental water availability. Dated October 21, 2011.



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 Frances E. Barbour
Safe Routes Instructor

December 13, 2011

Marin County Planning Commission
 C/O Debra Stratton
 3501 Civic Center Drive, Room 308
 San Rafael CA 94903

Dear Commissioners:

This letter is in regards to the potential traffic impacts to Lucas Valley Road should the Grady Ranch Development be approved as presented. Lucas Valley Road is currently designated as a component of the County of Marin's Primary Bikeway Network in the Marin County Unincorporated Area Bicycle and Pedestrian Master Plan, adopted in 2008. This very important corridor is highly utilized by out-of-town and local cyclists alike (for both transportation and recreational purposes) and it also serves to connect North-Central Marin and West Marin communities. In addition, Lucas Valley Road serves the Marinwood/Lucas Valley cycling community and is also used by students and schoolchildren walking or biking to Dixie Elementary School, Marin Waldorf, Juvenile Community School and Miller Creek Middle School.

13-1

Lucas Valley Road is comprised of two lanes, is narrow and has limited visibility in many locations. With the exception of 2.4 miles of Class II bike lanes located between State Highway 101 and West Gate Drive, there are no bicycle lanes present and the existing roadway shoulder is quite narrow, presenting a potential hazard to cyclists and pedestrians.

The MCBC is concerned about the safety of cyclists using Lucas Valley Road both during and after the project's construction, which will inevitably increase the amount of vehicular traffic utilizing Lucas Valley Road to access the Grady Ranch Development. To ensure the safety of future Lucas Valley Road cyclists, the MCBC urges you to not approve the Grady Ranch project at this time. Instead, MCBC strongly requests a more thorough assessment of the project's potential traffic-related impacts than what was presented in the project's Supplemental EIR and requests the provision of appropriately strong mitigation measures to offset the impacts identified.

13-2

13-3

Sincerely,

Alisha Oloughlin, Advocacy Coordinator
 Marin County Bicycle Coalition

**Letter
13
Response** **Marin County Bicycle Coalition
Alisha Oloughlin
December 13, 2011**

- 13-1 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 13-2 The Draft SEIR concludes that no changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant traffic and transportation impacts, compared to the analysis presented in the Master Plan EIR. Trip generation would be the same as previously evaluated and circulation features in the PDP would improve some safety conditions, compared to the Master Plan. Mitigation Measure TRANS-1, identified through environmental review, would replace the previously identified mitigation measures and would continue to reduce potential impacts to a less-than-significant level (page 3-103). Additionally, the traffic circulation and project entrance features of the proposed PDP would improve local traffic safety conditions on Lucas Valley Road by realigning the road and providing intersections with proper sight distances (page 3-102).
- 13-3 Please see Response to Comment 13-2, regarding traffic impacts.



12-13-11

Dear Ms. Stratton and Ms. Warner,

The Marin County Bicycle Coalition (MCBC) is pleased to offer comments regarding the Lucasfilm Properties Grady Ranch development. MCBC works to help make roads safe for cyclists for everyday transportation and recreation. Lucas Valley Road is a common route taken by cyclists between East and West Marin and, as such, is an important bicycle corridor in Marin County.

14-1

MCBC urges that should this project go forward, measures be taken to ensure the safety of cyclists using this corridor.

1. Routine Maintenance of the Roadway- Heavy use of the roadway by large vehicles transporting building materials including rock, asphalt, dirt, etc. can result in debris on the roadway. During the multi-year period of construction for this project, MCBC would like to see significantly expanded maintenance on the roadway to remove debris that could present hazards for cyclists; this includes regularly scheduled street sweeping and manual removal of larger debris.

14-2

2. Degraded Road Surfaces- Heavy use of the roadway could result in a degraded surface of the road, especially near entrances to Lucasfilm property. MCBC would like to have

14-3

assurances that road repairs are conducted in a timely manner as necessary should cracks or other unsafe condition occur in areas where significant increases of heavy truck traffic cause damage (along length of Lucas Valley Road where trucks and other heavy equipment will be traveling).

14-3
cont'd

3. Signs and Traffic Calming- Where heavy truck and vehicular traffic is entering/exiting Lucasfilm property onto Lucas Valley Road, MCBC requests that permanent roadway signage be included to indicate such increased activity is occurring and reduced speed limit signs are posted. These traffic calming measures will increase safety for cyclist traveling through these areas during the construction period and afterwards as there will be a permanent increase of traffic to and from the newly developed facility.

14-4

4. Roadway Improvements- In areas where the roadway is narrow and increased truck and large equipment will be traveling, MCBC requests that there be safety improvements made to assure safe passage for cyclists. This could include expanding bike lanes or, if possible, providing a separated pathway for cyclists through these areas.

14-5

Thank you very much for your consideration of these comments.

Andy Peri
Advocacy Director
Marin County Bicycle Coalition
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andy@marinbike.org
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Email Disclaimer: <http://marincounty.org/nav/misc/EmailDisclaimer.cfm>

**Letter
14
Response** **Marin County Bicycle Coalition
Andy Peri
December 13, 2011**

- 14-1 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 14-2 The 2009 Construction Management Plan (tbd consultants 2009) includes requirements that would address this comment. The final version of the CMP would be subject to DPW review and approval. Section 5.5 of the CMP addresses Construction Waste Management, with pertinent sections as follows:
- “The Construction waste management Plan will comply with local construction and demolition waste recovery ordinance including County of Marin Green Building Regulations. A more detailed waste management Plan (“WMP”) will be submitted for approval at a later date.
- Contractors shall not permit accumulated debris, litter, or trash on the construction site to blow or scatter onto adjoining properties. “
- Additionally, Section 9.0 item 3 of the CMP (“Dust Control”) states that:
- “During the importing or exporting of dirt, the contractor shall implement procedures necessary to keep the public streets and private properties along the haul route free of dirt, dust, and other debris, including the use of road sweeping and cleaning vehicles.”
- The following reference is added to Chapter 6, Bibliography:
- tbd consultants. 2009. Construction Management Plan, Grady Ranch, 2828 Lucas Valley Road, San Rafael, CA.
- 14-3 The realignment of Lucas Valley Road includes the construction of a new section of the road. Plans include final paving and striping. All work would be subject to encroachment permit review, conditions, inspections, and testing prior to acceptance by the County.
- 14-4 The 2009 Construction Management Plan includes direction on signage during construction, stating:
- “The site entrance will be clearly marked and temporary signage will be installed to warn oncoming traffic of the construction site entrance. Construction warning and speed restriction signs will be erected prior to each end of the site.
- Entrance Signs:
- At each site entrance there is required to be a project information sign stating the project name and general contractor’s name. There will also be speed limit signs and signs showing Entrance and Exit paths of travel.
- Safety Signs:

At each site entrance there is also required to be a site safety sign stating use of safety equipment is required on the site. These will also be posted throughout the project site particularly at the entrances to buildings and close to any other structures being constructed.”

Additionally, text has been added to page 2-20 (Section 2.6.5, “Road Improvements”) in response to Planning Commission comments that addresses permanent speed limit signage. See Planning Commission changes for page 2-20.

14-5

The existing condition on Lucas Valley Road is vehicle traffic in both directions. There are no dedicated bike lanes currently on the roadway along the project frontage, and none are planned for this area. Dedicated bike lanes are not included as part of the project, nor are they required as mitigation.

NOV 22 2011 PM 2:14 PM

**ALEXANDER L. LAWRENCE
69 CREEKSIDE DRIVE
SAN RAFAEL, CA 94903**

November 18, 2011

Community Development Agency
Room 308 Marin County Civic Center
3501 Civic Center Drive
San Rafael, CA 94903

Re: Grady Ranch Price Development Plan/Big Rock Ranch Master Plan

Dear Sirs/Madams:

I recently received notice from your agency of the above two projects. I was totally shocked and dismayed that someone could ever have approved, however tentatively, a project of such substantial proportions off of a rural two lane twisting road. The Grady Ranch project of 270,000 square feet is downright absurd in that location. St. Vincent's School, as large as it is, is less than 270,000 square feet, although situated a very short distance from route 101. To add insult to injury, the project refers to 85 foot towers and 65 foot buildings (this would compete with downtown San Francisco) in this rural area. It is absurd and ridiculous to even consider approval of such a project.

15-1

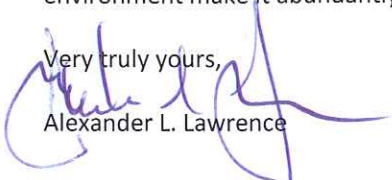
My family has lived in Lucas Valley since 1995 and has seen a dramatic increase in traffic along Lucas Valley Road. There have been numerous accidents and near accidents due to the increase in traffic. The stop light at Miller Creek has done little to alleviate the problems. More stop lights and road changes will not help. This area is just not suitable for large scale building, however rich the owners may be. Mr. Hetfield's potential project(s) are no different, as 8000 square foot homes on an exposed hillside are not a benefit to the environment or neighborhood. Almost all of the present structures along the road are less than 29 feet tall.

15-2
15-3

Lucas Valley Road was not designed for what is contemplated in the above project and there are no changes to that road that would provide suitable access to the site in question for the numbers of vehicles that would logically be entering and leaving on a daily basis. There is no public transport to the area, and using 'Bauer buses' does nothing to mitigate this problem. The recent enlargement of the bike lanes is appreciated, but of little use if bicyclists are afraid to use the road due to the additional vehicles using the road. Additionally, all of the CHP signs, patrols, etc. have not curtailed the present speeders from Mr. Lucas' facilities. Adding 270,000 square feet will not help the situation. I will let others discuss the negative impact to the environment of such a large facility.

15-4

In summary, I vehemently oppose the project or any similar size project, as the road, the rural area and the environment make it abundantly clear that it is inappropriate.

Very truly yours,

Alexander L. Lawrence

**Letter
15
Response****Alexander L. Lawrence
November 22, 2011**

- 15-1 The comment does not address the analysis in the EIR. The comment is noted.
- 15-2 Please see Response to Comment 7-10 regarding traffic.
- 15-3 The comment addresses elements of the Proposed Project and other projects in the area. The comment is noted.
- 15-4 Analysis indicates that operating conditions at the proposed access point for Grady Ranch would be well within acceptable parameters, and as noted in Response to Comment 7-3, acceptable operating conditions are also expected for most of the study intersections with project traffic added. Mitigation measures have been established to address locations where operation is currently unacceptable or is expected to reach unacceptable levels in the future. See also Response to Comment 7-10.

NDU 25 2011 PM 12:10 Planning

November 27, 2011

Ms. Rachel Warner
Community Development Agency
Room 308
3501 Civic Center Drive
San Rafael, CA 94903

Dear Ms. Warner:

While I fear I am too late, I wanted to send this letter opposing the approval of George Lucas' Grady Ranch development.

This project is not going to increase the environmental health of Miller Creek and Lucas Valley. Though I am a physician now, I earned a master's in natural resource economics from UC Berkeley. I have done fieldwork on maintaining stream quality. The idea that you can improve the health of a creek by moving tons of soil and redirecting existing creeks is absolutely laughable.

16-1

Lucas Valley Road is one of the few truly scenic, tranquil country roads left in Marin county. As a resident of the East Bay and now of Marin County, I have treasured its twisty tranquility and feeling of isolation since 1978. Now, it will be straightened and native pastures and creeks destroyed. Its unique qualities will be lost forever.

16-2

This project is not needed nor is it appropriately zoned. The county already has thousands of available square feet of business and industrial space close to freeways in lovely settings near the proposed site. I see "Space Available" signs on every complex in the Smith Ranch area, and the Marin Independent Journal site is becoming vacant. These sites offer similar beauty and are already correctly zoned for business or industry. I also hear rumors that MMWD does not have enough water to support this new site.

16-3

16-4

There is no guarantee that this will give lasting economic benefit to the county once it is completed. I suspect all of Lucas' sites on this road are likely to become ghosts in the future. Look at how volatile the entertainment industry is. He is 70 years old. What is the probability his business will support 3 complexes, even 5 years from now?

16-5

I have traveled Lucas Valley Road regularly since 1981. I have seen its lovely scenic quality repeatedly reduced by road straightening and widening. I cannot see why the county would rush to have this treasure destroyed forever in order to please George Lucas when there is no guarantee of long term net financial benefit to the County.

16-6

Sincerely,

Amy Ewing MD
97 San Marin Drive
Novato, CA 94945

**Letter
16
Response****Amy Ewing
November 29, 2011**

- 16-1 Components of the proposed restoration design have been implemented regionally and there are several examples of successful stream restoration. Please see Response to Comment 10-2.
- 16-2 The comment addresses the existing setting and an element of the Proposed Project and does not address the analysis in the EIR. The comment is noted.
- 16-3 Please see Master Response 4 regarding the project zoning.
- 16-4 Please see Response to Comment 8-5 regarding provision of water to the project.
- 16-5 The comment addresses the future viability of the proposed project use and adjacent uses owned by the project applicant. The analysis in the EIR addresses the potential impacts of implementation of the project, as proposed. Speculation about the future economic viability of a project is not addressed in the EIR. Section 15144 of the State CEQA Guidelines states that drafting an EIR or preparing a Negative Declaration necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can. Section 15145 states that if, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact. Future viability of the proposed project use and adjacent uses are too speculative for evaluation. Section 15064(f) states that the decision as to whether a project may have one or more significant effects shall be based on substantial evidence in the record of the lead agency. Section 15064(f)(5) also states that argument, speculation, unsubstantiated opinion, or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.
- 16-6 The comment is noted. The comment does not specify which areas of Lucas Valley Road have been straightened and widened. Current Marin County Department of Public Works staff are not aware of any road widening projects on Lucas Valley Road.

December 8, 2011

To: Debra Stratton
County Planning Commission Secretary
3501 Civic Center Drive Room #308
San Rafael, CA 94903

Attn: Board of Supervisors
Susan Adams, Katie Rice, Kathrin Sears, Steve Kinsey, & Judy Arnold
3501 Civic Center Drive, Room 329
San Rafael, CA 94903

From: Carl Fricke, Lucas Valley Estates Resident

Subject: Comments on Grady Ranch Development Proposal

I live a few blocks from the proposed LucasFilm-Grady Ranch development and have been a resident here for more than 10 years.

Following are my comments on the above Proposal:

- 1) Communication about the proposed development has been very poor (at best) to non-existent. No community meetings have been held that described the proposed use and impacts of the project (one was planned but canceled) Compare the proposed Grady project to information provided on the County website- the only other two "Major Developments" that are listed; "Rocking H1 Ranch Vesting Tentative Map" and "Spirit Rock Master Plan Amendment". As of December 1, 2011 the County Community Development Agency website, under "Major Development Projects", had no current information: (a) the "Status" link under Skywalker Properties, Ltd Grady Ranch only provides a July 9, 2010 County Letter "Notice of Project Status", and (b) under Project Correspondence, the latest postings are May 2009 ("Marin County CDA - Planning - Current Planning Completeness Determination - Incomplete"). The recent Target store in San Rafael (in an industrial area without residential areas nearby), and the MMWD desalination plant received much more public discussion and scrutiny than this project. Why? What is the rush to get this project pushed through now through the holiday season, especially after having had 15 years to do so (one day less), with so little information and time for the public to review it?
- 2) The project is proposed in an inappropriate location, in an area zoned only for single-family, two-family dwellings, multi-family residential development, and limited commercial use in suburban settings, along with similar and related compatible uses.....designated Planned Residential (PR) in the 2007 Countywide Plan and zoned Residential, Multiple Planned (RMP) in the Development Code (Article II, Zoning Districts, Section 22.10.020). No zoning

17-1

17-2

changes or variances have been made to accommodate this proposed development. The DESIR itself says in its “Current Zoning Alternative” section that “The site would be developed residentially, consistent with residential density maximums of the current zoning.” Thus, the proposed film studio use is not consistent with the existing zoning. The site is located along a rural road in a narrow valley, adjacent to single family homes. There are no offices, industrial or other uses there or within at least a mile of the site, and it is located about five miles from highway 101, a corridor consisting of family homes (excepting a firehouse/community center, a community swimming pool, horse stables, a county juvenile services center, a mini-market with a small two-story adjacent office building). The two-lane road is a gateway for recreation, frequently used by bicyclists, runners, hikers, folks walking their dogs and similar types of activities that are incompatible with an increase in traffic and trucks. Yet, LucasFilm wants to build and operate three large film production stages including an outdoor stage, screening rooms, guest villas, restaurants, and a plethora of other service and ancillary facilities, some of which may operate 24/7 for weeks or more at a time.

- 3) LucasFilm-Big Rock only allows operation between 9am-5pm on weekdays, and that’s located farther west of Grady. Shouldn’t the same be required of Grady, if built? Where is this limitation addressed? A 24/7 operation is not appropriate for any single-family neighborhood- at anytime (no exclusions such as “only when filming”).
- 4) The Lucas/Grady Ranch Project is the exact thing the Countywide Plan is designed to prevent. The Countywide Plan says Building Densities are to step down in size and become less intensive, more rural, as you travel west from the 101 corridor. Spot Zoning and Industrial Uses are to be forbidden.
- 5) Why is there no Jobs/Housing Balance requirement or Affordable Housing requirement, where some of the land is set aside and built out for affordable housing. There have been many changes in conditions throughout the County over the last 15 years. Safeway in Strawberry was required to include affordable housing for commercial development, and did so. Others pay huge in-lieu fees. Why not LucasFilm? Affordable housing was required to redevelop the Marinwood Market shopping center. Why is Grady exempt when others are not?
- 6) 85 foot tall structures in a 30 foot tall height limit. The vast height creates the need to berm the hillside to screen the tall buildings thereby creating other unnecessary impacts to the topography. This grading blocks private views of Westgate neighbors, as well as the Public view from LV Road. If Grady can build structures like this, why can’t others in Marin by simply saying they will mask them in some way? Can Building Codes be legally circumvented by others in like manner? How can all light pollution be prevented with 85 ft tall towers, such large facilities and roadways (esp without reducing safety)?
- 7) Water supply- where is the report and analysis of impacts, and what are the tradeoffs? Was that report issued to the public? To whom? Has that water been secured? The MMWD constantly complains of lack of supply, raising rates and proposes a \$105 million dollar desalination plant to meet those

17-2
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demands. Yet, Grady proposes to use 14 million gallons/year at this one facility alone. What happens to the rest of the County? Does it lose flexibility, and sacrifice other opportunities for accommodating future uses and development, and to meet emergency needs in times of drought, earthquake and fire, when grey water is siphoned off for use only for Grady? Where is this analysis addressed in the DSEIR?

17-9
cont'd

- 8) Inconsistencies with the Marin County Countywide Plan and AB 32. The Plan calls for industrial and commercial development along urban corridors, not rural or residential areas. Why is Grady exempt? Can Grady and other projects proposed in Marin be grandfathered in to circumvent current state, local and Federal policies that have been passed over the past 15 years? Why can supply trucks, hundreds of employees, part-time workers and many subcontractors be allowed to commute an extra 8+ miles (4+ miles each way) each day off Highway 101 to Grady? For the proposed 300+ employees alone that's an extra 2,500 miles/day (640,000+ miles/year). Adding subcontractors, supply trucks, maintenance, caterers, part-time employees, chauffeured guests and other people commuting to Grady Ranch from highway 101 can increase the total to ***at least an extra million vehicle miles per year.***

17-10

During the multiyear construction period, thousand of VMT (Vehicle Miles Traveled) and tons of vehicle emissions have not been tabulated or assessed for the many lunchtime commutes to Northgate Center, Marinwood Plaza and elsewhere to get food since there are no restaurants, markets or other eating facilities along Lucas Valley Road. Assuming 50% of 100 Grady Ranch construction workers traveling an extra 12 miles a day to get lunch yields an additional 3,000 miles per week of travel (much of that along Lucas Valley Road, affecting day-time traffic). That's another extra 300,000 vehicle miles over two years and tons of added GHG. Construction will last more than two years.

17-11

In November 2011 the US Army COE provided notice to discharge fill into wetlands and other water from soils produced by Grady Ranch construction. I have not been able to locate any description or analysis of GHG emissions from heavy-duty trucks, barges, loading and unloading equipment/cranes, tugboats, maintenance and repair trucks, water transport for this activity. As such, traffic impacts from trucks carrying this fill have also not been assessed or reported.

17-12

AB 32 calls for reducing VMT (Vehicle Miles Traveled), not increasing them, and for placing new industrial/commercial facilities near urban corridors such as highway 101. Plus, this extra traffic on Lucas Valley Road will, at a minimum, necessitate more stop lights at multiple intersections for school and public safety (Marin Waldorf and Dixie schools are one block from Lucas Valley Road along this stretch), increase commute times and traffic delays (especially during the school year- Miller Creek School is also only a couple

17-13

blocks from LV Road; Terra Linda high school also creates a great deal of backup), resulting in more wasted energy, burning more imported fossil fuels, and additional greenhouse gas emissions. The project calls for a 500 cars underground parking garage as well as other, additional uncovered parking. That's massive by most any standard and the antithesis of the County Plan, for being responsibly green, and holding oneself to be a Steward of the Environment.

17-13
cont'd

9) The Future and Changes in Use. What happens if or when the property or business is sold? There needs to be Deed Restrictions and Conditions of Approval permanently limiting the future growth, and to prevent unanticipated problems that may crop up once the Production Studio is open. What other uses would be allowed if Lucas stopped using it for office space? What other industries might find use for such a huge facility in Marin County? What restrictions can be put in a use permit, and for what period of time, so it has to be renewed after a few years subject to the conditions at that time? The LV community needs to be involved in any future Changes of Ownership or change of use.

17-14

10) There is no mention of the Plan for the next Phase of the Grady Ranch development. What is the status of the second (and any subsequent) phase? Is that no longer being pursued? When will this information be provided, analyzed and presented to the public for review and comment?

17-15

11) Alternatives- Big Rock Ranch now sits substantially empty due to the Lucas Game Division scaling back and jobs going overseas. The SEIR make no mention of that or if those buildings can be repurposed to accommodate proposed Grady uses. Same for Skywalker area.

17-16

12) CEQA- The proper regulatory process has not been followed nor was the NOP (Notice of Preparation) submitted properly. The DEIR may not be issued prior to 30 days after issuance of the NOP (ref Section 15082).

17-17

I am in support of development, growth and increased tax revenues, but this project is entirely inappropriate at the location proposed; violates well-established planning, regulatory and zoning; and presents extraordinary environmental impacts (especially traffic, water, GHG, lighting and hours of use) that can not be mitigated other than by placing the facility elsewhere and along a major urban corridor such as highway 101. Perpetual and extraordinary impacts will be placed on Lucas Valley residents and any others traversing the valley/roads, causing severe and irreparable negative damages.

Respectfully Submitted,



Carl Fricke
76 Bridgegate Drive
San Rafael, CA 94903

**Letter
17
Response****Carl Fricke
December 8, 2011**

- 17-1 Please see Master Response 2 regarding the public noticing for the Draft SEIR.
- 17-2 Please see Mater Response 4 regarding the zoning and Marin Countywide Plan designations for the project site.
- 17-3 Please see Master Response 4. The proposed Grady Ranch project site is located near the existing facilities of Skywalker Ranch and Big Rock Ranch, which include similar and complimentary uses as the proposed facility.
- 17-4 The proposed hours of operation are included in the Project Description (page 2-7 of the Draft SEIR). Business hours of the site administration would be expected to adhere to a typical Monday through Friday work schedule from 9 a.m. to 5 p.m. Hours and activities occurring onsite during film production would vary depending on the needs of the film production schedule at the time. It is not anticipated that these activities would continue for twenty-four hours a day for weeks at a time. Please also see Master Response 3, Project Description Details, regarding additional details about operational hours.
- 17-5 The comment addresses an element of the project and does not address the analysis in the EIR. Please see Response to Comment 17-4 and Master Response 3 regarding hours of operation.
- 17-6 Please see Master Response 4 regarding the zoning and Marin Countywide Plan designations for the project site.
- 17-7 The Countywide Plan land use designation of PR, Planned Residential, is for housing, but the project would not interfere with implementation of the Housing Element, because the site is not identified as an opportunity site. The site does not have characteristics to qualify as an opportunity site, because it is not located near commercial areas or transit facilities. The applicant has proposed, and the County has accepted, compliance with the affordable housing goals and policies through payment of an in-lieu affordable housing fee to the County.
- 17-8 Please see Response to Comment 9-5 regarding project lighting. Potential changes in view across the project site, including from the adjacent residences, are discussed under Checklist Item 1c on pages 3-4 through 3-8 of the Draft SEIR.
- 17-9 Please see Response to Comment 8-5 regarding water supply.
- 17-10 It is not known at this time where future potential employees would live or how far away they live from other potential job locations in Marin County. The potential distance of other job locations from Highway 101 is unknown. Therefore, it is speculative to estimate the number of extra miles that could be traveled by potential employees to other locations.
- 17-11 Please see Response to Comment 7-3 regarding construction traffic.
- 17-12 This comment is concerned with the analysis of GHG emissions associated with fill and soil movement activities during construction of the proposed project. This information was

accounted for in the emissions modeling described and summarized on pg 3-60 of the Draft SEIR, and detailed model output can be found in Appendix B to the Draft SEIR.

- 17-13 This comment states that “AB 32 calls for reducing VMT, not increasing them, and for placing new industrial/commercial facilities near urban corridors”. Rather, AB 32 calls for reducing statewide GHG emissions while recognizing the need for growth (e.g., population and economic) in the State. In its GHG significance threshold development, BAAQMD also recognized that there will be new GHG emissions in its jurisdiction associated with new development. ARB, BAAQMD, and the County understand that the policy directives of AB 32 are to reduce GHG emissions within the State, without intending to limit population or economic growth. Specifically, BAAQMD has identified 1,100 metric tons carbon dioxide equivalent per year (MT CO₂e/year) as the level below which a project is considered to have a less-than-cumulatively considerable impact on climate change. The proposed project was estimated to result in 1,755 MT CO₂e/year without mitigation, and 1,649 MT CO₂e/year with mitigation implemented. The project’s emissions would be approximately 549 MT CO₂e/year over BAAQMD’s project-level significance threshold. Mitigation Measures GHG-1a and GHG-1b would directly result in substantial (i.e., greater than 549 MT CO₂e/year) GHG emissions reductions in Marin County. GHG emission reductions attributable to Mitigation Measures GHG-1a and GHG-1b would reduce the project’s impact on climate change to less-than-cumulatively considerable.
- 17-14 The County approved a Master Plan/Use Permit in 1996 for the project, which allows the proposed digital arts facility use at Grady Ranch. Any future owner of the facilities would have to abide by all of the conditions placed on the development, including maintaining a maximum of 340 employees and guests. Any changes to the conditions would require a Master Plan amendment or submittal of a new Master Plan. See also, Response to Comment 16-5 regarding speculation and forecasting.
- 17-15 Please see Response to Comment 8-6 regarding additional infrastructure and facilities.
- 17-16 Please see Master Response 5 regarding Project Alternatives.
- 17-17 Please see Master Response 2 regarding CEQA noticing.

12/9/11

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. I thought when projects which impact an entire community are being considered for approval would have to give notice the neighborhood residents. The more I learn about the use and impacts of this proposed project the more upset I become.

18-1

I have briefly reviewed a letter writing by a Richard Grassetti planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

18-2


- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?

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I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts,

18-9

Sincerely,


George Helwee, Luiz Ct, resident

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 17 years and in Marin County for 17 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

18-10

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grassetti Environmental Consulting letter I have a number of concerns.

18-11

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

18-12


The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

18-13
18-14

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

18-15
18-16

Sincerely,


George Helwee

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

12/9/11
Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I am the uncle of 2 children who call Lucas Valley their home. The safe and quite neighborhoods that comprise Lucas Valley is the very reason we moved here. My nephews and I often ride our bicycles on Luiz Ct and Lucas Valley Road. Lucas Valley Road is only two lanes and has a walking/biking lane as far west as West Gate Drive. There are hundreds of pedestrians and cyclists who use Lucas Valley Road for both transportation and recreational use every week. I am concerned about the safety of all who use Lucas Valley Road for recreational and transportation uses due to increase in construction traffic and subsequent operational/commuter traffic created by the proposed Grady Ranch facility. There is no bike path, sidewalk, or walking trail after West Gate Drive on Lucas Valley Road, and the two-lane road is at its narrowest at or near the Grady Ranch site. This condition will undoubtedly endanger the cyclists and pedestrians once the construction traffic begins and will continue to be a safety hazard for the foreseeable future.

18-17

The Supplemental EIR claims the use for Grady Ranch is office use but with over 50,000 square feet dedicated to film stages the implied or actual use will be for filming motion pictures. Approval of this project will not only threaten the safety of the children who live (and play) in Lucas Valley due to the increased traffic, but the increase in Air Pollution and Green House Gas emissions will take their toll as well. With asthma and other respiratory illnesses on the rise in California we must look out for the welfare of the children and the future generations to come.

18-18

The Grady Ranch project is too big and too visible at its current proposed site. It requires too much earth moving and altering of the natural terrain. It proposes to create a large hill where none existed before for "screening purposes". This must be due to the fact that finding trees or other natural screening would not be possibly due to the monstrous size of the proposed building. I feel that the Planning Process is moving too fast to make a competent or pragmatic evaluation of the project and more studies of its effects must be created and evaluated.

18-19


I object to the Grady Ranch project for the following reasons;

- 1. It's too big and visible for Lucas Valley and alternate locations should be explored.
- 2. It is being pushed through the planning process too quickly.
- 3. The supplemental EIR is not complete and the projects impacts require more study.
- 4. The traffic and safety impacts endanger the all the residents of Lucas Valley.
- 5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient.
- 6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed.

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The size, use, location, and associated impacts of this project out weight the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

18-26

Sincerely

George Helwee, Luiz Ct, resident

CC:
Board of Supervisors - Susan Adams, Katie Rice, Judy Arnold, Kathrin Sears, Steve Kinsey.

**Letter
18
Response**

**George Helwee
December 9, 2011**

FORM LETTER A: COMMENTS 18-1 THROUGH 18-9

- 18-1 See Master Response 1 and Master Response 2 regarding the Notice of Preparation and the noticing process .
- 18-2 See Master Response 1 and Master Response 2 regarding the Notice of Preparation and the noticing process .
- 18-3 Please see Master Response 2 regarding consistency of uses with the previously approved Master Plan.
- 18-4 Please see Responses to Comments 8-42 and 8-43 regarding traffic impacts.
- 18-5 The hours of operation of the indoor and outdoor stage facilities will generally follow the hours listed in the Project Description. The project applicant will also adhere to mitigation measures requiring that all outdoor lights be turned off by 11 p.m. Please see Master Response 3 regarding hours of operation.
- 18-6 As noted in the Draft SEIR (page 3-4), “the 1996 EIR identified a less-than-significant impact as a result of changes of views onto the project site from Lucas Valley Road. Most of the development proposed in the Grady Ranch Precise Development Plan would be similar to the previously proposed project. The number of buildings on the site would be fewer than previously proposed, and the Main Building would be located in the same place as under the 1996 Master Plan. The potential change in views onto and across the project site due to grading on the site and the proposed berm east of Grady Creek was identified as a less-than-significant impact in the 1996 Master Plan FEIR.” The Draft SEIR goes on to state (page 3-5) that “the most prominent building on the Grady Ranch site would be the Main Building, which would be built up to a maximum height of 85 feet. The Main Building would be screened from view from roadways and adjacent residences by the existing vegetation, existing topography, and the knoll on the southeastern portion of the site. It would be well below the surrounding ridgelines, so it would not alter the appearance or visibility of ridgelines from surrounding viewpoints.”
- 18-7 It is speculative to evaluate anything other than the project as described in the project description, which is the basis for this CEQA analysis. Any future uses of the project site via sale or lease would be subject to the same conditions as the project, which are identified in this environmental document. See also, Response to Comment 16-5.
- 18-8 Noise impacts are discussed in the Draft SEIR on pages 3-84 through 3-91. These impacts include analysis of traffic sources and stationary sources (including the outdoor stage). See Response to Comment 9-5 for a complete discussion of noise impacts related to stage use.

Traffic noise during project operations is discussed on page 3-88 of the Draft SEIR, and states:

“Project implementation would result in an increase in average daily traffic (ADT) volumes on affected roadway segments and, consequently, an increase in traffic source noise levels. Typically, when the ADT volume is doubled on a roadway segment in comparison to existing conditions, the resultant increase is approximately 3 dB CNEL/Ldn. An increase in traffic noise levels of 3 dB CNEL/Ldn or greater at noise-sensitive receptors along affected roadway segments would be considered substantial because it would be perceivable to the human ear. According to the Transportation and Circulation Update (February 2010), implementation of the proposed project would result in a similar amount of ADT (i.e., 918 daily trips) to that estimated in the 1996 Master Plan FEIR (i.e., 928 daily trips). The addition of 928 daily trips would not result in a doubling of ADT on nearby affected roadway segments as discussed in the analysis presented in the 1996 Master Plan FEIR. Thus, the addition of 918 daily trips, as cited in the updated transportation report for this project, would likewise not result in a doubling effect. Consequently, operation of the proposed project would not result in a noticeable change in the traffic noise contours of area roadways. With respect to the access road and parking lots, these would be located over 500 feet from the nearest sensitive receptor and shielded by the proposed knoll fill site at the eastern portion of the site. Based on typical traffic noise levels and standard distance and shielding attenuation rate, non-truck noise levels would be well below 45 dBA and maximum truck noise levels below 55 dBA. Therefore, long-term operation-related traffic source noise would not result in the exposure of persons to or generation of noise levels in excess of applicable standards, or create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the proposed project. This impact less-than-significant impact identified in the previous EIR would remain less than significant.”

- 18-9 In regards to proper noticing required by CEQA, see Master Response 1 and Master Response 2. The remainder of this comment is a general statement and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. No additional response is required.

FORM LETTER B: COMMENTS 18-10 THROUGH 18-16

- 18-10 See Master Response 2 regarding noticing and public review.
- 18-11 See Master Response 2 regarding noticing and public review.
- 18-12 The Draft SEIR includes a description of the existing environmental conditions, which includes additional residences built since certification of the original EIR in 1996. Impact evaluations in the Draft SEIR are based on these current existing environmental conditions.
- 18-13 Regarding the height of the main building, see Response to Comment 18-6. In regards to the height of the knoll, the Draft SEIR addresses this issue on page 3-4 and 3-5, as follows:
- “One change to the project includes a proposed increase in the amount of fill at the knoll located on the southeastern edge of the project site. As shown in Table AES-1, the proposed knoll grading would result in a maximum height that is 37 feet above the existing grade. In the proposed PDP, the middle of the knoll would be approximately 12 feet higher above existing grade than the previously proposed project. New residences are located southeast of the knoll, creating new private views across the project site that did not exist when the Master Plan FEIR was prepared. There are four to five residences located on Lucas Valley Road and Westgate Drive that currently have views to the west across the project site. Of those homes, the one to

two southernmost residences' western long-range views would be altered by the increased height of the knoll.

The Grady Ranch PDP would not alter the view of the surrounding ridgelines from Lucas Valley Road, similar to the 1996 FEIR conclusion. Also similar to the Master Plan project, the knoll would repeat the visual elements of the existing landscape and, after grass covering is established, the color and texture of the knoll would be designed to match the surrounding vegetation. Private views toward the west from nearby residences near the project site would be altered by the fill on the knoll, with some views of distant ridgelines replaced by the view of the ridgeline of the more near-ground knoll on the project site. Once the knoll is completed and revegetated, the residences would retain ridgeline views that consist of vegetated hillside without the presence of structures. While the Countywide Plan includes a policy and implementing programs to protect the views of Ridge and Upland Greenbelt areas, the Plan does not specifically include goals and policies recognizing the protection of private views of those ridgelines. The project would not include construction on a ridgeline, consistent with Implementing Program DES-4.d. The project would screen buildings on the project site with vegetation and topographical features, consistent with Implementing Program DES-4.e. Because the project would be consistent with Countywide Plan policies and programs addressing Ridge and Upland Greenbelt areas and because the project elements would be similar to what was previously analyzed in the 1996 FEIR, this would remain a less-than-significant impact."

- 18-14 Additional description of the geoexchange system has been added to the project description in Master Response 3. The geoexchange system would not include the drilling of wells or holes. This aspect of the project has been evaluated in the Draft SEIR. Specifically, this element is addressed on page 3-46 (in the Energy and Natural Resources discussion), pages 3-61 through 3-63 (in the Greenhouse Gas Emissions discussion), page 3-84 and page 3-88 (in the Noise discussion). See Response to Comment 18-13 in regards to visual changes associated with the geoexchange system and knoll.
- 18-15 Please see Master Response 2 regarding use of the project site.
- 18-16 Use of the project site is defined in the project description (Chapter 2 of the Draft SEIR). Regarding a discussion of Project Alternatives, see Master Response 5.

FORM LETTER C: COMMENTS 18-17 THROUGH 18-26

- 18-17 See Response to Comment 7-8 regarding pedestrian safety during project construction. See Response to Comment 14-5 regarding bike lanes.
- 18-18 Impacts to air quality, greenhouse gases and traffic are addressed in the Draft SEIR in the following Environmental Issue Areas: 4 – "Air Quality," 8 – "Greenhouse Gas Emissions," and 17 – "Transportation/Traffic."
- In regards to air quality, the Draft SEIR analysis (pages 3-15 through 3-25) concluded that proposed changes to the Grady Ranch PDP after the 1996 Master Plan FEIR was certified would not result in new significant impacts or substantially more severe impacts to air quality. However, changed circumstances based on new information regarding air quality attainment status, newly-adopted CEQA Guidelines and thresholds of significance by the BAAQMD, and new off-site receptors that did not exist at the time of the prior EIR, would result in a new and

substantially more severe significant impact conclusions related to air quality. Air quality impacts from criteria air pollutant and precursor emissions (specifically, NOX and fugitive dust emissions) associated with project construction would be significant, but would be reduced to a less-than-significant level with implementation of mitigation measure AQ-1, a new mitigation measure identified through environmental review. Health risks associated with air quality are addressed in discussion “d” on pages 3-19 through 3-21 of the Draft SEIR. Air quality impacts associated with exposure of off-site residences to TAC emissions during construction would be potentially significant, but would be reduced to less-than-significant with implementation of mitigation measure AQ-2, a new mitigation measure identified through environmental review. Air quality impacts from project operation would be less than significant (page 3-24 of the Draft SEIR).

In regards to greenhouse gases, the Draft SEIR analysis concluded that the project would be consistent with applicable policies adopted for the purpose of reducing GHG emissions. However, GHG emissions from operation of the proposed project would exceed applicable thresholds of BAAQMD. Therefore, the project would make a considerable contribution of GHGs to the cumulative impact of climate change. Mitigation Measure GHG-1 is a new mitigation measure identified through environmental review that would minimize emissions to below BAAQMD’s threshold. This would be a new significant impact that would be less than significant with mitigation incorporated (page 3-65 of the Draft SEIR).

In regards to traffic, the Draft SEIR analysis concluded that no changes in circumstances or revisions of the proposed project in the PDP would result in new or substantially more severe significant traffic and transportation impacts, compared to the analysis presented in the Master Plan EIR. Trip generation would be the same as previously evaluated and circulation features in the PDP would improve some safety conditions, compared to the Master Plan. Mitigation Measure TRANS-1, identified through environmental review, would replace the previously identified mitigation measures and would continue to reduce potential impacts to a less-than-significant level (page 3-103 of the Draft SEIR).

- 18-19 See Response to Comment 18-6 regarding the size of the proposed building. See Master Response 2 regarding CEQA process and timing.
- 18-20 See Master Response 4 regarding Project Alternatives.
- 18-21 See Master Response 2 regarding public review period.
- 18-22 This comment is a general statement that does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 18-23 See Response to Comment 7-8 regarding the traffic analysis and impacts.
- 18-24 This comment is a general statement that does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. Impacts to air, water, topography and biology are addressed in the following Environmental Issue Areas of the Draft SEIR: 3 – “Air Quality” (beginning on page 3-15 of the Draft SEIR), 4 – “Biological Resources” (beginning on page 3-26 of the Draft SEIR) and 7 – “Geology and Soils” (beginning on page 3-48 of the Draft SEIR).

- 18-25 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 18-26 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. The SEIR is adequate and complete for purposes of CEQA and the decision-makers' consideration for certification. This comment is noted. No further response is required.

12/9/11

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm saddened to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I was informed by a Marin IJ article and some of my neighbors. I would have assumed that when projects which impact an entire community are being considered for approval the neighborhood residents would be informed. I am concerned about how this project will affect the Valley's natural topography, inhabitants and resources, as well as the enormous traffic implications this will impose on our quiet two-lane road used not only by local residents but recreationally by the entire county.

19-1

I have briefly reviewed a letter writing by a Richard Grasseti planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

19-2

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?

19-3

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19-5

19-6

19-7

I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts,

19-8

Sincerely,
Erica Jennings

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

**Letter
19
Response**

**Erica Jennings
December 9, 2011**

19-1 thru 19-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Responses to Comments 18-1 through 18-9.



From: Christina Kranenburg [mailto:christina@kranenburgfinancialgroup.com]
Sent: Tuesday, December 13, 2011 12:13 PM
To: Stratton, Debra
Subject: Grady Ranch Development Protest

12/9/11

Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 23 years (ever since the Lucas Valley Estates subdivision was built) and find myself quite frustrated by the way in which the Planning and Review process has been conducted for the Grady project. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

20-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

20-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

20-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

20-4

20-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. **I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further.** I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. **I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.**

20-6

20-7

Sincerely,

Christina Kranenburg

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

Christina

Christina S. Kranenburg, CPA
Kranenburg Certified Public Accountants
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**Letter
20
Response**

**Christina Kranenburg
December 9, 2011**

20-1 thru 20-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Responses to Comments 18-10 through 18-16.

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**Thomas & Susan Monahan
2200 Lucas Valley Road
San Rafael CA 94903**

December 9, 2011

To: MARIN COUNTY PLANNING COMMISSION
C/O Debra Stratton Planning Commission Secretary
3501 Civic Center Drive, Room 308
San Rafael CA 94903

Re: Grady Ranch Precise Development Plan
Draft Supplement to the 1996 Grady Ranch/Big Rock Master Plan
Final Environmental Impact

Dear Planning Commissions,

We are writing to you as 30-year residents of Lucas Valley. We currently live adjacent to the east property line of the proposed Grady Ranch Project and will be severely impacted by the Proposed Development. This letter is to articulate our serious concerns over the proposed LucasFilm expansion of Grady Ranch. This letter is also to register objections to the Environmental Impact Report, which is woefully inadequate and incomplete for a project of this size and complexity.



21-1

The Planning Staff Report, which reviews the application, indicates that the many modifications to the Proposed Grady Ranch Project are insignificant or have no impact. This is misleading and incorrect. The currently proposed project is significantly different than the Project Description and Use that was proposed in 1996. The following are just a few examples of the changes to the proposed project that were never considered in 1996 and now result in significant impacts.

- CHANGE IN USE -The current plan includes a significant change in use to a Film Production and Sound Stage Studio, which is incredibly different than the Office Use, which was proposed in 1996. The impacts resulting from the operation of a Film Production Studio will increase traffic, noise, safety, light pollution impacts, as well as visual impacts. A Film Production Facility is an Industrial Use and not allowed in the existing Residential Zoning. The difference between Office Use and a Film Production and Sound Stage Studio is a significant change to the previous 1996 Plan, as are the Environmental Impacts.
- CHANGE IN BUILDING HEIGHT – The main building height in 1996 was proposed at a maximum height of 55 feet. In 2011 the proposed height is 85 feet, thirty feet taller. If allowed it would be one of, if not the tallest buildings in all of Marin County. This proposed height change is significant and inappropriate in a residential neighborhood where all the surround buildings are at or below the 30-foot height limit.
- CHANGE IN GRADING - The increased building height creates significant visual impacts such that in order to mitigate those impacts, and screen the increased building height, the Applicant proposes to increase the height of the natural topography by adding more than 40 vertical feet of grading. This is to be accomplished by adding 300,000 cubic yards of dirt, removed from the hillside, to create a large mountain to screen the enlarged building. This excess grading was not part of the 1996 plan, and now would create it's own set of impacts to geology, hydrogeology, visual, noise, earthquake instability, and possible stream and habitat impacts. The only reason for the excess new grading is due to the need to screen the increased building height.
- ADDITION OF A GEOTHERMAL FIELD – The addition of a Geothermal Heating Field covering more than four acres, was never considered in the 1996 EIR. The newly proposed geothermal field will require that many thousands of new well holes be drilled into the site to a potential



21-2



21-3



21-4



21-5

depth of 1000 feet. These new well holes are proposed to be drilled in the valley floor, very close to Miller Creek, the primary drainage for the entire Lucas Valley. Impacts to the water table, aquifer, and creek environs are potentially significant. The full scope and operation of this proposed system has not been fully disclosed and therefore not studied. To make a bad idea even worse, the location for this newly proposed Geothermal system is to be placed under the newly proposed 40 feet of fill to be added to an already unstable hillside. The compound effects of this are clearly significant and should not be allowed.

21-5
cont'd

- ADDITION OF A WINE CAVE – The 1996 EIR never anticipated the addition of a newly proposed 40,000 square foot wine cave. The 2011 proposed project includes a 40,000 square foot wine cave that has 20-foot tall entrances and ceilings. The wine cave is proposed to be bored into the hillside, thus creating an underground structure and displacing approximately 800,000 cubic feet of soil. There are no studies about this new component of the project to review the soil, stability, species, earthquake, or other impacts visually or environmentally.
- INCREASE IN WATER TANK SIZE – The 120,000 gallon water tank included in the 1996 EIR has been increased by three times to include a now proposed 400,000 gallon water tank, as well as the addition of a second 40,000 gallon water tank. The visual and environmental impacts are not studied and yet dismissed as insignificant by the Staff Report. The lack of a fully designed plan prevents full public disclosure and proper review of these potentially significant impacts.

21-6

21-7

Above are just some of the substantial and significant changes that have occurred since the 1996 EIR. Any one of these changes is sufficient grounds for the Planning Commission to require the Applicant to have prepared a new EIR, and to require the project to be modified, to be consistent with the Office Use contemplated in 1996, rather than as what it is now proposed, (Industrial Use) which is a Significant Difference than the 1996 Proposal.

21-8

In addition to the above Project changes, the following Inconsistencies and Inadequacies also exist in the current application and DSEIR and need further study. We believe the following list, to have been improperly studied, or improperly disclosed, to the Public or the Planning Commission.

PUBLIC NOTICE / INCOMPLETE APPLICATION

Due to the massive size and Industrial Use of the proposed project, Marin County residents miles away from the project will be affected. The scope of the project has Regional and Countywide impacts, yet there has been inadequate notice to all those whom would be impacted by this development. As neighbors we were not properly notified of the Notice of Preparation, nor were we given sufficient time to allow for review, analysis, and comment of the Draft Supplemental Environmental Impact Report (DSEIR) for Grady Ranch. Any decisions or actions should be postponed until we, and the broader Marin County Public, have been properly notified and have had a adequate time to study, comment, upon a complete application. As Prepared, the DSEIR and Project application is insufficient in it's disclosure and project description.

21-9

PROPOSED USE

We object to the inappropriate Industrial Use of the proposed project in a residentially zoned area. In the 2011 DSEIR in the category of "Proposed Project Operations" County Staff states that; *"The Main Building would be used for advanced, digital technology-based film production and production stages for the filming of sequences that require production techniques possible only in such a large space."*

21-10

The 1996 EIR LucasFilm requested a Use Permit for Grady Ranch to be for, *"digital production office facility and related uses"*. (Final EIR pp.2.0-8) Not industrial use.

In the 2011 DSEIR the County Staff inaccurately states that;
“Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of impacts since the proposed land uses and project site are the same;” (DSEIR pp.3-79)
 This is not a true statement and misleads the Community and Planning Commission.

In the 2011 DSEIR the County Staff goes on to inaccurately state that;
“No changes to the proposed project’s land uses and no changes to the zoning or General Plan designation have occurred since the 1996 Master Plan FEIR.”

It is clear from review of the 1996 Final EIR and the 2011 DSEIR that the proposed uses have in fact changed from primary Office Use to Primary Film and Sound Stage Production. (Any person would see that the operation of an Office Building, and the operation of a Film Production Stage are completely different with completely different inherent impacts).

The proposed Film Production and Sound Stage use was not represented, disclosed, contemplated or approved in the 1996 FEIR and now poses significant new impacts upon the Lucas Valley Community and all adjacent neighbors. This change in use would also influence other inherent impacts such as, more traffic than currently studied or anticipated, more noise than studied or anticipated, and more air quality & green house gas emissions than previously anticipated.

The use as a Film Production and Sound Stage is exponentially more impactful and objectionable when it’s coupled with the proposed UNLIMITED hours of operation.

With regards to hours of operation, the DSEIR states that;

“ . . . site administration (LucasFilm) would be expected to adhere to a typical Monday through Friday work schedule from 9:00a.m. to 5 p.m. However, the hours and activities occurring onsite during film production would vary depending on the needs of the film production schedule at the time.” This is simply too open-ended. The nature of Film Production is very time sensitive and can easily become a 24-hour, 7 days per week operation. The “Hours of Operation” and production “Day of the Week” must be completely disclosed in order to properly measure impacts.

21-10
 cont'd

21-11

INCONSISTANCY WITH COUNTY WIDE PLAN

The proposed use of an “Industrial” type project is in direct conflict with the Marin County Wide Plan and Zoning Ordinances. A Film Production and Sound Stage Studio in a quiet residential zoned neighborhood is completely inappropriate, and should have been rejected at first look. This type of change requires a Zoning change, which is outside the scope of the current application.

21-12

AESTHETICS

The main building proposed for Grady Ranch is completely out of scale and inappropriate for the proposed location. The main building size is proposed to be about 270,000 square feet, which is almost the same size as the Marin Commons building located in the Commercially Zoned Corridor, at Lucas Valley Road and Highway 101. The proposed building is twice the size of a Costco building and is inappropriate for a residential area.

The proposed Grady Ranch building has 65-foot tall ceiling heights, and 85 feet tall towers, which is 30 feet taller than previously proposed in 1996. The normal building height in Lucas Valley is 30 feet tall, or less. If this building were approved, the building would be 55 feet taller than any building in a 5-mile radius, and the 85-foot towers would make it one of the tallest buildings in Marin County. Due to the size and height of the proposed building, extensive grading and screening is necessary.

21-13

The 1996 EIR included only massing simulation of the major buildings proposed and not actual simulations of the building being proposed but was limited to 55 feet tall. The 1996 EIR proposed a much smaller water tank and lower grading heights than what is currently proposed in the DSEIR. Story poles, models, and graphic simulations of the current proposed structures, and story poles

21-14

indicating new proposed grading ridgeline changes are required for the Planning Commission, Staff, the Public and impacted neighbors to properly understand the visual impacts that the new proposed buildings, structures, and grading generates and needs to be provided. This practice is commonplace in Marin County and a minimal requirement for a massive project of this size and complexity.

21-15

The new design of the building(s), water tanks, geothermal field, and grading that have been added and/or modified from the 1996 EIR constitute major visual impacts and require detailed simulations and study.

The DSEIR fails to provide a suitable assessment of the proposed outdoor film stage and sound stage, and its associated impacts. The sound stages may create additional noise, light, and visual impacts, yet the operational information is not disclosed. The proposed hours of operation of the outdoor and indoor film stages have significant effect on the environmental impacts associated with the operation. For instance, if the film stages are proposed to be used during weekend and nighttime hours, what mitigation measures would be necessary?

21-16

Many new homes near the proposed project, with views of the site, have been constructed and occupied since 1996. The impacts of the new building design, grading, water tanks, geothermal field and wine cave, will have significant impacts to the views of the existing homes. A map showing the locations of these homes and simulations of how the views from these homes would change, including lighting impacts, needs to be provided and studied. Since 1996 California Courts have ruled that impacts to private views are considered significant.

21-17

A new EIR should be required to consider the Cumulative Impacts of the proposed project. The new EIR document should include Public and private impacts not only to views, but to the entirety of the application, including current updates for the now completed Skywalker Ranch & Big Rock Ranch, the proposed Grady Ranch project, and other proposed projects in the area including the Hetfield, Rocking H1 and Rocking H2 developments which are readily foreseeable.

21-18

We strongly object to the County Staff's statement regarding aesthetics of proposed Grady Ranch project where they state that; ". . . the Proposed PDP (precise development plan) would not result in a new significant impact . . .

A new comprehensive Environmental Impact Report of the proposed Grady Ranch Project including all changes from the 1996 EIR needs to be created and disclosed to the Public, Neighbors, and the Planning Commission, so that the true impacts and mitigations can be determined.

21-19

ALTERNATIVES

Appropriate alternatives for the Grady Ranch Project have not yet been recently considered. Since the 1996 EIR, a number of new potential alternative sites for the project uses are available. As noted by Richard Grassetti in his letter dated December 7, 2011 he makes the point that according to the CEQA guidelines the project objectives drive the lead agency's selection of a reasonable range of alternatives. The lead agency is responsible for implementing the CEQA process and must vet out the project objectives for compliance with CEQA.

The project objectives for Grady Ranch are too narrow to allow suitable and significant consideration of alternatives. Since 1996 a change in condition has occurred with regards to alternative sites for the desired use of the project. LucasFilm (ILM) has moved many of originally proposed uses for the Grady Ranch site to the old Letterman Hospital Building, now Lucas/Letterman Digital Facility (Letterman) in the San Francisco Presidio. This Facility is more than 850,000 square feet and was to provide space for ILM and it's production uses. It is common knowledge that much of Letterman has been leased out to third party tenants, for non-ILM uses, and the space could be modified to accommodate uses now proposed for Grady Ranch. Additionally, Big Rock Ranch is below 50% occupancy, and could be modified to accommodate the proposed uses with significantly fewer impacts. The availability of these and other alternate sites, further beg the question, why is the Grady Ranch Project even necessary?

21-20

Additionally a new EIR for Grady Ranch should be produced to include additional alternatives such as;
a) Off-site alternatives compatible with the County Wide Plan and zoning.

21-21

- b) Alternative grading and building designed that meet the use restrictions, zoning, and height limits of the residential zoning district. | 21-21
- c) Alternative building design with less density, less height, less grading, and less impacts to the natural topography, biology, and neighbors in Lucas Valley. | cont'd

GRADING, GEOLOGY, & SOILS

The proposed Grading for the Grady Ranch Site is truly massive and would involve over 30,000 truckloads of dirt to manufacture a building pad for the proposed main building. The 300,000 yards of dirt removed for the construction of the main building is proposed to be piled up to create a forty foot vertical extension of an existing ridgeline which would impact public views from Lucas Valley Road as well as views to the west from the adjacent neighbors. The Staff Report disregards these impacts. Potential Impacts related to drainage and hydrology have not been studied and may have negative impacts on Miller Creek, it's tributaries, and the adjacent neighboring properties. There is reported landslide instability in the immediate area of the proposed grading. There is no mention of this, or the future off site impacts this grading will have to our property. | 21-22

The DSEIR includes no detailed analysis of the grading plans proposed in the precise development plan and fails to evaluate the seismic stability of the proposed grading changes. Instead the Applicant seeks to defer this analysis to a future date, ostensibly, after the application is approved in concept. The proposed manmade 40 foot tall hill is unnecessary and was not included in the 1996 EIR. Lucas Valley is in a tectonic fault zone and there is no discussion or study of the potential hazards of the massive grading, in the event of an earthquake. Similarly there is no study of the impacts to the subsurface hydrology created by this grading. The massive grading will alter surface and sub surface hydrology, and yet these impacts are not studied. An analysis of the impacts of a seismic event to neighboring properties and the Miller Creek drainage is required. Additionally, further study is required of the impacts of newly proposed 400,000 gallon water tank in it's proposed hillside location when an earthquake occurs. | 21-23

There is no discussion or study of the impacts from the drilling of thousands of deep wells for a 4-acre geothermal field that was never included in the 1996 EIR. This change alone is significant and justifies it's own EIR. The geothermal field would require thousands of wells potentially hundreds, if not a thousand, feet deep which could disrupt the natural aquifer which supplies well water to many properties in the valley as well as impact the tectonic fault on which Lucas Valley sits. Geothermal installation such as the proposed plan, have been stopped at the Geysers Project north of Healdsburg, as a result of severe impacts, including a tendency to induce earthquakes and other seismic problems. (See the attached article regarding the OBAMA administration's decision to stop Federal Funding for this type of Geothermal project due to it's uncertain performance and impacts). | 21-24

This Geothermal field is a new and unnecessary component of the application should be deleted altogether. The combination of a risky Geothermal Field and then placing 300,000 yards (30,00) truckloads of dirt on top of the Geothermal field is a high-risk experiment that has not been done before. Alternative, and more effective energy saving designs to this proposal, should be studied.

The cumulative impacts from the proposed grading operations have not been adequately studied, and should be further reviewed and included in a new full EIR to fully disclose, study, and mitigate the extensive changes proposed in the 2011 DSEIR. It is inappropriate for the Planning Commission to defer the study of these impacts to a time after project approval. | 21-25

The current grading proposal will likely result in another situation similar to the Buck Center for Aging in Novato, (where a similar massive grading project attempted to engineer a manmade hillside failed), impacting the neighboring residences, jeopardized the public's safety, and caused extensive environmental and millions of dollars in damages. | 21-26

NOISE /SOUND STAGES

There has been no study of the sound impacts to the public and surrounding neighbors with regards to construction activities or the potential ongoing use of sound stages both indoors and outdoors. The proposed construction schedule is proposed for a duration of 2 ½ years, if the project stays on schedule. No mitigation measures have been established.

21-27

The impacts of the truck noise, construction activities, and ongoing use of the Film Production and Sound Stages have not be adequately disclosed, studied, or mitigated. The noise produced from the film crews, equipment, deliveries, production vehicles, and use of sound stages will disrupt the character of the neighborhood and needs to be included in a new EIR. A complete proposal outlining the exact hours of operations, and operating days of the week, of the proposed Facilities Operation is necessary to measure the impacts and needs to be provided by the Applicant before the impacts can be measured, understood and regulated to minimize these impacts.

The proposed Geothermal field is designed to have loud operating water pumps continuously active. The noise produced by these pumps has not been disclosed, studied, or measured, and should not be allowed, as it will constitute a nuisance and sound impact.

21-28

LIGHT

The lighting study for the project is not sufficient. The light from the proposed project, including but not limited to, site lighting, building lighting, landscape lighting, hardscape lighting, and outdoor stage lighting, needs to be studied and mitigated especially with regards to the impacts to neighboring properties and Lucas Valley Road. A Photometric lighting impact plan, including all forms of light pollution associated with the project and it's subsequent operations should be provided. That detailed study should include the public impacts to the Public road way, all neighbors, and the associated level of impact at various locations surrounding the project and remote locations to determine and avoid nighttime "glare" and "glow".

21-29

This Photometric report is only possible with full disclosure of the proposed Hours of Operation and Days of the Week, proposed for the Facility so that the impacts can be measured, understood and regulated.

TRANSPORTATION, PUBLIC SAFETY, & TRAFFIC

Lucas Valley Road is a Regional Gateway Corridor to the West County.

The increased traffic arising from the operation of the Proposed Film Production and Sound Stage will increase the number of construction, delivery, and employee vehicles on the Lucas Valley Road. Lucas Valley Road is only two lanes wide, and the increased amount of motor vehicle and truck traffic resulting from film production activities will result in a more dangerous environment for the residents of Lucas Valley and all those who use Lucas Valley Road as a regional corridor to access the Recreational and Coastal resources of the West County. The safety of motor vehicles, cyclists, and pedestrians, are at risk. The walking paths and bike lanes on Lucas Valley Road extend only to West Gate Drive, which means that large delivery trucks, pedestrians, and cyclists will be sharing a very narrow two lane road, for the entire distance between West Gate Drive and the entrance to Skywalker Ranch, approximately 5 miles. Visibility is limited and excess speed is dangerous. Large 18 wheel Film Production trucks should be prohibited.

21-30

Separate bike paths should be required as a safety mitigation and established to provide safe access for cyclists and pedestrians along the 5-mile long dangerous stretch of roadway.

The 1996 EIR & 2011 DSEIR do not adequately address the potentially dangerous impacts that would be a direct result of the proposed project. The traffic impacts associated with the proposed Grady Ranch construction and operations is not sufficient and does not take into consideration all the additional trips related to film production crews, delivery trucks, and all other incidental trips associated

21-31

with an onsite film production and sound stage operation. With more trucks on a narrow two lane road the public's safety is threatened and the potential for vehicle related accidents and deaths are increased.

An accurate study of the traffic impacts from the proposed project must be properly studied before project approval can be considered. A full traffic study and analysis is warranted, which must include full disclosure of Hours of Operations and proposed Days of the Week, (including accurate employee populations, guest workers, visitors, support crews, etc.) so that a meaningful traffic and trip data can be created, studied, measured, understood, and regulated. Traffic counts and turning movements must be considered, as well as restrictions on vehicle trips during peak hours, and restrictions on weekends especially, should be included in the study.

21-31
cont'd

This 5-mile stretch of Lucas Valley Road has been the site of frequent and serious traffic accidents, injury and death. Historical CHP and Marin County Sherriff accident reports need to be included in the traffic study. The current baseline traffic conditions must be reevaluated in light of changes that have occurred over the last 15 years. The current underutilization of the Big Rock Ranch facility (~50% Occupancy) must be considered as if fully occupied in order to accurately calculate the full cumulative impacts of the Grady Ranch proposed expansion. Also, additional future anticipated growth conditions for the next 20 years, and the ultimate safe capacity of Lucas Valley Road must be considered concurrently with the Application. Appropriate mitigation measures cannot be properly determined unless this information is provided. Left unchecked, the current development proposal will significantly increase the truck and vehicle traffic in this area, and is a significant impact to public safety.

21-32

AIR QUALITY

The air quality analysis is incomplete, inaccurate, and should be studied in a new EIR for the proposed Grady Ranch Project. The construction emissions should include all revisions to the proposed Grady Ranch Project included but not limited to, the onsite construction activities, offsite construction activities, increased traffic due to change in use, current baseline conditions, and all other deviations from the 1996 EIR. Full disclosure of Hours of Operation and Days of the Week of production must be disclosed in order to accurately determine these impacts, and mitigations.

21-33

GREEN HOUSE GAS EMISSIONS

There is great concern about the Air Quality and Green House Gas Emissions that would be created through the construction and operation of the Proposed Grady Ranch Film Production and Sound Stages project. The Green House Gas (GHG) Emissions for the Grady Ranch project are more than twice the Bay Area Air Quality Management District's (BAAQMD) efficiency threshold level. Due to the fact that the Grady Ranch site is not located in a urbanize area of the County and is over four miles from Highway 101.

21-34

The increased commuter & truck traffic during construction and operation of the Grady Ranch facility will undoubtedly add to the level of GHG and reduce the air quality in the most populated portion of Lucas Valley. It is also quite troubling that the estimated GHG Emissions used in the DSEIR was based on an annual average of 170 (Grady Ranch) employees per day, when the proposed amount of employees for Grady Ranch is stated to be 340. The true Population of the Film Production Facility must be determined and regulated. The GHG emission levels stated in the DSEIR are fundamentally inaccurate.

This gross underestimated amount of GHG Emissions poses a threat to the environment and the residents in Lucas Valley and beyond. More surprisingly is the proposed \$100,000 FEE to be provided to the County of Marin for "feasible GHG emissions reduction projects in Marin County." This means

21-35

that Lucas Film Ltd. will pay the County of Marin (\$100,000) to study the feasibility of reducing the increased emissions that will be created by the Grady Ranch facility without any actual mitigation of the effects of this pollution. This cannot be considered a mitigation as it does nothing to actually lessen the impact of the pollution. True mitigation measures must be included. 21-35 cont'd

UTILITIES

The utility portion of the DSEIR is outdated, incomplete, and inaccurate. The utility study should include current MMWD water supplies from 2011 and not a 16-year-old water supply study from 1996. We understand that the project's water supply that is to be supplied from MMWD is a massive allocation of needed water, which is currently unavailable. Several cumulative impacts result from the project's water demand, which are currently not studied. The actual availability of the water should be obtained from MMWD in the form of a Will Serve letter to insure availability. 21-36

Additionally, the proposed Geothermal Field that includes ground water pumps will impact upon the existing underground aquifer and creek levels, and should be thoroughly studied. Test wells and accurate depths of the existing aquifer must be established as a baseline in order to determine potential impacts. Our domestic wells adjacent to the proposed project currently draw down to less than 25% of normal production levels from July through October. New wells should be prohibited to avoid further strain upon the subterranean water table/ aquifer. The fire line water supply has not been studied to determine its impacts to other properties, and should be included in the utility study to determine impacts. 21-37

Sewer Annexation from Las Gallinas Sanitary District and recycled grey water, (purple pipe) supply for irrigation is not fully disclosed. Again, Will Serve letters should be provided. Impacts resulting from these and other utility extensions should be included in the new EIR including impacts from construction. A new utility impact study needs to be created with accurate, current information, and should be included a new EIR which includes all changes from the 1996 EIR. 21-38

FUTURE PHASES /SCOPING/ MITIGATION MONITORING

The Application is unclear as to the status of the future phases of the Grady Ranch Project. Is the Public to understand that the current application is the full limit of the Project and subsequent Phases of other buildings and Development is forever abandoned? If not, than the full disclosure of the full build out of the Grady Ranch should be included in the current application. The full disclosure of future intended uses is required to fully evaluate the impacts of the Application. 21-39

If no further development will be sought, than strict limits and restrictions should be put in place to prevent a segmented application from increasing the impacts that are being considered at this time. The Application should further be restricted to limit future uses that would create impacts not currently considered (such as Prohibiting Helicopter landing on the property). 21-40

The application and resulting Conditional Use Permit Restrictions and Enforcement provisions should be more completely discussed and disclosed to the Public. Violations of Use Permit restrictions should include non monetary i.e. (Shut Down) penalties if infraction occurs. These Conditions are critical to the County's ability to limit the future impacts of such a large Industrial Facility. 21-41

A formal Scoping hearing should be included to establish the parameters of the new EIR. The existing Mitigation Monitoring provisions are not adequate and need to be comprehensive, defined and increased to reflect the current circumstances. 21-41

BIOLOGY

Additional information and current updated studies are required for Species and Habitat impacts. It is unrealistic to rely on outdated studies to assess current impacts. Impacts to the Steelhead Trout in particular are incomplete and inadequate.

21-42

HAZARDOUS MATERIALS/VEGITATION/TREE REMOVAL

The DSEIR makes conflicting statements with regards to fuel storage onsite. Please clarify if fuel will or will not be stored on site. The DSEIR is incomplete and must include a proposed Vegetation Modification Plan. Preservation of trees can be better achieved and tree removal should be limited. This plan should not be deferred but included in a new EIR so that it can be evaluated prior to project consideration to make an informed decision regarding this proposed project.

21-43

21-44

HYDROLOGY & WATER QUALITY'

The DSEIR is incomplete with regards to Hydrology and Water Quality. There is no specific analysis of potential impacts associated with grading, the creation of a 40 foot man-made ridgeline, creek restoration and modifications. There is no information regarding the impacts to surface drainage, sub surface, aquifer, and ground water. A complete study of the impacts to hydrology and water quality should be conducted prior to considering approval of the proposed project. A new hydrology study needs to be created with sufficient information to determine potential impacts associated with grading, geothermal field, creek restoration, and other site improvements.

21-45

POPULATION & HOUSING

This section is inaccurate and has not been adequately studied. Jobs /Housing balance and the provision to provide affordable housing onsite needs to be addressed.

21-46

The Grady Ranch proposal and the DSEIR is incomplete, inaccurate, misleading to the Public, Neighbors and Planning Commission. The Application needs to be modified to eliminate the many inappropriate changes and new scope additions that have been added since the original Master Plan was review in 1996.

21-47

Please send the current application back to the drawing board to conform to the original Office use contemplated by the Community more than 15 years ago. That application, along with an updated Environmental Impact Report, should be considered by the Lucas Valley Neighborhoods, and the Countywide Community after careful study and debate of the long-term impacts to the Community.

Thank you for your consideration,

Very truly yours,

Thomas and Susan Monahan

Attachments

The New York Times

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JEFF
BRIDGES IS
PHENOMENAL.
David Arsen, Newsweek

December 12, 2009

Geothermal Project in California Is Shut Down

By **JAMES GLANZ**

The company in charge of a California project to extract vast amounts of renewable energy from deep, hot bedrock has removed its drill rig and informed federal officials that the government project will be abandoned.

The project by the company, AltaRock Energy, was the Obama administration's first major test of geothermal energy as a significant alternative to fossil fuels and the project was being financed with federal Department of Energy money at a site about 100 miles north of San Francisco called the Geysers.

But on Friday, the Energy Department said that AltaRock had given notice this week that "it will not be continuing work at the Geysers" as part of the agency's geothermal development program.

The project's apparent collapse comes a day after Swiss government officials permanently shut down a similar project in Basel, because of the damaging earthquakes it produced in 2006 and 2007. Taken together, the two setbacks could change the direction of the Obama administration's geothermal program, which had raised hopes that the earth's bedrock could be quickly tapped as a clean and almost limitless energy source.

The Energy Department referred other questions about the project's shutdown to AltaRock, a startup company based in Seattle. Reached by telephone, the company's chief operations officer, James T. Turner, confirmed that the rig had been removed but said he had not been informed of the notice that the company had given the government. Two other senior company officials did not respond to requests for comment, and it was unclear whether AltaRock might try to restart the project with private money.

In addition to a \$6 million grant from the Energy Department, AltaRock had attracted some \$30 million in venture capital from high-profile investors like Google, Khosla Ventures and Kleiner Perkins Caufield & Byers.

"Some of these startup companies got out in front and convinced some venture capitalists that they were very close to commercial deployment," said Daniel P. Schrag, a professor of geology and director of the Center for the Environment at Harvard University.

Geothermal enthusiasts asserted that drilling miles into hard rock, as required by the technique, could be done quickly and economically with small improvements in existing methods, Professor Schrag said. "What we've discovered is that it's harder to make those improvements than some people believed," he added.

In fact, AltaRock immediately ran into snags with its drilling, repeatedly snapping off bits in

21-48

shallow formations called caprock. The project's safety was also under review at the Energy Department after federal officials said the company had not been entirely forthcoming about the earthquakes produced in Basel in making the case for the Geysers project.

The results of that review have not yet been announced, but the type of geothermal energy explored in Basel and at the Geysers requires fracturing the bedrock then circulating water through the cracks to produce steam. By its nature, fracturing creates earthquakes, though most of them are small.

On Friday, the Energy Department, which has put some \$440 million into its geothermal program this year alone, said that despite the latest developments, it remained confident of the technology's long-term prospects. Many geothermal methods do not require drilling so deep or fracturing bedrock.

"The Department of Energy believes that geothermal energy holds enormous potential to heat our homes and power our economy while decreasing our carbon pollution," said Stephanie Mueller, a spokeswoman.

AltaRock has also received some \$25 million in federal money for a project in Oregon, and some scientists speculated on Friday that after the spate of problems at the Geysers, the company wanted to focus on a new site.

But the company, whose project at the Geysers was located on land leased from the federal government by the Northern California Power Agency, has held information about its project tightly. Not even the power agency has been informed of AltaRock's ultimate intentions at the site, said Murray Grande, who is in charge of geothermal facilities for the agency.

"They just probably gave up, but we don't know," Mr. Grande said. "We have nothing official from them at all."

But a resident of the nearby town of Anderson Springs, which is already shaken by quakes generated by less ambitious geothermal projects, reacted with jubilation when told it appeared the new project was ending.

"How I feel is beyond anything that words can express," said the resident, Jacque Felber, who added that an unnerving quake had rattled her property the night before. "I'm just so relieved, because with this going on, I'm afraid one of these days it's going to knock my house off the hill."

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21-48
cont'd

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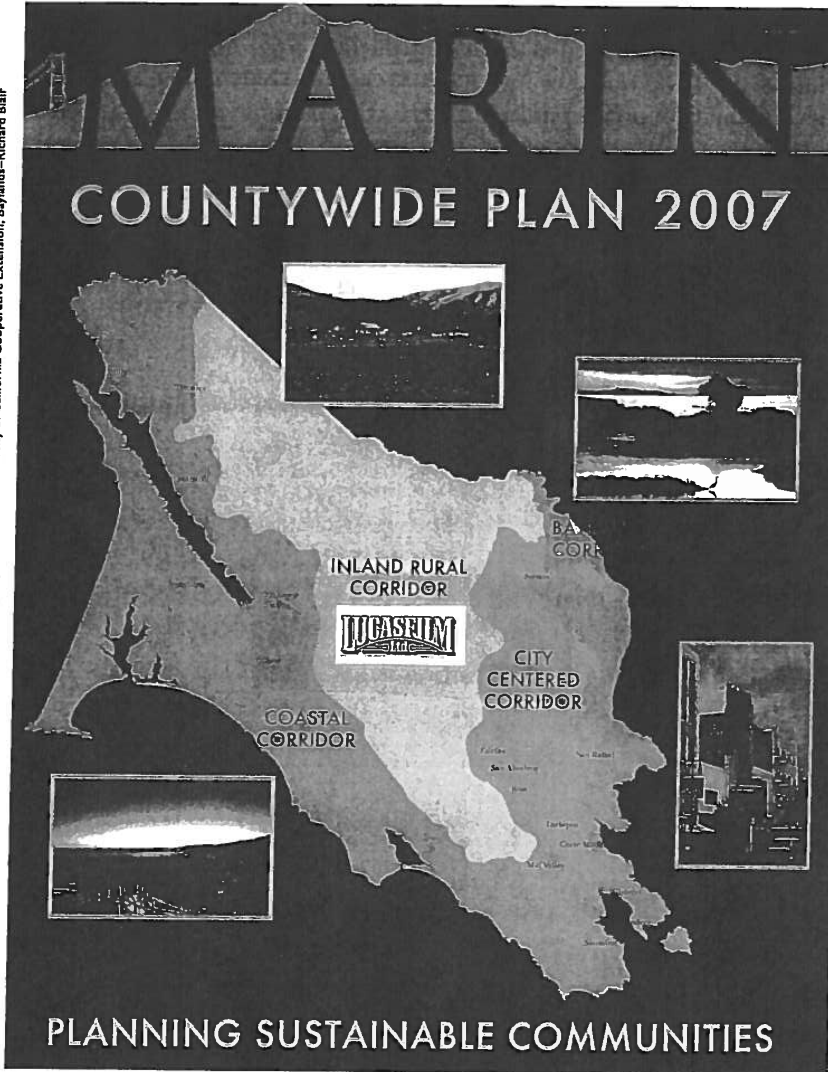
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PLANNING SUSTAINABLE COMMUNITIES

Design: Susan Barcu Photos: Coastal-Marin County Community Development Agency, Inland Rural—University of California Cooperative Extension, Baylands—Richard Blair



21-49

Managing Community Development

Sound environmental and planning principles have guided Marin County's land use since the Countywide Plan's adoption in 1973. To focus development and protect environmental resources, the Plan divides Marin's 606 square miles of land and water into four easily recognizable environmental units called *corridors*.

3-4

BUILT ENVIRONMENT ELEMENT



BUILT ENVIRONMENT ELEMENT

- ◆ The Coastal Corridor includes parklands, recreational areas, agriculture, and small coastal communities.
- ◆ The Inland Rural Corridor includes agriculture and compatible uses and small communities located in the central and northwestern part of the county.
- ◆ The City-Centered Corridor includes areas designated for urban development and community greenbelts within corresponding watersheds along Highway 101 in the eastern portion of the county.
- ◆ The Baylands Corridor includes tidal and largely undeveloped historic baylands along the shoreline of San Francisco and San Pablo bays. This corridor, added in 2007, generally consists of marshes, tidelands, and diked lands once part of wetlands or bays—along with applicable upland habitats.

The Plan reduces development potential for environmentally constrained sites and increases development potential at locations closest to jobs and transit.

Tackling growth-related problems requires coordination with federal, state, and regional agencies on issues ranging from air and water quality to housing, transportation, and coastal protection. County officials also coordinate land-use planning with numerous local agencies and jurisdictions. The Local Agency Formation Commission plans for the provision of urban services and sets boundaries for cities and towns. In 1990, a joint powers agreement between the County and all Marin's cities and towns created a now-defunct Countywide Planning Agency to review the respective general plans of all members.

21-49
cont'd

COMMUNITY DEVELOPMENT

**Letter
21
Response**

**Thomas and Susan Monahan
December 9, 2011**

- 21-1 The comment is a preamble to the remainder of the letter. Please see the following Responses to Comment 21-2 through 21-47
- 21-2 Please see Master Response 4 regarding use of the project site and zoning consistency.
- 21-3 Please see Response to Comment 18-6.
- 21-4 The change in proposed grading is included in the Project Description for the Draft SEIR and potential impacts from grading on the knoll were discussed in both the 1996 Master Plan FEIR and the Draft SEIR.
- 21-5 Please see Master Response 3 and Response to Comment 18-14. The geoexchange system would not include the drilling of wells or holes.
- 21-6 The proposed wine cave is included in the Project Description for the Draft SEIR and potential impacts from construction of the wine cave and Main Building are addressed in the Environmental Checklist. Additional information about the wine cave has been added to the Project Description.

Text on page 2-21 is revised, as follows:

A wine cave would be constructed at the southern end of the ridge to the west of the Main Building with an entrance at the southern end of the terraced vineyards. A second entrance would be located off the driveway for the future archival storage building on the opposite side of the ridge. The proposed retaining wall in the vicinity of the wine cave entrance would be 20 feet high. The interior size of the wine cave would be 3,920 square feet. The wine cave would be used for the storage of wine from grapes planted on other Lucasfilm properties (e.g., on Skywalker Ranch). The wine would arrive in barrels via truck following harvest on the Skywalker property each year for storage and aging. Wine would be stored in barrels for later distribution to bottling facilities. Delivery and distribution of wine barrels would occur occasionally, and it is estimated that eight trucks per year would visit the site for activity pertaining to the wine cave. The wine cave would also be used for the storage of olive oil and/or other agricultural products from other Lucasfilm properties. No production of agricultural products would occur on-site. In addition to storage of agricultural products, periodically, the wine cave may be used to host wine tastings. As indicated in Table 2-2 below, the wine cave was not part of the proposed Master Plan.

- 21-7 As stated on page 3-4 of the Draft SEIR, the previous EIR identified a potentially significant visual resources impact because of the visibility of potential water storage tanks to be constructed on the project site. The change in the description of the water tanks is included in Table 2-2 of the Project Description. As discussed in the Draft SEIR, this would remain a significant impact, and implementation of Mitigation Measure 5.5-8 (as amended in this Final) would reduce this potential impact to a less-than-significant level.

- 21-8 Please see Master Response 2 and Responses to Comments 21-2 through 21-7.
- 21-9 Please see Master Responses 1 and 2 regarding public noticing and availability of documents .
- 21-10 Please see Master Response 4 regarding Marin Zoning and Countywide Plan designations..
- 21-11 Hours of operation and uses are described in the project description (Section 2.6, “Project Characteristics” of Chapter 2 of the Draft SEIR). See also Master Response 3.
- 21-12 Please see Master Response 4 regarding Marin Countywide Plan and Zoning Ordinance consistency.
- 21-13 Please see Response to Comments 7-5, 8-12, 12-19, 18-6 and 18-13 regarding visual impacts
- 21-14 This comment does not address the adequacy of the SEIR. This comment is noted. An 85-foot story pole was placed on the project site at the proposed Main Building location, and an additional story pole was placed at the water tank location. The Main Building pole has been displaced because of wind.
- 21-15 The comment is noted. The Draft SEIR addresses the potential visual impacts of the proposed buildings, water tanks, and project site grading.
- 21-16 Please see Response to Comment 9-5 regarding filming operations on the outdoor stage.
- 21-17 Please see Response to Comment 8-12 regarding additional residences built since certification of the 1996 Master Plan EIR.
- 21-18 Please see Response to Comment 8-50 regarding cumulative analysis and impacts.
- 21-19 The Draft SEIR provides information to update the previous Master Plan EIR, based on changes to the project, the existing conditions on and near the project site, and updates and changes to the regulations. As stated under CEQA Guidelines Section 15163(b), a supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised. The analysis contained in the Environmental Checklist is based on existing setting information at the time of start of the analysis (from 2009 for the traffic analysis to November 2010 for other checklist item subjects). The existing setting information is summarized in Chapter 2 of the Draft SEIR. The project description changes between the proposed Grady Ranch PDP and the previous Master Plan are summarized in Table 2-2 of the Project Description. The Draft SEIR identifies the potential impacts of the proposed PDP and includes mitigation measures to reduce potentially significant impacts to a less-than-significant level.
- 21-20 Please see Master Response 5 regarding Project Alternatives.
- 21-21 Please see Master Response 5 regarding Project Alternatives.
- 21-22 The project description provides information regarding drainage and streambed changes on page 2-1 of the Draft SEIR. The Grady Ranch PDP proposes the restoration and enhancement of Miller Creek, Grady Creek, Landmark Creek and other tributaries located on the property. Grading and streambed changes are also addressed in Mitigation Measure 5.1-2 (page 3-52 of the Draft SEIR), Mitigation Measure 5.1-6 (page 3-54 of the Draft SEIR), and under

- Environmental Issue Area 10, "Hydrology and Water Quality," specifically discussions "c," "d," and "e," beginning on page 3-73.
- 21-23 Please see Response to Comment 8-25 regarding grading and seismic impacts.
- 21-24 Please see Master Response 3 and Response to Comment 18-14. The geoexchange system would not include the drilling of wells or holes.
- 21-25 Discretionary development projects are required to undergo the CEQA environmental review process to determine individual project impacts as well as cumulative impacts. Cumulative impacts address the project's environmental impacts combined with anticipated impacts from other existing and planned projects in the area. For a discussion of the cumulative impacts associated with this project, see Section 3.4, "Cumulative Effects of Implementing the Proposed Master Plan" of the Draft SEIR (beginning on page 3-109).
- 21-26 This comment is speculative and does not address the adequacy of the SEIR. This comment is noted.
- 21-27 Noise impacts (including sound from the outdoor stage) are addressed in Environmental Issue Area 10, "Noise" (beginning on page 3-84 of the Draft SEIR). See Responses to Comments 8-37, 9-5 and 18-8.
- 21-28 Please see Master Response 3 and Response to Comment 18-14 regarding the geoexchange system, including noise impacts.
- 21-29 Please see Response to Comment 9-5 regarding project lighting. Potential changes in view across the project site, including from the adjacent residences, are discussed under Checklist Item 1c on pages 3-4 through 3-8 of the Draft SEIR.
- 21-30 Please see Response to Comment 13-2. The existing condition on Lucas Valley Road is vehicle traffic in both directions. There are no bike lanes currently on the roadway in the vicinity of the project site, and none are planned for this area. Bike lanes are not included as part of the project.
- 21-31 Please see Responses to Comments 7-3 and 13-2 regarding traffic impacts and safety.
- 21-32 Please see Response to Comment 8-50 regarding cumulative impacts. The 1996 Master Plan EIR analyzed cumulative impacts, including full buildout of both the Grady Ranch and Big Rock Ranches. As stated in the Transportation and Traffic discussion (Item 17b of the Environmental Checklist) the Transportation and Circulation update recognized that the impact at Lucas Valley Road and Mt. Lassen Drive would now be expected to occur as a project-specific impact. This was previously identified as a cumulative impact. The previous payment of "fair share" fees to DPW would remain adequate to address this impact and it would remain less than significant.
- 21-33 The air quality analysis for the Draft SEIR was prepared using the updated Transportation and Circulation report, revised project description, and updated existing setting conditions on and around the project site. The air quality analysis is based on new Bay Area Air Quality Management District thresholds of significance for criteria air pollutants, precursors, and toxic air contaminants and BAAQMD's adopted new CEQA air quality guidelines (please see page 3-15 of the Draft SEIR). Please see page 3-16 of the Draft SEIR for a discussion of short-term

- construction-related emissions impacts. Potential construction and operation-related impacts were analyzed in consultation with BAAQMD staff. Given the fact that the air quality analysis was prepared to incorporate all revisions to the proposed Grady Ranch project, the current baseline conditions, and regulatory deviations from the 1996 Master Plan FEIR, the air quality analysis is not incomplete or inaccurate and no additional analysis is required.
- 21-34 Please see Response to Comment 8-29 regarding greenhouse gases and annual average employees per day.
- 21-35 The fee payment included in Mitigation Measure GHG-1a is not intended to fund the feasibility of potential programs. As stated on page 3-64 of the Draft SEIR, the off-site mitigation fee will be used to fund feasible GHG emissions reductions projects in Marin County. The fee amount would fund projects that are ready to be implemented and that are real, surplus, quantifiable, and permanent. The BAAQMD pilot program for off-site GHG emissions reductions from retrofitting existing buildings for energy conservation and energy efficiency improvements in Marin County is one example.
- 21-36 Please see Responses to Comment 8-5 and 12-43 regarding water supply and Comment 12-44 in Letter 12 (2011 MMWD letter).
- 21-37 Additional description of the geoexchange system has been added to the project description in Master Response 3. The geoexchange system would not include the drilling of wells or holes.
- 21-38 Potential offsite infrastructure extensions are described under Section 2.6.12 of the Project Description and are depicted on Exhibit 2-12. The 1996 Master Plan EIR and this SEIR address the potential impacts from extension of utilities. Some construction details, including design of the buildings and water tanks, landscaping details, and a detailed stormwater treatment plan, would be completed through consultation with Marin County DPW and CDA staff and other agencies, as needed.
- 21-39 Please see Response to Comment 8-6 regarding future additional facilities or infrastructure.
- 21-40 This comment is a project merits issue and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No additional response is required. Project merits will be considered by the Planning Commission during their deliberation of the Precise Development Plan for ultimate approval.
- 21-41 The mitigation measures in the EIR, along with the conditions of approval for the Precise Development Plan, would address and mitigate potential construction and operational impacts from the Proposed Project. Where applicable, the SEIR analyzes the adequacy of the previously proposed mitigation measures to assess if the mitigation measures would reduce the current impacts to less-than-significant levels. Appropriate mitigation measures are carried forward, with some modifications to reduce the potential impacts to less-than-significant levels. New mitigation measures are included to further reduce impacts and to mitigate impacts that were not identified in the 1996 Master Plan EIR.
- 21-42 Numerous site-specific biological resources studies have been conducted for the proposed Precise Development Plan since the preparation of the 1996 Master Plan EIR. Please see page 3-27 through 3-33 for a discussion of these studies, as well as updated information on the biological resources setting on and around the project site. These studies are available for

review on CDA's Environmental Impact Review website at <http://www.co.marin.ca.us/depts/CD/main/comdev/eir.cfm>

The following studies are available for review:

WRA, Inc. 2008a. Native Grassland Restoration and Enhancement Report, Grady Ranch, Marin County, California. Prepared for Skywalker Ranch Ltd., November 2008.

WRA, Inc. 2008b. Tree Preservation Guidelines Report, Grady Ranch, Marin County, California. Prepared for Skywalker Properties Ltd., November 2008.

WRA, Inc. 2008c. Tree Replacement Report, Grady Ranch, Marin County, California. Prepared for Skywalker Ranch Ltd., November 2008.

WRA, Inc. (WRA). 2009. Wetland Mitigation and Monitoring Plan, Grady Ranch, Marin County California. Prepared for Skywalker Ranch Ltd., October 2009.

WRA, Inc. 2011a. Section 7 Biological Assessment, Grady Ranch, Marin County California. Prepared for Skywalker Properties Ltd., February 2011.

WRA, Inc. 2011b. Salmonid Habitat Assessment, Upper Miller Creek, Grady Ranch, Marin County California, prepared for Skywalker Properties Ltd., July 2011.

WRA, Inc. 2011c. Rare Plant Survey Report, Grady Ranch, Marin County California. Prepared for Skywalker Properties Ltd., September 2011.

WRA, Inc. 2011d. Contingency Plan (Habitat Mitigation and Monitoring Plan), Grady Ranch, Marin County California. Prepared for Skywalker Properties Ltd., May 2011.

- 21-43 Please see Response to Comment 8-32 for the text change to clarify the storage of fuel onsite.
- 21-44 Please see Response to Comment 8-24 regarding the provision of additional plans and reports.
- 21-45 Please see Response to Comment 8-25 regarding grading and drainage.
- 21-46 Please see Response to Comment 17-7 regarding affordable housing.
- 21-47 The Final SEIR complies with the requirements of CEQA Guidelines Section 15163 and is adequate and complete for certification consideration by the Planning Commission. Please see Response to Comment 9-14 regarding requirements for the environmental document.
- 21-48 The comment is a reproduction of an article regarding a geothermal project in California. The comment is noted. As noted earlier, the Grady Ranch proposal does not include a similar geothermal project.
- 21-49 The comment is a reproduction of pages from the Marin Countywide Plan. The comment is noted. The Grady Ranch proposal was found consistent with the Countywide Plan. Consistency with the Countywide Plan is addressed on pages 3-79 through 3-82 of the Draft SEIR, under Environmental Issue Area 11, "Land Use and Planning."

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To: Rachel Warner
Community Development Agency
Room 308
3501 Civic Center Drive
San Rafael Ca. 94903

December 11, 2001

Dear Planning Commissioners,

I am writing to express my disapproval of the proposed Grady Ranch project in Lucas Valley. As a resident of Sleepy Hollow in San Anselmo, I feel this is the wrong project for Marin as it runs contrary to the environment friendly values espoused by Marin residents.

I grew up in Lucas Valley and have many friends and family who currently live there so I am very familiar with the natural beauty of Lucas Valley. People who moved to Lucas Valley did so because it represented a balanced, ecologically oriented environment where development was limited so as to maintain the natural beauty surrounding it. As with other areas of Marin - a county that prides itself on thoughtful, ecological, and sustainable development over the years - the residents of Lucas Valley have consistently expressed their appreciation of the natural beauty. Going back to the early 1970's, the residents of Lucas Valley prevented development on the surrounding hills and financially supported this commitment.

22-1

I can appreciate that the county sees opportunities from the likes of George Lucas as a quick source of income, or perhaps others are enamored by the celebrity George Lucas brings. However, any quick riches for the county would be short sighted and over the longer term the County would need to contend with significant costs which need to be considered. These include;

- the building and annual maintenance for the infrastructure (roads with much heavier traffic than originally designed)
- water needs - especially in years of drought
- security (how many more police officers or sheriff - with their pension costs - would be needed ?)
- fire departments would need additional equipment and personnel - again, who would pick up the tab for that ?
- telecommunication costs - would there need to be increased bandwidth and electric lines put in place ?

22-2

At the end of the day, the above is just a sample and the point is that each year, it will be the County's responsibility to provide for these services.

What is the impact to the county if the economic viability of the Grady Ranch project does not materialize ? Will taxpayers be left paying for this ? I doubt any commitment that is promised by the developers today would be available to mitigate this financial

22-3

exposure to the taxpayers.

22-3
cont'd

Lucas Valley was zoned for residential and rural use. Use of the Grady Project as a commercially zoned area should require the vote of a majority of the homeowners of Lucas Valley as they are the ones most impacted. There are many other areas that are zoned for commercial use such as in downtown San Rafael...surely that would be a better solution, especially because of the proximity to mass transportation and other infrastructure.

22-4

Lastly, and most importantly, if the project goes forward, the natural beauty of Lucas Valley will be ruined forever. The value of the homes for all homeowners will decrease. The wildlife will be adversely impacted by reduced habitat.

22-5
22-6

In closing, I believe the Grady Project should not proceed and instead should be considered for a more commercially friendly area.

22-7

Sincerely,

Tim Dale
Vice President, Corporate Controller
The Pasha Group
(415) 927-6279

Home:
1170 Butterfield Road
San Anselmo, CA
94960
(415) 721-2924

**Letter
22
Response**

**Tim Dale
December 11, 2011**

- 22-1 This comment is a general statement and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 22-2 Public services (including fire and police protection) and utilities impacts (including water supply) are addressed in the Draft SEIR. Specifically, Environmental Issue item 15, “Public Services” (beginning on page 3-95) and Environmental Issue item 18, “Utilities and Service Systems” (beginning on page 3-105) address these issues. These analyses address physical impacts associated with the need for any increased services, not cost issues. Discussion of project-related social or economic damage is not required by CEQA. Social and economic issues are discussed when they will cause physical damage. CEQA Guidelines 15131 (a) addresses this issue:
15131. Economic and Social Effects
- Economic or social information may be included in an EIR or may be presented in whatever form the agency desires.
- (a) Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.
- 22-3 See Response to Comment 22-2, regarding economic impacts and CEQA analysis.
- 22-4 The Draft SEIR addresses allowable land uses on the project site. The existing zoning for the proposed project site is RMP (Residential – Multiple Planned District), and the existing General Plan designation is Planned Residential. No changes to the proposed project’s land uses and no changes to the zoning or General Plan designation have occurred since the 1996 Master Plan FEIR. The proposed land uses are allowed under the existing zoning and General Plan designation. Therefore, the proposed project would be consistent with the existing zoning and consistent with the less-than-significant conclusion in the 1996 Master Plan FEIR regarding consistency with land uses designated in the Marin Countywide Plan. The 1996 Master Plan approval established a valid site specific zoning for the project development that is vested as to the zoning (page 3-80 of the Draft SEIR). Please see also, Master Response 4, regarding land use, zoning and allowable uses.
- 22-5 See Response to Comment 22-2, regarding economic impacts and CEQA analysis.
- 22-6 As noted in the project description (page 3-2 of the Draft SEIR), the Grady Ranch PDP proposes the restoration and enhancement of Miller Creek, Grady Creek, Landmark Creek and other tributaries located on the property. Restoration and enhancement plans would include elevating

and reconnecting the Miller Creek stream channel to its active floodplain and improving the habitat functions and values of the Stream Conservation Area (SCA). The project will not result in a reduction in habitat.

22-7

This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

1200 Idylberry Road
San Rafael, CA 94903
December 12, 2011

Marin County Planning Commission
3501 Civic Center Drive, Room 328
San Rafael, CA 94903

Re: Grady Ranch DSEIR

Dear Commissioners:

This letter provides more detail regarding comments that I made at the December 12 hearing on the Grady Ranch project and addresses another issue, the change in use of the property.

Change in Use of the Property

In 1996 the Grady Ranch facility was described as an "office building complex" and thus was considered to be consistent with RMP zoning. Fifty-eight percent of its total square footage was devoted to office space with 48% percent for all other uses¹. Now the Grady Ranch facility is described as a "digital technology-based film production studio" because most of the working space in the facility is devoted to film production and only 12% to office use. Office use accounts for only 5% of *total* area, compared to 58% for the previous proposal.

23-1

Is digital film production consistent with RMP zoning? If not, how can the project be approved?

Transportation Impacts

The EIR should include the 2010 "Transportation and Circulation Update" which is cited in section 17 of the DSEIR. This would answer most questions regarding the adequacy of the transportation analysis.

The update methods seem reasonable. But they are valid only to the extent that operations at the Grady Ranch are similar to those at Skywalker Ranch, since the update used the trip generation rates at Skywalker to estimate the number of vehicle trips per employee for the Grady Ranch. These rates include not only employee vehicle trips but trips by vendors, contractors, and guests. Because Skywalker Ranch has an employee transportation demand management program in place, which results in 15 % of employees carpooling, the update implicitly assumes that such a plan would be in place at Grady. If the wine cave would generate traffic, it should be *added* to trips based on Lucasfilm vehicle trips per employee.

23-2

Because the counts on which the update was based were made in the midst of a severe recession, they are lower than they would be when times are better. The extent to which traffic has declined, say between October 2006 and October 2009, should be estimated from traffic counts in the Lucas Valley Road area, and a determination made whether adjusting for more normal traffic would result in additional significant impacts.

The most significant impact of the additional traffic from the Grady Ranch project would be at the intersection of Mt. Lassen and Lucas Valley Road during the morning peak hour. The

¹ From *Planning Commission Staff Report, September 25, 1996, Item No. 6, page 17 of 48*

project would increase westbound traffic along Lucas Valley Road through the intersection by 84 vehicles per hour, lessening the reasonable gaps in the westbound traffic stream for vehicles entering Lucas Valley Road. For the 140 vehicles turning left from Mt. Lassen onto Lucas Valley Road, delay would increase by over 10 seconds per vehicle, resulting in level of service E, which the County considers unacceptable². I know that Skywalker Properties has already paid "fair share" mitigation fees. But I think it is only fair to the community to require mitigation of this delay when the Grady project is constructed.

23-2
cont'd

The update did not assess construction traffic. The EIR should analyze this. Limits on construction traffic during peak traffic hours and at night should be a condition of project approval.

23-3

Impacts of Future Uses of the Grady Ranch

If the Grady Ranch were put to the obvious alternate use, residential units, for which it is currently zoned, we could be pretty sure that the impacts on the community would remain the same over time.

23-4

But what will the impacts be when Lucasfilm no longer needs or wants to use the site for digital film production? Would another digital film company want to buy it? Not likely, given Skywalker representative Tom Forster's comment at the December 12 hearing that film production has left the US. The proposed building would not be suitable for residential use. Its location is too remote from population centers or transportation facilities to be desirable for office or most commercial uses. It is clearly not zoned for industrial use. Would it lie vacant, and if so, who would maintain it? Would it be torn down? Could it become a winery? Could it become a theme park, like the Universal Studios complex in Los Angeles? I think the impact of possible future uses of the facility is important and should be addressed in the DSEIR. If the facility were located in an industrial area near Highway 101, future use would not be an issue. But it is an issue in this case because it is located in a low density residential area. Therefore, it should be addressed in the DSEIR.

23-5

What restrictions on future use would protect the community?

Another Alternative That Should Be Considered

The above issue could be avoided if the proposed Grady Ranch activities were located on Lucasfilm properties that are already developed, such as Skywalker Ranch, Big Rock Ranch, or the Presidio. This alternative is reasonable, considering reports that much of the space at Big Rock Ranch and the Presidio is rented out and not used by Lucasfilm and that Lucasfilm now has a growing facility in Singapore to try to reduce costs.

23-6

It seems to me that this could well be the environmentally superior alternative. It should be evaluated in the EIR.

Sincerely,

 Joy Dahlgren

² From *Transportation and Circulation Update for Grady Ranch, February 2010*

**Letter
23
Response****Joy Dahlgren
December 12, 2011**

- 23-1 Please see Master Response 2 regarding use of the project site.
- 23-2 The *2010 Transportation and Circulation Update* is included in Appendix B of this Final SEIR. The Grady Ranch Transportation Management Plan would include elements that are similar to the trip-reduction incentives at the existing Skywalker and Big Rock Ranches. These will include monetary incentives (gift cards) for employees who arrive at work by means other than driving alone at least ten work days a month, flexible work schedules for employees and contractors, and training and education for employees regarding transportation management topics such as trip reduction. Please also see Response to Comment 7-10 regarding trip generation and existing traffic counts.
- 23-3 Please see Response to Comment 7-10 regarding the traffic study.
- 23-4 Please see Response to Comment 7-3 regarding construction traffic.
- 23-5 As discussed on page 3-3 of the Draft SEIR analyzed a current zoning alternative (Alternative 2). Under this alternative, the site would be developed residentially, consistent with residential density maximums of the current zoning. The discussion of alternatives has been updated to compare the previously proposed alternatives to the current Grady Ranch Precise Development Plan. These discussions are included under each environmental checklist item under "Alternatives." In some cases, implementation of the residential alternative would result in impacts that are greater in magnitude than those that would occur under the Proposed Project. Please see also, Response to Comment 16-5, regarding forecasting and speculation.
- 23-6 Please see Response to Comment 17-4 regarding future use of the project site and facilities.
- 23-7 Please see Master Response 5 regarding Project Alternatives.

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Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903



RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. I thought when projects which impact an entire community are being considered for approval would have to give notice the neighborhood residents. The more I learn about the use and impacts of this proposed project the more upset I become.

24-1

I have briefly reviewed a letter writing by a Richard Grassetti planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

24-2

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?

24-3
24-4
24-5
24-6
24-7
24-8

I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts,

24-9

Sincerely,

Constance R. Fulkerson
5 Golden Iris Ter.
San Rafael, CA 94903

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

**Letter
24
Response** **Constance Fulkerson
December 12, 2011**

24-1 thru 24-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Response to Comments 18-1 through 18-9.

December 12, 2011

To: Debra Stratton
Planning Commission Secretary
Marin County Planning Commissioners
3501 Civic Center Drive, Room #308
San Rafael CA 94903

Re: Comments on Grady Ranch Development
Draft Supplement Environmental Impact Report (DSEIR)

Dear Planning Commissioners:

I have been a resident of Marin County since 1976 and currently live in Lucas Valley Estates.

I have only recently become aware of the proximity of the Grady Ranch development to my home, and the size, scope and use of the project.

Using Big Rock and Skywalker as my example, I had assumed that whatever George Lucas did would have the same unobtrusive presence in the valley as these earlier projects. I think this assumption was warranted since the two projects were approved under the same Master Plan as "two office building complexes, development of housing for employees and overnight guests" (from Staff Report on the DSEIR).

Lucas creates beautiful properties, and I am very appreciative of the amount of open space gained in the 1996 deal.

What puzzles me is how an office-building complex for digital film production in an area zoned residential and served only by a two lane road has become what the use of the Grady project looks like today.

I don't believe that the project as it appears today is consistent with the intent of the current Marin Countywide Plan, zoning ordinances and AB32, the greenhouse gas legislation.

Following are my concerns, questions and comments on the DSEIR.

I understand that the DSEIR is designed to address circumstances that have changed since 1996, but I don't see any reference in it to changes of what digital film production meant to the county planners and supervisors fifteen years ago compared with today.

How has the concept of digital film production changed since 1996?

Based on the earlier phases of Big Rock and Skywalker, digital film production took place in office style buildings with no large production stages.

25-1

25-2

Did the County Planners and Supervisors who approved the Master Plan in 1996 envision Hollywood style 55 ft high full production stages, a 7000 ft outdoor stage with the associated potential for noise pollution, and the introduction of regular commercial truck traffic on Lucas Valley Road to support all the varied onsite facilities?

25-2
cont'd

Does the 1996 Master Plan and Use Permit actually approve what is proposed in the current Precise Development Plan, or has it transformed over 15 years into something much more intrusive and less appropriate for a residential location?

25-3

And if it the use has in fact transformed into something quite different, doesn't this changed use warrant a Subsequent rather than a Supplemental EIR?

Change from primarily office to primarily large scale film production

Since the Master Plan described "two office building complexes", it seems reasonable to assume that whatever film production took place would take place in an office-style facility that would fit comfortably in a residential environment, similar to Big Rock and Skywalker.

With less than 7% (12,547 sq ft) of the total occupied areas (190,485 sq.ft.) in the current plan dedicated to office space, the percentage of low impact 9-5pm use of a typical office building is very small. Isn't this a significant change from what might have been anticipated in 1996, especially with the addition of over 50,000 ft. of sound stages?

25-4

If in fact the FEIR was based on a Master Plan and Use Permit that assumed primarily office space and indoor production, then I question the conclusion in the DSEIR that changes from 1996 would not result in new or more severe significant impacts in the areas of Land Use and Planning, Noise, Transportation and Traffic.

Traffic – Stop signs or Stoplights needed on Lucas Valley Road creating stop-and-go traffic and increased greenhouse gas emissions not addressed

Travelling west on Lucas Valley Road, once you have passed the stoplight at Miller Creek, there is no traffic control for vehicles on Lucas Valley Road.

Lucas Valley Estates and upper Lucas Valley, have no eastbound exit from their homes (the usual direction of travel) except to make a left turn onto Lucas Valley Road. Even today, it is often challenging to make a safe left turn out of our neighborhoods.

25-5

With any relatively steady flow of traffic from the Grady project, making a safe left turn will require either a stop sign or stoplight at Bridgegate, Mt. Muir Court, and either Mt. McKinley, Mt. Shasta or Mt. Lassen.

This will change the flow of traffic from a steady flow to stop and go, significantly increasing noise, air pollution and Greenhouse Gas emissions.

25-6

Did the greenhouse gas studies referenced in the DSEIR include stop-and-go traffic, including idle time for trucks and cars?

Inconsistency with Countywide Plan and AB32 that encourage the location of traffic-generating commercial/industrial facilities to be located close to Hwy. 101.

25-7

The Grady project is served only by two-lane Lucas Valley Road through a residential community. 340 employees, plus additional contracted workers, guests, service and delivery trucks in a 24/7 operation 4 miles in with no public transportation available seems to in appropriately disregard the current Plan and the goals of AB32.

The DSEIR makes reference to a bus stop on Lucas Valley Road. There is no bus service on Lucas Valley Road.

25-8

Noise and air pollution – Truck Traffic on Lucas Valley Road from a 24/7 production facility changes quiet residential character of neighborhoods, day and night

Section 2-3-7 confirms that “The existing noise environment is primarily influenced by transportation noise from vehicle traffic... An ambient noise survey conducted on February 21, 2011... reflects a fairly quiet noise environment, which is typical of rural areas affected by intermittent traffic noise.”

25-9

Lucas Valley Road is an integral part of all the residential neighborhoods along the road. There are many homes directly along the side of the road. The introduction of regular truck noise on the road will significantly change the ambient noise and relatively quiet character of the neighborhoods east of the project.

Current traffic noise on Lucas Valley Road is almost entirely automobiles and diminishes greatly at night. Truck noise is rare and causes a noticeable spike in noise when even a small truck goes by.

When the project is complete, delivery and service trucks required to keep the film production, restaurant, set shop, overnight accommodations and overall facility operating will require the introduction of unprecedented daily and perhaps nightly truck traffic on Lucas Valley Road.

Alternative 2 (residential development), even with a large number of homes, would not be expected to generate any significant truck traffic, especially at night.

25-10

No Limits on Hours of Operation – 24/7 not compatible with zoning use

In Item 2.6 of the DSEIR it state: “Business hours of the site administration would be expected to adhere to a typical Monday through Friday work schedule from 9am to 5pm. However, the hours and activities occurring onsite during film production would vary depending on the needs of the film production schedule at the time.”

Since the purpose of the project is “a world class facility devoted to digital image and film production”, and since when a film is in production, it is normal for the operation to run 24 hours a day, 7 days a week, **we have to assume that the facility will be in operation 24/7 throughout the year.**

25-11

What do 24/7 hours of operation mean for noise and light pollution, and increased traffic, including service and delivery trucks, on Lucas Valley Road, day and night?

The normal rhythm of a residential neighborhood is activity during the day and quiet at night. This is especially true in Lucas Valley Estates, which has no nighttime activity except in private residences, and all underground utilities for dark skies at night.

How is a 24/7 movie production studio compatible with residential development and the character of the existing neighborhood?

Alternative 2 (residential development), if developed similar to Lucas Valley Estates, could be assumed to produce only the normal residential sounds we hear now.

25-12

Noise and Light Pollution - The 7000 square foot outdoor stage – No limits on use?

We assume the outdoor stage is for filming, and on page 3-88 of the DSEIR, it states that there would be “occasional filming outdoors”.

Given the acoustical nature of the valley and how noise carries, it seems reasonable to assume that sounds of outdoor filming might be heard in Lucas Valley Estates.

25-13

Lucas Valley Estates is a very quiet neighborhood, especially at night. We are entirely private residences except for a small park for young children and one unlighted tennis court. Our utilities are all underground. At night it is dark and quiet.

Since there is no restriction on the hours of operation, how often and for how many consecutive days or nights would we hear production noise from the project during the day and experience noise and light pollution at night?

Does the 1996 Master Plan and Use Permit include an outdoor stage?

We don't have enough information about the permitted use of this stage to make a decision about its present and future potential impact.

Aesthetics – Nighttime lighting – insufficient mitigation

A project this size will have to be lit at night, especially since it can be operating at night.

The mitigation measures in section 5-5-3 call for "all outdoor lighting to be turned off after 11pm if not in use". What does that mean? With 24/7 operation potential and overnight guests and an outdoor stage, when would they not be in use? "unless needed for safety and security"... When would lighting not be needed for safety and security? So given the 85 ft towers and the close proximity to residences, it seems that light pollution of our dark skies is inevitable. It's just a question of how much.

25-14

Construction Issues – Three years of noise, heavy equipment traffic, traffic delays and health hazards from air pollution and toxic emissions

I am not against development and understand that all construction results in noise and often traffic disruptions during construction. But projects of this size and **with this amount of excavation and grading** are not normally located in quiet residential communities such as exist along Lucas Valley Road.

25-15

Construction schedules are rarely completed on time. Three years of construction (maybe more), including significant heavy equipment, four miles in on a two-lane road, is evidence in itself that this project is in an inappropriate location.

Lucas Valley is a windy valley, with prevailing winds running from west to east. Even after reading all of the ideal mitigation measures, given the massive excavation and grading required to build this facility, I believe it is inevitable that the private ranch and Lucas Valley Estates will experience significant dust and emission pollution during construction. How far it will blow is unknown.

25-16

"Less than significant levels" of harmful pollutants is a relative term that begs the question "significant to whom?". Some are more vulnerable than others. Many homes east of the project are occupied during the day with families with small children, individuals working at home, and retirees. Leaving during heavy noise and pollution days is not a practical solution.

25-17

Mitigation measures are ideal and are challenging to enforce.

For example, how would "no construction when winds exceed twenty miles per hour" be enforced? Winds vary. Will crews stop working when winds pick up, or when there are gusts of more than 20mph? This does not seem realistic.

25-18

My concern is that the potential for significant negative health affects, particularly respiratory, is a real threat to residents that mitigation measures cannot fully address.

25-19

Alternative 2 (residential), would also require excavation and grading, but it is doubtful that normal residential development would result in the magnitude of noise and air pollution anticipated with this project.

25-20

Alternative locations – 15 years have passed

The DSEIR provides no present day evaluation of alternative locations for the project. After 16 years and a changed economic climate, shouldn't there be a renewed search for a more appropriate location?

25-21

Section 3-2-4 Alternatives not fairly represented

"Alternative 2: Current Zoning Alternative. The site would be developed residentially, consistent with residential density maximums of the current zoning."

Throughout the DSEIR, Alternative 2 is treated as if the residential density maximums of the current zoning would all be constructed. Every conclusion about Alternative 2 is based on maximum density development. This is speculative. Maximums are just that. Many properties are developed well below maximums. If this project was relocated and the property reverted to residential development, we don't know how many homes would actually be built on the properties.

25-22

Additionally, ignored are the following probabilities:

- Residential construction would not require the massive excavation and grading and reshaping of the landscape proposed in this project
- There would be increased car traffic, but no significant increase in truck traffic
- Nighttime light would mimic the adjacent neighborhood, which is dark except for incidental lighting from homes.
- Noise potential would be more compatible with a residential zone

Land Use - Inappropriate Precedent – Looking to the future

Current development along Lucas Valley Road is consistent with the Marin Countywide Plan and applicable zoning ordinances. Residential density is highest close to Hwy 101 and diminishes to a more rural residential feel as you travel west on Lucas Valley Road. New homes have been constructed adjacent to the project since 1996.

25-23

West of the project are the Big Rock and Skywalker developments. These have a low impact presence compatible with a residential environment.

I understand the commercial/office use is allowed in residential zoning. But it seems to be quite a stretch to define the current proposal use as compatible with residential zoning.

25-23
cont'd

What does this mean for the definition of residential zoning as development moves forward in the county?

For example, will the new height limit for the Hetfield developments become 85 ft.?

25-24

What will be the limitations of use if the Lucas property is leased or sold?

25-25

With a project this size, it appears to me that the quiet residential character of Lucas Valley Road is gone forever and future developments can rely on Grady as the new standard for development in the valley.

25-26

Since development is often allowed based on what already exists, how can we be assured that the intent of the Marin Countywide Plan and current zoning ordinances for Lucas Valley will not be forever altered in favor of an industrial traffic-clogged corridor?

What about the remaining 186,299 sq. ft. of space?

The DSEIR mentions that they would probably be use for archival storage, but there is no guarantee of that. Given the precedent set by this project, how might they be developed by Skywalker in the future or if the land is sold?

25-27

Isn't this piecemeal development not permitted under CEQA? Shouldn't limits of use on that development be clearly tied to this project?

Lack of information and involvement of the Lucas Valley community

For a project this size, there is a remarkable lack of community awareness of the proximity, scale, use and potential impact of this project on the quality of our lives in Lucas Valley.

There have been no neighborhood information meetings on Grady. One was scheduled earlier this year at the Marinwood Community Center and then cancelled and never rescheduled.

25-28

Without a neighborhood meeting, it is very challenging for the average citizen to get understandable information on the real life impact of the second phase of a huge, complex 15-year-old project.

Neighborhood groups have not been included in mitigation discussions regarding traffic, hours of use, noise, light and air pollution, and downstream erosion in Miller Creek.

25-29

Additionally, inquiries on Grady have often met with the answer "This was all decided in 1996. That was the time for public review. "

Given the size and impact of this project, it appears to be proceeding through the planning process at an unprecedented rate.

A major concern is that the impacts of this project on the lives of the hundreds of us who live along Lucas Valley Road, especially closest to the project, are not being given adequate consideration, and have been absent from mitigation discussions.

25-30

I realize that County Planners and Skywalker Properties have already devoted considerable time and effort into this project.

Thank you for your time and consideration. I look forward to your response to my concerns.

Sincerely,

Jean Gallagher
1 Silver Pine Terrace
San Rafael CA 94903
jeangallagher@comcast.net

cc:
Marin County Board of Supervisors
Susan Adams
Katie Rice
Kathrin Sears
Steve Kinsey
Judy Arnold

**Letter
25
Response****Jean Gallagher
December 12, 2011**

- 25-1 Please see Master Response 4 regarding use of the project site.
- 25-2 The Project Description has been updated to reflect the current proposal, including the type of production on the project site.
- 25-3 Please see Master Response 4 regarding use of the project site.
- 25-4 The analysis contained in the Draft SEIR is based on the revised Project Description and the elements of the proposed Grady Ranch Precise Development Plan. The noise and traffic analyses have been updated to reflect the current proposed types and intensity of uses.
- 25-5 The traffic analysis indicates that while the delays would sometimes be substantial for drivers wishing to turn left onto Lucas Valley Road, the average delay would be within the range that is considered acceptable by the County of Marin. An additional traffic signal is planned at Mt. Lassen Drive, and this new signal can serve a substantial number of residents due to the connections through the neighborhood. The County has not identified a need for traffic signals at additional locations, but should there be such a need, it would not be due to this project, but rather due to increases in traffic from throughout the area. See also Response to Comment 7-10.
- 25-6 This comment asks whether the GHG emissions analysis includes idle time for trucks and cars. The emissions model used in the analysis, as recommended by BAAQMD in its CEQA and Air Quality Guidelines, uses reasonable average mobile-source emission factors that are representative of the project area, but it is not sensitive to changes in traffic flow and effects on vehicle idling. Mitigation measures identified in the SEIR would mitigate for the identified GHG emissions in exceedance of BAAQMD thresholds. It is reasonable to expect that this covers emissions from vehicle idling.
- 25-7 This comment is concerned that the project is inconsistent with the Countywide Plan and the goals of AB 32. Please see the analysis on page 3-63 regarding consistency with applicable plans and policies for the reduction of GHG emissions, and analysis on page 3-80 regarding consistency with the applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project is either consistent with applicable plans, policies, or regulations; the proposed changes to the project would not result in additional significant impacts beyond what was addressed in the 1996 Master Plan EIR; or impacts would be adequately addressed through mitigation measures proposed under the 1996 Master Plan EIR.
- 25-8 The Transportation and Circulation Update noted a bus stop on Lucas Valley Road about one mile east of the project site. According to the Marin Transit list of maps and schedules, Route 259 (Marinwood Shuttle) includes a stop at Mt. Lassen and Lucas Valley Road, which is located a little over one mile to the east of the project site.

- 25-9 The comment provides information about the existing noise environment. This comment does not address the adequacy of the analysis. Please refer to the “Long-Term Operation-Related Traffic Source Noise Levels” impact discussion on page 3-88 of the Draft SEIR. General operations on the project site are not planned for 24 hours per day. Some exceptions to this may occur, but this is not the standard hours of operation. Please see also, Master Response 3, regarding hours of operation.
- 25-10 Please see page 3-103 for a discussion of the transportation and circulation impacts from Alternative 2.
- 25-11 Please see Responses to Comments 8-14 and 17-4 and Master Response 3.
- 25-12 Please see page 3-91 for a discussion of the noise impacts from Alternative 2.
- 25-13 Please refer to the “Long-Term Operation-Related Stationary Source Noise Levels” impact discussion for analysis of filming operations. As stated, these would not exceed Marin County’s benchmarks for allowable noise exposure from stationary source noise as noted in Figure 3-43 of the 2007 Marin Countywide Plan, which address both the daytime and nighttime. Please also see Master Response 3 regarding hours of operation.
- 25-14 Please see Response to Comment 18-5 and Master Response 3 regarding hours of operation.
- 25-15 The mitigation measures in the EIR, along with the conditions of approval for the Precise Development Plan, would address and mitigate potential construction impacts from the Proposed Project. Construction impacts related to noise, traffic and air quality (as identified in the comment) are addressed in the Environmental Checklist. Please see Response to Comment 8-37 (regarding construction noise), Response to Comment 7-3 (regarding construction traffic), and Response to Comment 7-4 (regarding construction air quality).
- 25-16 This comment is concerned that dust and emissions of other pollutants during construction will be significant and unavoidable, even with mitigation applied. The BAAQMD has identified thresholds of significance below which project-generated construction emissions would be considered to have less-than-significant health impacts on nearby sensitive receptors. According to the analysis on pages 3-17 and 3-22 through 3-24 of the Draft SEIR, construction-generated emissions would be reduced to less-than-significant levels with mitigation measures incorporated.
- 25-17 This comment asks whom the significant levels of emissions would affect. The analysis is with respect to potential for health effects on offsite sensitive receptors. Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors.
- 25-18 This comment asks how would construction mitigation measures be enforced. Construction mitigation measures would be enforced by the County and by the BAAQMD, as applicable.
- 25-19 This commenter is concerned about potential for significant negative health effects, particularly respiratory, that mitigation measures cannot fully address. The BAAQMD has identified thresholds of significance below which project-generated construction and operational emissions would be considered to have less-than-significant health impacts on nearby sensitive

- receptors. According to the analysis on pages 3-17, 3-18, and 3-22 through 3-24 of the Draft SEIR, operational emissions would be less than significant, and construction-generated emissions would be reduced to less-than-significant levels with mitigation measures incorporated.
- 25-20 Please see pages 3-24 through 3-25 and 3-91 of the Draft SEIR for a discussion of the air quality and noise impacts, respectively, from Alternative 2.
- 25-21 Please see Master Response 5 regarding Project Alternatives.
- 25-22 Please see Master Response 5 regarding Project Alternatives.
- 25-23 Please see Master Response 4 regarding use of the project site.
- 25-24 Regarding a new height limit for the Hetfield developments, this is not known and would be speculative to guess at this time.
- 25-25 Please see Response to Comment 17-14 regarding future uses of the project site.
- 25-26 Please see Master Response 4 regarding the zoning and Marin Countywide Plan designation for the project site.
- 25-27 Please see Response to Comment 8-6 regarding additional infrastructure and facilities.
- 25-28 Please see Master Response 2 and Response to Comment 9 -13 regarding public noticing and meetings.
- 25-29 Please see Master Response 2 and Response to Comment 9 -13 regarding public noticing and meetings.
- 25-30 The Draft SEIR includes public review, similar to the previous EIR. Per CEQA Guidelines Section 15163(c) for a Supplement to an EIR, the Supplement shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087 (Notice of Availability for public review of a draft EIR). The Draft SEIR was circulated for public review from October 27 to December 13, 2011. This Final EIR responds to comments received on the Draft SEIR. In addition, per Marin County guidelines, additional responses to additional comments will be prepared and circulated for a 14-day review period before the certification hearing at the Marin County Planning Commission. Additional public input can be expressed at that time.

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Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903



RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

We're residents of Lucas Valley and we're shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in our neighborhood. We haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of our neighbors. We thought when projects which impact an entire community are being considered for approval the county would have to give notice to the neighborhood residents. The more we learn about the use and impacts of this proposed project the more upset we become.

26-1

We have briefly reviewed a letter written by Richard Grasseti, planning consultant, and want to express to the Planning Commission our objection to this proposed project for the following reasons:

26-2

- The residents of Lucas Valley were not properly notified.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at inappropriate times?
- The proposed building is too big! With the exception of the Marin Commons office building located on Highway 101, every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery trucks to the film sound stage?

26-3
26-4
26-5
26-6
26-7
26-8

We don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. We urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts,

26-9

Sincerely,

Peter & Linda Hsu
21 Bridgegate Drive
San Rafael, CA 94903

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice; 3501 Civic Center Drive Room #329 San Rafael, CA 94903

**Letter
26
Response**

**Peter and Linda Hsu
December 12, 2011**

26-1 thru 26-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Response to Comments 18-1 through 18-9.

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DEC 12 2011 4:10 13 PM

87 Mt. Tallac Court
San Rafael, CA 94903

December 12, 2011

Marin County Planning Commission
c/o Marin County CDA, Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

RE: Grady Ranch Precise Development Plan Draft Supplement to the 1996 Grady Ranch/Big Rock Ranch Master Plan Final Environmental Impact Report

Dear Commissioners,

I am urging the Planning Commission to approve the Draft Supplemental Environmental Impact Report and permit the Grady Ranch project to proceed.

My house is one of two houses in the Lucas Valley Homeowners Association area that is directly adjacent to Lucas Valley Road on one side and directly adjacent to Miller Creek on the other side. Therefore I could be significantly impacted by this project. However, I believe the environmental measures proposed for this project will mitigate any adverse impact and will actually be a benefit.

27-1

I believe that the creek restoration measures proposed for the upper portion of Miller Creek will help to moderate the flow of the creek during heavy rainfall and reduce the potential for erosion downstream. This will benefit me and all other homeowners whose houses border the creek. This will also improve the conditions for fish throughout the entire reach of the creek because there will be less silt and the stream will flow later into the summer.

27-2

Any additional traffic noise, air pollution, and greenhouse gas production will be eliminated if the employees commuting to the Grady Ranch use electric vehicles. Lucasfilm companies have installed electric vehicle charging connections in their other facilities and I understand electric vehicle charging connections will also be installed at Grady Ranch to encourage the use of electric vehicles. There are now seven different brands of electric cars available to Marin residents and more will be available by the time this facility is constructed making it highly likely that a large portion of the commuting will be in electric cars.

27-3

A number of employees who work at Grady are likely to live in Lucas Valley, Marinwood, and San Rafael. They will be able to commute to work without the need to drive on highway 101. This is consistent with the Metropolitan Transportation Commission and Transportation Authority of Marin's objectives for shorter commutes, reduction of greenhouse gases, and reducing traffic on highway 101.

27-4

The use of geexchange heating and cooling, solar, and other energy saving measures are consistent with AB 32. The Lucasfilm companies have an exemplary record of environmental protection that gives me confidence that the Grady Ranch project will be done in a manner that exceeds the legal environmental requirements and will be in the best interest of our community.

27-5

I urge the Planning Commission to approve the SEIR and allow the project to proceed so that the residents of Marin can realize the benefits of the creek restoration, the improvements to Lucas Valley Road, as well as the economic benefits this facility will bring to our community.

27-6

Sincerely,

Dale W. Miller

Dale W. Miller

**Letter
27
Response**

**Dale Miller
December 12, 2011**

- 27-1 This comment is a general statement supporting the project and the adequacy of the mitigation measures. This comment is noted. No response is required.
- 27-2 This comment is a general statement supporting the creek restoration component of the project and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 27-3 Use of electric vehicles is not part of the proposed project, nor required as a mitigation. However, according to the analysis provided in the February 2010 *Transportation and Circulation Update* submitted to the County by the applicant, the project would include continued use of the Transportation Demand Management (TDM) techniques that are currently being applied at Skywalker Ranch and Big Rock Ranch (page 3-101 of the Draft SEIR).
- 27-4 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. In regards to where employees will live, see Response to Comment 17-10. This comment is noted. No further response is required.
- 27-5 This comment notes the consistency of the project's energy efficient measures with AB 32 and states that the applicant has an exemplary record for environmental projection. This comment does not require clarification of project elements or changes to the environmental analysis.
- 27-6 This comment is a general statement supporting the project and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

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Barbara Rozen
10 J. Prandi way, #1003
San Rafael, CA 94903
415-472-6610

Neil Osborne, Planner
Marin County Community Development Agency
Planning Division
Civic Center, Room 328

December 10, 2011

Re: Grady Ranch Project

Dear Mr. Osborne:

As a resident of Lucas Valley for almost twelve years after moving from Tiburon, I've appreciated the beauty and wildlife that abounds here. I've also seen the impact on this area in traffic, pollution and roadkill that has ensued since the construction of the Big Rock development.

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28-1

I'm very concerned that allowing the Grady Ranch project to go forward as proposed will forever change for the worse the very nature of Lucas Valley. The size, scope, design, and purpose of this project are all out of alignment with the character of Lucas Valley. How can a commercial enterprise of this type fit with this semi-rural residential land? If this is allowed to go forward there will inevitably be more commercial development and we will lose this vital natural resource.

The grading, construction, re-alignment of the road and creek will cause increased air pollution, and noise, and even more traffic. Our senior community is downwind and we, many who have health issues, will bear the impact. Now it is very difficult to exit our community at commute times because of the Lucas employee traffic.

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28-2

Mainly I am concerned about the many birds and mammals who live among us and how this large, noisy, polluting and ongoing project will destroy their habitats for all time.

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28-3

The Planning commission has the power to protect both people and wildlife by refusing to allow the commercialization of Lucas Valley. This is an example of letting the 1% destroy the lives of the 99% and also a part of Marin that has existed for thousands of years in a natural state.

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28-4

We cannot stop "progress" but this is something we will regret for all time. Please do whatever is possible to deter this wrongful use of property.

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28-5

Thank you for your consideration of these concerns.

Sincerely,



Barbara Rozen

**Letter
28
Response**

**Barbara Rozen
December 12, 2011**

- 28-1 See Response to Comment 22-4 and Master Response 4 regarding land use, zoning and allowable uses.
- 28-2 Impacts related to air quality, noise and traffic are addressed in the Draft SEIR under the following Environmental Issue Areas: 4 – “Air Quality,” 13 – “Noise,” 17 – “Transportation/Traffic.” See Response to Comment 18-18 for a discussion of air quality and transportation/traffic.
- In regards to noise, the Draft SEIR analysis concluded that changes to the current project (e.g., installation of a geothermal heating exchange system) compared to the Master Plan, a new circumstance in the vicinity (e.g., location of noise-sensitive residential receptors closer to the project site), and new impacts not analyzed in the 1996 Master Plan FEIR (e.g., exposure to groundborne vibration and aircraft-related noise levels) would not involve new or substantially more severe significant impacts. In addition, the aforementioned new information requiring analysis and verification would not result in new significant impacts, more severe impacts, new feasible mitigation measures, and/or new information that requires analysis (page 3-90 of the Draft SEIR).
- 28-3 Impacts to habitats are addressed in the Draft SEIR under Environmental Issue Area 4, “Biological Resources,” beginning on page 3-26. The Draft SEIR analysis concluded that proposed changes to the Grady Ranch PDP after the 1996 Master Plan FEIR was certified would not result in new significant impacts or substantially more severe impacts to biological resources. However, changed circumstances based on new information about biological resources on the project site would result in a new and substantially more severe significant impact conclusion related to special-status species. Information changes or updates expected to result in new impacts that are potentially significant include changes to the regulatory status and sensitivity of some biological resources and new site-specific biological data collected after the 1996 Master Plan FEIR was certified. New potentially significant impacts to biological resources include potential short-term disturbance to steelhead habitat resulting from construction and initial channel response, and construction-related disturbance or loss of special-status wildlife species. Mitigation Measures BIO-1 and BIO-2 would reduce the impacts to less-than-significant levels. Mitigation Measure BIO-1 includes resource protection measures that have been proposed by the project applicant. Mitigation Measure BIO-2 is a new mitigation measure identified through supplemental environmental review (page 3-41 of the Draft SEIR).
- 28-4 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 28-5 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 11 years and in Marin County for 15 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

29-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grassetti Environmental Consulting letter I have a number of concerns.

29-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

29-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

29-4

29-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

29-6

29-7

Sincerely,



Doris J. Simon

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

12/9/11

Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I am the Mother of 2 children who call Lucas Valley their home. The safe and quite neighborhoods that comprise Lucas Valley is the very reason we moved here. My children and I often ride our bicycles on Creekside Drive and Lucas Valley Road. Lucas Valley Road is only two lanes and has a walking/biking lane as far west as West Gate Drive. There are hundreds of pedestrians and cyclists who use Lucas Valley Road for both transportation and recreational use every week. I am concerned about the safety of all who use Lucas Valley Road for recreational and transportation uses due to increase in construction traffic and subsequent operational/commuter traffic created by the proposed Grady Ranch facility. There is no bike path, sidewalk, or walking trail after West Gate Drive on Lucas Valley Road, and the two-lane road is at its narrowest at or near the Grady Ranch site. This condition will undoubtedly endanger the cyclists and pedestrians once the construction traffic begins and will continue to be a safety hazard for the foreseeable future.

29-8

The Supplemental EIR claims the use for Grady Ranch is office use but with over 50,000 square feet dedicated to film stages the implied or actual use will be for filming motion pictures. Approval of this project will not only threaten the safety of the children who live (and play) in Lucas Valley due to the increased traffic, but the increase in Air Pollution and Green House Gas emissions will take their toll as well. With asthma and other respiratory illnesses on the rise in California we must look out for the welfare of the children and the future generations to come.

29-9

The Grady Ranch project is too big and too visible at its current proposed site. It requires too much earth moving and altering of the natural terrain. It proposes to create a large hill where none existed before for "screening purposes". This must be due to the fact that finding trees or other natural screening would not be possibly due to the monstrous size of the proposed building. I feel that the Planning Process is moving too fast to make a competent or pragmatic evaluation of the project and more studies of its effects must be created and evaluated.

29-10

I object to the Grady Ranch project for the following reasons;

29-11

1. It's too big and visible for Lucas Valley and alternate locations should be explored.
2. It is being pushed through the planning process too quickly.
3. The supplemental EIR is not complete and the projects impacts require more study.
4. The traffic and safety impacts endanger the all the residents of Lucas Valley.
5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient.
6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed.

29-12

29-13

29-14

29-15

29-16

The size, use, location, and associated impacts of this project out weight the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

29-17

Sincerely


Douglas Simon

**Letter
29
Response** **Doris Simon
December 12, 2011**

29-1 thru 29-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

29-8 thru 29-17 This letter is identical to Letter 18, part 3 – Form Letter C. See Response to Comments 18-17 through 18-26.

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12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 11 years and in Marin County for 15 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

30-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

30-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

30-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will me immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

30-4
30-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

30-6
30-7

Sincerely,

Reuben M. Simon

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

**Letter
30
Response**

**Reuben Simon
December 12, 2011**

30-1 thru 30-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 11 years and in Marin County for 15 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

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31-4

31-5

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31-6

31-7

Sincerely,

Ted L. Simon

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

12/9/11

Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
2501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I am the Father of 2 children who call Lucas Valley their home. The safe and quite neighborhoods that comprise Lucas Valley is the very reason we moved here. My children and I often ride our bicycles on Creekside Drive and Lucas Valley Road. Lucas Valley Road is only two lanes and has a walking/biking lane as far west as West Gate Drive. There are hundreds of pedestrians and cyclists who use Lucas Valley Road for both transportation and recreational use every week. I am concerned about the safety of all who use Lucas Valley Road for recreational and transportation uses due to increase in construction traffic and subsequent operational/commuter traffic created by the proposed Grady Ranch facility. There is no bike path, sidewalk, or walking trail after West Gate Drive on Lucas Valley Road, and the two-lane road is at its narrowest at or near the Grady Ranch site. This condition will undoubtedly endanger the cyclists and pedestrians once the construction traffic begins and will continue to be a safety hazard for the foreseeable future.

31-8

The Supplemental EIR claims the use for Grady Ranch is office use but with over 50,000 square feet dedicated to film stages the implied or actual use will be for filming motion pictures. Approval of this project will not only threaten the safety of the children who live (and play) in Lucas Valley due to the increased traffic, but the increase in Air Pollution and Green House Gas emissions will take their toll as well. With asthma and other respiratory illnesses on the rise in California we must look out for the welfare of the children and the future generations to come.

31-9

The Grady Ranch project is too big and too visible at its current proposed site. It requires too much earth moving and altering of the natural terrain. It proposes to create a large hill where none existed before for "screening purposes". This must be due to the fact that finding trees or other natural screening would not be possibly due to the monstrous size of the proposed building. I feel that the Planning Process is moving too fast to make a competent or pragmatic evaluation of the project and more studies of its effects must be created and evaluated.

31-10

I object to the Grady Ranch project for the following reasons;

31-11

1. It's too big and visible for Lucas Valley and alternate locations should be explored.
2. It is being pushed through the planning process too quickly.
3. The supplemental EIR is not complete and the projects impacts require more study.
4. The traffic and safety impacts endanger the all the residents of Lucas Valley.
5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient.
6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed.

31-12

31-13

31-14

31-15

31-16

The size, use, location, and associated impacts of this project out weight the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

31-17

Sincerely

Ted L. Simon

CC:
Board of Supervisors – Susan Adams, Katie Rice, Judy Arnold, Kathrin Sears, Steve Kinsey.

**Letter
31
Response**

**Ted Simon
December 12, 2011**

31-1 thru 31-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

31-8 thru 31-17 This letter is identical to Letter 18, part 3 – Form Letter C. See Response to Comments 18-17 through 18-26.

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DEC 12 2011 PM 4:00 Planning

To: The Marin Co Planning Dept.
Lucas-Grady Ranch Project 12/12/11

I have lived in this valley 50+ years my children and grandchildren have been raised here I view this plan as very detrimental for the environment. We in Lucas Valley have done our best in its preservation for all to enjoy. The residential plan, originally planned and approved should be adhered too. I beg you not to allow this massive project lest our beautiful valley be lost for ever.

Most Sincerely,

Brenda Watkins
72 Bridgegate Dr. San Rafael,
415 479-1923

32-1

**Letter
32
Response**

**Brenda Watkins
December 12, 2011**

32-1

This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. For information regarding the history of the project, please see the SEIR, Chapter 1, "Introduction and Project History." Also, Table 2-2 (starting on page 2-39) of the Project Description identifies changes from the previous Master Plan to the Proposed Grady Ranch Precise Development Plan.

12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

DEC 18 2011 PM 2:10 Planning

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for three years and in Marin County for nine years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

33-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

33-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

33-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

33-4

33-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

33-6

33-7

Sincerely,


Stephen Abedon, MD
212 Mount Shasta Drive
San Rafael, CA 94903

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

12/9/11

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

DEC 13 2011 PM 2:23 Planning

RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. I thought when projects which impact an entire community are being considered for approval would have to give notice the neighborhood residents. The more I learn about the use and impacts of this proposed project the more upset I become.

33-8

I have briefly reviewed a letter writing by a Richard Grasseti planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

33-9

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?

33-10

33-11

33-12

33-13

33-14

33-15

I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts,

33-16

Sincerely,

 Stephen Abedon M17

212 Mt Shasta Dr.
San Rafael CA 94903

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

12/9/11
Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
3501 Civic Center Drive, Room 308
San Rafael CA 94903

DEC 13 2011 at 2:24 PM

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I am the father of three children who call Lucas Valley their home. The safe and quite neighborhoods that comprise Lucas Valley is the very reason we moved here. My children and I often ride our bicycles on Mount Shasta Drive and Lucas Valley Road. Lucas Valley Road is only two lanes and has a walking/biking lane as far west as West Gate Drive. There are hundreds of pedestrians and cyclists who use Lucas Valley Road for both transportation and recreational use every week. I am concerned about the safety of all who use Lucas Valley Road for recreational and transportation uses due to increase in construction traffic and subsequent operational/commuter traffic created by the proposed Grady Ranch facility. There is no bike path, sidewalk, or walking trail after West Gate Drive on Lucas Valley Road, and the two-lane road is at its narrowest at or near the Grady Ranch site. This condition will undoubtedly endanger the cyclists and pedestrians once the construction traffic begins and will continue to be a safety hazard for the foreseeable future.

33-17

The Supplemental EIR claims the use for Grady Ranch is office use but with over 50,000 square feet dedicated to film stages the implied or actual use will be for filming motion pictures. Approval of this project will not only threaten the safety of the children who live (and play) in Lucas Valley due to the increased traffic, but the increase in Air Pollution and Green House Gas emissions will take their toll as well. With asthma and other respiratory illnesses on the rise in California we must look out for the welfare of the children and the future generations to come.

33-18

The Grady Ranch project is too big and too visible at its current proposed site. It requires too much earth moving and altering of the natural terrain. It proposes to create a large hill where none existed before for "screening purposes". This must be due to the fact that finding trees or other natural screening would not be possibly due to the monstrous size of the proposed building. I feel that the Planning Process is moving too fast to make a competent or pragmatic evaluation of the project and more studies of its effects must be created and evaluated.

33-19

I object to the Grady Ranch project for the following reasons;

33-20

- 1. It's too big and visible for Lucas Valley and alternate locations should be explored. 33-21
- 2. It is being pushed through the planning process too quickly. 33-22
- 3. The supplemental EIR is not complete and the projects impacts require more study. 33-23
- 4. The traffic and safety impacts endanger the all the residents of Lucas Valley. 33-24
- 5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient. 33-24
- 6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed. 33-25

The size, use, location, and associated impacts of this project out weight the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

33-26

Sincerely,


Stephen Abedon, MD
212 Mount Shasta Drive
San Rafael, CA 94903

CC:
Board of Supervisors – Susan Adams, Katie Rice, Judy Arnold, Kathrin Sears, Steve Kinsey.

**Letter
33
Response** **Stephen Abedon
December 13, 2011**

- 33-1 thru 33-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Response to Comments 18-1 through 18-9
- 31-10 thru 31-16 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.
- 31-17 thru 31-26 This letter is identical to Letter 18, part 3 – Form Letter C. See Response to Comments 18-17 through 18-26.

From: Susan [REDACTED]
Sent: Tuesday, December 13, 2011 1:57 PM
To: Stratton, Debra
Cc: LucasValleyHomes
Subject: Grady Ranch proposed project

Dear Planning Commissioners,

I have lived in Lucas Valley for 22 years and in Marin County for 50 years and no one that I know of who lives in my particular area has received notice about the Dec. 12 meeting regarding the Grady Ranch Supplemental EIR that is supposed to be open to public comment.

34-1

Please hear me now.

I am particularly concerned that proposed changes regarding ceiling heights and tower heights, the size and scale of which is out of place in Lucas Valley. I'm also concerned about what the environmental impact will be of drilling thousands of holes in the earth to create a new heating system. Plus, my house is located right next to Lucas Valley Road and if this project goes through, I fear the added traffic on the road related to this project will make Lucas Valley road more like Sir Francis Drake road in San Anselmo. That is totally undesirable not only for me, but also for all my neighbors.

34-2
34-3
34-4

I don't feel that a Hollywood type studio situated in peaceful Lucas Valley is appropriate. It is more appropriate in or near a city.

34-5

Please take my viewpoint seriously and consider another location for this project.

Sincerely,

Susan J Berlin .
46 Mt Muir Ct.
San Rafael, CA 94903

**Letter
34
Response**

**Susan Berlin
December 13, 2011**

34-1 thru 34-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

12/13/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 13 years and in Marin County for 30 years, and I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

35-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grassetti Environmental Consulting letter I have a number of concerns.

35-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

35-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners.

The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

35-4
35-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

35-6
35-7

Sincerely,

Bruce Carmedelle
45 Bridgegate Drive
San Rafael, CA 94903

**Letter
35
Response**

**Bruce Carmedelle
December 13, 2011**

35-1 thru 35-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

From: kendale@comcast.net [<mailto:kendale@comcast.net>]
Sent: Tuesday, December 13, 2011 4:07 PM
To: Stratton, Debra
Subject: Grady Ranch

My family and I moved into Upper Lucas Valley in 1970, then moved into Lucas Valley Estates in 1992. Although the homes in Lucas Valley Estates are the closest development to Grady Ranch, none of us received any notice that the Planning Commission were to review the possible Zoning change in 1996. Whose fault was that? Please investigate to determine why no notices were mailed to the 174 individual homes here. The names and addresses of each home were available to both Lucasfilms and Marin County. Kenneth Dale 24 Creekside Dr San Rafael Ca 94903

36-1

Letter
36
Response

Kenneth Dale
December 13, 2011

36-1 Please see Master Responses 1 and 2 regarding noticing of the environmental document.

12/9/11

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Film Sound Stage

DEC 13 2011 PM 2:21 Planning

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. I thought when projects which impact an entire community are being considered for approval, the county would have to give notice to the neighborhood residents. The more I learn about the use and impacts of this proposed project the more upset I become.

37-1

I have briefly reviewed a letter writing by a Richard Grasseti planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

37-2

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at inappropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?
- What is being done to protect the environment, creeks, spotted owls, mountain lions, etc?

37-3
37-4
37-5
37-6
37-7
37-8
37-9

I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts.

37-10

Sincerely,

Paul Franjeh *Kalynn Franjeh*
Paul and Kalynn Franjeh

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

**Letter
37
Response** **Paul and KayInn Franjieh
December 13, 2011**

37-1 thru 37-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Response to Comments 18-1 through 18-9



From: ConnieEd@aol.com [<mailto:ConnieEd@aol.com>]
Sent: Tuesday, December 13, 2011 12:10 PM
To: Stratton, Debra
Subject: Grady Ranch

Hello...I would like to express my deep concerns over how the Grady Ranch development will impact the rural nature of Lucas Valley and most particularly the additional traffic that will inevitably occur. None of us who live here want another "Sir Francis Drake Blvd." clone. Please be attentive to the important concerns of Friends of Lucas Valley.

38-1

Thank you, Constance R Fulkerson, 5 Golden Iris Ter., San Rafael

Email Disclaimer: <http://marincounty.org/nav/misc/EmailDisclaimer.cfm>

**Letter
38
Response****Constance Fulkerson
December 13, 2011**

38-1

This comment is a general statement and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. See also Response to Comment 7-8 and 13-2 regarding traffic impacts.

26 Mount Rainier Drive
San Rafael, CA, 94903
December 13, 2011

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Development SEIR

Dear Planning Commissioners,

I have been a resident of Upper Lucas Valley for 25 years. I am writing today with my comments regarding the Grady Ranch SEIR.

39-1

I moved here when Lucas Valley Road was a two lane road and traffic was very light. We wanted to live in a quiet neighborhood with the hills nearby.

When I heard of the Grady Ranch development proposal, I went to the County offices and read the 1996 EIR. This was my first experience with the County approval process. It was apparent even to this beginner that the EIR was outdated. The current draft of the SEIR is inadequate also. I am writing to express my concerns:

39-2

- 1) The massive nature of this project is inappropriate for the rural setting. The square footage and 85 foot towers are ridiculously large in scale. The reason for the facility is outdated: The 1996 EIR mentions Grady Ranch development as needed because it was close to Skywalker Ranch. This concept is outmoded because modern communications make it unnecessary for workplaces to be near to each other. The San Francisco Letterman development with excess office space wasn't even planned in 1996. The sound stages would be much better close to transportation corridors and inappropriate as the gateway to West Marin.

- 2) Traffic: The SEIR needs to consider the comprehensive effect of development proposals including the Rocking H1 H2 proposal and the development in the east part of the valley at McGinnis Park. There is already traffic congestion on Lucas Valley Road in the mornings and evenings. LV Road is used as an alternate route when 101 is blocked and drivers drive around to Petaluma instead. I don't want Lucas Valley Road to become another Sir Francis Drake Blvd.

39-3

The SEIR needs to state how many cars will be on Lucas Valley Road on a given day in coming years and how much this will increase due to the Grady Ranch construction and operation. We can anticipate 350 additional vehicles plus UPS trucks, supply trucks, buses carrying guests, and vehicles for uses still to be imagined (such as concerts) at the

39-4

- facilities. A mitigation that employees use electric vehicles should be required and an employee shuttle from a parking area at Highway 101 should be required. Penny Hicks, Grady Ranch SEIR Comments, Page 2 39-4
cont'd
- 3) Number of workers. At the 12/13/2011 Planning Commission Meeting, Tom Forster of LucasFilms said the maximum number of workers at Grady would be 350. This number needs to be specified in the plan with a plan for monitoring. He is clearly downplaying the personnel that will travel to and from the Ranch, excluding all the delivery and support staff and those visiting for events and meetings. 39-5
 - 4) Times of Use: Mr. Forster also stated on 12/13/2011 that the facility would not be used some days of the year since films aren't made constantly. This should be specified in the plan. It is a common practice for sound stages in Southern California to be leased out when not used by the property owners. The amount of use per year should be pinned down and specified in the SEIR. Also, the leasers should abide by all the limits set by the SEIR. In addition, the hours of use (especially the outdoor stage) should be specified with evening hours prohibited because of noise pollution. 39-6
 - 5) Use of property after Lucas ownership. The SEIR should specify constraints on use if Lucas should sell or when his heirs assume ownership. 39-7
 - 6) Light and Noise pollution: The inevitable light and noise pollution can't really be stopped and is a reason the project shouldn't be built. 39-8
 - 7) Creek Erosion and Flooding: I am really concerned about the effects on the creek downstream. This is a disaster in the making. Houses downstream are already eroded. This project seems like an earthmoving experiment. If the SEIR gets it wrong, people will suffer, even years from now. 39-9
 - 8) Global Warming: We now know that the severity of storms will increase due to to global warning. As plans are made to prevent erosion and runoff, it should be noted in the SEIR that there will definitely be unanticipated effects and compensation systems are likely to fail. SEIR plans to compensate for runoff and erosion should be extremely conservative. 39-10

In summary, I am extremely concerned about the Grady Ranch proposal and hope it will be denied. Please consider the specifics of my comments when modifying the SEIR.

Sincerely,

Penny Hicks

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.
(Sent by email and U.S. Mail)

**Letter
39
Response****Penny Hicks
December 13, 2011**

- 39-1 This comment is a general statement and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted.
- 39-2 Please see Response to Comment 18-6 regarding building size and effects.
- 39-3 Please see Response to Comment 8-50 regarding cumulative analysis and impacts.
- 39-4 Please see Response to Comment 23-2 regarding trip-reduction incentives included in the transportation management plan for the project.
- 39-5 Information regarding the number of employees and guests to the proposed project site are included in the Project Description. Please see pages 2-7 and 2-39 of the Draft SEIR.
- 39-6 While the proposed facility may not be used at capacity at all times, the analyses contained in the Draft SEIR address the full use, or worst-case scenario, which includes maximum use of the project site as described in the Project Description. Mitigation measures contained in the Draft SEIR will be monitored through the Mitigation, Monitoring, and Reporting Program. Please see Master Response 3 regarding additional details about the expected hours of operation.
- 39-7 Please see Responses to Comments 25-15 and 17-14 regarding project impacts and mitigation and conditions for potential future uses on the project site.
- 39-8 Mitigation measures addressing aesthetics and lighting are included in the Draft SEIR to reduce potential lighting impacts to a less-than-significant level. The Draft SEIR determined that operational-related stationary noise levels would be less than significant with implementation of the project (see page 3-88 of the Draft SEIR).
- 39-9 As discussed on page 3-74 of the Draft SEIR, stream corridors are inherently dynamic and, with any stream restoration project, there is a potential that certain design components could fail in response to unpredictable circumstances. The discussion on page 3-74 under Checklist Item 10 of the Draft SEIR analyzes this potential risk. Erosion impacts were found to be less than significant.
- 39-10 Please see Response to Comment 18-18 regarding impacts from greenhouse gas emissions.

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To: Debra Stratton
County Planning Commission Secretary
3501 Civic Center Drive, Room 308
San Rafael, Ca 94903

Dear Ms. Stratton:

I am a resident and homeowner in Lucas Valley, and a licensed civil engineer specializing in water resources. The following are my comments on the adequacy of the Draft Supplement to the Grady Ranch/Big Rock 1996 Master Plan Final EIR.

1) **This Master Plan supplement is a programmatic document, and does not provide the necessary information to be evaluated as a Precise Development Plan.** A project level EIR should be prepared for the Grady Ranch Precise Development Plan once the project description becomes final and is supported by engineering and technical analysis necessary to fully characterize proposed actions, impacts and mitigation measures.

40-1

2) **The Public has not been provided with complete and current information during the 45 day review period.** As of Monday Dec. 12, the county web site (http://www.co.marin.ca.us/depts/CD/main/comdev/current/major_projects.cfm) still provides outdated 2009 site plans. The 2009 and 2010 NOPS documents are not available or even identified under planning division correspondence (http://www.co.marin.ca.us/depts/CD/main/comdev/current/Correspondence/Correspondence_Skywalker.htm).

40-2

A notice of preparation was not provided to the community in 2010/2011. When will be the NOP issued for the project be made available as part of the 2011 public record?

In general, the DSEIR makes numerous unsupported statements and conclusions about the proposed project and the associated impacts. The public has not been provided the opportunity to review or consider any supporting documentation against which to evaluate the DSEIR. The DSEIR document provided digitally incorporates graphics at such poor resolution that even the date and scale of the drawings provided are not legible. Significant project information and detail is lost in the low resolution drawings provided.

40-3

Meaningful public review of the DSEIR and the technical details of the proposed plan are precluded by the failure to provide supporting information. When will the public be provided with the project information being used as the basis for proposed actions? Will the public be given time to review and comment on this new information?



3) The DSEIR defers specification and impact analysis of significant new project components including:

- *extensive earthwork* (excavation, sorting, staging, compaction, and grading)
- *import and haul of soils* (engineered fill, large boulders and trees); and
- *construction of large knoll embedded with a geothermal exchange field*
- *storm water management* (drainage, hydro-modification, sediment and storm water detention)
- *stream restoration* (changes to channel grade, slope, hydrologic, hydraulic and geomorphic function).
- *Wine cave (listed as an agricultural use)* (excavation of 40,000 sf storage facilities, haul/on-site placement of excavated material, operation of commercial storage facilities).

Analysis of these components, once fixed and final is necessary to determine the limits of the project, the impacts of the project on the site and surrounding environs, construction related impacts, and the appropriateness and efficacy of proposed mitigation measures. In the absence of this information, how does the document provide an accurate, stable and finite project description as required for impact assessment under CEQA?

Will the DSEIR be modified or a Precise Development Plan prepared to define these proposed project components at a level of detail that permits accurate and consistent characterization of proposed actions, and description and evaluation of associated impacts both during and after construction?

40-4

4) The DSEIR utilized inconsistent baselines for evaluation of project impacts.

Impacts should be assessed not with respect to the impacts of prior master plan concept level proposals, but relative to the conditions on site and in the surrounding environs at the time of issuance of the Notice of Preparation (NOP). The document reportedly relies on a 1991 NOP. Will the DSEIR/PDP be updated to comply with CEQA requirements to use “existing” 1991 baseline conditions, as is consistent with the date of NOP publication? If not, what is the rationale for the determination of baseline, pre-impact conditions on, in the vicinity and downstream of the project?

40-5

5) The DSEIR fails to identify on-site hydro-modification associated with proposed project and “restoration” elements.

In the vicinity of the proposed building, runoff within the sub-basin is collected and routed through a newly constructed drainage system. Grady Creek and an adjacent tributary are rerouted and channelized. Newly proposed modifications to the building entail excavation of a large headwater alluvial fill deposit adjacent to Grady Creek. Fire road construction includes concrete lined ditches to transport water away from engineered slopes. Proposed “restoration” measures place engineered fill, large

40-6



imported boulders and trees throughout Stream Conservation Areas (SCAs) of Miller and Landmark Creeks to elevate and stabilize the creek bed.

The DSEIR provides no assessment of the impacts of these changes on hydrologic conditions near project facilities or within the SCAs being modified. Anticipated on-site hydro-modification impacts include:

- Removal and loss of headwater storage capacity under the building footprint adjacent to Grady Creek
- Dewatering of drainages upslope and groundwater adjacent to the building
- Drainage modification and urbanization of outflows from the Grady Creek sub-basin
- Modification to the timing and duration of flow within on-site SCAs
- Changes to the rate, volume and composition of sediment conveyance to and through the site

40-6
cont'd

Characterization of the impact of proposed plan should serve as the basis for proposed mitigation measures. Without an assessment of changes on-site, the efficacy and appropriateness of proposed mitigation measures can not be evaluated.

What is the basis and rationale for the extensive placement of fill within the headwater SCAs? What is the impact of SCA “restoration” on the timing, duration and temperature of water in these headwater streams? What is the impact of the proposed project on the timing, duration and temperature of water leaving the project site? How do the proposed project and SCA modifications alter the rate, volume and composition of sediment moving downstream?

40-7

6) The DSEIR fails to identify and address high flow impacts to existing downstream communities and the aquatic and riparian resources of Miller Creek.

The large scale commercial development and upstream “restoration” measures will increase the rate and volume of upstream storm runoff, raise the creek bed locally, and reduce downstream sediment supply.

As a result of the history of headwaters grazing, and ongoing urbanization of the watershed, Miller Creek is actively eroding both on the project site and in downstream reaches of Miller Creek Road. This is evidenced by ongoing loss of canopy, exposure of base level controls (bedrock and engineered bed and bank protection) and increasing channel depth and width. Our community infrastructure is at risk of failure. Storm drains downstream hang ten or more feet above the creek bed, bridge foundations are exposed and in places undermined, and portions of Lucas Valley Road are at risk of being undermined as Miller Creek widens and deepens. Private property, particularly in the LVHA community, is at risk due to ongoing bank erosion.

40-8

For an example, at the Lucas Valley Road bridge at Mt. Lassen Drive, along the north side of the bridge critical community infrastructure (water, sewer, electrical and **GAS** lines) once buried are now exposed in the bed. Just upstream the Las Gallinas Valley



Sanitary district is currently rerouting a primary sewer line away from Miller Creek to avoid failure due to undermining by channel erosion. Crossing the street and looking South and downstream on Miller Creek, the bridge the broken foundation are visible above a step in creek bed filled with large riprap and old foundation slab. Vertical and eroding banks, and fallen canopy trees are common sites visible from Old Lucas Valley Road, behind the Marinwood Community Center, at County facilities on Prandy Way, and in the LVHA neighborhood where CSA-13 removed 5 downed trees in the summer 2011.

40-8
cont'd

The EIR fails to assess or mitigate for increases in the already high erosion rates downstream which are impacting community infrastructure, personal property and the aquatic resources of Miller Creek.

7) The DSEIR fails to identify and address downstream impacts to summer low flows in existing communities and the aquatic and riparian resources of Miller Creek.

The proposed project and SCA “restoration” measures disturb and remove Grady Creek headwater storage units (under the building footprint). Building infrastructure drains both hillside and adjacent alluvial hydrologic units. Channel stabilization, hillside and building drainage expedites downstream flow to minimize on-site flood and slope stability risks.

The DSEIR proposes replacement of these impacts via re-establishment of “floodplain storage.” However, the DSEIR does not provide sufficient hydrologic and hydraulic analyses to demonstrate a balance between impacts and mitigation measures. The DSEIR also does not provide technical support to demonstrate the need for the extensive engineered channel fill in order to improve hydrologic conditions for steelhead within the SCAs.

40-9

In dry years, will the elevated stream bed and compacted engineered fill provide suitable headwater habitat for steelhead?

The DSEIR fails to characterize or propose actions to mitigate for changes to the volume, timing and temperature of summer low flows in downstream reaches of Miller Creek. Proposed modification to the hydrologic characteristics are likely to alter the volume, timing and temperature of summer base-flows in downstream reaches of Miller Creek which may negatively impacts the documented resident downstream steelhead population, and the aquatic and riparian resources of Miller Creek.



8) CEQA requires that the EIR address and not defer impact assessment associated with drainage, stormwater detention, sediment transport modification, hydro-modification and grading.

The DSEIR is currently incomplete.

40-10

9) The Grady Ranch DSEIR and PDP should address impacts to Miller Creek Watershed water resources (see Watershed Map Attached)

Miller Creek is a partially ephemeral (seasonally dry), ground water and spring fed stream. Currently summer low flows on Miller Creek are intermittent upstream of Mt. McKinley drive (the creek goes dry) and typically perennial downstream between Mt Shasta Drive to San Pablo Bay. Dry sections of the creek occur downstream of Mt. Shasta Drive depending on the annual rainfall volume and distribution. The location, temperature and connectivity of persistent water in Miller Creek, and in turn viable steelhead habitat, is dependant upon headwater, groundwater and tributary/spring sources throughout the Miller Creek watershed. The project site is located at the confluence of the four primary headwater tributaries on Miller Creek, and as such has the potential to significantly impact both headwater and downstream watershed conditions. Steelhead have been observed in Miller Creek at the proposed site, and have been observed in significant numbers in persistent pools in reaches below Grady Ranch.

40-11

A Water Supply and Sediment Impact Assessment should be undertaken to address impacts to Miller Creek watershed water resources both in the headwaters and downstream given:

- The proposed landscape modifications and mitigation measures disturb a large headwater area, and post a risk to downstream steelhead populations and habitat.
- The anticipated loss of groundwater storage associated with the replacement of alluvial deposits (vol. est.?) with a large commercial/industrial building;
- The disturbance of a large area over a multi-year construction periods and the resulting likelihood of impacts to aquatic habitat.
- The headwaters location in a small urbanized and erosive watershed
- The ephemeral nature of the stream
- The expectation of hydro-modification to both peak flow and low flow/dry conditions both on site and downstream
- Proposed use of well fields for thermal exchange

10) A Water Supply Assessment for the project should be undertaken to address the impacts to regional water supply.

This request is based on the following:

- MMWD’s August 2010 Letter and reported of water supply deficit,
- Uncertainty regarding the projects water supply
- High demand for potable, fire, irrigation and industrial water
- Pressures and demands of adjacent developments
- Proposed grey water swap
- Potential public costs increase for infrastructure expansion

40-12



11) Proposed Stream Restoration Plan Comments and Questions

General questions are presented below. The information provided was sufficient only for concept level review.

- 40-13
}
 Construction of the proposed “restoration project, will required large areas of floodplain disturbance and compaction, import of a large number of boulders, as well as channel compaction and stabilization in fixed alignments. These are not features typically associated with the restoration and re-establishment of dynamic equilibrium of alluvial channel/floodplain systems.
- 40-14
}
 The proposed restoration plan fails to provide goals and justification for proposed actions based on measures of impact and mitigation.
- 40-15
}
 What will happen when the alluvial channel, reconnected to the floodplain, migrates laterally away from fixed engineered structures?
- 40-16
}
 Will the proposed restoration increase the need for ongoing erosion protection and increased maintenance on Lucas Valley Road?

12) Whole of Actions:

The DSEIR does not describe all of actions which should be considered, and as such a stable and final project description has yet to be reached. Activities missing from the DSEIR include:

- 40-17
}
 Impacts associated with construction of the recycled water distribution system indicated as a condition of use for MMWD supply.
- Impacts associated with the proposed realignment of Lucas Valley Rd
- Impacts associated with extension of utilities to and into Grady Ranch
- Impacts associated with the expanded Wine Cave
- Impacts associated with subsequent phases of development including infrastructure expansion

12) Alternative Sites:

Both the anticipated and proposed uses of the facility have changed since the 1996 Plan was authorized. The DSEIR should consider alternative sites and/or distribution of uses that could result in significant impact reductions. Alternative actions that should be considered include:

- 40-18
}
 Expand facilities at Big Rock and reduce the proposed development at Grady so as to reduce the need for aggressive cut and fill;
- Relocate the project to an existing commercial site near public transit and peripheral services; and
- Return Lucas Arts to Lucas Valley, and install commercial production facilities in the Letterman complex which has the commercial resources and scale needed to provide desired services.

13) Conclusion:

The industry and creativity of Lucas Arts adds to the strength and vitality of our County and communities. Due diligence in plan review and modification to minimize and mitigate for anticipated impacts is required to maintain the high standard of landscape stewardship and commercial enterprise achieved at existing Lucas/Skywalker Properties Facilities, and to satisfy the standards required by CEQA.

The DSEIR does not provide a complete description of proposed actions, or sufficient detail about those actions to evaluate project impacts and proposed mitigation measures. Significant additional work needs to be performed, and/or documented to complete the document.

I look forward to working with the County to assure that the project and EIR yield the best possible outcomes for all interested parties.

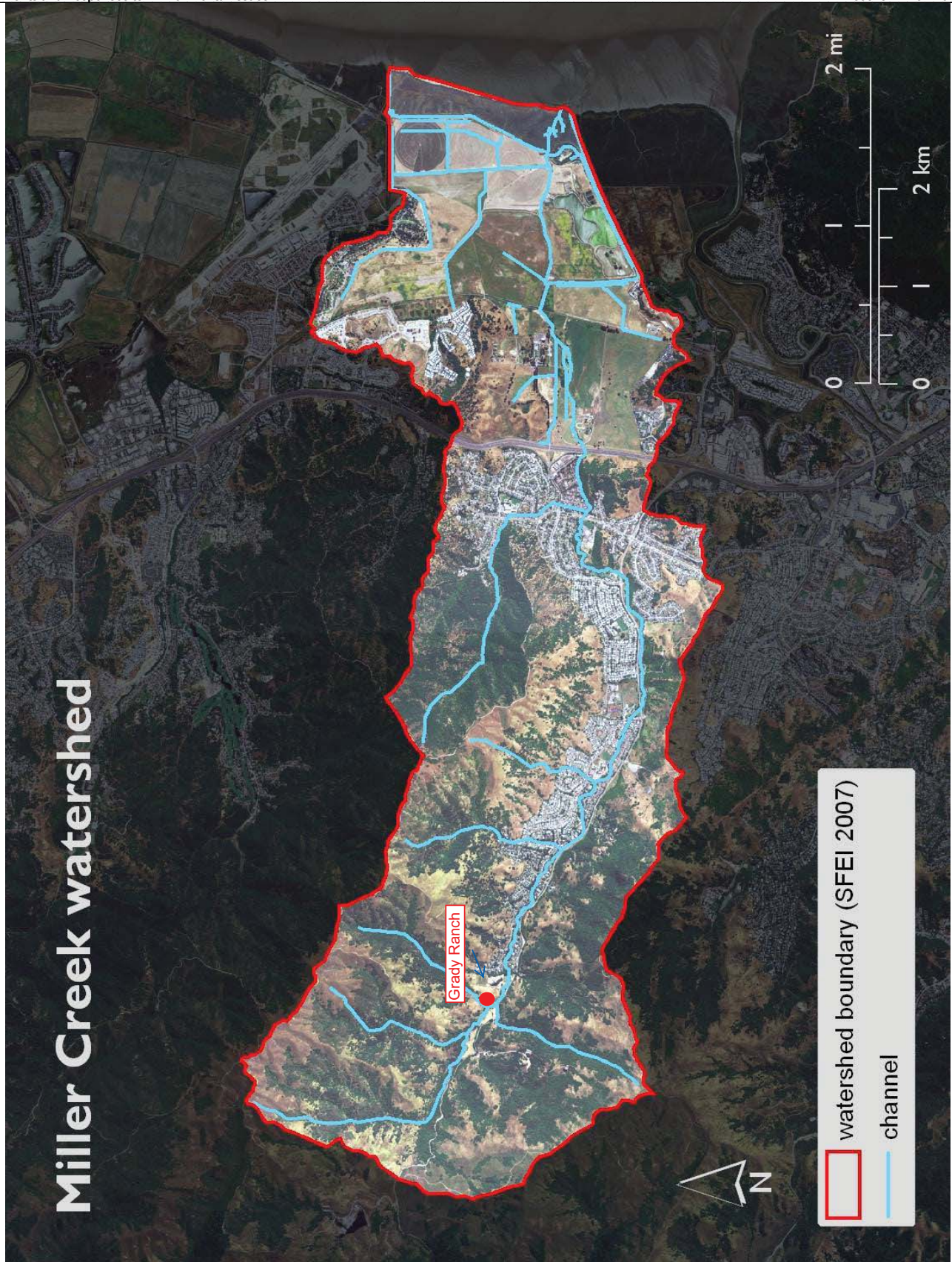
Sincerely,



Rachel Z. Kamman, PE
415-491-9600



40-19



**Letter
40
Response**

**Rachel Z. Kamman, PE
December 13, 2011**

- 40-1 Please see Response to Comment 8-3 regarding use of a Programmatic EIR.
- 40-2 Please see Master Responses 1 and 2 regarding public noticing and availability of documents .
- 40-3 Additional information regarding the conduct of the analyses is included in this Final SEIR, including the text of the updated transportation and circulation study (see Appendix B). Additional details have also been added to the Project Description (see Master Response 3). Please see Master Response 2 regarding document availability.
- 40-4 Please see Response to Comment 8-24, regarding performance standards and mitigation.
- 40-5 Please see Responses to Comment 8-5, 8-7, and 11-9 regarding the baseline used for the analyses included in the Draft SEIR.
- 40-6 The impact of on-site hydromodification from urbanization and the SCAs is addressed in the following documents below. These documents are available from the Marin County CDA as part of the project file. Analysis included in the Preliminary Hydrology Report demonstrates that the proposed condition peak runoff volumes are less than one (1) percent greater than under existing conditions. To mitigate increases in peak runoff quantities and stormwater quality due to construction of the project, the applicant is proposing to incorporate Low Impact Development (LID) technologies, also known as Integrated Management Practices (IMP). Analysis included in the Preliminary Stormwater Control Plan demonstrates that with the implementation of key LID technologies, there is no increase in peak flows or flow duration under the proposed condition.
- ▲ CSW / ST2. 2009. Preliminary Hydrology Report (Revised). Grady Ranch Precise Development Plan. Section 5. Prepared for Skywalker Ranch, Ltd.
 - ▲ Balance Hydrologics. 2008. Preliminary Stormwater Control Plan. Grady Ranch Project. County of Marin, California. Section 4-5, Appendix A. Prepared for Skywalker Ranch, Ltd.
 - ▲ CSW / ST2. 2011. Grady Ranch Preliminary HEC-RAS Analysis. Section B. Prepared for Skywalker Ranch, Ltd.
- 40-7 The basic premise is to reverse severe levels of channel incision that exist within the project reach. Typically, two broad approaches can be used to restore incised creeks, through lowering of the adjacent floodplain using inset floodplain terraces, or raising the bed of the incised creek. The result of both options is to restore main channel and improve floodplain connectivity. Other intended outcomes of proposed restoration actions include the removal of fish passage barriers created by existing headcuts, reduction of sediment inputs to lower Miller Creek by stabilization eroding sections of the creek, attenuation of peak flows by reconnecting the channel to the floodplain and increasing groundwater storage in the alluvial aquifer.
- 40-8 The restoration treatments in the SCA Restoration and Enhancement Plan are intended to address several of the issues raised in this comment. The existing high erosion rates downstream of the project site are not a result of the proposed project and do not require

- analysis or mitigation from the project. However, the project applicant recognizes similar adverse effects of the existing erosion rates on the project site and has proposed the stream restoration to reduce sediment delivered to San Francisco Bay; enhance the stability of Miller Creek and the network of tributary creeks; expand the habitat accessible to steelhead; increase aquifer storage thereby increasing spring and summer baseflows; enhance the vigor, extent, and resilience of riparian vegetation; and maintain channel functions and form during episodic events (see the Project Description). The SEIR analyzes the potential effects of the proposed stream restoration itself (see Item 10, Hydrology and Water Quality of the Environmental Checklist).
- 40-9 Please see Response to Comment 40-6 regarding the effects of the proposed stream restoration. See Responses to Comments 12-8, 12-30, and 40-6 regarding additional technical reports that are available for review.
- 40-10 Please see Responses to Comments 12-8, 12-9, 12-30, and 40-6 regarding additional drainage and stream restoration technical reports that are available for review. These reports were peer-reviewed by the SEIR preparers and incorporated into the Final SEIR in the text changes to the document and these responses to comments.
- 40-11 Please see Responses to Comments 12-8 and 12-9 regarding recognition of the existing hydrologic conditions on the project site. Please see Responses to Comments 8-19 and 8-20 regarding downstream effects and potential effects to steelhead. Please see Master Response 3 regarding project description details. The geoexchange system would not include wells.
- 40-12 Please see Response to Comment 8-48 regarding water supply.
- 40-13 Please see Response to Comment 10-2 regarding the restoration project.
- 40-14 Please see Response to Comment 10-1 regarding the restoration project.
- 40-15 The applicant has included reasonable design elements to maximize the longevity of the restoration actions, including vertical grade and horizontal control features. However, it is not possible to fully “control” creeks. As noted in the Environmental Checklist, the applicant has agreed that periodic inspections/surveys will be conducted by a qualified professional (hydraulic engineer/geomorphologist) to ensure that key design elements of the restoration project are intact and functioning as designed. This type of adaptive management will help to maximize the longevity of proposed design.
- 40-16 The proposed restoration is designed to reduce onsite erosion and sediment delivery to downstream reaches within the Miller Creek Watershed. Although the project’s impact to ongoing maintenance on Lucas Valley Road has not been specifically analyzed, there is no discernable mechanism that would result in a negative impact.
- 40-17 Please see Responses to Comment 8-5 and 8-43 regarding project utilities and offsite improvements. The Draft SEIR analyzes the potential impacts from the components included in the Project Description.
- 40-18 Please see Master Response 5 regarding Project Alternatives.
- 40-19 The comment is noted. Please see Responses to Comment 40-1 through 40-18.

12/13/11
Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I am the mother of 3 children who call Lucas Valley their home. The safe and quite neighborhoods that comprise Lucas Valley is the very reason we moved here. Lucas Valley Road is only two lanes and has a walking/biking lane as far west as Westgate Drive. There are hundreds of pedestrians and cyclists who use Lucas Valley Road for both transportation and recreational use every week. I am concerned about the safety of all who use Lucas Valley Road for recreational and transportation uses due to increase in construction traffic and subsequent operational/commuter traffic created by the proposed Grady Ranch facility. There is no bike path, sidewalk, or walking trail after West Gate Drive on Lucas Valley Road, and the two-lane road is at its narrowest at or near the Grady Ranch site. This condition will undoubtedly endanger the cyclists and pedestrians once the construction traffic begins and will continue to be a safety hazard for the foreseeable future.

41-1

The Supplemental EIR claims the use for Grady Ranch is office use but with over 50,000 square feet dedicated to film stages the implied or actual use will be for filming motion pictures. Approval of this project will not only threaten the safety of the children who live (and play) in Lucas Valley due to the increased traffic, but the increase in Air Pollution and Green House Gas emissions will take their toll as well. With asthma and other respiratory illnesses on the rise in California we must look out for the welfare of the children and the future generations to come.

41-2

The Grady Ranch project is too big and too visible at its current proposed site. It requires too much earth moving and altering of the natural terrain. It proposes to create a large hill where none existed before for "screening purposes". This must be due to the fact that finding trees or other natural screening would not be possibly due to the monstrous size of the proposed building. I feel that the Planning Process is moving too fast to make a competent or pragmatic evaluation of the project and more studies of its effects must be created and evaluated.

41-3

I object to the Grady Ranch project for the following reasons;

1. It's too big and visible for Lucas Valley and alternate locations should be explored.
2. It is being pushed through the planning process too quickly.
3. The supplemental EIR is not complete and the projects impacts require more study.
4. The traffic and safety impacts endanger the all the residents of Lucas Valley.
5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient.
6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed.

41-4
41-5
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41-9

The size, use, location, and associated impacts of this project out weight the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

41-10

Sincerely,

Amy Kobalter

CC:
Board of Supervisors - Susan Adams, Katie Rice, Judy Arnold, Kathrin Sears, Steve Kinsey.

**Letter
41
Response**

**Amy Kobalter
December 13, 2011**

41-1 thru 41-10 This letter is identical to Letter 18, part 3 – Form Letter C. See Response to Comments 18-17 through 18-26.

12/9/11

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

DEC 13 2011 PM 2:21 Planning

RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. I thought when projects which impact an entire community are being considered for approval would have to give notice the neighborhood residents. The more I learn about the use and impacts of this proposed project the more upset I become.

42-1

I have briefly reviewed a letter writing by a Richard Grasseti planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

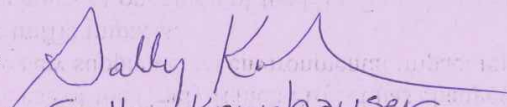
42-2

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?

42-3
42-4
42-5
42-6
42-7
42-8

I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts.

42-9

Sincerely,

Sally Kornhauser
2 Blue Oak Ct.
San Rafael, CA 94903-1089

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

**Letter
42
Response**

**Sally Kornhauser
December 13, 2011**

42-1 thru 42-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Response to Comments 18-1 through 18-9

12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

*RECEIVED MAR 15 2012
Postmarked 12/13/11*

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 18 years and in Marin County for 18 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

43-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grassetti Environmental Consulting letter I have a number of concerns.

43-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

43-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

43-4
43-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

43-6
43-7

Sincerely,

Anne Langford
Anne Langford

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

**Letter
43
Response**

**Anne Langford
December 13, 2011**

43-1 thru 43-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

12/9/11

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

DEC 14 2011 PM 2:22 Planning
Postmarked 12/13/11

RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

I'm a resident of Lucas Valley and I'm shocked to discover that an enormous two hundred and fifty thousand square foot Film Sound Stage is being considered for approval in my neighborhood. I haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. I thought when projects which impact an entire community are being considered for approval would have to give notice the neighborhood residents. The more I learn about the use and impacts of this proposed project the more upset I become.

44-1

I have briefly reviewed a letter writing by a Richard Grassetto planning consultant and want to express to the Planning Commission my objection to this proposed project for the following reasons;

44-2

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?
- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers!
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies?
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage?

44-3
44-4
44-5
44-6
44-7
44-8

I don't believe there has been proper study of the impacts of this project or proper notice to the neighborhood the project will impact. I urge you not to approve the Grady Ranch project and require a new EIR to study all uses, traffic, noise, and environmental impacts,

44-9

Sincerely,

Alex and Sabrina Lawrence
69 Creekside Drive

CC: Board of Supervisors: Susan Adams, Kathrin Sears, Steve Kinsey, Judy Arnold, Katie Rice.

**Letter
44
Response** **Alex and Sabrina Lawrence
December 13, 2011**

44-1 thru 44-9 This letter is identical to Letter 18, part 1 – Form Letter A. See Response to Comments 18-1 through 18-9

December, 12, 2011

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

Until eight months ago, I have lived in Lucas Valley for 43 years and in Marin County for 48 years, and even though I have moved, I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my former neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

45-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grassetti Environmental Consulting letter I have a number of concerns.

45-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

45-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

45-4
45-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the aesthetic natural beauty, the integrity, and unique character of Lucas Valley. The increase in proposed development in this area is deminishing Lucas Valley as the special place that it is and is catapulting it into becoming more commercialized in its population. It would be shameful and hugely disappointing if this project were approved to go forward and a resulting need would be to then widen Lucas Valley Road to accomodate the increase in size and number of traffic/vehicles traveling this road. If this is approved. I also have concerns regarding the impact on our diminishing natural resources, as well as the impact to the habitat of the native wildlife, and am curious how the County plans to support such a development. Will it be LEED certified? Will it have little to no impact on our natural resources? I would hope that you would reject the proposal as it is and abstain from assisting in the perpetual ruination of such a highly valued place, the cherished home of many, by approving this project.

45-6
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45-9

If it is approved, when will there be an end to the development in this area? Aside from what may be in Marin County's General Management Plan, I am concerned that overdevelopment in areas such as Lucas Valley will cause more impacts on our natural resources than we can recover from.

45-10

Sincerely,

Laurel Mackay

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

**Letter
45
Response**

**Laurel Mackay
December 13, 2011**

- 45-1 Same as Comment 18-10 (Form Letter B). See Response to Comment 18-10.
- 45-2 Same as Comment 18-11 (Form Letter B). See Response to Comment 18-11.
- 45-3 Same as Comment 18-12 (Form Letter B). See Response to Comment 18-12.
- 45-4 Same as Comment 18-13 (Form Letter B). See Response to Comment 18-13.
- 45-5 Same as Comment 18-14 (Form Letter B). See Response to Comment 18-14.
- 45-6 Same as Comment 18-15 (Form Letter B). See Response to Comment 18-15.
- 45-7 Same as Comment 18-16 (Form Letter B). See Response to Comment 18-16.
- 45-8 The Draft SEIR (page 3-102) evaluated traffic impacts and found that road widening would not be required for the project. Additional information can be found in the *2010 Transportation and Circulation Update* which is included in this Final SEIR as Appendix B and is currently available at CDA's Environmental Impact Review website. The 1996 Master Plan Final EIR addresses this issue in regards the site's primary access point. Widening of Lucas Valley Road at this access point was included in Mitigation Measure 5.7-7 to provide an eastbound left-turn acceleration lane and a westbound right-turn deceleration lane. The project as currently proposed would include separate left-turn and right-turn lanes for egress from the site, resulting in acceptable operating conditions and eliminating the need for the westbound left-turn acceleration lane. Therefore, mitigation Measure 5.7-7 is not included in the Draft SEIR. Instead, Mitigation Measure TRANS-1 states that, "the project applicant shall construct, or ensure that project access includes, right-turn tapers on westbound Lucas Valley Road at the point of access onto the Grady Ranch project site." Other than these tapers, no road widening is required based on the projected levels of traffic with implementation of the project.
- 45-9 Impacts to energy and natural resources are evaluated in the Draft SEIR in Environmental Issue Area 4, "Biological Resources" (beginning on page 3-26) and Environmental Issue Area 6, "Energy and Natural Resources" (beginning on page 3-46).
- Regarding biological resources and habitat, proposed changes to the Grady Ranch PDP after the 1996 Master Plan FEIR was certified would not result in new significant impacts or substantially more severe impacts to biological resources. However, changed circumstances based on new information about biological resources on the project site would result in a new and substantially more severe significant impact conclusion related to special-status species. Information changes or updates expected to result in new impacts that are potentially significant include changes to the regulatory status and sensitivity of some biological resources and new site-specific biological data collected after the 1996 Master Plan FEIR was certified. New potentially significant impacts to biological resources include potential short-term disturbance to steelhead habitat resulting from construction and initial channel response, and construction-related disturbance or loss of special-status wildlife species. Mitigation Measures

BIO-1 and BIO-2 would reduce the impacts to less-than-significant levels. Mitigation Measure BIO-1 includes resource protection measures that have been proposed by the project applicant. Mitigation Measure BIO-2 is a new mitigation measure identified through supplemental environmental review (Draft SEIR page 3-41).

Regarding energy efficiency, no significant impacts related to energy and natural resources would occur as a result of the project. Changes to the proposed project since the time of prior environmental review would not result in new or increased severity of significant impacts, because the proposed land uses, maximum number of employment/overnight guests, and project site are essentially the same as proposed in the Master Plan. In addition, the proposed project would include a geothermal heat exchange system and would not result in any significant impacts related to energy and non-renewable resources (Draft SEIR page 3-47). The project is not required to be LEED certified.

- 45-10 Discretionary development projects are required to undergo the CEQA environmental review process to determine individual project impacts as well as cumulative impacts. Cumulative impacts address the project's environmental impacts combined with anticipated impacts from other existing and planned projects in the area. For a discussion of the cumulative impacts associated with this project, see Section 3.4, "Cumulative Effects of Implementing the Proposed Master Plan" of the Draft SEIR (beginning on page 3-109).

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12/13/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Debra Stratton,

I have lived in Lucas Valley for (34) years and in Marin County for (34) years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

46-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

46-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

46-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

46-4
46-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

46-6
46-7

Sincerely,

Dr Gail Matthews

**Letter
46
Response**

**Gail Matthews
December 13, 2011**

46-1 thru 46-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

Thomas & Susan Monahan
2200 Lucas Valley Road
San Rafael CA 94903

December 13, 2011

To: MARIN COUNTY PLANNING COMMISSION
C/O Debra Stratton Planning Commission Secretary
3501 Civic Center Drive, Room 308
San Rafael CA 94903

Re: Grady Ranch Precise Development Plan
Draft Supplement to the 1996 Grady Ranch/Big Rock Master Plan
Final Environmental Impact

Dear Planning Commissions,

This is a supplement to our December 9th 2011 letter regarding the Grady Ranch Draft Supplemental Environmental Impact Report (DSEIR). It is our belief that the Planning Department Staff is confusing the issue of approvals of the Master Plan 1996 and the current application for approval of the Precise Development Plan for the Grady Ranch project. We challenge the claim that the Grady Ranch project is in fact vested. This has not been established in Law or Equity. As noted in the Planning Commission meeting on 12/12/11 the Planning Staff have taken the Approved Master Plan from 1996 and created a "hybrid" with the current 2011 DSEIR in efforts to obtain approval of the Currently Proposed Precise Development Plan. We believe this to be an error. Please provide full disclosure to the Public and Planning Commission.

47-1

The Grady Ranch Development Agreement has not been made available to the public and is necessary for determining if the project is in fact vested. We have not been provided a copy or been made aware of the existence of a Development Agreement for the proposed Grady Ranch Project and we challenge its Current Validity and Legal Standing.

47-2

The Precise Development Plan (PDP) has not been made available online unlike the DSEIR. As stated in the 12/12/11 Planning Commission Meeting, the public can only access the current PDP in the Community Development Department Office from Monday through Thursday from 8am-4pm and Fridays from 8am-noon. Based on the lack of notification of these current events, the in-availability of the pertinent documents online (PDP), and the Planning Departments limited office hours, viewing these documents has been made virtually impossible for most working adults who are the bulk of the neighborhood residents that will be affected by this project. Please extend the time to allow for Public Review.

47-3

The Master Plan & EIR are both more than 15 years old and no longer takes into consideration the current conditions of the existing homes directly adjacent to the proposed project. The 1996 EIR is clearly out of date and does not meet the current CEQA requirements for an EIR.

47-4

The current DSEIR is grossly inadequate, incomplete, and is not sufficient to cover the short comings of the 1996 EIR or the full impacts of the 2011 PDP. The thought that a project can maintain the status of vesting in perpetuity is ridiculous, especially when the conditions surrounding the proposed project have completely changed yet the documents which are relied upon to evaluate the impacts of a project have NOT been updated to reflect the current conditions and impacts.

47-5

Please require and new, full and complete EIR for the Grady Ranch Project prior to any consideration of a PDP.

Thank you for your consideration,

Very truly yours,

Thomas and Susan Monahan

Attachments

CC:
Debra Stratton, Commission Secretary
3501 Civic Center Drive Room #308
San Rafael, CA 984903
dstratton@co.marlin.ca.us

Susan L. Adams
3501 Civic Center Drive
Room 329
San Rafael, CA 94903
sadams@co.marlin.ca.us

Kathrin Sears
3501 Civic Center Drive
Room 329
San Rafael, CA 94903
ksears@co.marlin.ca.us

Steve Kinsey
3501 Civic Center Drive
Room 329
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skinsey@co.marlin.ca.us

Judy Arnold
3501 Civic Center Drive
Room 329
San Rafael, CA 94903
jarnold@co.marlin.ca.us

Katie Rice
3501 Civic Center Drive
Room 329
San Rafael, CA 94903
krice@co.marlin.ca.us

**Letter
47
Response****Thomas and Susan Monahan
December 13, 2011**

- 47-1 The Grady Ranch and Big Rock Ranch MP/UP approval was vested with the approval of the Big Rock Ranch Precise Development Plan pursuant to Condition of Approval 63 of the MP/UP. A Grady Ranch Precise Development Plan approval is required before construction permits can be submitted for review and approval for this phase of the project.
- The current Precise Development Plan is the logical next step in the project's development process as initiated with the 1996 MP/UP approval. The SEIR addresses changes to the environmental setting, regulations, and specific project designs.
- 47-2 A Development Agreement does not exist for Grady Ranch. The MP/UP approvals were made by County Board of Supervisors Ordinance 3237 and Resolution 96-151. These documents are available for public review in the Planning Division office.
- 47-3 Please see Master Responses 1 and 2 regarding public noticing and availability of documents.
- 47-4 Please see Response to Comment 8-4. The analysis contained in the Environmental Checklist of the Draft SEIR is based on existing setting information at the time of start of the analysis (from 2009 for the traffic analysis to November 2010 for other checklist item subjects). The existing setting information is summarized in Chapter 2 of the Draft SEIR.
- 47-5 This comment is a general statement that does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. Please also see Response to Comment 8-4.

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From: Heidi Paul and Darren Haggerty [<mailto:paulhags@earthlink.net>]
Sent: Tuesday, December 13, 2011 2:39 PM
To: Stratton, Debra
Subject: Grady Ranch Development Comments

Marin County Planning Commission
C/O Debra Stratton
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Film Sound Stage

Dear Planning Commissioners,

As residents of Lucas Valley (Lucas Valley Estates) we were shocked to discover that an 250,000 sq. ft. Film Sound Stage is being considered for approval just up the road from where our family lives. We haven't received any notice from any County agency or department but was informed by a Marin IJ article and some of my neighbors. We thought when projects which impact an entire community are being considered for approval, someone would have to give notice to the neighborhood residents.

48-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what we have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter we have a number of concerns:

48-2

- The residents of Lucas Valley were not properly noticed.
- The use of the Grady Ranch Project has changed from Office Use to Film Sound Stage.
- The new supplemental environmental impact report doesn't provide a sufficient study of the traffic impacts.
- The hours of operation of the Film Sound stage is not defined. What's stopping the use of the indoor or outdoor sound stage at night or at in appropriate times?

48-3
48-4
48-5

- The proposed building is too big! With the exception of Marin Commons Office building located on Highway 101 every building in all of Lucas is less than 35 feet tall. The Grady Ranch building is proposed to be 65 feet tall with 85 foot towers! 48-6
- Once the project is approved or built, what is stopping Lucas Film from selling or leasing this building out to other companies? 48-7
- What kind of noise impacts can the neighbors expect from use of the sound stage and increased truck traffic from film company trucks or delivery truck to the film sound stage? 48-8

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley. 48-9
48-10

Sincerely,

Heidi Paul and Darren Haggerty

CC:

Board of Supervisors:

Susan Adams

Kathrin Sears

Steve Kinsey

Judy Arnold

Katie Rice

Heidi Paul and Darren Haggerty
Email Disclaimer: <http://marincounty.org/nav/misc/EmailDisclaimer.cfm>

**Letter
48
Response****Heidi Paul and Darren Haggerty
December 13, 2011**

- 48-1 Same comment as Comment 18-1 (Form Letter A). See Response to Comment 18-1.
- 48-2 Same comment as Comment 18-11 (Form Letter B). See Response to Comment 18-11.
- 48-3 Same comment as Comment 18-2 (Form Letter A). See Response to Comment 18-2.
- 48-4 Same comment as Comment 18-3 (Form Letter A). See Response to Comment 18-3.
- 48-5 Same comment as Comment 18-4 (Form Letter A). See Response to Comment 18-4.
- 48-6 Same comment as Comment 18-5 (Form Letter A). See Response to Comment 18-5.
- 48-7 Same comment as Comment 18-6 (Form Letter A). See Response to Comment 18-6.
- 48-8 Same comment as Comment 18-7 (Form Letter A). See Response to Comment 18-7.
- 48-9 Same comment as Comment 18-8 (Form Letter A). See Response to Comment 18-8.
- 48-10 Same comment as Comment 18-15 (Form Letter B). See Response to Comment 18-15.
- 48-11 Same comment as Comment 18-16 (Form Letter B). See Response to Comment 18-16.

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December 13, 2011

Ms. Debra Stratton
Interim Environmental Coordinator
Planning Department
Marin County Community Development Agency
3501 Civic Center Drive,
San Rafael, CA 94903

Dear Ms. Stratton,

As a relatively new resident to the Lucas Valley Estates, I find it difficult to comment on the changes the valley has seen over the last fifteen years. But as a former resident of Southern California, specifically Orange County, I can speak directly about urban sprawl. Having grown up in the rural area once known as Dairy Valley, I witnessed the loss of our open lands, dairy fields, the oak trees I climbed, and the streams I clomped through as a kid. Our quality of life there was thought to be everlasting. Yet it disappeared slowly, gradually succumbing to the expansion of Los Angeles.

49-1

At the time, our city officials were not worried about air quality; global warming or habitat destruction. It was the 1960s and their responsibility was directed at growing our small town, building our infrastructure for new schools, community hospitals, the shopping malls and auto centers that were sure to come. What they did not understand fifty years ago was that progress needs a balance. Dairy Valley is now the Cerritos, Artesia and Bellflower area, irrelevant cities that are no longer distinguishable from the rest of Los Angeles' suburbs.

Personally, I do not adhere to the 'slippery slope' theory that states one misstep necessitates the next. In other words, that granting the expansion of Grady Ranch/Big Rock Ranch will ultimately lead to the industrialization of the entire valley. Yet, I know there are echoes of further development on the horizon. Rocking H-1 and Rocking H-2 seem to be the most recent threats to Lucas Valley. These, I believe, must be addressed in association with the Grady and not as separated entities as their effects will certainly be accumulative.

49-2

The Grady Ranch plan as it was presented at Monday's meeting seems a different animal than what was presented 15 years ago. Again, while I have little knowledge of lawful intricacies of urban development, it is difficult to accept that building planned for office workers is the same as a building set for a movie studio. There were many unanswered questions regarding what will actually go on behind Skywalker's fences. This was highlighted by that fact that the gentleman representing Mr. Lucas could not answer the Board's direct question about whether or not the "wine cave" is for wine production, wine tasting or simply a warehouse.

49-3
49-4

Unfortunately, unlike Skywalker Ranch and the alluring world of Hollywood, the residents of Lucas Valley have nothing to parade before the Board. We have no facility tours, no wine tasting or cookies to hand out to show what great neighbors we are. We have only the serenity of our community. The calming of our natural surrounds, our hiking trails, the display of midnight stars above our roof tops. I hope you will understand that this is what makes Lucas Valley special to its residents and to the legions of weekend visitors who use our elegant road as a corridor to pass from San Rafael to west Marin.

49-5

I hope you will convey to the Board, that as a resident of the Estates, I feel none of the communities of Lucas Valley have been given a fair amount of time to completely review the 'new' plans at Grady Ranch and what they will mean to our valley. Case in point, changing an office building to a 123,000 square-foot production studio with parking for over 200 cars is a major change. At a minimum, it seems Lucas Valley Road will have to be altered for a higher flow of traffic, which, in turn, will require introduction of intersections, traffic lights and streetlights. It is hard to deny that this will increase in noise pollution and be a detriment to both safety and air quality. Whether or not the environmental consultants working on this plan designate these changes as 'insignificant' they are major to us.

49-6
49-7

Ms. Stratton, Dairy Valley is gone. The lack of foresight allowed it to slip beneath urban sprawl. I hope you will not allow this to happen to Lucas Valley without a fair and detailed process that allows adequate time for a full public disclosure to, and input from, the communities that will most affected, the residents of Lucas Valley.

49-8

Thank you for your time.

Sincerely,

Mitchell Rossi
15 Creekside Drive
San Rafael, CA 94903

**Letter
49
Response****Mitchell Rossi
December 13, 2011**

- 49-1 The comment is noted. It expresses general opinions about urbanization and does not raise comments about the Draft SEIR. No further response is required.
- 49-2 The comment is noted. Please see Response to Comment 8-15 regarding the status of the Rocking H1 Horse project.
- 49-3 Please see Master Response 3 regarding proposed uses on the project site.
- 49-4 Additional details have been included in Chapter 3, Project Description, of this Final SEIR regarding the wine cave. As stated in the Draft SEIR, the wine cave would be used for the storage of wine from grapes planted on other Lucasfilm properties (e.g., on Skywalker Ranch). The wine cave would also be used for the storage of olive oil and/or other agricultural products from other Lucasfilm properties. No production of agricultural products would occur on-site. In addition to storage of agricultural products, periodically, the wine cave may be used to host wine tastings.
- 49-5 The comment is noted. It expresses general statements about the natural setting of Lucas Valley and does not raise comments about the Draft SEIR. No further response is required.
- 49-6 Please see Master Response 2 regarding public noticing and public review.
- 49-7 The comment is noted. Impacts to air quality, noise, and traffic are addressed in the Draft SEIR in the following Environmental Issue Areas respectively: 4 – “Air Quality,” 13 – “Noise,” and 17 – “Transportation/Traffic.”
- 49-8 The comment is noted. It expresses concern about urbanization of Lucas Valley and does not raise comments about the Draft SEIR. No further response is required.

Postmarked 12/13/11

December 12, 2011

Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael, CA 94903

Re: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have been a resident of Lucas Valley since 1964. I was surprised by the size and scope of the Grady Ranch Development I had not received any notice from any county agencies or departments but saw in the Marin Independent Journal and recently by the Homeowners Association that the proposal was being brought up in 45 days. I assumed that an project of this size would have warranted a greater notice since it impacts the entire valley community even though it 'slides' in as a supplemental proposal to a 1996 plan by Lucas Enterprise. Since the original plan, there has been considerable residential rise in population and these people have not been able to express their views with so short notice or lack of information which need neighborhood approval through your chambers. Please address these issues:

50-1
50-2
50-3
50-4
50-5
50-6
50-7
50-8
50-9
50-10

1. Residents of Lucas Valley were not properly notified, some not at all because of the "hurry up" process.
2. Proposed use of project was defined as 'office space' in 1996 but new Environmental Impact Report (EIR) shows indoor and outdoor film/sound stages + a large wine storage/production area, an 85 foot towered main building, restaurant, costume storage, dressing rooms, overnight suites, wine tasting room, guest suites, the size of the Civic Center right in the midst of a residential zone. I believe they are stretching the 'office space' as described in 1996 approved plan.
- 3 The new supplemental EIR doesn't provide sufficient study of the traffic impact. There will be large trucks, vans for building the site but the maintenance of the site will also need those same size vehicles. The projects the film company expects to produce will need many workers that are needed other than the permanent site staff. Even at this time the entrances to Lucas Valley residences have been greatly degraded and have become more hazardous.
- 4 The buildings that are described are too large and tall for the site, so there must be large scale soil removal and relocation to obscure the portions of the building. That much destruction to the valley floor and recycling the terrain will surely affect the drainage and the stream beds that are affected by their change in course, which then affects the residences East of the project.
5. There have not been any agreements as to the water needs with MMWD. There will be considerable needs and Marin does not have wells that can supply the need that will arise from land use of this magnitude.
- 6 Geothermal heat exchange units were not mentioned in the 1996 EIR study. What does that entail? (No mention of that effort in 1996 EIR.)
7. The Supplemental EIR is incomplete and needs more study.
- 8 Project is being pushed too quickly through the planning and approval stages. This is the time of year when people cannot focus on so many projects, they have too much on their minds, their job and leaving for vacations etc.
- 9 Once the project is completed, what restrictions can prevent Lucas Films from selling or subletting

to a non-related industry? How will the county handle this outcome? We need to think of the future of the county as well as the present.

| 50-10
| cont'd

Please extend the approval time to study all the points that were omitted from the Supplemental proposal. Since some these concerns cannot be met environmentally and judiciously, please consider the other alternate appropriate locations which would protect the natural beauty and character of Lucas Valley in the years to come.

| 50-11

Sincerely,



**Letter
50
Response**

**Emily Shibata
December 13, 2011**

- 50-1 See Master Response 1 and Master Response 2 regarding the Notice of Preparation and the noticing process.
- 50-2 See Master Response 1, Master Response 2, and Response to Comment 18-21 (Form Letter C) regarding the Notice of Preparation and the noticing process.
- 50-3 See Response to Comment 22-4 and Master Response 4 regarding land use, zoning and allowable uses.
- 50-4 Please see Responses to Comments 8-43 and 13-2 regarding offsite improvements and traffic impacts.
- 50-5 The project description provides information regarding drainage and streambed changes on page 2-1 of the Draft SEIR. The Grady Ranch PDP proposes the restoration and enhancement of Miller Creek, Grady Creek, Landmark Creek and other tributaries located on the property. Restoration and enhancement plans would include elevating and reconnecting the Miller Creek stream channel to its active floodplain and improving the habitat functions and values of the Stream Conservation Area (SCA). The project would incorporate Low Impact Development (LID) practices to manage stormwater through a natural system that would be coordinated with SCA restoration and enhancement. Grading and streambed changes are also addressed in Mitigation Measure 5.1-2 (page 3-52 of the Draft SEIR), Mitigation Measure 5.1-6 (page 3-54 of the Draft SEIR), and under Environmental Issue Area 10, "Hydrology and Water Quality," specifically discussions "c," "d," and "e," beginning on page 3-73 of the Draft SEIR.
- 50-6 The Draft SEIR states that the proposed project would be annexed into the Marin Municipal Water District (MMWD), and the MMWD would provide water and water treatment service. The 1996 Master Plan estimated that the Grady Ranch portion of the project would result in an increased demand of approximately 42 acre-feet of water per year. The EIR stated that the MMWD water system would be adequate to serve the project, with implementation of improvements, including payment by the applicant for improvements, including a new pipeline, a new pump station, and a 120,000-gallon water tank. These improvements are included as part of the current Grady Ranch PDP. In addition, the current estimate of water demand is approximately 30 acre-feet of water per year, a reduction in the amount estimated under the Master Plan. Therefore, the Grady Ranch PDP would still result in a less-than-significant impact on water treatment facilities (page 3-106 of the Draft SEIR).
- 50-7 Same as Comment 18-14 (Form Letter B). See Response to Comment 18-14 regarding the geoexchange system.
- 50-8 This comment is a general statement and does not address specific inadequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

- 50-9 Same as Comment 18-21 (Form Letter C). See Master Response 2 regarding the public review period.
- 50-10 Same as Comment 18-7 (Form Letter A). See Response to Comment 18-7 regarding speculation about future uses.
- 50-11 Regarding an extension of the public review period, see Master Response 2. Regarding a discussion of Project Alternatives, see Master Response 4.

12/11/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

JFC 12 20 11 04 37 02 0 40 PM

RE: George Lucas Grady Ranch
Development

Dear Planning Commissioners,

We have lived in Lucas Valley for 17 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted.

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

51-1

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

51-2

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners.

51-3

The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

51-4

51-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

51-6

51-7

Sincerely,

Roberta Steiner and Allan Farovitch

2 Bay Laurel Lane, San Rafael, CA 94903

Letter
51 **Roberta Steiner and Allan Farovitch**
Response **December 13, 2011**

51-1 thru 51-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.



From: David Urry [mailto:dwurry@gmail.com]
Sent: Tuesday, December 13, 2011 12:37 PM
To: Stratton, Debra
Subject: Grady Ranch Development Hijacks 50 years of environmental best practices.

Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

Dear Planning Commissioners,

My great grandfather is buried within a few miles of Lucas Valley. His wife was a true Lucas. My daughters make the 4th generation to live in Lucas Valley and the 7th generation to live in California. I learned of the gigantic sound stage being developed in Lucas Valley today. The project has not been properly noticed to it's residence and puts them at immediate risk due to an already dangerous situation on Lucas Valley Road which is unsafe at existing traffic levels and speeds. Adding large amounts of "concert goers" to an already unsafe condition is a situation that puts the lives of residents of Lucas Valley at risk because they must use Lucas Valley road to access their homes.

52-1

The existing project, will put lives at risk, lower home values and deliberately exploits the resources preserved by Lucas Valley residents--undermining a conservation plan that began in the 60's as a world leading model for environmental conservation. A responsible planning commission would immediately and permanently stop this project. There are better solutions and locations as close as Smith Ranch that can support such a project with appropriate infrastructure for access and egress to such large facilities.

52-2

The amount of grading for this project will me immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley. Views that were preserved by residents, at great expense. Environmental policy that has been modeled the world over is being undermined and exploited by this project.

52-3

Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

52-4

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

52-5

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are

52-6

significant, especially to the adjacent homes owners.

52-6
cont'd

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

52-7

Sincerely,

David Urry
833 Appleberry Drive
San Rafael, CA 94903
415-507-0311 (home)
415-306-4982 (cell)
dwurry@gmail.com

Email Disclaimer: <http://marincounty.org/nav/misc/EmailDisclaimer.cfm>

**Letter
52
Response****David Urry
December 13, 2011**

- 52-1 No concert uses are included as a part of this project. See Response 13-2 for information regarding traffic safety. See Response to Comment 18-1 for information regarding noticing.
- 52-2 This comment is a general statement about the project and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.
- 52-3 Same as Comment 18-14 (Form Letter B). See Response to Comment 18-14 .
- 52-4 Same as Comment 18-10 (Form Letter B). See Response to Comment 18-10 .
- 52-5 Same as Comment 18-12 (Form Letter B). See Response to Comment 18-12 .
- 52-6 Same as Comment 18-13 (Form Letter B). See Response to Comment 18-13 .
- 52-7 Same as Comment 18-15 and Comment 18-16 (Form Letter B). See Response to Comments 18-15 and 18-16 .

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12/13/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: George Lucas Grady Ranch Development

Dear Debra Stratton,

I have lived in Lucas Valley for (27) years and in Marin County for (32) years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

53-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

53-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

53-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

53-4

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

53-5
53-6

Sincerely,

Christopher Van Dyke

**Letter
53
Response**

**Christopher Van Dyke
December 13, 2011**

53-1 thru 53-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

From: Chick Campbell [<mailto:chick-e@lvha.net>]
Sent: Wednesday, December 14, 2011 12:59 PM
To: Stratton, Debra
Cc: Warner, Rachel
Subject: Grady Ranch Development

To The Planning Comission,
Those of us who are lucky enough to live in Lucas Valley have long cherished the idyllic nature of the area. Views of the beautiful hills, lightly traveled roads, the sense of peace available here. The lack of noise and light pollution at night. All these qualities which seem to be up for grabs with the advent of the Grady Ranch proposal by Mr Lucas. Increasing amounts of traffic has been an annoyance for many years, but we have apparently only seen the beggining of that problem. Whatever happened to those proposed shuttle buses to cut down on traffic? I haven't seen them. An industrial footprint as large as the civic center seems of questionable benefit in an area such as this. And why would we need another St. Vincents, when we have one already?
A wine tasting facility? Yes, we need more drinking drivers on our roads, especially on one of the most popular cycling roads in No. California.
Outdoor stages with amplification? No, I'm certain we won't be bothered by any of that.
Mr Lucas even wants to realign the road out there to better serve whom?
I applaud Mr Lucas for providing many jobs for Bay area residents, but this particular project is way too much, and needs some major downsizing.
Sincerely, Charles Campbell
Idylberry Rd

54-1

**Letter
54
Response****Charles Campbell
December 14, 2011**

54-1

Impacts to views and nighttime lighting are addressed in Environmental Issue Area 1, "Aesthetics" (beginning on page 3-4 of the Draft SEIR). See Response to Comments 9-5 and 18-6.

Noise impacts (including sound from the outdoor stage) are addressed in Environmental Issue Area 10, "Noise" (beginning on page 3-84 of the Draft SEIR). See Response to Comments 9-5 and 18-8.

Regarding the size of the buildings proposed, see Response to Comment 18-6.

Regarding traffic impacts, see Response to Comment 13-2.



12/14/11

Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 17 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

55-1

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

55-2

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

55-3

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners.

The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridgeline is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling A thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridgeline is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

55-4
55-5

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

55-6
55-7

MY UNDERSTANDING IS THAT YOUR JOB IS TO PROTECT THE PEOPLES BEST INTEREST AND ACT IN ACCORDANCE WITH WHAT THE MAJORITY OF PEOPLE WANT THIS AREA TO BE. THE MAJORITY OF PEOPLE IN LUCAS VALLEY JUST WANT THE QUIET RESIDENCIAL COMMUNITY THAT THEY HAD WHEN THEY BOUGHT THERE HOMES HERE, NOT A THOROUGHFARE FOR A MASSIIVE INDUSTRIAL/COMMERCIAL COMPLEX PUSHED THROUGH BY ONE WEALTHY INDIVIDUAL.

55-8

Sincerely, **Ted Captanian** (Lucas Valley Homeowner)

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

**Letter
55
Response** **Ted Captanian
December 14, 2011**

55-1 thru 55-7 This portion of the letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

55-8 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

DEC 14 2011 PM 2:28 Planning



12/9/11
Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I am the Mother of 2 children who call Lucas Valley their home. The safe and quite neighborhoods that comprise Lucas Valley is the very reason we moved here. My children and I often ride our bicycles on Creekside, Bridgegate and Lucas Valley Road. Lucas Valley Road is only two lanes and has a walking/biking lane as far west as West Gate Drive. There are hundreds of pedestrians and cyclists who use Lucas Valley Road for both transportation and recreational use every week. I am concerned about the safety of all who use Lucas Valley Road for recreational and transportation uses due to increase in construction traffic and subsequent operational/commuter traffic created by the proposed Grady Ranch facility. There is no bike path, sidewalk, or walking trail after West Gate Drive on Lucas Valley Road, and the two-lane road is at its narrowest at or near the Grady Ranch site. This condition will undoubtedly endanger the cyclists and pedestrians once the construction traffic begins and will continue to be a safety hazard for the foreseeable future.

56-1

The Supplemental EIR claims the use for Grady Ranch is office use but with over 50,000 square feet dedicated to film stages the implied or actual use will be for filming motion pictures. Approval of this project will not only threaten the safety of the children who live (and play) in Lucas Valley due to the increased traffic, but the increase in Air Pollution and Green House Gas emissions will take their toll as well. With asthma and other respiratory illnesses on the rise in California we must look out for the welfare of the children and the future generations to come.

56-2

The Grady Ranch project is too big and too visible at its current proposed site. It requires too much earth moving and altering of the natural terrain. It proposes to create a large hill where none existed before for "screening purposes". This must be due to the fact that finding trees or other natural screening would not be possibly due to the monstrous size of the proposed building. I feel that the Planning Process is moving too fast to make a competent or pragmatic evaluation of the project and more studies of its effects must be created and evaluated.

56-3

I object to the Grady Ranch project for the following reasons;

56-4

1. It's too big and visible for Lucas Valley and alternate locations should be explored.
2. It is being pushed through the planning process too quickly.
3. The supplemental EIR is not complete and the projects impacts require more study.
4. The traffic and safety impacts endanger the all the residents of Lucas Valley.
5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient.
6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed.

56-5

56-6

56-7

56-8

56-9

The size, use, location, and associated impacts of this project out weight the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

56-10

Sincerely

Kimberly Finn

CC:
Board of Supervisors – Susan Adams, Katie Rice, Judy Arnold, Kathrin Sears, Steve Kinsey.

12/9/11
Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael CA 94903

DEC 14 2011 PM 2:20 Planning

RE: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley for 8 years, and for the first time I find myself quite frustrated by the way in which the Planning and Review process has been conducted. Apparently no one in my neighborhood including myself have received any notice regarding the December 12th Planning Commission meeting for the Grady Ranch Supplemental EIR that is supposed to be "open" to public comment.

56-11

For the last fifteen years the Grady Ranch project has been shelved and all of a sudden it's being rushed through the review process. Thirty days is simply not enough time to allow for proper public notice and comment. From what I have been able to review of the recent Supplemental Environmental Impact Report and the Grasseti Environmental Consulting letter I have a number of concerns.

56-12

Since the Grady Ranch Master Plan was first approved in 1996 many residential enclaves have been built near the proposed project site. Due to the increase in number of neighboring homes, the Grady Ranch project will impact more residents than previously anticipated.

56-13

The impacts stemming from the changes to Grady Ranch project from the 1996 to the 2011 design are significant, especially to the adjacent homes owners. The new project design has increased the height of the main building to 65 foot ceiling heights and 85-foot towers. The size and scale of this building is completely out of place in Lucas Valley. The amount of grading for this project will be immense and will forever change the natural topography. To make matters worse a 40-foot addition to an existing ridge-line is proposed to be constructed in order to hide the massive geothermal field. I see no mention of a geothermal field in the 1996 EIR and want to know what kind of impacts will be generated by drilling thousand of holes in the earth to create this new heating system. The 40-foot increase to the existing ridge-line is completely objectionable simple based on the fact that it will destroy the views we have cherished since we moved to Lucas Valley.

56-14

56-15

The proposed use of the project was defined as Office Space in 1996 but the new Supplemental EIR shows huge indoor and outdoor Film Stages. I don't feel that Lucas Valley is the proper location for a Hollywood North type of film studio. Additionally the noise, light, view, and drainage impacts to neighboring properties must be studied further. I feel that the Supplemental EIR is not adequate, and does not do enough to properly inform the public or the Planning Commission on the actual future impacts to the Community. I implore the Planning Commission to reject the Supplemental EIR, properly define the "use" of the proposed development, investigate alternative locations more appropriate for a film sound stage, and protect the natural beauty and character of Lucas Valley.

56-16

56-17

Sincerely,
Kimberly Finn
Kimberly Finn

CC:
Board of Supervisors
Susan Adams,
Kathrin Sears,
Steve Kinsey,
Judy Arnold,
Katie Rice.

Why is this being allowed when it is not zoned as such? Why have zoning if it is meaningless!?

56-18

Letter
56 **Kimberly Finn**
Response **December 14, 2011**

56-1 thru 56-7 This letter is identical to Letter 18, part 2 – Form Letter B. See Response to Comments 18-10 through 18-16.

56-8 thru 56-17 This letter is identical to Letter 18, part 3 – Form Letter C. See Response to Comments 18-17 through 18-26.

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A M B E R

AMBER-ALLEN PUBLISHING

POST OFFICE BOX 6657
SAN RAFAEL, CA 94903

A L L E N

December 13, 2011

DEC 14 20:11 PM '11

Marin County Planning Commissioners
C/O Ben Berto, Principal Planner
3501 Civic Center Drive, Room 308
San Rafael CA 94903

RE: Grady Ranch Filming Facility

Dear Planning Commissioners,

I have lived in Lucas Valley since 1989, and the rural setting and quiet beauty of Lucas Valley is the reason why I moved here. I object to the Grady Ranch project for the following reasons:

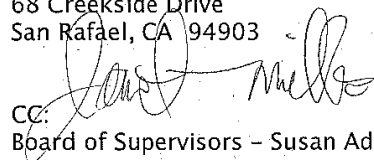
1. It's too big and visible for Lucas Valley and alternate locations should be explored.
2. It is being pushed through the planning process too quickly.
3. The supplemental EIR is not complete and the projects impacts require more study.
4. The traffic and safety impacts endanger the all the residents of Lucas Valley.
5. The environmental impacts to the air, water, topography, and biology of Lucas Valley are not sufficient.
6. The use of the property as a filming location will change the dynamics of the neighborhood for years into the future, and should not be allowed.

57-1

The size, use, location, and associated impacts of this project far outweigh the benefits. It appears that the Planning Commission is not being provided as much information as necessary to fully evaluate the impacts this project will create.

Sincerely,

Janet Mills
68 Creekside Drive
San Rafael, CA 94903



CC: Board of Supervisors – Susan Adams, Katie Rice, Judy Arnold, Kathrin Sears, Steve Kinsey.

| | |
|-----------------|--------------------------|
| Letter | |
| 57 | Janet Mills |
| Response | December 14, 2011 |

57-1 thru 57-10 This letter is identical to Letter 18, part 3 – Form Letter C. See Response to Comments 18-17 through 18-26.

December 13, 2011

DEC 14 2011 PM 2:21 Planning

Marin County Planning Commissioners
3501 Civic Center Drive, Room 308
San Rafael, CA. 94903

Re: George Lucas Grady Ranch Development

Dear Planning Commissioners,

I have lived in Lucas Valley since 1964. I was surprised by the size and scope of the Grady Ranch Development. I had not received any notice county agencies or departments but was informed by the Marin Independent Journal and my homeowners association. I assumed when projects which significantly impact an entire community is seeking approval that prior notice would be given to neighborhood residents. The more I learned about this project from knowledgeable sources, the more concerned I became. Please address these issues:

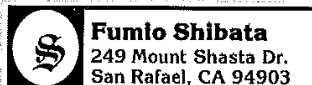
58-1
58-2
58-3
58-4
58-5
58-6
58-7
58-8
58-9
58-10
58-11

1. Residents of Lucas Valley were not properly noticed
2. Proposed use of project was defined as office space in 1996 but new Environmental Impact Report shows huge indoor and outdoor Film Stages
3. New supplemental EIR doesn't provide sufficient study of traffic impacts
4. Project too large and tall. Requires tremendous removal of earth and relocation of same to create a hill to obscure portions of the building
5. Mention of geothermal field which was not mentioned in 1996 EIR
6. Environmental impacts to the air, water, topography/drainage and biology of Lucas Valley not adequately studied
7. Supplemental EIR is incomplete and requires more study
8. Project is being pushed too quickly through planning and approval stages
9. Once project is completed, what is restricting Lucas Films from selling or subletting to a non-related industry?

Please consider other alternate appropriate locations which will protect the natural beauty and character of Lucas Valley

Sincerely,

Fumio Shibata



**Letter
58
Response****Fumio Shibata
December 14, 2011**

- 58-1 Same as Comment 18-1 (Form Letter A). See Response to Comment 18-1.
- 58-2 Same as Comment 18-2 (Form Letter A). See Response to Comment 18-2.
- 58-3 Same as Comment 18-15 (Form Letter B). See Response to Comment 18-15.
- 58-4 Same as Comment 18-4 (Form Letter A). See Response to Comment 18-4.
- 58-5 Same as Comment 18-19 (Form Letter C). See Response to Comment 18-19.
- 58-6 Same as Comment 18-14 (Form Letter B). See Response to Comment 18-14.
- 58-7 Same as Comment 18-24 (Form Letter C). See Response to Comment 18-24.
- 58-8 Same as Comment 18-22 (Form Letter C). See Response to Comment 18-22.
- 58-9 Same as Comment 18-21 (Form Letter C). See Response to Comment 18-21.
- 58-10 Same as Comment 18-7 (Form Letter A). See Response to Comment 18-7.
- 58-11 Same as Comment 18-16 (Form Letter B). See Response to Comment 18-16.

**Table 4-2 Oral Public Comments Received during the
December 12, 2011 Planning Commission Meeting**

| # | Commenter | Public Comments | Comment # |
|----|---|---|------------------------------|
| 59 | Tom Taylor, Lucas Valley Estates Homeowners Association | No community outreach was conducted for the Supplement. The wine cave raises questions for the use of the cave. At 40,000 s.f. it is larger than major winery wine caves. What uses will occur for the wine cave, and is the traffic from the wine cave use included in the study. The scale and height of the project is larger than anything in the area. Is the wine cave square footage included in s.f. of the application for the building? | 59-1 59-2 59-3 59-4 |
| 60 | Hilary Sciarillo, Lucas Valley Estates | No formal assessment of the downstream effects of the project been conducted. The residents have not been given time to review. We are concerned about downstream effects of this large development. The development will require substantial additional development to support the hundreds of employees. | 60-1 60-2 60-3 60-4 |
| 61 | Liz Dale, Lucas Valley Estates Homeowners Association | We are concerned about 24-hour operation of outdoor stage, including the acoustics, such as echoes, and light pollution. We request additional study of truck and traffic impacts and mitigation, including traffic signals included in the project. We are concerned this is not a 9 to 5 office, as was proposed before. | 61-1 61-2 61-3 |
| 62 | Joy Dahlgren | EIR should include an updated traffic study. It assumes that the use would be the same as at Skywalker. The study must include the wine cave and construction traffic. Mount Lassen/Lucas Valley Road intersection would be affected, with a delay of about 10 seconds. The earlier approval was for office space, not a production facility. What will occur with the uses when Lucasfilms no longer needs it? Future uses after Lucasfilms should be included in the EIR. A residential alternative should be evaluated, because future use issues would not be an issue and it would be compatible with the existing neighborhood. | 62-1 62-2 62-3 |
| 63 | Ken Dale | My comments have already been presented. | 63-3 |

Table 4-2 Oral Public Comments Received during the December 12, 2011 Planning Commission Meeting

| # | Commenter | Public Comments | Comment # |
|----|---|---|---|
| 64 | Carolyn Lenert, North San Rafael Coalition of Residents | <p>The current process is not respectful. The lack of notice of preparation is an issue. Why is electronic comments not accepted? We need more time because of the Holidays.</p> <p>The information is not clear, because the Supplement is a thin study backed by a large 15-year old plan. This is a rush to judgment.</p> <p>Alternate sites need to be addressed, such as the former Hamilton AFB.</p> <p>This is residential zoning, and the project violates the General Plan’s intent.</p> <p>The project description is not whole, and much as been deferred.</p> <p>Heights, noise and view impacts need to be addressed now. So many issues are deferred.</p> <p>Traffic study excludes trucks.</p> <p>Keep in mind threatened and endangered species.</p> <p>We request a community impact report, in addition to the Supplement to the EIR.</p> | <p>64-1</p> <p>64-2</p> <p>64-3</p> <p>64-4</p> <p>64-5</p> <p>64-6</p> <p>64-7</p> <p>64-8</p> <p>64-9</p> |
| 65 | Phil Kranenberg, Friends of Lucas Valley | <p>The Richard Grassetto letter provides the details of our comments.</p> <p>The project size could be equivalent to three Target stores or the size of the Civic Center.</p> <p>Inadequate analysis about water supply. 14 million gallons of water are demanded. An independent analysis is needed of water supply, including concern about desalination needed.</p> <p>Under CEQA, if there is an alternative site, it needs to be considered. The Letterman Development should be considered as an alternative space, as well as the Big Rock Property.</p> <p>The indoor and outdoor entertaining uses would be of concern.</p> <p>AB 32 is new information. Carbon credits and sequestration do not work well.</p> <p>This is the gateway to West Marin, with many recreation users passing through. This is not the proper location for job development.</p> <p>A Notice of Preparation was missing.</p> | <p>65-1</p> <p>65-2</p> <p>65-3</p> <p>65-4</p> <p>65-5</p> <p>65-6</p> <p>65-7</p> <p>65-8</p> |

**Table 4-2 Oral Public Comments Received during the
December 12, 2011 Planning Commission Meeting**

| # | Commenter | Public Comments | Comment # |
|----|--|--|-----------|
| 66 | Carl Frick, resident on Bridgegate, near the project | Things have changed since 1996. Global warming is a new issue. | 66-1 |
| | | Why won't the county accept electronically submitted comments? | 66-2 |
| | | Request that all comments and responses be placed on the County website. | 66-3 |
| 67 | Rachel Kamman, Lucas Valley Homeowners Association | The failure to provide a NOP is a problem. | 67-1 |
| | | The change from office to commercial/industrial use is not consistent with the General Plan. | 67-2 |
| | | The Technical Studies have not been made available to the public. | 67-3 |
| | | The whole of actions is not included. The annexation to the water district and purple pipe should be addressed now. A complete and thorough analysis of water is needed. | 67-4 |
| | | Details are needed including: final project description, expansive cut and fill, footprint, size and height of buildings. | 67-5 |
| | | Hydromodifications will raise the bed, reduce sediment supply, and increase runoff, like a dam. | 67-6 |
| | | Infrastructure is failing downstream in the creek, and this project will expose it more. Erosion rates downstream will be increased. The impact of the native steelhead would be of concern. | 67-7 |
| 68 | Ron Marinoff, Lucas Valley resident | Mitigation Measure GHG – 1A was noted. What kind of upgrade to homes will address GHG impacts? How would that work? Where would it occur? | 68-1 |
| | | Miller Creek inspections were noted as part of project mitigation. The entire watershed needs to be monitored after a storm, not just the Grady Ranch property. Back yards downstream are being lost along Miller Creek now. | 68-2 |
| 69 | Dale Miller, Lucas Valley Homeowners Association | We request additional time to review the Supplement. | 69-1 |
| | | Personally, I support the mitigation measures and the approval of the Master Plan. The hydrologic mitigation should reduce erosion to the benefit of the downstream homeowners. GHG and traffic impacts can be mitigated, as stated in the Supplement. | 69-2 |
| 70 | William Grady, grandson of original ranch owner | The original dairy operation on the ranch was over 100,000 s.f. The original development plan included scores of residents, which would be very visible. | 70-1 |
| | | The Supplement is adequate as is. | 70-2 |

Table 4-2 Oral Public Comments Received during the December 12, 2011 Planning Commission Meeting

| # | Commenter | Public Comments | Comment # |
|----|---|--|-----------|
| 71 | Herb Drake, Lucas Valley homeowner | Traffic impact is a concern. I cannot understand how traffic from an industrial park will have less-than-significant traffic impacts. Please clarify peak traffic conditions for an industrial park. | 71-1 |
| 72 | Shelly Munson | My issues have been covered. | 72-1 |
| 73 | Jean Gallagher, Lucas Valley Estates resident (not a part of Lucas Valley Homeowners Association) | Lucas Valley Estates homeowners have been silent. They feel this is a done deal. No community meetings or outreach have occurred. | 73-1 |
| 74 | Nona Dennis, Marin Conservation League | You need a complete and adequate environmental document, including assessment of alternatives, the project, and mitigation measures that can be assured. | 74-1 |
| | | The Supplement is inadequate. | 74-2 |
| | | The Supplement is relying on a Program analysis for a project-level approval. The Supplement does not give the detailed information needed. We do not argue the lack of an NOP, but the baseline is confused in the Master Plan EIR. | 74-3 |
| | | There are deficiencies in the project description. They may be in the PDP, but are not in the EIR. For example, the realignment of Lucas Valley Road, 400,000 gal tank is deferred. No detailed inventory of construction staging and stockpiled soil locations. | 74-4 |
| | | The addition of the massive restoration of the creek has not been evaluated based on a baseline of information about the creek hydrology and detailed evaluation of impacts. | 74-5 |
| | | New sensitive receptors exist for air quality, noise, visual and health risk assessment issues. | 74-6 |
| | | The detail needs to be presented at a project-level, with solid mitigation measures. | 74-7 |
| 75 | Tom Monahan, Lucas Valley Road resident | The thin supplement backed by a 15-year old environmental document is not adequate. The proposed new use conflicts with the CWP and zoning. | 75-1 |
| | | Over 30,000 truckloads of dirt are needed, in a new mountain. 40 feet of new fill on top of an existing hill have been proposed. The hill has not been evaluated geotechnically. The geothermal plant will be puncture the aquifer with thousands of holes and buried. This has not been analyzed. | 75-2 |
| 76 | Adrian Simi, Carpenters Union | We are neutral on the adequacy of the EIR. | 76-1 |

**Table 4-2 Oral Public Comments Received during the
December 12, 2011 Planning Commission Meeting**

| # | Commenter | Public Comments | Comment # |
|----|---|---|---|
| 77 | Penny Hicks, Upper Lucas Valley Homeowner | <p>The public comments should not be limited in time.</p> <p>I am concerned about light pollution.</p> <p>Hatfield and McGinnis Park projects need to be addressed in cumulative impact analysis.</p> | <p>77-1</p> <p>77-2</p> <p>77-3</p> |
| 78 | Barbara Rozen, Rotary Valley Senior Homes | <p>Mount Lassen/Lucas Valley Road is a dangerous and congested intersection. This intersection needs mitigation.</p> <p>Air quality, GHG, more trucks, more traffic, and more grading will all be a concern.</p> | <p>78-1</p> <p>78-2</p> |
| 79 | Susan Monahan, Lucas Valley Road resident | <p>No disclosure of the hours of operation has been made. As a production facility, very long hours would be expected. This should be clarified.</p> <p>Traffic impacts on Lucas Valley Road's role as a recreational access to West Marin should be addressed.</p> | <p>79-1</p> <p>79-2</p> |
| 80 | Tom Forester, Skywalker Properties | <p>Any future users of the property would be subject to the Master Plan requirements.</p> <p>24-hour shifts would not occur, because it is too expensive.</p> <p>Very little light would be present at night. Very little night time activity occurs.</p> <p>The wine cave would not be used for large social events.</p> | <p>80-1</p> <p>80-2</p> <p>80-3</p> <p>80-4</p> |

**Oral
Public
Comment
59****Tom Taylor
Lucas Valley Estates Homeowners Association
December 12, 2011**

- 59-1 Please see Master Response 2 regarding public outreach and noticing
- 59-2 The proposed wine cave is included in the Project Description for the Draft SEIR, and potential impacts from construction and operation of the wine cave and Main Building are addressed in the Environmental Checklist. The wine cave would be used for the storage of wine from grapes planted on other Lucasfilm properties (e.g., on Skywalker Ranch). The wine would arrive in barrels via truck following harvest on the Skywalker property each year for storage and aging. Wine would be stored in barrels for later distribution to bottling facilities. Delivery and distribution of wine barrels would occur occasionally, and it is estimated that eight trucks per year would visit the site for activity pertaining to the wine cave. The wine cave would also be used for the storage of olive oil and/or other agricultural products from other Lucasfilm properties. No production of agricultural products would occur on-site. In addition to storage of agricultural products, periodically, the wine cave may be used to host wine tastings.
- 59-3 Please see Response to Comment 18-6 regarding the height of the main building.
- 59-4 Please see Response to Comment 59-2. The proposed wine cave is included in the project description for the Precise Development Plan.

**Oral
Public
Comment
60**

**Hilary Scolero
Lucas Valley Estates
December 12, 2011**

- 60-1 Please see Response to Comment 8-20 regarding potential downstream effects.
- 60-2 Please see Master Response to Comment 2 regarding public review of the SEIR.
- 60-3 Downstream effects of the proposed stream restoration are addressed in the Biological Resources and Hydrology and Water Quality sections (Checklist Items 4 and 10, respectively). Please also see Response to Comment 8-20 regarding potential downstream effects.
- 60-4 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted. No response is required.

**Oral
Public
Comment
61**

**Liz Dale
Lucas Valley Estates Homeowners Association
December 12, 2011**

- 61-1 Please see Master Response 3 regarding hours of operation.
- 61-2 This comment is a general statement and does not address the adequacy of the environmental analysis or require clarification of project elements. This comment is noted.
- 61-3 Please see Master Response 3 regarding hours of operation.

**Oral
Public
Comment
62**

**Joy Daldren
December 12, 2011**

- 62-1 Please see Response to Comment 7-10 regarding the results of the updated Transportation and Circulation report.
- 62-2 Please see Master Response 4 and Response to Comment 17-14.
- 62-3 As discussed on page 3-3 of the Draft SEIR, the 1996 Master Plan EIR analyzed the “Current Zoning Alternative” (Alternative 2). Under Alternative 2, the site would be developed residentially, consistent with the residential density maximums of the current zoning. This Alternative is compared to the updated Environmental Checklist items in Chapter 3 of the Draft SEIR.

**Oral
Public
Comment
63**

**Ken Dale
December 12, 2011**

63-1 The comment that other speakers have addressed the commenter’s concerns is noted.

**Oral
Public
Comment
64****Carolyn Leonard
North San Rafael Coalition of Residents
December 12, 2011**

- 64-1 Please see Master Responses 1 and 2 regarding public noticing and extension of the public comment period.
- 64-2 This comment is a general statement and does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted. Please see Responses to Comment 64-1 and 64-3 through 64-9 regarding this commenter's concerns.
- 64-3 Please see Master Response 5 regarding Project Alternatives.
- 64-4 Please see Master Response 4 regarding the project's consistency with the site's zoning and Marin Countywide Plan designations.
- 64-5 The comment does not include specific omissions in the project description or specific potentially significant impacts that have been overlooked in the analysis. Additional information regarding the conduct of the analyses is included in this Final SEIR, and additional details have also been added to the Project Description (see Master Response 3). The Project Description contains the necessary elements required under CEQA Guidelines Section 15124 but does not (and should not) supply extensive detail beyond that needed for evaluation and review of the environmental impact.
- 64-6 Potential visual impacts of the proposed project, including from the proposed heights of the buildings and graded knoll, are included in the Draft SEIR under Environmental Checklist Item 1, Aesthetics (see pages 3-4 through 3-9 of the Draft SEIR). Potential noise impacts of the project are addressed under Environmental Checklist 13, Noise (see pages 3-84 through 3-91 of the Draft SEIR).
- 64-7 Please see Response to Comment 7-3 regarding construction traffic.
- 64-8 Potential impacts on biological resources (including threatened and endangered species) are included in the Draft SEIR under Environmental Checklist 4 (see pages 3-26 through 3-41 of the Draft SEIR).
- 64-9 This comment does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted.

**Oral
Public
Comment
65****Paul Cranenberg
Friends of Lucas Valley
December 12, 2011**

- 65-1 The comment is noted. The Grassetti letter is included and addressed in this Final SEIR as Comment Letter 8.
- 65-2 This comment does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted.
- 65-3 Please see Response to Comment 8-5 regarding water supply.
- 65-4 Please see Master Response 5 regarding Project Alternatives.
- 65-5 Please see Master Response 3 regarding additional details of the outdoor stage. The outdoor stage would likely be used for digital motion and still photography for the production of television shows, motion pictures, and related entertainment media. It is not intended for entertainment use. Please see Section 2.9 of the Project Description for potential open house and other events. Two open house events are anticipated upon completion of the project construction. No film screenings with large audiences would occur at the facility.
- 65-6 Please see Responses to Comments 17-13 and 25-7 regarding consistency with AB 32 and the adequacy of the proposed greenhouse gas emissions mitigation measures.
- 65-7 This comment does not identify specific inadequacies of the environmental analysis or require clarification of project elements. This comment is noted.
- 65-8 Please see Master Response 1 regarding a Notice of Preparation.

**Oral
Public
Comment
66****Carl Frick
December 12, 2011**

- 66-1 Potential greenhouse gas emissions impacts are addressed in the Draft SEIR under Environmental Checklist 8, Greenhouse Gas Emissions (see pages 3-56 through 3-66 of the Draft SEIR).
- 66-2 The Notice of Availability states that “comments by fax or email may not be able to be confirmed as officially received and accepted before the end of the comment period deadline. Commenters are advised to mail written comments postmarked on or before the deadline.” It is Marin County’s general practice to accept (but not encourage) comments via email and include them in the Response to Comments document. Electronic comments have been accepted and are included in this Final SEIR. A County email address for submission of comments on the Final SEIR is included in the Notice of Availability for the Final SEIR.
- 66-3 All comments and responses are included in this Final SEIR, which will be posted to the County’s website for public review.

**Oral
Public
Comment
67****Rachel Cannon
Lucas Valley Homeowners Association
December 12, 2011**

- 67-1 Please see Master Response 1 regarding a Notice of Preparation.
- 67-2 Please see Master Response 4 regarding zoning and Marin Countywide Plan designation consistency.
- 67-3 Please see Master Response 2 regarding document availability.
- 67-4 Please see Response to Comment 8-5 regarding the provision of water.
- 67-5 Please see Response to Comment 8-7 regarding project description details. All of the items noted in this comment are included in the Project Description in the Draft SEIR.
- 67-6 Potential impacts from the proposed stream restoration are addressed in the Environmental Checklist Item 10, Hydrology and Water Quality section of the Draft SEIR (see pages 3-72 through 3-78 of the Draft SEIR).
- 67-8 Please see Response to Comment 8-19 regarding erosion potential and potential impacts to steelhead. Implementation of Mitigation Measure 5.1-2 from the 1996 Master Plan FEIR would reduce potential erosion impacts due to construction and creek bank stabilization to less-than-significant levels through the formulation of a detailed design-level onsite Erosion Control Plan (see also checklist item 10, Hydrology and Water Quality).

**Oral
Public
Comment
68**

**Ron Marinoff
December 12, 2011**

- 68-1 The potential BAAQMD retrofit program would retrofit existing low-income homes in Marin County. The details of the program are to be developed, but the program could include retrofitting existing buildings for energy conservation and energy efficiency improvements. Improvements could include elements such as air sealing, attic insulation, duct sealing, hot water pipe insulation, and thermostatic shutoff valves.
- 68-2 The proposed periodic inspections / surveys would be conducted to ensure that key design elements of the restoration project are intact and functioning as designed before the start of each rain season and after larger flow events.

**Oral
Public
Comment
69**

**Dale Miller
Lucas Valley Homeowners Association
December 12, 2011**

69-1 The comment is noted. Please see Master Response 2 regarding the public comment period.

**Oral
Public
Comment
70**

**William Grady
December 12, 2011**

70-1 The comment regarding previous operations on the ranch and previous residential development plans is noted.

70-2 The comment regarding the adequacy of the SEIR is noted.

**Oral
Public
Comment
71**

**Herb Drake
December 12, 2011**

71-1

The potential a.m. and p.m. peak hour traffic operations with implementation of the proposed project are included in the 2010 Transportation and Circulation Update (see Appendix B of this SEIR). Section 17b of the Environmental Checklist includes a discussion of the potential impacts and required mitigation measures. The "Traffic Count Data" appendix in the *Transportation and Circulation Update* includes figures for each of the six intersections (Lucas Valley Road at Mt. Lassen Drive, Miller Creek Road, Las Gallinas Avenue, Los Gamos Drive, the US 101 southbound ramps, and the US 101 northbound ramps) for the a.m. and p.m. peak hours. It also includes level of service information for these intersections in Tables 7 and 8.

**Oral
Public
Comment
72**

**Shelly Munson
December 12, 2011**

72-1 The comment that other speakers have addressed the commenter’s concerns is noted.

**Oral
Public
Comment
73**

**Jean Gallagher
December 12, 2011**

73-1

The comment is noted. Please see Master Response to Comment 2 regarding noticing and the public review period. CEQA Guidelines Section 15202 states that CEQA does not require formal public hearings at any stage of the environmental review process. Marin County's Environmental Impact Review Guidelines require at least one public hearing on the adequacy of the Draft EIR prior to, or at the close of, the public review period. As noted above in the introduction to this section, oral and written comments were accepted at a hearing on the Draft SEIR held by the Planning Commission on December 12, 2011. In addition to reviewing and commenting on the Draft SEIR, members of the public will have the opportunity to review and comment on the Final SEIR and attend the public hearing at the Planning Commission for consideration of the Final SEIR and the project merits.

**Oral
Public
Comment
74****Nona Dennis
Marin Conservation League
December 12, 2011**

- 74-1 The comment is noted. The SEIR contains all of the elements listed in the comment. As discussed on pages 1-2 and 1-3 of the Draft SEIR, an Environmental Checklist was completed, and it was determined that changes to the Grady Ranch PDP, in combination with other changed conditions, would result in new or more severe significant effects related to air quality, biological resources, cultural resources, and greenhouse gas emissions. Otherwise, the environmental impacts of the Grady Ranch PDP were found to be adequately addressed by the impact analysis and mitigation requirements defined in the 1996 Master Plan EIR. The Grady Ranch SEIR addresses the specific elements of the Precise Development Plan and compares them to the updated existing conditions on and around the project site. Where appropriate mitigation measures have been updated and new mitigation measures have been included in the SEIR.
- 74-2 This comment is a general statement and does not identify specific inadequacies of the environmental analysis. This comment is noted.
- 74-3 Please see Responses to Comment 8-4 and 8-7 regarding the existing setting information (baseline) for the Draft SEIR. Please see Response to Comment 8-3 regarding use of a programmatic EIR.
- 74-4 Please see Response to Comment 8-7 regarding the CEQA requirements for the project description.
- 74-5 Please see Response to Comment 8-35 regarding baseline hydrologic conditions.
- 74-6 The comment is noted. The presence of new residential uses adjacent to the project site is noted in several places in the SEIR, including Aesthetics (see Item 1c of the environmental checklist), air quality (see Item 3d of the environmental checklist), and noise (see Item 11 of the environmental checklist).
- 74-7 Please see Response to Comment 8-3 regarding use of a programmatic EIR. Some of the mitigation measures in the SEIR include performance standards to outline the implementation of the mitigation. In accordance with CEQA Guideline Section 15126.4(a)(1)(B), mitigation measures may specify performance standards that would mitigate the significant effect of the project and that may be accomplished in more than one specified way. The final versions of these plans and programs would be required to comply with the mitigation measures in order to reduce potential impacts to a less-than-significant level. Implementation of the mitigation measures will be monitored through the Mitigation Monitoring and Reporting Program prepared for the project.

**Oral
Public
Comment
75****Tom Monahan
December 12, 2011**

- 75-1 This comment is a general statement and does not identify specific inadequacies of the environmental analysis. This comment is noted. Please see Master Response 4 regarding Marin Countywide Plan and Marin Zoning Ordinance consistency.
- 75-2 A preliminary geotechnical evaluation for the Grady Ranch PDP was prepared in November 2008 (AMEC Geomatrix 2008) and is available for public viewing at CDA's website (see Master Response 2, Document Availability, for website address) . The report evaluated potential geotechnical hazards for the site, including slope stability and landsliding, ground shaking, surface fault rupture, liquefaction, and possibly swelling or shrinking soils. The geotechnical report includes recommendations for project earthwork, subgrade preparation, fill materials, fill placement and compaction, keyway construction, excavations, stabilization of landslides and colluvial slopes, dewatering requirements for groundwater, and surface water drainage and erosion control. Please see Master Response 3 regarding an additional description of the geoexchange system. The geoexchange system would not include the drilling of wells or holes.

**Oral
Public
Comment
76**

**Adrien Simi
Carpenters Union
December 12, 2011**

76-1 The comment is noted.

**Oral
Public
Comment
77****Penny Hicks
December 12, 2011**

- 77-1 Please see Master Response 2 regarding the public comment period.
- 77-2 Potential impacts from project lighting are addressed in the SEIR (see Item 1 in the environmental checklist). Please also see Response to Comment 9-5 regarding potential lighting impacts.
- 77-3 Please see Response to Comment 8-50 regarding cumulative impacts.

**Oral
Public
Comment
78**

**Barbara Rosen
Rotary Valley Senior Homes
December 12, 2011**

- 78-1 Please see Response to Comment 7-10 regarding potential traffic impacts at the Mount Lassen/Lucas Valley Road intersection.
- 78-2 The comment is noted. Impacts to air quality, greenhouse gases, and traffic are addressed in the Draft SEIR in the following Environmental Issue Areas respectively: 4 – “Air Quality,” 8 – “Greenhouse Gas Emissions,” and 17 – “Transportation/Traffic.” Impacts related to grading are addressed under Item 1 (Aesthetics), Item 7 (Geology and Soils), and Item 10 (Hydrology and Water Quality).

**Oral
Public
Comment
79**

**Susan Monahan
December 12, 2011**

- 79-1 The Project Description includes a discussion of expected hours of operation of the proposed project. Please also see Master Response 3 for an updated discussion of hours of operation.
- 79-2 Transportation and traffic-related impacts are addressed in the Draft SEIR in Item 17 of the environmental checklist. Lucas Valley Road does not have a recreational designation in Marin County.

**Oral
Public
Comment
80**

**Tom Forester
Skywalker Properties
December 12, 2011**

- 80-1 The comment is noted.
- 80-2 The comment is noted. Please see Master Response 3 additional project description information.
- 80-3 The comment is noted. Please see Master Response 3 additional project description information.
- 80-4 The comment is noted.

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5.1 LIST OF PREPARERS

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Please also see Section ~~6.0 5-0~~ 6.0 5-0, Bibliography for additional persons consulted in the preparation of the Draft SEIR Supplement.

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6 BIBLIOGRAPHY

The documents referenced in this environmental checklist (excluding any confidential cultural resources reports) will be available for review at the Marin County Community Development Agency Planning Division at 3501 Civic Center Drive, Room 308, San Rafael, CA 94903. Planning Division counter hours are Monday through Thursday from 9 a.m. to 4 p.m. and Fridays 9 a.m. to 12 p.m. All documents/volumes comprising the previously Certified 1996 FEIR can be obtained for review on request (at the counter or by appointment).

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Appendix A

**Air Quality and Greenhouse Gas
Modeling and Assumptions Data**

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\heather.phillips\Application Data\Urbemis\Version9a\Projects\Grady Ranch\Operation.urb924

Project Name: Grady Ranch Operation

Project Location: Marin County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (tons/year, unmitigated) | 0.32 | 0.33 | 0.42 | 0.00 | 0.00 | 0.00 | 394.01 |

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (tons/year, unmitigated) | 0.62 | 0.42 | 3.72 | 0.00 | 0.72 | 0.14 | 387.51 |

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| TOTALS (tons/year, unmitigated) | 0.94 | 0.75 | 4.14 | 0.00 | 0.72 | 0.14 | 781.52 |

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM2.5</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|--------------|------------|
| Natural Gas | 0.02 | 0.33 | 0.28 | 0.00 | 0.00 | 0.00 | 393.76 |
| Hearth | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Landscape | 0.01 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 0.25 |
| Consumer Products | 0.00 | | | | | | |
| Architectural Coatings | 0.29 | | | | | | |
| TOTALS (tons/year, unmitigated) | 0.32 | 0.33 | 0.42 | 0.00 | 0.00 | 0.00 | 394.01 |

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| <u>Source</u> | <u>ROG</u> | <u>NOX</u> | <u>CO</u> | <u>SO2</u> | <u>PM10</u> | <u>PM25</u> | <u>CO2</u> |
|---------------------------------|------------|------------|-----------|------------|-------------|-------------|------------|
| Grady Ranch | 0.62 | 0.42 | 3.72 | 0.00 | 0.72 | 0.14 | 387.51 |
| TOTALS (tons/year, unmitigated) | 0.62 | 0.42 | 3.72 | 0.00 | 0.72 | 0.14 | 387.51 |

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2013 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

| Land Use Type | Acreage | Trip Rate | Unit Type | No. Units | Total Trips | Total VMT |
|---------------|---------|-----------|------------|-----------|-------------|-----------|
| Grady Ranch | | 1.26 | 1000 sq ft | 269.70 | 339.82 | 2,297.88 |
| | | | | | 339.82 | 2,297.88 |

Vehicle Fleet Mix

| Vehicle Type | Percent Type | Non-Catalyst | Catalyst | Diesel |
|-------------------------------------|--------------|--------------|----------|--------|
| Light Auto | 52.8 | 0.6 | 99.0 | 0.4 |
| Light Truck < 3750 lbs | 15.1 | 0.7 | 97.3 | 2.0 |
| Light Truck 3751-5750 lbs | 18.8 | 0.5 | 99.5 | 0.0 |
| Med Truck 5751-8500 lbs | 6.7 | 0.0 | 100.0 | 0.0 |
| Lite-Heavy Truck 8501-10,000 lbs | 0.9 | 0.0 | 77.8 | 22.2 |
| Lite-Heavy Truck 10,001-14,000 lbs | 0.6 | 0.0 | 66.7 | 33.3 |
| Med-Heavy Truck 14,001-33,000 lbs | 0.8 | 0.0 | 25.0 | 75.0 |
| Heavy-Heavy Truck 33,001-60,000 lbs | 0.2 | 0.0 | 0.0 | 100.0 |
| Other Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Urban Bus | 0.3 | 0.0 | 0.0 | 100.0 |
| Motorcycle | 3.1 | 54.8 | 45.2 | 0.0 |
| School Bus | 0.1 | 0.0 | 0.0 | 100.0 |
| Motor Home | 0.5 | 0.0 | 80.0 | 20.0 |

Travel Conditions

| | Residential | | | Commute | Commercial | |
|---------------------------|-------------|-----------|------------|---------|------------|----------|
| | Home-Work | Home-Shop | Home-Other | | Non-Work | Customer |
| Urban Trip Length (miles) | 10.8 | 7.3 | 7.5 | 9.5 | 7.4 | 7.4 |

Travel Conditions

| | Residential | | | Commercial | | |
|---------------------------------------|-------------|-----------|------------|------------|----------|----------|
| | Home-Work | Home-Shop | Home-Other | Commute | Non-Work | Customer |
| Rural Trip Length (miles) | 16.8 | 7.1 | 7.9 | 14.7 | 6.6 | 6.6 |
| Trip speeds (mph) | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| % of Trips - Residential | 32.9 | 18.0 | 49.1 | | | |
| % of Trips - Commercial (by land use) | | | | | | |
| Grady Ranch | | | | 2.0 | 1.0 | 97.0 |

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\heather.phillips\Application Data\Urbemis\Version9a\Projects\Grady Ranch\Construction.urb924

Project Name: Grady Ranch Construction

Project Location: Marin County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|-------------------------------------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2011 TOTALS (tons/year unmitigated) | 0.88 | 6.55 | 4.46 | 0.00 | 27.91 | 0.36 | 28.28 | 5.83 | 0.33 | 6.16 | 767.16 |
| 2012 TOTALS (tons/year unmitigated) | 1.49 | 7.56 | 6.63 | 0.00 | 20.73 | 0.44 | 21.17 | 4.33 | 0.40 | 4.73 | 1,126.26 |
| 2013 TOTALS (tons/year unmitigated) | 2.94 | 2.10 | 2.42 | 0.00 | 0.01 | 0.14 | 0.15 | 0.00 | 0.13 | 0.13 | 366.18 |

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

| | <u>ROG</u> | <u>NOx</u> | <u>CO</u> | <u>SO2</u> | <u>PM10 Dust</u> | <u>PM10 Exhaust</u> | <u>PM10</u> | <u>PM2.5 Dust</u> | <u>PM2.5 Exhaust</u> | <u>PM2.5</u> | <u>CO2</u> |
|------|------------|------------|-----------|------------|------------------|---------------------|-------------|-------------------|----------------------|--------------|------------|
| 2011 | 0.88 | 6.55 | 4.46 | 0.00 | 27.91 | 0.36 | 28.28 | 5.83 | 0.33 | 6.16 | 767.16 |

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| | | | | | | | | | | | |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|--------|
| 2013 | 2.94 | 2.10 | 2.42 | 0.00 | 0.01 | 0.14 | 0.15 | 0.00 | 0.13 | 0.13 | 366.18 |
| Asphalt 10/29/2012-05/17/2013 | 0.11 | 0.68 | 0.53 | 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.05 | 0.05 | 73.91 |
| Paving Off-Gas | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Paving Off Road Diesel | 0.11 | 0.67 | 0.44 | 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.05 | 0.05 | 62.97 |
| Paving On Road Diesel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.81 |
| Paving Worker Trips | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.12 |
| Building 09/19/2011-06/21/2013 | 0.22 | 1.07 | 1.65 | 0.00 | 0.01 | 0.07 | 0.07 | 0.00 | 0.06 | 0.06 | 244.71 |
| Building Off Road Diesel | 0.19 | 0.92 | 0.66 | 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.06 | 0.06 | 108.27 |
| Building Vendor Trips | 0.01 | 0.10 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 27.00 |
| Building Worker Trips | 0.03 | 0.05 | 0.90 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 109.44 |
| Coating 12/10/2012-06/21/2013 | 2.56 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.05 |
| Architectural Coating | 2.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Coating Worker Trips | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.05 |
| Trenching 11/19/2012-03/08/2013 | 0.04 | 0.35 | 0.22 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.02 | 0.02 | 44.51 |
| Trenching Off Road Diesel | 0.04 | 0.35 | 0.20 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.02 | 0.02 | 42.01 |
| Trenching Worker Trips | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.51 |

Phase Assumptions

Phase: Fine Grading 5/23/2011 - 6/8/2012 - Grading and earthwork

Total Acres Disturbed: 52

Maximum Daily Acreage Disturbed: 13

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1840 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 169.88

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

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- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 6/27/2011 - 10/14/2011 - Creek upgrades - stage 1

Total Acres Disturbed: 0.66

Maximum Daily Acreage Disturbed: 0.17

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 7/2/2012 - 10/12/2012 - Creek upgrades - stage 2

Total Acres Disturbed: 1

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 622.88

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 3/7/2011 - 6/17/2011 - Utilities

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Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Trenching 10/3/2011 - 2/17/2012 - Geothermal system installation

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Trenching 7/9/2012 - 8/17/2012 - Utilities

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Trenching 11/19/2012 - 3/8/2013 - Irrigation system installation

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 7/4/2011 - 10/21/2011 - Bridges 1-4 & Lucas Valley Rd Realignment

Acres to be Paved: 0.66

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

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Phase: Paving 7/12/2012 - 10/12/2012 - Bridges 5-8

Acres to be Paved: 13

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Paving 10/29/2012 - 5/17/2013 - Parking, service rd, fountain, curbs and gutters

Acres to be Paved: 2

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 9/19/2011 - 6/21/2013 - Building construction and wine cave

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 12/10/2012 - 6/21/2013 - Finishes

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Grady Ranch Preliminary GHG Emissions Estimates

269,701 sq ft

Construction - URBEMIS GHG Emissions Modeling Results

| | | |
|---------------|---------------|-----------------|
| Year 1 (2011) | 767 tons/yr | 696 MT/yr |
| Year 2 (2012) | 1,126 tons/yr | 1,022 MT/yr |
| Year 3 (2013) | 366 tons/yr | 332 MT/yr |
| Total | | 2,049 MT |

Operation - URBEMIS GHG Emissions Modeling Results

| Area-Source Emissions 1, 2 | therms/yr | MMBtu/therm | MMBtu/yr | Emission Factor (kg CO2/MMBtu) | MT CO2e/yr |
|----------------------------|-----------|-------------|----------|--------------------------------|------------|
| Natural Gas | 3,522 | 0.1 | 352.2 | 66.9 | 24 |

| Mobile-Source Emissions | tons CO2e/yr | MT CO2e/yr |
|------------------------------------|--------------|------------|
| URBEMIS output (170 employees/day) | 388 | 351 |

Indirect GHG Emissions Modeling Results

Indirect Emissions from Electricity Consumption 1, 2

| MWh/yr | Region | Emission Factor (lb CO2/MWh) | | Emission Factor (lb CH4/MWh) | | Emission Factor (lb N2O/MWh) | | MT CO2e/yr |
|--------|--------|------------------------------|---|------------------------------|----|------------------------------|-----|------------|
| | | GWP | | GWP | | GWP | | |
| 4,155 | CAMX | 724.12 | 1 | 0.0302 | 21 | 0.0081 | 310 | 1,371 |

Indirect Emissions from Water Use (includes conveyance, treatment, distribution, and wastewater treatment) 1, 3, 4

| Water Demand (AFY) | KWh/million gallons* | Mg/year | Total KWh/yr | MWh/yr | Region | Emission Factor (lb CO2/MWh) | | Emission Factor (lb CH4/MWh) | | Emission Factor (lb N2O/MWh) | | MT CO2e/yr |
|--------------------|----------------------|---------|--------------|--------|--------|------------------------------|---|------------------------------|----|------------------------------|-----|------------|
| | | | | | | GWP | | GWP | | GWP | | |
| 18.1 | 5,411 | 5 | 27,423 | 27 | CAMX | 724.12 | 1 | 0.0302 | 21 | 0.0081 | 310 | 9 |

*Indoor use in Northern California

Total Operational GHG Emissions (MT/yr) 1,755 GHG/SP 10.32 MT/yr

SP: 170 employees (annual average daily)

Sources:

- 1 California Climate Action Registry [CCAR] General Reporting Protocol v 3.1 January 2009. Appendix C. http://www.climateregistry.org/resources/docs/protocols/grp/GRP_3.1_January2009.pdf
- 2 April 6, 2011 email from Scott L. Hochstrasser, IPA, Inc. (International Planning Associates) to Fran Ruger, Ascent Environmental, Inc.
- 3 California Energy Commission [CEC] 2006 (December). Refining Estimates of Water-Related Energy Use in California. CEC-500-2006-118
- 4 Utility Plan for Grady Ranch PDP. June 2010. Prepared by CSW/Stuber-Stroeh Engineering Group, Inc.

Conversion Factors:

| | | |
|-------|-------------------|------------|
| 1 ton | 0.907 MT | 2204.62 lb |
| 1 AF | 0.28 mg | |
| 1 yr | 365 days | |
| 1 MW | 8765.81277 MWh/yr | |
| 1 MT | 1000 kg | |

Grady Ranch Operational GHG Emissions Mitigation

Unmitigated Operational GHG Emissions

| | MT CO2e/year | % of Project Emissions |
|-------------------------|--------------|------------------------|
| Area Sources | 24 | 1.3% |
| Mobile Sources | 351 | 20.0% |
| Electricity Consumption | 1,371 | 78.1% |
| Water Consumption | 9 | 0.5% |
| Total | 1,755 | |

Estimated Project Design Feature and Mitigation Measure Performance

| | Applicable Emissions Source | % of Project Emissions | Subsector | Subsector Scale Factor | Measure Performance | Scaled Measure Performance | Emissions Reduction (MT CO2e/year) |
|---------------------------------|-----------------------------|------------------------|-----------|------------------------|---------------------|----------------------------|------------------------------------|
| Rideshare incentive program | Mobile | 20.0% | - | - | 15% | 3.0% | 52.7 |
| Shuttle Service to transit stop | Mobile | 20.0% | - | - | 15% | 3.0% | 52.7 |
| Total reduction | | | | | | | 105.4 |

Mitigated GHG Emissions

Gap between Mitigated project emissions and GHG Threshold (1,100 MT CO2e/year) **1,649**
549

Energy Consumption by End Use (annual average)

| Electricity | Commercial |
|------------------|------------|
| Air Conditioning | 12.6% |
| Water Heating | 0.6% |
| Space Heating | 1.5% |
| Lighting | 32.6% |
| Other | 52.6% |

Source: CEC Energy Almanac. 2010. California Electricity Consumption by End Use. PG&E Estimates for year 2020. http://www.energyalmanac.ca.gov/electricity/electricity_stats/index.html

Appendix B

2010

Transportation and Circulation Update

TRANSPORTATION AND CIRCULATION UPDATE

GRADY RANCH

MARIN COUNTY, CALIFORNIA

PREPARED FOR:

SKYWALKER PROPERTIES, LTD.

PREPARED BY:



FEBRUARY 2010

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PURPOSE

This purpose of this report is to describe the potential transportation impacts of Skywalker Properties' development of Grady Ranch in Marin County, California and to compare the effects to those reported in the 1995 Environmental Impact Report (EIR) for the proposed project. This report also provides an update on existing transportation conditions. For consistency, the report generally follows the outline and approach of the 1995 EIR's transportation and circulation chapter ("5.7 Transportation and Circulation").

EXISTING CONDITIONS

Street Network

Lucas Valley Road is a 10.3-mile long roadway that generally runs east and west between Nicasio Valley Road and US 101. The Grady Ranch is located north of Lucas Valley Road and is accessed via the Grady Ranch Main Entry Road, which is about four miles west of the Lucas Valley Road/US 101 interchange.

One through travel lane is provided in each direction on Lucas Valley Road. A number of cross-streets intersect Lucas Valley Road between the Grady Ranch Main Entry Road and the US 101 interchange, including Miller Creek Road and Las Gallinas Avenue, which each are signalized. Most of the intersecting streets between Miller Creek Road and the Grady Ranch Main Entry Road are on the north side of Lucas Valley Road and all intersections west of Miller Creek Road are unsignalized, i.e., the cross-streets are controlled with stop signs.

Consistent with the 1995 EIR, seven intersections along Lucas Valley Road are studied in this report: the Grady Ranch Main Entry Road, Mt. Lassen Drive, Miller Creek Road, Las Gallinas Avenue, Los Gamos Drive, US 101 southbound ramps, and US 101 northbound ramps.

Since the publication of the 1995 EIR, a few changes have occurred along Lucas Valley Road, including the signalization of the Miller Creek Road intersection, signalization of the US 101 southbound ramp intersection, and repaving of Lucas Valley Road from west of Las Gallinas Avenue to Westgate Drive, with the provision of Class II on-street bicycle lanes.

Left-turn and right-turn vehicle turning access to and egress from intersections and driveways along Lucas Valley Road is accommodated a number of ways, depending upon the specific location. Along the 7.7-mile stretch between Nicasio Valley Road and Maoli Drive (just west of Mt. Shasta Drive), none of the intersections and driveways have exclusive left-turn lanes or right-turn lanes, or left-turn acceleration or right-turn deceleration lanes. Four intersections/driveways in this segment have short right-turn tapers (Big Rock Ranch, 2200 Lucas Valley Road (Wetsel Ranch), Westgate Drive, and Bridgegate Drive).

As shown in Table 1, full turning lanes are prevalent at higher volume public street intersections between Maoli Drive and the US 101 northbound ramps, as are right-turn lanes for westbound vehicles.

Table 1. Lucas Valley Road Turning, Acceleration and Taper Lanes

| Intersection | Left-turn lane | Right-turn lane | Left-turn Accel Lane | Right-turn Accel Lane | Entry Right-turn Taper | Exit Right-turn Taper |
|------------------------|----------------|-----------------|----------------------|-----------------------|------------------------|-----------------------|
| Skywalker Ranch | | | | | | |
| Big Rock Ranch | | | | | X | X |
| Grady Ranch Road | | | | | | |
| 2200 Lucas Valley Road | | | | | X | X |
| Westgate Drive | | | | | X | X |
| Bridgegate Drive | | | | | X | X |
| Mt. McKinley Road | | | | | | |
| Maoli Drive | | | | | | |
| Mt. Shasta Drive | | X | | X | | |
| Mt. Muir Court | | | | | X | X |
| Mt. Lassen Drive | X | | | | | |
| Huckleberry Road | | X | | X | | |
| Sequeira Road | | X | | X | | |
| Miller Creek Road | X | X | | X | | |
| Canyon Oak Drive | | | | | | |
| Las Gallinas Avenue | X | X | | X | | |
| Los Gamos Drive | X | X | | X | | |
| US 101 SB Ramps | X | X | | | | X |
| US 101 NB Ramps | | X | | X | | |

Source: Parisi Associates Transportation Consulting

Traffic Volumes

Weeklong traffic counts were conducted between October 28 and November 3, 2009 at two locations along Lucas Valley Road: west of Mt. Lassen Drive and west of the US 101 southbound ramps.

Average weekday traffic levels west of Mt. Lassen Drive are about 7,060 vehicles per day. This compares to the 1995 EIR's traffic estimate, for 1993 conditions, of 6,800 vehicles per day. Thus, weekday traffic levels have generally remained steady over the past 16 years, increasing only about four percent.

Traffic volumes are higher closer to US 101. The traffic counts indicate that Lucas Valley Road, west of US 101, serves about 12,600 vehicles each weekday. No comparative traffic volume data for this roadway segment was found in the 1995 EIR.

Turning movement counts were conducted at the seven study intersections along Lucas Valley Road on Tuesday, October 27 between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. The highest one-hour counts for the morning and afternoon/evening peak periods are used in this study's intersection service level analysis.

Intersection Service Levels

The 1995 EIR reported level-of-service for signalized intersections based on overall volume-to-capacity ratios. It reported level-of-service for unsignalized intersections based on individual turning movement “reserve capacity.” These level-of-service concepts have been updated and are now based on the average amount of controlled delay per vehicle. Table 2 summarizes intersection level-of-service for signalized and unsignalized intersections.

Table 2. Intersection Level of Service and Delays

| Level of Service (LOS) | Level of Delay | Signalized Delay (seconds) | Unsignalized Delay (seconds) |
|------------------------|----------------|----------------------------|------------------------------|
| A | Insignificant | 0 to 10 | 0 to 10 |
| B | Minimal | >10 to 20 | >10 to 15 |
| C | Acceptable | >20 to 35 | >15 to 25 |
| D | Tolerable | >35 to 55 | >25 to 35 |
| E | Significant | >55 to 80 | >35 to 50 |
| F | Excessive | >80 | >50 |

Source: Transportation Resource Board, Highway Capacity Manual, 2000.

Because the 1995 EIR reported intersection level-of-service based on planning-level methods that have since been superseded with operations-level based methods, it is inappropriate to compare this study’s level-of-service results with those in the 1995 EIR.

According to County of Marin guidelines, level-of-service “D” conditions are acceptable, but intersection degradation to LOS E or F conditions is unacceptable and is considered a significant impact.

Table 3 summarizes current intersection service levels at the seven study intersections. All four signalized intersections operate at LOS C or better conditions during both the morning and afternoon/evening peak hours. The stop sign-controlled shared left-turn and through movements at Mt. Lassen Drive operates at LOS D or better. The stop sign-controlled left-turn movement at Los Gamos Drive operates at LOS E conditions during both peak periods.

Table 3. Existing Level of Service and Delays

| Intersection | Control | AM Peak Hour | PM Peak Hour |
|----------------------|---------|---------------------|---------------------|
| Grady Ranch Road | Stop | n / a | n / a |
| Mt. Lassen Drive (1) | Stop | D / 30.9 sec | C / 18.5 sec |
| Miller Creek Road | Signal | B / 10.7 sec | A / 8.6 sec |
| Las Gallinas Avenue | Signal | C / 32.6 sec | C / 28.0 sec |
| Los Gamos Drive (2) | Stop | E / 47.0 sec | E / 36.2 sec |
| US 101 SB Ramps | Signal | C / 23.0 sec | C / 20.5 sec |
| US 101 NB Ramps | Signal | B / 18.0 sec | B / 14.0 sec |

Source: Parisi Associates Transportation Consulting.

Notes: (1) Delay and LOS shown for southbound shared left-turn and through movements.

(2) Delay and LOS shown for northbound left-turn movement.

Speed Limits and Travel Speeds

Lucas Valley Road's posted speed limit is 35 mph between Nicasio Valley Road and Mt. McKinley Road, 45 mph between Mt. McKinley Road and Los Gamos Drive, and 35 mph between Los Gamos Drive and US 101.

In the vicinity of Grady Ranch, Lucas Valley Road's speed limit is 35 mph. A 25 mph warning sign faces westbound motorists as they approach the roadway's curves east of Grady Ranch. A sign indicating curves are ahead faces eastbound motorists as they approach Grady Ranch from the west.

The County of Marin performed a travel speed survey on Lucas Valley Road just west of Westgate Road. The survey, conducted mid-morning on November 12, 2009, captured 110 vehicles traveling in both directions on the relatively straight segment of roadway east of the roadway's curves, which are located east of the Grady Ranch Main Entry Road. As mentioned, the posted speed for this roadway segment is 35 mph. The average speed traveled by motorists was 40 mph and the 85th percentile speed (the speed at which 85 percent of motorists drive at or below) was 44 mph. The 10 mph pace speed (the 10 mph range in which the majority of cars travel) was 30 mph to 40 mph, of which 53 percent of motorists traveled within.

Collision History

Five years of reported vehicle collision information was reviewed for the segment of Lucas Valley Road between the Big Rock Trail and Los Gamos Drive. The data, from July 1, 2003 to June 30, 2008, was provided by the County of Marin. During this period, a total of 54 vehicle collisions were reported. Forty collisions were reported on roadway segments not influenced by intersections and 14 collisions were reported within intersection influence areas. Table 4 summarizes the non-intersection collision information and Table 5 summarizes the intersection collision data.

Table 4. Non-Intersection Vehicle Collisions on Lucas Valley Road, 7/1/03 to 6/30/08

| Segment | Rear End | Side Swipe | Head On | Right Angle | Fixed Object | Pedestrian | Bi-cycle | Other | Injury |
|---|----------|------------|----------|-------------|--------------|------------|----------|-----------|-----------|
| Big Rock Trail – Westgate Drive | | | 1 | | 16 | | 1 | 10 | 25 |
| Westgate Drive – Mt. Lassen Drive | 1 | | | | 2 | | | 1 | 1 |
| Mt. Lassen Drive – Miller Creek Road | | | | | 1 | | | 1 | |
| Miller Creek Road – Las Gallinas Avenue | 2 | | 1 | | | | | | 1 |
| Las Gallinas Avenue – Los Gamos Drive | 1 | | 1 | | | 1 | | | 1 |
| Totals | 4 | 0 | 3 | 0 | 19 | 1 | 1 | 12 | 28 |

Source: County of Marin

Table 5. Intersection Vehicle Collisions on Lucas Valley Road, 7/1/03 to 6/30/08

| Segment | Rear End | Side Swipe | Head On | Right Angle | Fixed Object | Pedestrian | Bi-cycle | Other | Injury |
|---------------------|----------|------------|----------|-------------|--------------|------------|----------|----------|-----------|
| Mt. McKinley Road | | | | | | | | 1 | 1 |
| Mt. Shasta Drive | | | 2 | | | | 1 | | 3 |
| Mt. Muir Court | 1 | | | | | 1 | | | 3 |
| Mt. Lassen Drive | 1 | | | 1 | | | | | 4 |
| Miller Creek Road | | | | | 1 | | | | 1 |
| Canyon Oak Drive | | | | 1 | | | | | |
| Las Gallinas Avenue | 2 | | | 2 | | | | | 1 |
| Totals | 4 | 0 | 2 | 4 | 1 | 1 | 1 | 1 | 13 |

Source: County of Marin

The Grady Ranch Main Entry Road is located between Big Rock Trail and Westgate Drive. Over the five-year period there were 28 vehicle collisions reported along this meandering segment of Lucas Valley Road. Twenty-five people reported injuries resulting from these collisions (there were injuries reported in 20 of the collisions; three collisions involved multiple injuries). Sixteen of the collisions were with fixed objects. Contributing factors listed by the police for the 28 collisions were unsafe speed (11), driving under the influence (7), improper turn (5), driving on the wrong side of the roadway (4), and other (1).

Transit Service

Transit service is provided along Lucas Valley Road via two bus routes.

Golden Gate Transit route #44 (Marinwood) is a weekday commuter route between Marinwood and San Francisco. Four southbound buses run in the morning and four northbound buses operate in the afternoon/evening. The morning route starts at the Lucas Valley Road/Las Gallinas Avenue intersection and runs westerly along Lucas Valley Road and Marinwood streets to a turnaround point at Lucas Valley Road at Westgate Drive, where it then travels easterly back along Lucas Valley Road connecting to Miller Creek Road and then to southbound US 101. The afternoon/evening route runs in the reverse direction.

Marin Transit route #259 (Marinwood) provides eight weekday runs connecting Marinwood with the Northgate Mall, the Marin Civic Center, Miller Creek Road bus pads, Scotty's Market and the Safeway Shopping Center. The bus runs along Lucas Valley Road between Las Gallinas Avenue and Mt. Lassen Drive.

Transportation Demand Management

Skywalker Properties' Skywalker Ranch and Big Rock Ranch both have rideshare incentive programs. The programs reward employees who arrive at work by means other than driving alone at least 10 workdays per month with a \$25 Visa gift card. Results from a survey conducted during 12 weekdays in October 2009 show that the program is successful with about 15 percent of employees carpooling to work. Other travel options, such as taking public transit, are not realistic due to existing transit service limitations.

Both sites also provide flexible work schedules for employees and contractors. The flexible schedules substantially reduce the amount of peak period traffic generated by the sites. For example, typical office and research and development sites generate about 15 percent of their daily traffic during the afternoon/evening peak hour. Only six percent of the daily Skywalker Ranch and Big Rock Ranch traffic occurs during this peak hour.

Skywalker Properties provides employee training and education related to the company's green business principles and related transportation management topics such as trip reduction. Their intranet website regularly includes reminders on driving safety and alternative forms of transportation.

PROJECT IMPACTS

Trip Generation

The proposed project would consist of 319,500 gross square feet of building uses. The uses would include lobbies, offices, kitchen and dining areas, screening rooms, two stages, storage areas, make-up and dressing rooms, a board room, a lounge, production suites, a multi-media room, control rooms, a fitness center, and 24 guest rooms. The Grady Ranch project would operate similarly to Skywalker Ranch, which consists of comparable uses.

Since Grady Ranch would serve unique uses similar to Skywalker Ranch, a vehicle trip generation survey was conducted at Skywalker Ranch to estimate the number of daily vehicle trips generated by the site based on the number of employees. Twenty-four hour traffic counts were conducted at the Skywalker Ranch driveway over the course of six weekdays in 2009: October 28 and 29, November 3, and December 1, 2 and 3.

Based on the counts, Skywalker Ranch currently generates an average of 516 daily vehicle trips (including both inbound and outbound trips) consisting of trips by employees, vendors, contractors and guests. From a survey conducted by Skywalker Properties, there was an average of 191 employees working at Skywalker Ranch during these days. This equates to an average of 2.70 daily (employee, vendor, contractor and guest) trips per employee.

Skywalker Ranch generates fewer vehicle-trips per day than person-trips. Skywalker Properties conducted a sampling survey of vehicles entering Skywalker Ranch over the course of 12 weekdays in October 2009. The sampling survey counted 1,824 vehicles and 2,045 occupants entering the site. This equates to an average occupancy of 1.12 people per vehicle. A similar survey was conducted at Big Rock Ranch. The Big Rock Ranch survey found an average occupancy of 1.20 people per vehicle. Overall, about 15 percent of Skywalker and Big Rock employees carpool to work.

Skywalker Ranch generates an average of 73 vehicle-trips during the AM peak hour and 31 trips during the PM peak hour.

Compared to counts and surveys conducted for the 1995 EIR, Skywalker Ranch currently generates fewer daily and peak hour vehicle-trips per employee, as shown in Table 6. Skywalker Ranch also employs fewer staff (191) on average than 15 years ago (243).

Table 6. Employee-Based Project Vehicle Trip Generation Estimates

| Ranch | Source | Empl. | Daily | | AM Peak Hour | | | | PM Peak Hour | | | |
|-----------|-------------------------|-------|-------|-------|--------------|-------|-----|-----|--------------|-------|----|-----|
| | | | Rate | Trips | Rate | Trips | In | Out | Rate | Trips | In | Out |
| Skywalker | 1995 EIR | 243 | 2.88 | 700 | 0.46 | 112 | 99 | 12 | 0.27 | 66 | 7 | 56 |
| | 2009 Counts and Surveys | 191 | 2.70 | 516 | 0.38 | 73 | 64 | 9 | 0.16 | 31 | 4 | 27 |
| Grady | 1995 EIR | 340 | 2.73 | 928 | 0.43 | 146 | 130 | 16 | 0.24 | 82 | 9 | 73 |
| | 2009 Skywalker Rates | 340 | 2.70 | 918 | 0.38 | 129 | 113 | 16 | 0.16 | 54 | 7 | 47 |

Source: Parisi Associates Transportation Consulting

Based on the application of Skywalker Ranch’s current vehicle-trip generation rate to Grady Ranch and assuming a maximum of 340 employees at Grady Ranch, the project would generate a maximum of 918 daily vehicle trips (including both inbound and outbound trips).¹ This value is similar to the number of vehicle-trips estimated for Grady Ranch in the 1995 EIR.

Grady Ranch is estimated to generate a maximum of 129 vehicle-trips during the AM peak hour (113 inbound and 16 outbound) and 54 vehicle-trips during the PM peak hour (seven inbound and 47 outbound) based on a maximum employment level of 340. The estimated peak hour vehicle-trip generation levels are lower than predicted in the 1995 EIR.

As discussed previously, Grady Ranch would serve unique uses similar to those at Skywalker Ranch. Application of vehicle-trip generation rates developed by the Institute of Transportation Engineers for uses such as an office park (1,244 daily vehicle-trips) or a research and development site (1,191 daily vehicle-trips) would be inappropriate and would grossly overstate vehicle-trip generation. This conclusion was also reached in the 1995 EIR.

Trip Distribution

Based upon current travel patterns, it is estimate that about 26 percent of project-related trips would be to and from the west of the site along Lucas Valley Road and 74 percent would travel to and from the east. About 23 percent of trips would travel to and from US 101 north of Lucas Valley Road and 49 percent to and from US 101 south of Lucas Valley Road.

Potential Impacts and Mitigation Measures

Intersections

The 1995 EIR evaluated several scenarios, including existing conditions (based on 1992 and 1993 traffic count data), existing plus project conditions, and short-range and long-range cumulative conditions. The short-range cumulative conditions considered existing plus approved projects, as well as projects under review as of 1995. The long-range cumulative conditions assumed traffic

¹ This does not account for the fact that as the number of employees increase the vehicle-trip generation rate typically decreases. The 1995 EIR assumed lower vehicle-trip generation rates for Grady Ranch than those surveyed at Skywalker Ranch to account for higher maximum employment levels at Grady Ranch. For conservative purposes, this current study does not assume a lower vehicle-trip generation rate.

volumes that were expected by 2005 when considering San Rafael's General Plan 2000 and corresponding land use increases for the general region.

For comparative purposes, therefore, this study focuses on 2009 traffic conditions (existing conditions) and conditions that would result by added project-related traffic (existing plus project conditions). All analysis assumes the existing roadway infrastructure.

Table 7 summarizes the project's potential level-of-service impacts on study area intersections during the AM peak hour.

Table 7. Projected AM Peak Hour LOS and Delays

| Intersection | Control | Existing | Existing + Project |
|----------------------|---------|---------------------|---------------------|
| Grady Ranch Rd (1) | Stop | n / a | B / 11.9 sec |
| Mt. Lassen Drive (2) | Stop | D / 30.9 sec | E / 41.5 sec |
| Miller Creek Road | Signal | B / 10.7 sec | B / 11.8 sec |
| Las Gallinas Avenue | Signal | C / 32.6 sec | C / 34.0 sec |
| Los Gamos Drive (3) | Stop | E / 47.0 sec | F / 55.6 sec |
| US 101 SB Ramps | Signal | C / 23.0 sec | C / 23.0 sec |
| US 101 NB Ramps | Signal | B / 18.0 sec | B / 18.5 sec |

Source: Parisi Associates Transportation Consulting.

Notes: (1) Delay and LOS shown for southbound left-turn movement.

(2) Delay and LOS shown for southbound shared left-turn and through movements.

(3) Delay and LOS shown for northbound left-turn movement.

The addition of project-related traffic would result in LOS B conditions for the southbound left-turn stop sign-controlled movement from Grady Ranch onto eastbound Lucas Valley Road.

The delay for stop sign-controlled left-turns from Mt. Lassen Drive would increase by over 10 seconds per vehicle, on average, resulting in LOS E conditions for the movement. About 140 vehicles currently turn left from Mt. Lassen Drive during the AM peak hour. The project would increase westbound traffic along Lucas Valley Road through the intersection by up to 84 vehicles per hour, lessening the number of reasonable gaps in the westbound traffic stream for traffic from Mt. Lassen Drive to cross and therefore accounting for most of the additional delay.

With added project-related traffic, LOS B and LOS C conditions would continue at Lucas Valley Road's signalized intersections with Miller Creek Road and Las Gallinas Avenue, respectively.

Vehicles turning left from Los Gamos Drive onto westbound Lucas Valley Road would experience almost nine seconds of additional delay due to project-related traffic during the AM peak hour, resulting in LOS F conditions. The project would add up to 82 more westbound vehicles along Lucas Valley Road through the intersection, reducing the opportunity for vehicles turning left from Los Gamos Drive to enter the westbound Lucas Valley Road traffic stream. There are currently about 20 vehicles per hour making this left-turn.

Including added project-related traffic, LOS C and LOS B conditions would continue at Lucas Valley Road's signalized intersections with the US 101 southbound ramps and the US 101 northbound ramps, respectively.

Table 8 summarizes the project’s potential level-of-service impacts on study area intersections during the PM peak hour.

Table 8. Projected PM Peak Hour LOS and Delays

| Intersection | Control | Existing | Existing + Project |
|----------------------|---------|---------------------|---------------------|
| Grady Ranch Rd (1) | Stop | n / a | B / 10.6 sec |
| Mt. Lassen Drive (2) | Stop | C / 18.5 sec | C / 19.9 sec |
| Miller Creek Road | Signal | A / 8.6 sec | A / 8.6 sec |
| Las Gallinas Avenue | Signal | C / 28.0 sec | C / 29.3 sec |
| Los Gamos Drive (3) | Stop | E / 36.2 sec | E / 39.0 sec |
| US 101 SB Ramps | Signal | C / 20.5 sec | C / 20.8 sec |
| US 101 NB Ramps | Signal | B / 14.0 sec | B / 14.0 sec |

Source: Parisi Associates Transportation Consulting.

Notes: (1) Delay and LOS shown for southbound left-turn movement.

(2) Delay and LOS shown for southbound shared left-turn and through movements.

(3) Delay and LOS shown for northbound left-turn movement.

The addition of project-related traffic would result in LOS B conditions for the southbound left-turn stop sign-controlled movement from Grady Ranch onto eastbound Lucas Valley Road.

Southbound left-turns from Mt. Lassen Drive onto eastbound Lucas Valley Road would not be substantially affected since the PM peak hour left-turning traffic volumes are lower than the AM peak hour volumes, and westbound traffic on Lucas Valley Road is less. The stop sign-controlled left-turns would continue operating at LOS C.

With added project-related traffic, LOS A and LOS C conditions would continue at Lucas Valley Road’s signalized intersections with Miller Creek Road and Las Gallinas Avenue, respectively.

Vehicles turning left from Los Gamos Drive onto westbound Lucas Valley Road would experience almost three seconds of additional delay due to project-related traffic during the PM peak hour, but LOS E conditions would continue to prevail.

Including added project-related traffic, LOS C and LOS B conditions would continue at Lucas Valley Road’s signalized intersections with the US 101 southbound ramps and the US 101 northbound ramps, respectively.

Consistent with the mitigation measures recommended in the 1995 EIR, the following measures would mitigate the project’s potential impacts to the Mt. Lassen Drive and Los Gamos Drive intersections:

- Mt. Lassen Drive: Provide “fair-share” traffic mitigation fees to widen Lucas Valley Road to the east of Mt. Lassen Drive to install a center eastbound acceleration lane for vehicles turning left from Mt. Lassen Drive onto Lucas Valley Road, providing turning motorists a better opportunity to navigate westbound traffic and then accelerate into the eastbound lane. This would improve southbound left-turn movements to LOS C conditions during

the AM peak hour and to LOS B conditions during the PM peak hour when considering project-related traffic.

- Los Gamos Drive: Provide “fair-share” traffic mitigation fees to realign the US 101 southbound off-ramp across from Los Gamos Drive and signalize the intersection. Add a westbound left-turn lane and stripe the relocated off-ramp’s lanes to provide two left-turn lanes and a shared through-right turn lane. Construct a new unsignalized loop on-ramp serving westbound Lucas Valley Road traffic and use the existing diagonal on-ramp for eastbound traffic (as an unsignalized ramp terminal).

The above mitigation measures would reduce project-related impacts at these intersections to less-than-significant levels.

It should be noted that Skywalker Properties has previously paid “fair-share” traffic mitigation fees for the above mitigation measures. Therefore, no further mitigation is necessary. In fact, in compliance with the 1996 Conditions of Approval for the Grady Ranch and Big Rock Ranch projects, Skywalker Properties paid “fair-share” traffic mitigation fees to address mitigation measures identified in the 1995 EIR for the following study intersections along Lucas Valley Road: US 101 northbound ramps, US 101 southbound ramps, Los Gamos Drive, Las Gallinas Avenue, Miller Creek Road, and Mt. Lassen Drive. In addition, Skywalker Properties paid fees for the Northgate Activity Center Plan and for improvements at the US 101/Miller Creek Road interchange.

Since 1996, traffic signals have been installed Lucas Valley Road’s intersections with US 101’s southbound ramp and with Miller Creek Road. These intersections operate at acceptable service levels and would continue to do so with the addition of project-related traffic.

None of the 1995 EIR’s recommended mitigation measures have been implemented at Lucas Valley Road’s intersections with the US 101 northbound ramps, Los Gamos Drive, Las Gallinas Avenue, or Mt. Lassen Drive.

According to the updated transportation and circulation analysis, traffic generated by the Grady Ranch project would not result in significant impacts at Lucas Valley Road’s intersections with the US 101 northbound ramps or with Las Gallinas Avenue.

Appendix A provides a comparison of potential impacts and mitigation measures between the 1995 EIR and the updated traffic analysis summarized in this report.

Transit

The proposed project would generate an insignificant number of transit trips and would not be expected to impact transit operations. The project site is not currently served by transit and there are no future plans to do so at this time. The nearest bus stop to Grady Ranch is located on Lucas Valley Road about one half mile to the east. The project’s impact to transit would therefore be less-than-significant.

Pedestrians and Bicycles

The proposed project would not be expected to generate much, if any, pedestrian traffic along Lucas Valley Road. Some bicycle traffic may be generated. Pedestrians and bicyclists currently using Lucas Valley Road could be affected by additional traffic generated by the proposed project. However, due to the low level of pedestrian and bicycle activity along Lucas Valley Road during peak periods, the project's impact to pedestrians and bicyclists would be less-than-significant.

Stopping Sight Distance and Project Access

The existing access to Grady Ranch is via the Grady Ranch Main Entry Road. There are no dedicated turning, acceleration or deceleration lanes along Lucas Valley Road at the entry road. The stopping sight distance for motorists traveling along Lucas Valley Road towards the entry road is about 300 feet in both the westbound and eastbound directions. Motorists entering Lucas Valley Road from the Grady Ranch also have 300 feet of sight distance to the east and west. These distances are less than the safe stopping sight distance of 360 feet needed based upon the 85th percentile speed of 44 mph currently experienced to the east along Lucas Valley Road.

Skywalker Properties proposes to realign Lucas Valley Road in the vicinity of Grady Ranch to smooth out the existing roadway's sharp reverse curves and to improve sight distance to at least 500 feet. The driveway serving Grady Ranch would be located slightly to the west. The roadway and driveway realignment would enable adequate sight distance for vehicle speeds up to 55 mph in the 35 mph zone.

With the inclusion of project-related traffic, vehicles turning left from Grady Ranch onto eastbound Lucas Valley Road would experience LOS B conditions during peak periods (an average of 11 to 12 seconds of delay per vehicle). This service level is acceptable.

It should be noted that the 1995 EIR reported that LOS E conditions would result for this left-turn movement. However, the 1995 EIR used planning-level intersection level-of-service methods that have since been superceded with the operations-based methods used in this report. Furthermore, the 1995 EIR assumed that the driveway would have one outbound lane shared by both left-turns and right-turns, which would result in increased delays. The current design would enable left and right turns to be made separately.

The 1995 EIR recommended the addition of a center eastbound acceleration lane for vehicles turning left from Grady Ranch onto eastbound Lucas Valley Road to reduce the reported LOS E to LOS C conditions ("Mitigation Measure 5.7-7"). Since the driveway would actually operate at acceptable LOS B conditions, however, an acceleration lane would not be warranted based on level-of-service criteria.

The 1995 EIR also recommended a left-turn lane be provided on eastbound Lucas Valley Road to serve Grady Ranch, as well as a right-turn deceleration lane be constructed for westbound Lucas Valley Road traffic. Neither of these recommendations was required as mitigation measures in the 1995 EIR or as conditions of project approval. As discussed above, with the realigned roadway adequate sight distance would be provided for motorists approaching the low volume of vehicles making left and right turns from behind.

Based on a review of vehicle collision records, no collisions on Lucas Valley Road west of Westgate Drive were specifically reported as rear-end during a recent five-year period. About 30 vehicles per hour are expected to turn left into the site during the AM peak hour, experiencing an average left-turn delay of less than one second per vehicle.

The following measures are recommended for consideration at Lucas Valley Road's intersection with the Grady Ranch Main Entry Road:

- Grady Ranch Main Entry Road: Consider provision of entry and exit right-turn lane tapers along westbound Lucas Valley Road similar to those provided Big Rock Ranch, 2200 Lucas Valley Road (Wetsel Ranch), Westgate Drive, and Bridgegate Drive.

Transportation Demand Management

Similar to Skywalker Properties' Skywalker Ranch and Big Rock Ranch, Grady Ranch would provide a rideshare incentive program. The program would reward employees who arrive at work by means other than driving alone at least 10 workdays a month. The program at Skywalker Ranch and Big Rock Ranch is successful, with about 15 percent of employees carpooling to work.

Skywalker Properties also encourages employees to use alternative methods of transportation such as public transit, bicycles and walking when possible. Safety is emphasized for all employees.

Most Grady Ranch employees and contractors, similar to those at Skywalker Ranch and Big Rock Ranch, would have flexible work schedules. As noted previously in this report, this results in substantially reduced traffic levels during peak periods.

Skywalker Properties would provide Grady Ranch employees and contractors regular training on the company's green business principles and related transportation management topics such as trip reduction. Grady Ranch staff would receive reminders on driving safely and alternative forms of transportation from Skywalker Properties' intranet website.

In 1996 the Marin County Board of Supervisors adopted conditions of approval for development projects at Big Rock Ranch and Grady Ranch.² Some of the conditions were based on results from the 1995 EIR's transportation and circulation chapter. The 47th condition of approval focused on transportation reduction elements. Table 9 summarizes these elements and Skywalker Properties' current plans.

² Resolution No. 96-151, A Resolution of the Board of Supervisors with Findings Pursuant to the California Environmental Quality Act and with Findings for Project Approval and for Determination of Project Consistency with Applicable County Plans that Approves the Skywalker Properties, Ltd. Use Permit Application (UP #95-058), Grady Ranch, Assessor's Parcel Nos. 164-310-07, -10, -11, -12 and -13.

Table 9. Grady Ranch Trip Reduction Program and 1996 Conditions of Approval

| Excerpt from 47 th Condition of Approval (1996) | Skywalker Properties' Trip Reduction Program (2010) |
|--|---|
| (1) includes the Transportation System Management ("TSM") measures currently implemented as part of the Skywalker Ranch Employee Transportation Program; and | Skywalker Properties would institute a similar transportation demand management program at Grady Ranch as at Skywalker Ranch and Big Rock Ranch. |
| (2) establishes a van/buspool or shuttle bus system for employees of the Grady Ranch and Big Rock Ranch facilities <u>or</u> includes other traffic improvements constructed by the Applicant <u>and/or</u> a combination of other traffic improvements and TSM measures that meet the required Level of Service standard for the area at the intersections studied in, and using the calculations contained within, the EIR. Based on the conclusions of the traffic and circulation impact analysis in the EIR, the Applicant could offer to install a traffic signal at the Miller Creek Road/Lucas Valley Road intersection which would mitigate the necessity of a van/buspool or shuttle bus system. | <p>Provision of a van/buspool or shuttle bus system would be ineffective due to the non-traditional and flexible work schedules of Grady Ranch employees and contractors.</p> <p>Skywalker Properties would provide other traffic improvements and/or a combination of other traffic improvements and TSM measures that meet the required level of service standard for the intersections studied and analyzed in this report (these are the same intersections studied in the 1995 EIR)</p> <p>Other traffic improvements would include:</p> <ul style="list-style-type: none"> ▪ Skywalker Properties would improve realign Lucas Valley Road in the vicinity of Grady Ranch <p>Skywalker Properties has previously paid "fair-share" traffic mitigation fees for improvements to:</p> <ul style="list-style-type: none"> ▪ Lucas Valley Road/Mt. Lassen Drive ▪ Lucas Valley Road/Miller Creek Road ▪ Lucas Valley Road/Las Gallinas Avenue ▪ Lucas Valley Road/Los Gamos Drive ▪ Lucas Valley Road/US 101 SB Ramps ▪ Lucas Valley Road/US 101 NB Ramps ▪ Miller Creek Road/US 101 Interchange ▪ Northgate Activity Center Plan <p>Skywalker Properties funded the traffic signal installation at the Lucas Valley Road/Miller Creek Road intersection (mitigating the necessity of a van/buspool or shuttle bus system).</p> |
| <i>(Emphasis added)</i> | |
| If a van/buspool or shuttle bus system is not proposed, then the Applicant shall: (1) provide adequate space at the entrance to Grady Ranch for a potential Golden Gate Transit bus stop, turnaround, and shelter; (2) request that Golden Gate Bridge, Highway and Transportation District to extend bus service to Grady Ranch; and (3) fund construction of a bus stop, turnaround, and shelter at the Grady Ranch entrance if the District agrees to extend bus service to the ranch. | Skywalker Properties will request that the Golden Gate Bridge, Highway and Transportation District extend bus service to Grady Ranch in the future. |

Source: Marin County and Parisi Associates Transportation Consulting.

APPENDIX

- Comparison of Potential Impacts and Mitigation Measures for Study Intersections; 1995 Conclusions vs. Updated 2010 Conclusions
- Traffic Count Data
- Intersection Level-of-Service Results

**Comparison of Potential Impacts and Mitigation Measures for Study Intersections
1995 Conclusions vs. Updated 2010 Conclusions**

| Intersection | 1995 Transportation and Circulation (EIR) Conclusions | | Improvements Constructed Since 1995 EIR |
|-------------------------------|---|--|---|
| | Potential Impact | Mitigation Measure | |
| Grady Ranch Main Entry Road | "This analysis represents a worst-case because it assumes no decrease in traffic between Mt. Lassen Drive and the Grady Ranch access point. The analysis shows that under long-range cumulative conditions the Grady Ranch access southbound shared left/right-turn movement would operate at LOS E." [Page 5.7-41, peak period not identified] | "The recommended mitigation is the addition of an acceleration lane in the eastbound Lucas Valley Road at the Grady Ranch entrance. This acceleration lane is shown in Exhibit 5.7-10. Also shown in the exhibit are a deceleration lane for westbound right-turn traffic and an eastbound left-turn lane. Although the traffic volumes performing these movements are relatively small, it would be advantageous to provide these lanes due to high prevailing speeds on Lucas Valley Road. The deceleration lane would avoid conflicts between westbound through traffic and slower right-turning vehicles. In the case of the eastbound left-turn lane, a separate lane would help to reduce the number of rear-end accidents between left-turning vehicles waiting for an adequate gap in traffic to execute the left-turn movement and westbound through vehicles which may be traveling at speeds near 50 mph." [Pages 5.7-41 to 5.7-43, Mitigation Measure 5.7-7] | None. |
| Mt. Lassen Drive | "The addition of project trips to the long-range cumulative (no project) volumes results in a worsening of the southbound shared movement to LOS E." [Page 5.7-32, AM and PM] | "The proposed mitigation measure for this intersection is the installation of a southbound acceleration lane. This mitigation would involve widening Lucas Valley Road and constructing a median lane which includes an acceleration lane." [Page 5.7-36, Mitigation Measure 5.7-3a] | None. The Applicant previously paid a "fair-share" traffic mitigation fee for the proposed mitigation measure. |
| Miller Creek Road | "The addition of project trips to the long-range cumulative (no project) volumes results in a worsening of the southbound shared movement to LOS F." [Page 5.7-32, AM and PM] | "The recommended mitigation measure at this intersection is to provide an acceleration lane for left-turning vehicles on Lucas Valley Road. This mitigation would require the creation of a median acceleration lane and the possible widening of Lucas Valley Road in the vicinity of Miller Creek Road." [Page 5.7-36, Mitigation Measure 5.7-3b] | A traffic signal was installed at the intersection. According to the Conditions of Approval, installation of a traffic signal instead of the acceleration lane could alternatively be provided to accommodate long-range cumulative traffic growth (Page 27 of 41, Condition #40). The Applicant previously paid a "fair-share" traffic mitigation fee for the proposed mitigation measure. |
| Las Gallinas Avenue | "The addition of project trips to the long-range cumulative (no project) volumes results in no measurable change to intersection LOS or V/C. However, the intersection continues to operate at unacceptable LOS below mid D with project traffic." [Page 5.7-35, AM] | "The recommended mitigation measure at this intersection would be the addition of an eastbound through lane." [Page 5.7-36, Mitigation Measure 5.7-3c] | None. The Applicant previously paid a "fair-share" traffic mitigation fee for the proposed mitigation measure. |
| Los Gamos Drive [See Note #1] | "The addition of the project would result in the further deterioration by a V/C ratio of 0.01 to LOS F (V/C = 1.01)." [Page 5.7-35, AM] | "The recommended mitigation measure at this intersection would be the addition of a westbound left-turn lane, and the restriping of the southbound lanes in order to provide two left-turn lanes and a through-right shared turn lane. North-south signal phasing would have to be split in order to accommodate the restriped southbound configuration." [Page 5.7-36, Mitigation Measure 5.7-3d] | None. The US 101 southbound ramps/Los Gamos Drive improvements assumed in the 1995 EIR to be constructed by 2000 have not been constructed. The Applicant previously paid a "fair-share" traffic mitigation fee for the proposed mitigation measure. |
| US 101 SB Ramps [See Note #1] | "This location would cease to function as an intersection and is not analyzed for that reason." [Page 5.7-35] | "This location would cease to function as an intersection and is not analyzed for that reason." [Page 5.7-35] | A traffic signal was installed at this intersection. The US 101 southbound ramps/Los Gamos Road improvements assumed in the 1995 EIR to be constructed by 2000 have not been constructed. The Applicant previously paid a "fair-share" traffic mitigation fee for the proposed mitigation measure. |
| US 101 NB Ramps | "The addition of project traffic would result in the further deterioration by a V/C ratio of 0.02 to LOS D (V/C = 0.88)." [Page 5.7-35, AM] | "The mitigation for this condition would be an additional northbound left-turn lane." [Page 5.7-37, Mitigation Measure 5.7-3e] | None. The Applicant previously paid a "fair-share" traffic mitigation fee for the proposed mitigation measure. |

Note #1: The 1995 EIR assumed imminent reconstruction of US 101 southbound ramps/Los Gamos Drive, including realigning the southbound off-ramp directly across from Los Gamos Drive and signaling the combined intersection. The 1995 EIR assumed a new unsignalized southbound loop on-ramp serving westbound traffic and use of the existing diagonal on-ramp for eastbound traffic. The diagonal ramp was assumed to be unsignalized.

**Comparison of Potential Impacts and Mitigation Measures for Study Intersections
1995 Conclusions vs. Updated 2010 Conclusions**

| Intersection | 2010 Transportation and Circulation Update Conclusions | |
|-------------------------------|--|---|
| | Potential Impact | Mitigation Measure |
| Grady Ranch Main Entry Road | Modified impact. The Applicant proposes to realign Lucas Valley Road in the vicinity of Grady Ranch to smooth out the existing roadway's sharp reverse curves and to improve sight distance to at least 500 feet. The driveway serving Grady Ranch would be located slightly to the west. The roadway and driveway alignment would enable adequate sight distance for vehicle speeds up to 50 mph. With the inclusion of project-related traffic, vehicles turning left from Grady Ranch onto eastbound Lucas Valley Road would experience LOS B conditions during peak periods (an average of 11 to 12 seconds of delay per vehicle). | Modified mitigation measure. The Applicant proposes to realign Lucas Valley Road and relocate the Grady Ranch driveway to improve sight distance to at least 500 feet, enabling adequate sight distance for vehicle speeds up to 55 mph in a 35 mph zone. No additional mitigation is necessary. Entry and exit right-turn tapers along westbound Lucas Valley Road should be considered. (The 1995 EIR mitigation measure of providing an eastbound acceleration is not warranted based on comparable level-of-service analysis resulting in LOS B conditions. The 1995 EIR suggestion of providing an eastbound left-turn lane and a westbound deceleration lane are unwarranted with the Applicant's realignment of Lucas Valley Road, which would enable adequate sight distance for motorists approaching the low volume of vehicles making left and right turns from behind.) |
| Mt. Lassen Drive | No new impact. The delay for stop sign-controlled left-turns from Mt. Lassen Drive would increase by over 10 seconds per vehicle, on average, resulting in LOS E conditions for the movement. [AM] | Same mitigation measure as previously identified. Pay "fair-share" traffic mitigation fee to widen Lucas Valley Road to the east of Mt. Lassen Drive to install a center eastbound acceleration lane for vehicles turning left from Mt. Lassen Drive onto Lucas Valley Road. This would improve southbound left-turns to LOS C during the AM peak hour. Skywalker Properties previously paid "fair-share" mitigation fee for these improvements, therefore no further mitigation is necessary. |
| Miller Creek Road | No impact. The Lucas Valley Road/Miller Creek Road intersection is now signalized and operates at LOS B or better conditions during peak periods. With project traffic, the intersection would continue to operate at LOS B or better. | No additional mitigation necessary. The previous traffic signal installation enables LOS B operations without and with project traffic. |
| Las Gallinas Avenue | No impact. The Lucas Valley Road/Las Gallinas Avenue intersection operates at LOS C during peak periods. With project traffic, the intersection would continue to operate at LOS C conditions. | No mitigation necessary. The signalized intersection operates at LOS C without and with project traffic. |
| Los Gamos Drive [See Note #1] | No new impact. Vehicles turning left from Los Gamos Drive onto westbound Lucas Valley Road would experience almost nine seconds of additional delay due to project-related traffic during the AM peak hour, resulting in LOS F conditions. [AM] | Same mitigation measure as previously identified. Pay "fair-share" traffic mitigation fee to provide US 101 southbound ramps/Los Gamos Drive improvements and add westbound left-turn lane and restriping of southbound lanes in order to provide two left-turn lanes and a through-right shared turn lane. Split north-south signal phasing. Skywalker Properties previously paid "fair-share" mitigation fee for these improvements, therefore no further mitigation is necessary. |
| US 101 SB Ramps [See Note #1] | No impact. The Lucas Valley Road/US 101 southbound ramps intersection is now signalized and operates at LOS C or better conditions during peak periods. With project traffic, the intersection would continue to operate at LOS C or better. | No additional mitigation necessary. The previous traffic signal installation enables LOS C or better operations without and with project traffic. |
| US 101 NB Ramps | No impact. The Lucas Valley Road/US 101 northbound ramps intersection operates at LOS B during peak periods. With project traffic, the intersection would continue to operate at LOS B conditions. | No mitigation necessary. The signalized intersection operates at LOS B without and with project traffic. |

Note #1: The 1995 EIR assumed imminent reconstruction of US 101 southbound ramps/Los Gamos Drive, including realigning the southbound off-ramp directly across from Los Gamos Drive and signalizing the combined intersection. The 1995 EIR assumed a new unsignalized southbound loop on-ramp serving westbound traffic and use of the existing diagonal on-ramp for eastbound traffic. The diagonal ramp was assumed to be unsignalized.

MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : mtlassen-lucas-a

par
Mietek 916-806-0250

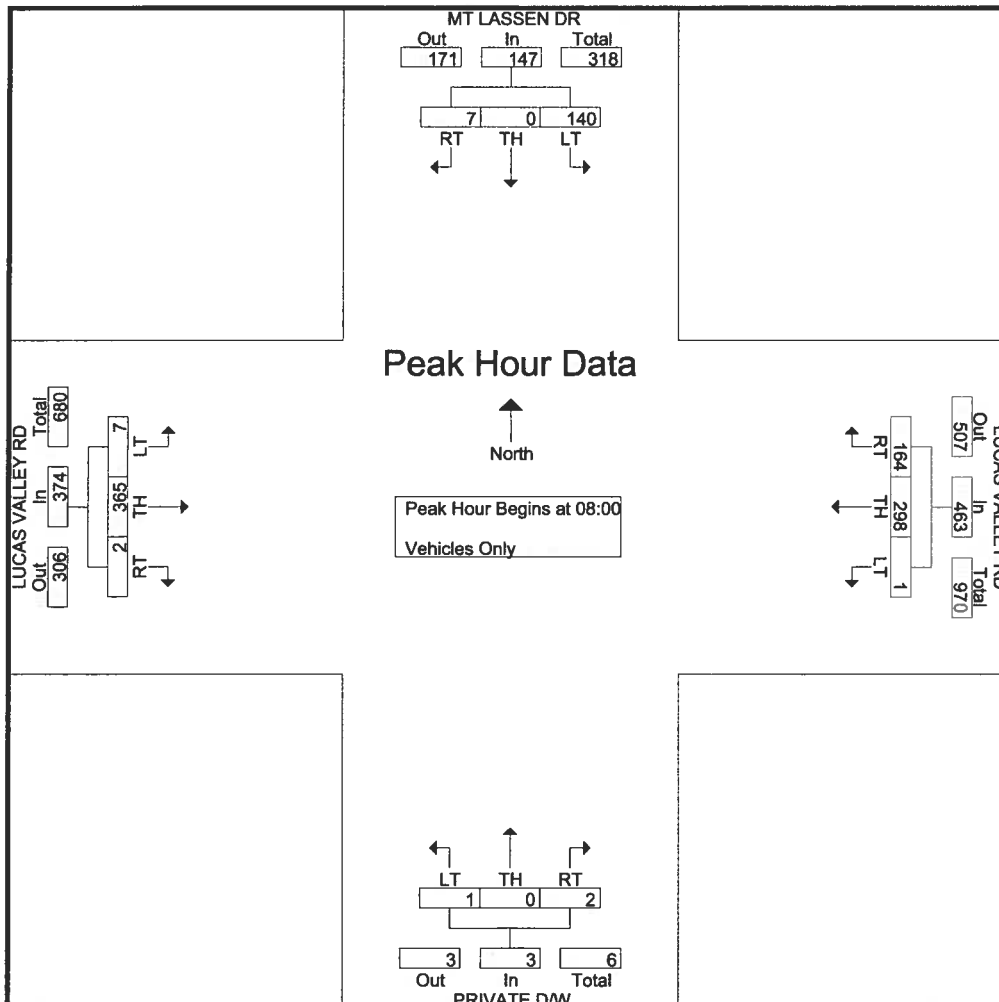
Site Code : 6
Start Date : 10/27/2009
Page No : 1

Groups Printed- Vehicles Only

| Start Time | MT LASSEN DR Southbound | | | | LUCAS VALLEY RD Westbound | | | | PRIVATE D/W Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|-------------------------|----|------|------------|---------------------------|------|-----|------------|------------------------|----|-----|------------|---------------------------|------|-----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:00 | 0 | 0 | 13 | 13 | 7 | 38 | 2 | 47 | 0 | 0 | 1 | 1 | 0 | 51 | 0 | 51 | 112 |
| 07:15 | 1 | 0 | 20 | 21 | 10 | 35 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 71 | 137 |
| 07:30 | 1 | 0 | 23 | 24 | 21 | 34 | 0 | 55 | 0 | 0 | 1 | 1 | 1 | 96 | 0 | 97 | 177 |
| 07:45 | 0 | 0 | 18 | 18 | 44 | 63 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 84 | 0 | 84 | 209 |
| Total | 2 | 0 | 74 | 76 | 82 | 170 | 2 | 254 | 0 | 0 | 2 | 2 | 1 | 302 | 0 | 303 | 635 |
| 08:00 | 2 | 0 | 55 | 57 | 88 | 96 | 1 | 185 | 0 | 0 | 0 | 0 | 0 | 108 | 2 | 110 | 352 |
| 08:15 | 3 | 0 | 48 | 51 | 10 | 68 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 105 | 0 | 105 | 234 |
| 08:30 | 2 | 0 | 17 | 19 | 32 | 50 | 0 | 82 | 1 | 0 | 1 | 2 | 1 | 77 | 4 | 82 | 185 |
| 08:45 | 0 | 0 | 20 | 20 | 34 | 84 | 0 | 118 | 1 | 0 | 0 | 1 | 1 | 75 | 1 | 77 | 216 |
| Total | 7 | 0 | 140 | 147 | 164 | 298 | 1 | 463 | 2 | 0 | 1 | 3 | 2 | 365 | 7 | 374 | 987 |
| Grand Total | 9 | 0 | 214 | 223 | 246 | 468 | 3 | 717 | 2 | 0 | 3 | 5 | 3 | 667 | 7 | 677 | 1622 |
| Apprch % | 4 | 0 | 96 | | 34.3 | 65.3 | 0.4 | | 40 | 0 | 60 | | 0.4 | 98.5 | 1 | | |
| Total % | 0.6 | 0 | 13.2 | 13.7 | 15.2 | 28.9 | 0.2 | 44.2 | 0.1 | 0 | 0.2 | 0.3 | 0.2 | 41.1 | 0.4 | 41.7 | |

| Start Time | MT LASSEN DR Southbound | | | | LUCAS VALLEY RD Westbound | | | | PRIVATE D/W Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|-------------------------|------|------|------------|---------------------------|------|------|------------|------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 08:00 | 2 | 0 | 55 | 57 | 88 | 96 | 1 | 185 | 0 | 0 | 0 | 0 | 0 | 108 | 2 | 110 | 352 |
| 08:15 | 3 | 0 | 48 | 51 | 10 | 68 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 105 | 0 | 105 | 234 |
| 08:30 | 2 | 0 | 17 | 19 | 32 | 50 | 0 | 82 | 1 | 0 | 1 | 2 | 1 | 77 | 4 | 82 | 185 |
| 08:45 | 0 | 0 | 20 | 20 | 34 | 84 | 0 | 118 | 1 | 0 | 0 | 1 | 1 | 75 | 1 | 77 | 216 |
| Total Volume | 7 | 0 | 140 | 147 | 164 | 298 | 1 | 463 | 2 | 0 | 1 | 3 | 2 | 365 | 7 | 374 | 987 |
| % App. Total | 4.8 | 0 | 95.2 | | 35.4 | 64.4 | 0.2 | | 66.7 | 0 | 33.3 | | 0.5 | 97.6 | 1.9 | | |
| PHF | .583 | .000 | .636 | .645 | .466 | .776 | .250 | .626 | .500 | .000 | .250 | .375 | .500 | .845 | .438 | .850 | .701 |

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 08:00



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : mtlassen-lucas-p

par
Mietek 916-806-0250

Site Code : 6

Start Date : 10/27/2009

Page No : 1

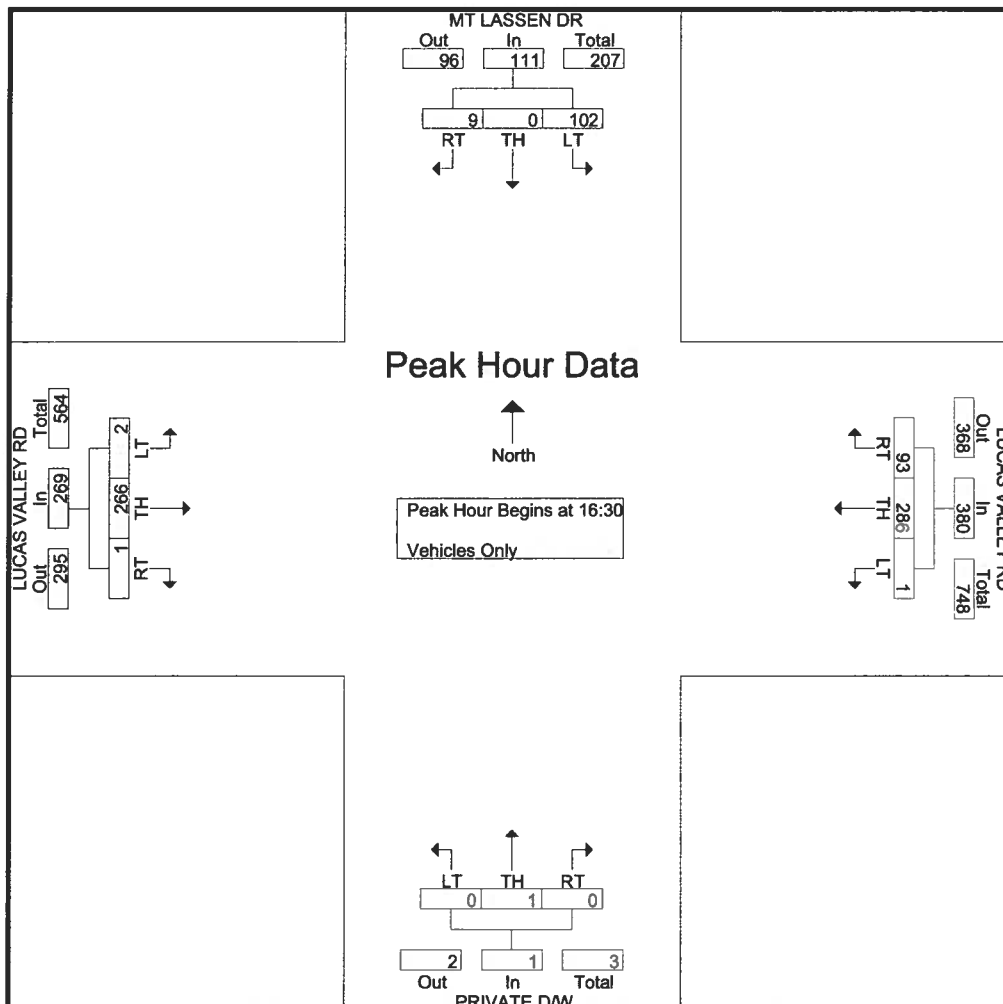
Groups Printed- Vehicles Only

| Start Time | MT LASSEN DR Southbound | | | | LUCAS VALLEY RD Westbound | | | | PRIVATE D/W Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|----------------------------|----|------|------------|------------------------------|------|-----|------------|---------------------------|------|----|------------|------------------------------|------|-----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 0 | 0 | 28 | 28 | 27 | 50 | 0 | 77 | 0 | 1 | 0 | 1 | 2 | 73 | 2 | 77 | 183 |
| 16:15 | 3 | 0 | 23 | 26 | 19 | 60 | 0 | 79 | 3 | 0 | 0 | 3 | 0 | 58 | 2 | 60 | 168 |
| 16:30 | 1 | 0 | 26 | 27 | 14 | 62 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 66 | 169 |
| 16:45 | 2 | 0 | 19 | 21 | 24 | 81 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 68 | 1 | 69 | 195 |
| Total | 6 | 0 | 96 | 102 | 84 | 253 | 0 | 337 | 3 | 1 | 0 | 4 | 2 | 265 | 5 | 272 | 715 |
| 17:00 | 4 | 0 | 35 | 39 | 33 | 73 | 1 | 107 | 0 | 1 | 0 | 1 | 0 | 59 | 0 | 59 | 206 |
| 17:15 | 2 | 0 | 22 | 24 | 22 | 70 | 0 | 92 | 0 | 0 | 0 | 0 | 1 | 73 | 1 | 75 | 191 |
| 17:30 | 0 | 0 | 16 | 16 | 13 | 71 | 0 | 84 | 1 | 0 | 0 | 1 | 0 | 56 | 1 | 57 | 158 |
| 17:45 | 1 | 0 | 9 | 10 | 25 | 87 | 1 | 113 | 0 | 0 | 0 | 0 | 0 | 54 | 1 | 55 | 178 |
| Total | 7 | 0 | 82 | 89 | 93 | 301 | 2 | 396 | 1 | 1 | 0 | 2 | 1 | 242 | 3 | 246 | 733 |
| Grand Total | 13 | 0 | 178 | 191 | 177 | 554 | 2 | 733 | 4 | 2 | 0 | 6 | 3 | 507 | 8 | 518 | 1448 |
| Apprch % | 6.8 | 0 | 93.2 | | 24.1 | 75.6 | 0.3 | | 66.7 | 33.3 | 0 | | 0.6 | 97.9 | 1.5 | | |
| Total % | 0.9 | 0 | 12.3 | 13.2 | 12.2 | 38.3 | 0.1 | 50.6 | 0.3 | 0.1 | 0 | 0.4 | 0.2 | 35 | 0.6 | 35.8 | |

| Start Time | MT LASSEN DR Southbound | | | | LUCAS VALLEY RD Westbound | | | | PRIVATE D/W Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|----------------------------|------|------|------------|------------------------------|------|------|------------|---------------------------|------|------|------------|------------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:30 | 1 | 0 | 26 | 27 | 14 | 62 | 0 | 76 | 0 | 0 | 0 | 0 | 0 | 66 | 0 | 66 | 169 |
| 16:45 | 2 | 0 | 19 | 21 | 24 | 81 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 68 | 1 | 69 | 195 |
| 17:00 | 4 | 0 | 35 | 39 | 33 | 73 | 1 | 107 | 0 | 1 | 0 | 1 | 0 | 59 | 0 | 59 | 206 |
| 17:15 | 2 | 0 | 22 | 24 | 22 | 70 | 0 | 92 | 0 | 0 | 0 | 0 | 1 | 73 | 1 | 75 | 191 |
| Total Volume | 9 | 0 | 102 | 111 | 93 | 286 | 1 | 380 | 0 | 1 | 0 | 1 | 1 | 266 | 2 | 269 | 761 |
| % App. Total | 8.1 | 0 | 91.9 | | 24.5 | 75.3 | 0.3 | | 0 | 100 | 0 | | 0.4 | 98.9 | 0.7 | | |
| PHF | .563 | .000 | .729 | .712 | .705 | .883 | .250 | .888 | .000 | .250 | .000 | .250 | .250 | .911 | .500 | .897 | .924 |

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:30



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : miller-lucas-a

par
Mietek 916-806-0250

Site Code : 5

Start Date : 10/27/2009

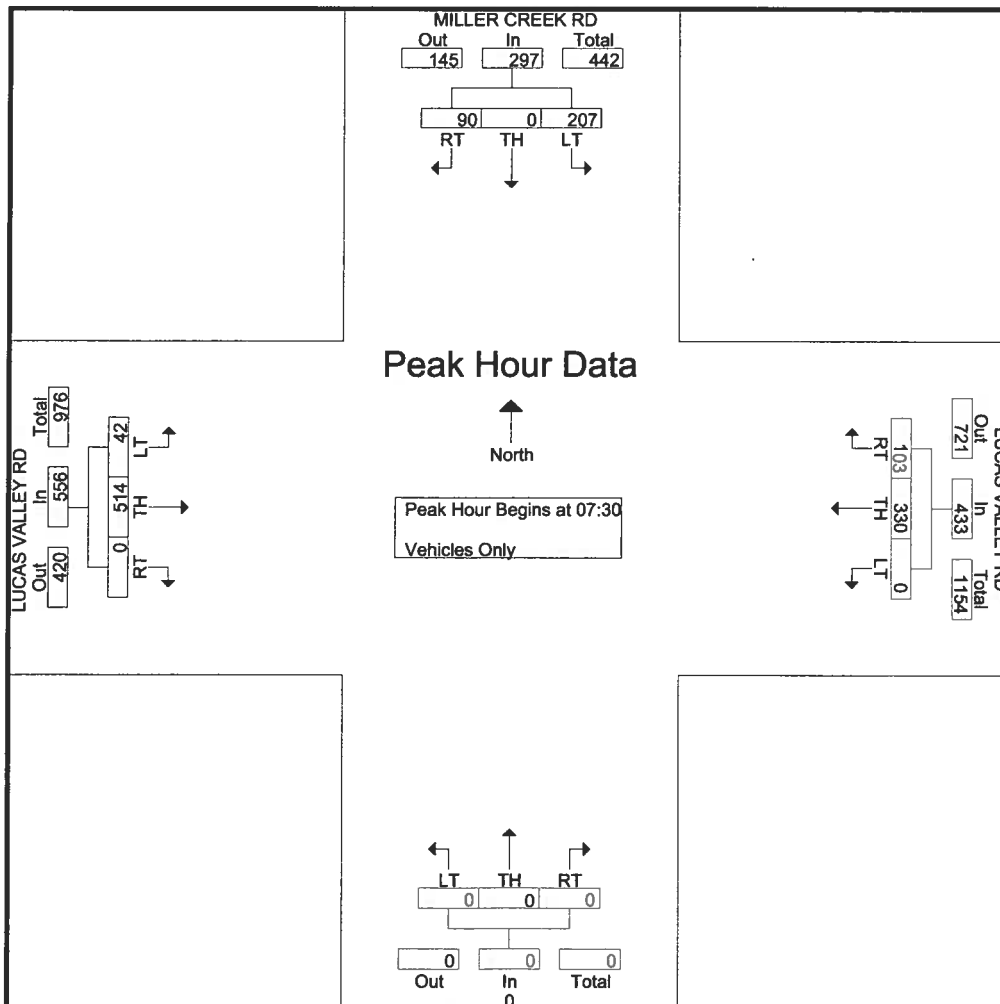
Page No : 1

Groups Printed- Vehicles Only

| Start Time | MILLER CREEK RD Southbound | | | | LUCAS VALLEY RD Westbound | | | | 0 Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|----------------------------|----|------|------------|---------------------------|------|----|------------|--------------|----|----|------------|---------------------------|------|-----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:00 | 17 | 0 | 9 | 26 | 3 | 28 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 69 | 1 | 70 | 127 |
| 07:15 | 12 | 0 | 13 | 25 | 9 | 32 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 88 | 6 | 94 | 160 |
| 07:30 | 13 | 0 | 47 | 60 | 11 | 51 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 130 | 7 | 137 | 259 |
| 07:45 | 29 | 0 | 62 | 91 | 16 | 88 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 101 | 12 | 113 | 308 |
| Total | 71 | 0 | 131 | 202 | 39 | 199 | 0 | 238 | 0 | 0 | 0 | 0 | 0 | 388 | 26 | 414 | 854 |
| 08:00 | 39 | 0 | 37 | 76 | 52 | 111 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 131 | 11 | 142 | 381 |
| 08:15 | 9 | 0 | 61 | 70 | 24 | 80 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 152 | 12 | 164 | 338 |
| 08:30 | 15 | 0 | 49 | 64 | 22 | 75 | 0 | 97 | 0 | 0 | 0 | 0 | 0 | 93 | 2 | 95 | 256 |
| 08:45 | 17 | 0 | 31 | 48 | 11 | 102 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 110 | 3 | 113 | 274 |
| Total | 80 | 0 | 178 | 258 | 109 | 368 | 0 | 477 | 0 | 0 | 0 | 0 | 0 | 486 | 28 | 514 | 1249 |
| Grand Total | 151 | 0 | 309 | 460 | 148 | 567 | 0 | 715 | 0 | 0 | 0 | 0 | 0 | 874 | 54 | 928 | 2103 |
| Approch % | 32.8 | 0 | 67.2 | | 20.7 | 79.3 | 0 | | 0 | 0 | 0 | 0 | 0 | 94.2 | 5.8 | | |
| Total % | 7.2 | 0 | 14.7 | 21.9 | 7 | 27 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 41.6 | 2.6 | 44.1 | |

| Start Time | MILLER CREEK RD Southbound | | | | LUCAS VALLEY RD Westbound | | | | 0 Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|----------------------------|------|------|------------|---------------------------|------|------|------------|--------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:30 | 13 | 0 | 47 | 60 | 11 | 51 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 130 | 7 | 137 | 259 |
| 07:45 | 29 | 0 | 62 | 91 | 16 | 88 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 101 | 12 | 113 | 308 |
| 08:00 | 39 | 0 | 37 | 76 | 52 | 111 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 131 | 11 | 142 | 381 |
| 08:15 | 9 | 0 | 61 | 70 | 24 | 80 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 152 | 12 | 164 | 338 |
| Total Volume | 90 | 0 | 207 | 297 | 103 | 330 | 0 | 433 | 0 | 0 | 0 | 0 | 0 | 514 | 42 | 556 | 1286 |
| % App. Total | 30.3 | 0 | 69.7 | | 23.8 | 76.2 | 0 | | 0 | 0 | 0 | 0 | 0 | 92.4 | 7.6 | | |
| PHF | .577 | .000 | .835 | .816 | .495 | .743 | .000 | .664 | .000 | .000 | .000 | .000 | .000 | .845 | .875 | .848 | .844 |

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : miller-lucas-p

par
Mietek 916-806-0250

Site Code : 5

Start Date : 10/27/2009

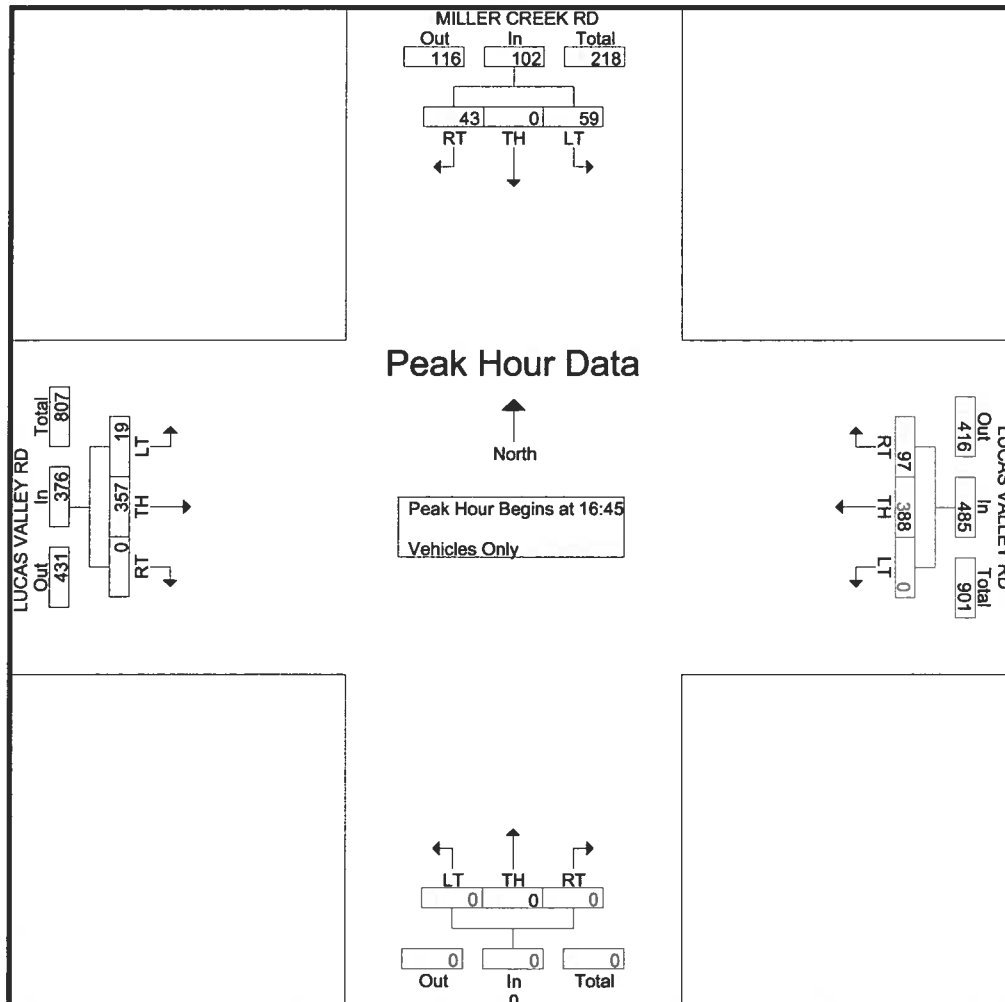
Page No : 1

Groups Printed- Vehicles Only

| Start Time | MILLER CREEK RD Southbound | | | | LUCAS VALLEY RD Westbound | | | | 0 Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|-------------------------------|----|------|------------|------------------------------|------|----|------------|-----------------|----|----|------------|------------------------------|------|-----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 6 | 0 | 18 | 24 | 25 | 85 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 100 | 9 | 109 | 243 |
| 16:15 | 5 | 0 | 21 | 26 | 17 | 74 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 92 | 9 | 101 | 218 |
| 16:30 | 7 | 0 | 16 | 23 | 19 | 79 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 86 | 3 | 89 | 210 |
| 16:45 | 11 | 0 | 10 | 21 | 19 | 108 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 90 | 5 | 95 | 243 |
| Total | 29 | 0 | 65 | 94 | 80 | 346 | 0 | 426 | 0 | 0 | 0 | 0 | 0 | 368 | 26 | 394 | 914 |
| 17:00 | 12 | 0 | 13 | 25 | 19 | 99 | 0 | 118 | 0 | 0 | 0 | 0 | 0 | 90 | 2 | 92 | 235 |
| 17:15 | 10 | 0 | 18 | 28 | 31 | 95 | 0 | 126 | 0 | 0 | 0 | 0 | 0 | 102 | 7 | 109 | 263 |
| 17:30 | 10 | 0 | 18 | 28 | 28 | 86 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 75 | 5 | 80 | 222 |
| 17:45 | 8 | 0 | 16 | 24 | 20 | 108 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 56 | 9 | 65 | 217 |
| Total | 40 | 0 | 65 | 105 | 98 | 388 | 0 | 486 | 0 | 0 | 0 | 0 | 0 | 323 | 23 | 346 | 937 |
| Grand Total | 69 | 0 | 130 | 199 | 178 | 734 | 0 | 912 | 0 | 0 | 0 | 0 | 0 | 691 | 49 | 740 | 1851 |
| Apprch % | 34.7 | 0 | 65.3 | | 19.5 | 80.5 | 0 | | 0 | 0 | 0 | 0 | 0 | 93.4 | 6.6 | | |
| Total % | 3.7 | 0 | 7 | 10.8 | 9.6 | 39.7 | 0 | 49.3 | 0 | 0 | 0 | 0 | 0 | 37.3 | 2.6 | 40 | |

| Start Time | MILLER CREEK RD Southbound | | | | LUCAS VALLEY RD Westbound | | | | 0 Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|-------------------------------|------|------|------------|------------------------------|------|------|------------|-----------------|------|------|------------|------------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:45 | 11 | 0 | 10 | 21 | 19 | 108 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 90 | 5 | 95 | 243 |
| 17:00 | 12 | 0 | 13 | 25 | 19 | 99 | 0 | 118 | 0 | 0 | 0 | 0 | 0 | 90 | 2 | 92 | 235 |
| 17:15 | 10 | 0 | 18 | 28 | 31 | 95 | 0 | 126 | 0 | 0 | 0 | 0 | 0 | 102 | 7 | 109 | 263 |
| 17:30 | 10 | 0 | 18 | 28 | 28 | 86 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 75 | 5 | 80 | 222 |
| Total Volume | 43 | 0 | 59 | 102 | 97 | 388 | 0 | 485 | 0 | 0 | 0 | 0 | 0 | 357 | 19 | 376 | 963 |
| % App. Total | 42.2 | 0 | 57.8 | | 20 | 80 | 0 | | 0 | 0 | 0 | 0 | 0 | 94.9 | 5.1 | | |
| PHF | .896 | .000 | .819 | .911 | .782 | .898 | .000 | .955 | .000 | .000 | .000 | .000 | .000 | .875 | .679 | .862 | .915 |

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 16:45



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : las-lucas-a

par
Mietek 916-806-0250

Site Code : 4

Start Date : 10/27/2009

Page No : 1

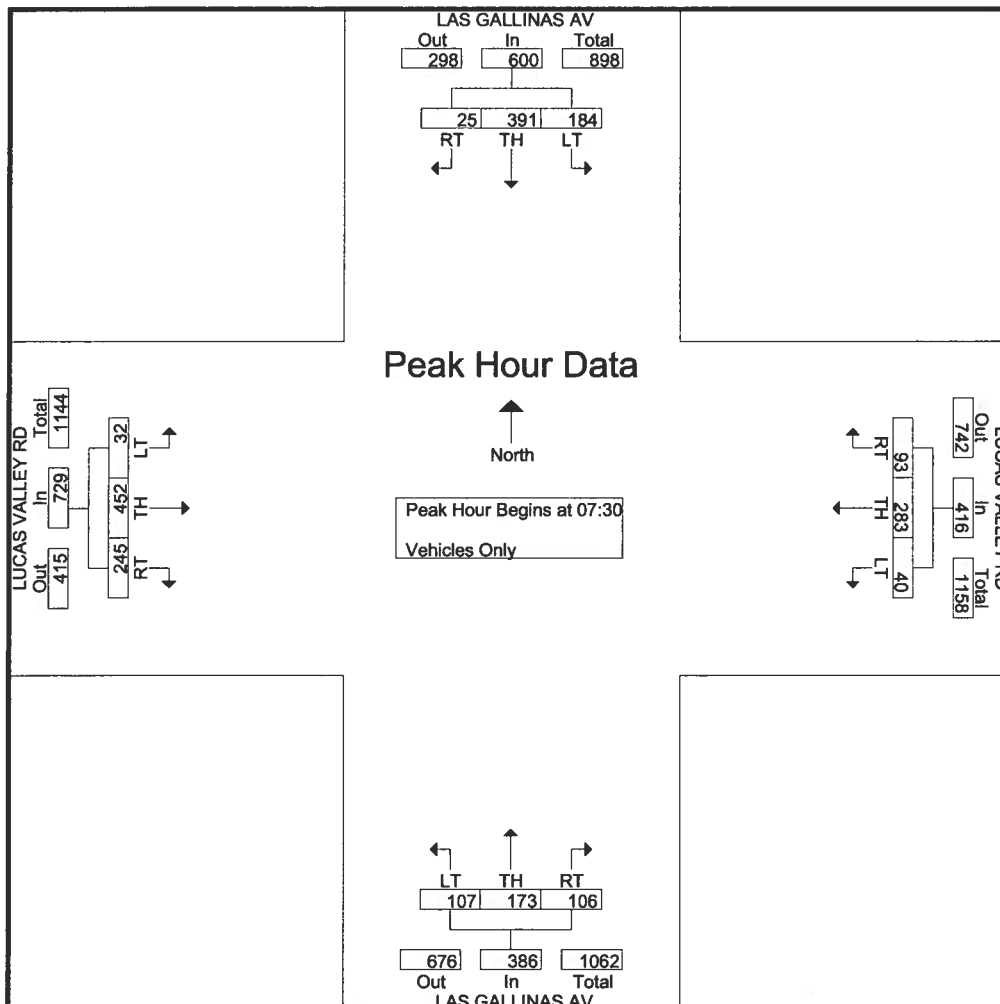
Groups Printed- Vehicles Only

| Start Time | LAS GALLINAS AV Southbound | | | | LUCAS VALLEY RD Westbound | | | | LAS GALLINAS AV Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|----------------------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|-----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:00 | 0 | 44 | 26 | 70 | 6 | 31 | 2 | 39 | 14 | 6 | 2 | 22 | 10 | 60 | 4 | 74 | 205 |
| 07:15 | 1 | 75 | 29 | 105 | 8 | 31 | 14 | 53 | 18 | 8 | 7 | 33 | 21 | 84 | 0 | 105 | 296 |
| 07:30 | 6 | 101 | 46 | 153 | 20 | 48 | 9 | 77 | 18 | 49 | 10 | 77 | 52 | 106 | 10 | 168 | 475 |
| 07:45 | 10 | 104 | 63 | 177 | 51 | 59 | 11 | 121 | 26 | 59 | 36 | 121 | 54 | 104 | 11 | 169 | 588 |
| Total | 17 | 324 | 164 | 505 | 85 | 169 | 36 | 290 | 76 | 122 | 55 | 253 | 137 | 354 | 25 | 516 | 1564 |
| 08:00 | 7 | 93 | 28 | 128 | 11 | 99 | 9 | 119 | 29 | 57 | 50 | 136 | 60 | 106 | 6 | 172 | 555 |
| 08:15 | 2 | 93 | 47 | 142 | 11 | 77 | 11 | 99 | 33 | 8 | 11 | 52 | 79 | 136 | 5 | 220 | 513 |
| 08:30 | 4 | 84 | 40 | 128 | 9 | 80 | 7 | 96 | 29 | 20 | 21 | 70 | 38 | 110 | 3 | 151 | 445 |
| 08:45 | 6 | 49 | 27 | 82 | 16 | 90 | 20 | 126 | 31 | 9 | 20 | 60 | 28 | 115 | 4 | 147 | 415 |
| Total | 19 | 319 | 142 | 480 | 47 | 346 | 47 | 440 | 122 | 94 | 102 | 318 | 205 | 467 | 18 | 690 | 1928 |
| Grand Total | 36 | 643 | 306 | 985 | 132 | 515 | 83 | 730 | 198 | 216 | 157 | 571 | 342 | 821 | 43 | 1206 | 3492 |
| Apprch % | 3.7 | 65.3 | 31.1 | | 18.1 | 70.5 | 11.4 | | 34.7 | 37.8 | 27.5 | | 28.4 | 68.1 | 3.6 | | |
| Total % | 1 | 18.4 | 8.8 | 28.2 | 3.8 | 14.7 | 2.4 | 20.9 | 5.7 | 6.2 | 4.5 | 16.4 | 9.8 | 23.5 | 1.2 | 34.5 | |

| Start Time | LAS GALLINAS AV Southbound | | | | LUCAS VALLEY RD Westbound | | | | LAS GALLINAS AV Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|----------------------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:30 | 6 | 101 | 46 | 153 | 20 | 48 | 9 | 77 | 18 | 49 | 10 | 77 | 52 | 106 | 10 | 168 | 475 |
| 07:45 | 10 | 104 | 63 | 177 | 51 | 59 | 11 | 121 | 26 | 59 | 36 | 121 | 54 | 104 | 11 | 169 | 588 |
| 08:00 | 7 | 93 | 28 | 128 | 11 | 99 | 9 | 119 | 29 | 57 | 50 | 136 | 60 | 106 | 6 | 172 | 555 |
| 08:15 | 2 | 93 | 47 | 142 | 11 | 77 | 11 | 99 | 33 | 8 | 11 | 52 | 79 | 136 | 5 | 220 | 513 |
| Total Volume | 25 | 391 | 184 | 600 | 93 | 283 | 40 | 416 | 106 | 173 | 107 | 386 | 245 | 452 | 32 | 729 | 2131 |
| % App. Total | 4.2 | 65.2 | 30.7 | | 22.4 | 68 | 9.6 | | 27.5 | 44.8 | 27.7 | | 33.6 | 62 | 4.4 | | |
| PHF | .625 | .940 | .730 | .847 | .456 | .715 | .909 | .860 | .803 | .733 | .535 | .710 | .775 | .831 | .727 | .828 | .906 |

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30

Peak Hour Data



par
Mietek 916-806-0250

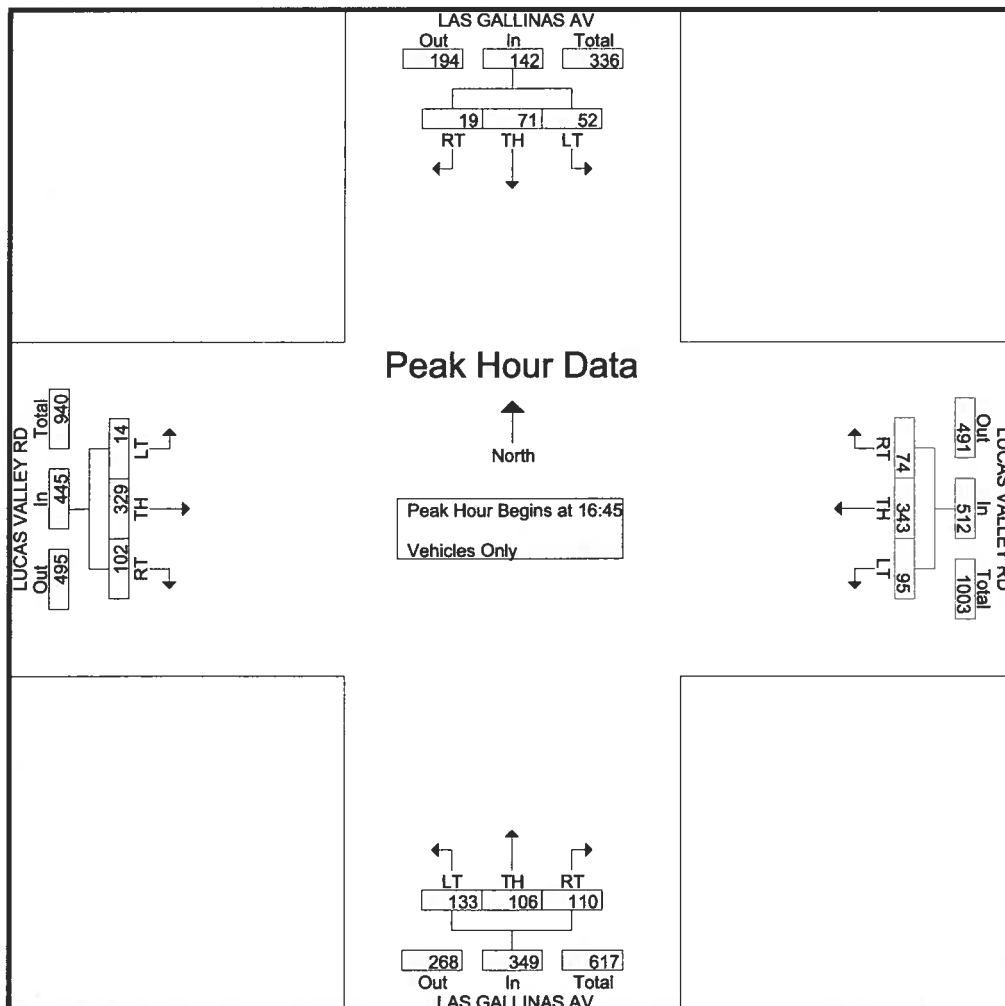
Groups Printed- Vehicles Only

| Start Time | LAS GALLINAS AV Southbound | | | | LUCAS VALLEY RD Westbound | | | | LAS GALLINAS AV Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|----------------------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|-----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 2 | 18 | 11 | 31 | 15 | 79 | 20 | 114 | 36 | 14 | 34 | 84 | 26 | 91 | 9 | 126 | 355 |
| 16:15 | 5 | 20 | 10 | 35 | 10 | 69 | 24 | 103 | 22 | 25 | 22 | 69 | 23 | 86 | 3 | 112 | 319 |
| 16:30 | 2 | 10 | 15 | 27 | 15 | 59 | 16 | 90 | 22 | 26 | 36 | 84 | 17 | 80 | 7 | 104 | 305 |
| 16:45 | 7 | 17 | 12 | 36 | 18 | 96 | 23 | 137 | 28 | 27 | 33 | 88 | 25 | 71 | 3 | 99 | 360 |
| Total | 16 | 65 | 48 | 129 | 58 | 303 | 83 | 444 | 108 | 92 | 125 | 325 | 91 | 328 | 22 | 441 | 1339 |
| 17:00 | 2 | 17 | 17 | 36 | 18 | 82 | 29 | 129 | 29 | 28 | 33 | 90 | 26 | 89 | 6 | 121 | 376 |
| 17:15 | 8 | 17 | 14 | 39 | 22 | 82 | 24 | 128 | 34 | 31 | 36 | 101 | 28 | 95 | 3 | 126 | 394 |
| 17:30 | 2 | 20 | 9 | 31 | 16 | 83 | 19 | 118 | 19 | 20 | 31 | 70 | 23 | 74 | 2 | 99 | 318 |
| 17:45 | 8 | 18 | 6 | 32 | 15 | 82 | 19 | 116 | 23 | 29 | 46 | 98 | 12 | 61 | 1 | 74 | 320 |
| Total | 20 | 72 | 46 | 138 | 71 | 329 | 91 | 491 | 105 | 108 | 146 | 359 | 89 | 319 | 12 | 420 | 1408 |
| Grand Total | 36 | 137 | 94 | 267 | 129 | 632 | 174 | 935 | 213 | 200 | 271 | 684 | 180 | 647 | 34 | 861 | 2747 |
| Apprch % | 13.5 | 51.3 | 35.2 | | 13.8 | 67.6 | 18.6 | | 31.1 | 29.2 | 39.6 | | 20.9 | 75.1 | 3.9 | | |
| Total % | 1.3 | 5 | 3.4 | 9.7 | 4.7 | 23 | 6.3 | 34 | 7.8 | 7.3 | 9.9 | 24.9 | 6.6 | 23.6 | 1.2 | 31.3 | |

| Start Time | LAS GALLINAS AV Southbound | | | | LUCAS VALLEY RD Westbound | | | | LAS GALLINAS AV Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|----------------------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:45 | 7 | 17 | 12 | 36 | 18 | 96 | 23 | 137 | 28 | 27 | 33 | 88 | 25 | 71 | 3 | 99 | 360 |
| 17:00 | 2 | 17 | 17 | 36 | 18 | 82 | 29 | 129 | 29 | 28 | 33 | 90 | 26 | 89 | 6 | 121 | 376 |
| 17:15 | 8 | 17 | 14 | 39 | 22 | 82 | 24 | 128 | 34 | 31 | 36 | 101 | 28 | 95 | 3 | 126 | 394 |
| 17:30 | 2 | 20 | 9 | 31 | 16 | 83 | 19 | 118 | 19 | 20 | 31 | 70 | 23 | 74 | 2 | 99 | 318 |
| Total Volume | 19 | 71 | 52 | 142 | 74 | 343 | 95 | 512 | 110 | 106 | 133 | 349 | 102 | 329 | 14 | 445 | 1448 |
| % App. Total | 13.4 | 50 | 36.6 | | 14.5 | 67 | 18.6 | | 31.5 | 30.4 | 38.1 | | 22.9 | 73.9 | 3.1 | | |
| PHF | .594 | .888 | .765 | .910 | .841 | .893 | .819 | .934 | .809 | .855 | .924 | .864 | .911 | .866 | .583 | .883 | .919 |

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:45



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : losgamos-lucas-a

par
Mietek 916-806-0250

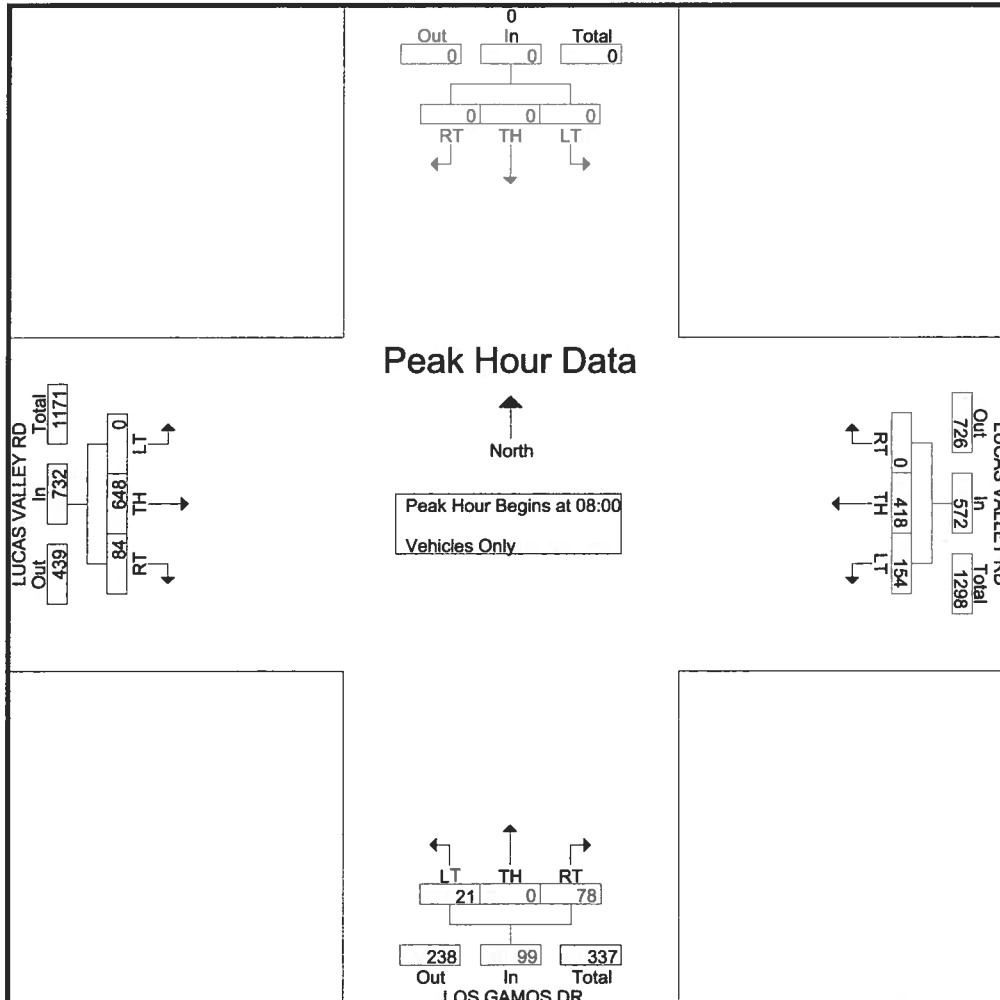
Site Code : 3
Start Date : 10/27/2009
Page No : 1

Groups Printed- Vehicles Only

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | LOS GAMOS DR Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|--------------|----|----|------------|---------------------------|------|------|------------|-------------------------|----|------|------------|---------------------------|------|----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 40 | 23 | 63 | 17 | 0 | 5 | 22 | 8 | 90 | 0 | 98 | 183 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 48 | 16 | 64 | 13 | 0 | 4 | 17 | 7 | 120 | 0 | 127 | 208 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 82 | 33 | 115 | 13 | 0 | 3 | 16 | 7 | 164 | 0 | 171 | 302 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 117 | 29 | 146 | 16 | 0 | 1 | 17 | 9 | 177 | 0 | 186 | 349 |
| Total | 0 | 0 | 0 | 0 | 0 | 287 | 101 | 388 | 59 | 0 | 13 | 72 | 31 | 551 | 0 | 582 | 1042 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 109 | 25 | 134 | 18 | 0 | 1 | 19 | 19 | 145 | 0 | 164 | 317 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 101 | 45 | 146 | 20 | 0 | 5 | 25 | 23 | 196 | 0 | 219 | 390 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 92 | 36 | 128 | 15 | 0 | 6 | 21 | 22 | 148 | 0 | 170 | 319 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 116 | 48 | 164 | 25 | 0 | 9 | 34 | 20 | 159 | 0 | 179 | 377 |
| Total | 0 | 0 | 0 | 0 | 0 | 418 | 154 | 572 | 78 | 0 | 21 | 99 | 84 | 648 | 0 | 732 | 1403 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 705 | 255 | 960 | 137 | 0 | 34 | 171 | 115 | 1199 | 0 | 1314 | 2445 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 73.4 | 26.6 | 80.1 | 0 | 0 | 19.9 | 8.8 | 91.2 | 0 | 0 | 53.7 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 28.8 | 10.4 | 39.3 | 5.6 | 0 | 1.4 | 7 | 4.7 | 49 | 0 | 53.7 | |

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | LOS GAMOS DR Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|--------------|------|------|------------|---------------------------|------|------|------------|-------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 109 | 25 | 134 | 18 | 0 | 1 | 19 | 19 | 145 | 0 | 164 | 317 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 101 | 45 | 146 | 20 | 0 | 5 | 25 | 23 | 196 | 0 | 219 | 390 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 92 | 36 | 128 | 15 | 0 | 6 | 21 | 22 | 148 | 0 | 170 | 319 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 116 | 48 | 164 | 25 | 0 | 9 | 34 | 20 | 159 | 0 | 179 | 377 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 418 | 154 | 572 | 78 | 0 | 21 | 99 | 84 | 648 | 0 | 732 | 1403 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | 73.1 | 26.9 | 78.8 | 0 | 0 | 21.2 | 11.5 | 88.5 | 0 | 0 | 836 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .901 | .802 | .872 | .780 | .000 | .583 | .728 | .913 | .827 | .000 | .836 | .899 |

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 08:00



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : losgamos-lucas-p

par
Mietek 916-806-0250

Site Code : 3

Start Date : 10/27/2009

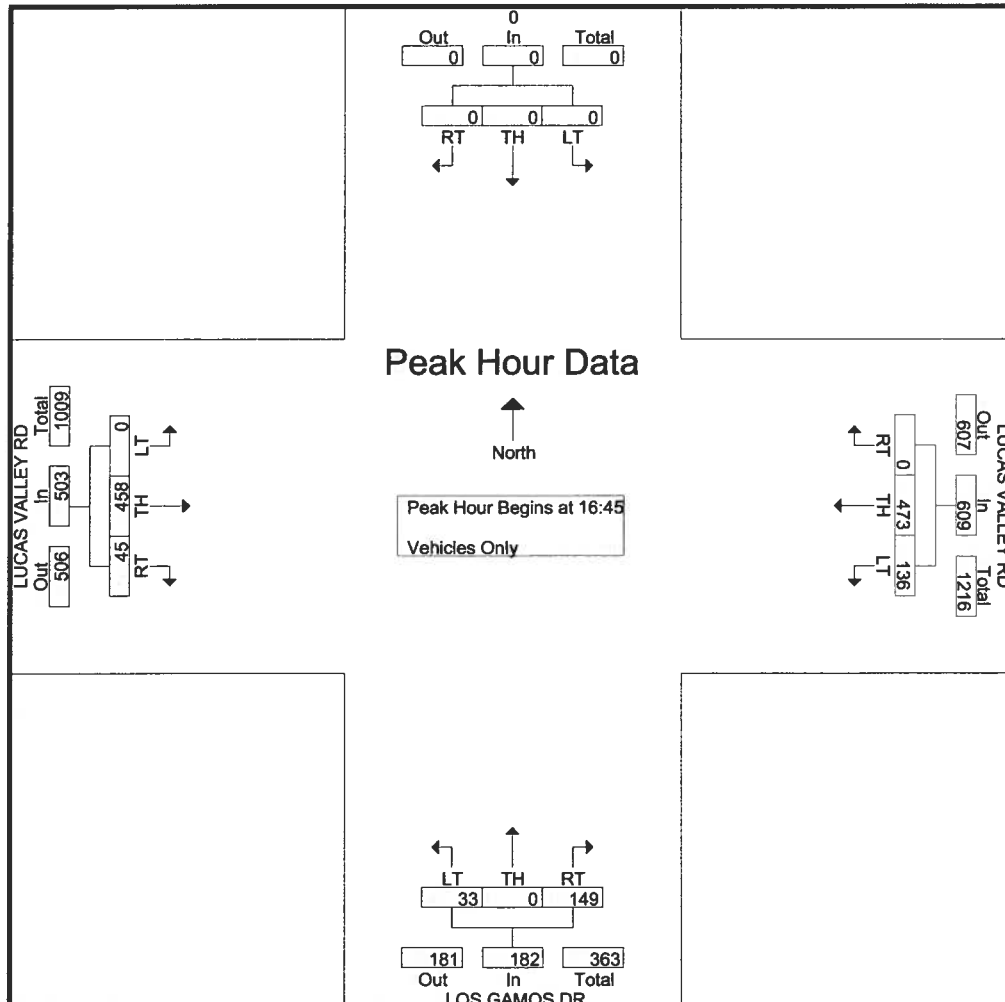
Page No : 1

Groups Printed- Vehicles Only

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | LOS GAMOS DR Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|--------------|----|----|------------|---------------------------|------|------|------------|-------------------------|----|------|------------|---------------------------|------|----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 103 | 20 | 123 | 33 | 0 | 5 | 38 | 15 | 111 | 0 | 126 | 287 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 95 | 17 | 112 | 34 | 0 | 4 | 38 | 7 | 117 | 0 | 124 | 274 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 95 | 25 | 120 | 31 | 0 | 7 | 38 | 6 | 110 | 0 | 116 | 274 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 123 | 36 | 159 | 31 | 0 | 6 | 37 | 12 | 97 | 0 | 109 | 305 |
| Total | 0 | 0 | 0 | 0 | 0 | 416 | 98 | 514 | 129 | 0 | 22 | 151 | 40 | 435 | 0 | 475 | 1140 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 127 | 31 | 158 | 49 | 0 | 7 | 56 | 9 | 121 | 0 | 130 | 344 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 114 | 35 | 149 | 40 | 0 | 12 | 52 | 13 | 135 | 0 | 148 | 349 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 109 | 34 | 143 | 29 | 0 | 8 | 37 | 11 | 105 | 0 | 116 | 296 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 110 | 28 | 138 | 32 | 0 | 9 | 41 | 7 | 82 | 0 | 89 | 268 |
| Total | 0 | 0 | 0 | 0 | 0 | 460 | 128 | 588 | 150 | 0 | 36 | 186 | 40 | 443 | 0 | 483 | 1257 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 876 | 226 | 1102 | 279 | 0 | 58 | 337 | 80 | 878 | 0 | 958 | 2397 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 79.5 | 20.5 | | 82.8 | 0 | 17.2 | | 8.4 | 91.6 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 36.5 | 9.4 | 46 | 11.6 | 0 | 2.4 | 14.1 | 3.3 | 36.6 | 0 | 40 | |

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | LOS GAMOS DR Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|--------------|------|------|------------|---------------------------|------|------|------------|-------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 123 | 36 | 159 | 31 | 0 | 6 | 37 | 12 | 97 | 0 | 109 | 305 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 127 | 31 | 158 | 49 | 0 | 7 | 56 | 9 | 121 | 0 | 130 | 344 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 114 | 35 | 149 | 40 | 0 | 12 | 52 | 13 | 135 | 0 | 148 | 349 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 109 | 34 | 143 | 29 | 0 | 8 | 37 | 11 | 105 | 0 | 116 | 296 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 473 | 136 | 609 | 149 | 0 | 33 | 182 | 45 | 458 | 0 | 503 | 1294 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | 77.7 | 22.3 | | 81.9 | 0 | 18.1 | | 8.9 | 91.1 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .931 | .944 | .958 | .760 | .000 | .688 | .813 | .865 | .848 | .000 | .850 | .927 |

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 16:45



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

par
Mietek 916-806-0250

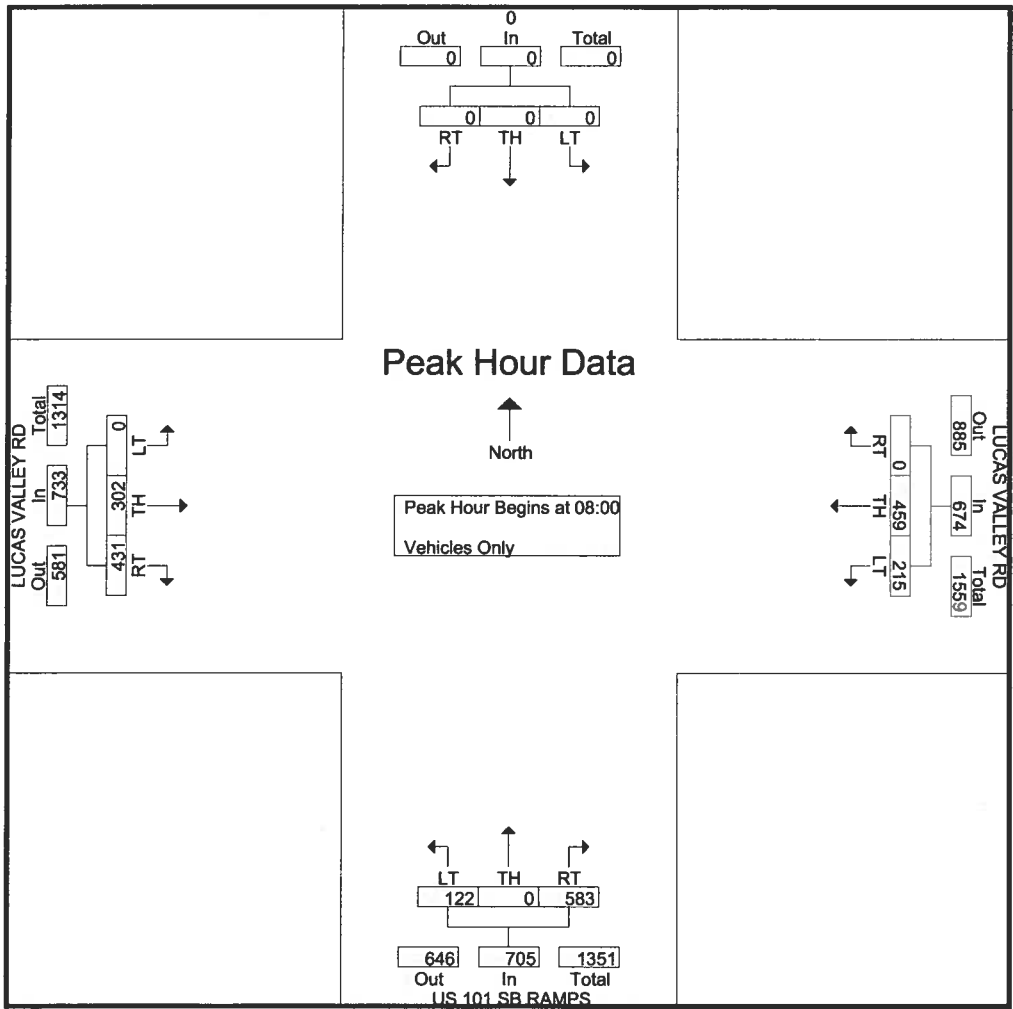
File Name : 101sb-lucas-a
Site Code : 2
Start Date : 10/27/2009
Page No : 1

Groups Printed- Vehicles Only

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 SB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|--------------|----|----|------------|---------------------------|------|------|------------|----------------------------|----|------|------------|---------------------------|------|----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 44 | 36 | 80 | 114 | 0 | 17 | 131 | 71 | 36 | 0 | 107 | 318 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 55 | 49 | 104 | 132 | 0 | 14 | 146 | 83 | 39 | 0 | 122 | 372 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 89 | 69 | 158 | 140 | 0 | 25 | 165 | 130 | 47 | 0 | 177 | 500 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 132 | 57 | 189 | 147 | 0 | 16 | 163 | 123 | 67 | 0 | 190 | 542 |
| Total | 0 | 0 | 0 | 0 | 0 | 320 | 211 | 531 | 533 | 0 | 72 | 605 | 407 | 189 | 0 | 596 | 1732 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 107 | 49 | 156 | 156 | 0 | 24 | 180 | 94 | 74 | 0 | 168 | 504 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 121 | 59 | 180 | 138 | 0 | 28 | 166 | 115 | 91 | 0 | 206 | 552 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 102 | 49 | 151 | 140 | 0 | 28 | 168 | 109 | 59 | 0 | 168 | 487 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 129 | 58 | 187 | 149 | 0 | 42 | 191 | 113 | 78 | 0 | 191 | 569 |
| Total | 0 | 0 | 0 | 0 | 0 | 459 | 215 | 674 | 583 | 0 | 122 | 705 | 431 | 302 | 0 | 733 | 2112 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 779 | 426 | 1205 | 1116 | 0 | 194 | 1310 | 838 | 491 | 0 | 1329 | 3844 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 64.6 | 35.4 | | 85.2 | 0 | 14.8 | | 63.1 | 36.9 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 20.3 | 11.1 | 31.3 | 29 | 0 | 5 | 34.1 | 21.8 | 12.8 | 0 | 34.6 | |

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 SB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|--------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 107 | 49 | 156 | 156 | 0 | 24 | 180 | 94 | 74 | 0 | 168 | 504 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 121 | 59 | 180 | 138 | 0 | 28 | 166 | 115 | 91 | 0 | 206 | 552 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 102 | 49 | 151 | 140 | 0 | 28 | 168 | 109 | 59 | 0 | 168 | 487 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 129 | 58 | 187 | 149 | 0 | 42 | 191 | 113 | 78 | 0 | 191 | 569 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 459 | 215 | 674 | 583 | 0 | 122 | 705 | 431 | 302 | 0 | 733 | 2112 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | 68.1 | 31.9 | | 82.7 | 0 | 17.3 | | 58.8 | 41.2 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .890 | .911 | .901 | .934 | .000 | .726 | .923 | .937 | .830 | .000 | .890 | .928 |

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 08:00



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : 101sb-lucas-p

Site Code : 2

Start Date : 10/27/2009

Page No : 1

par
Mietek 916-806-0250

Groups Printed- Vehicles Only

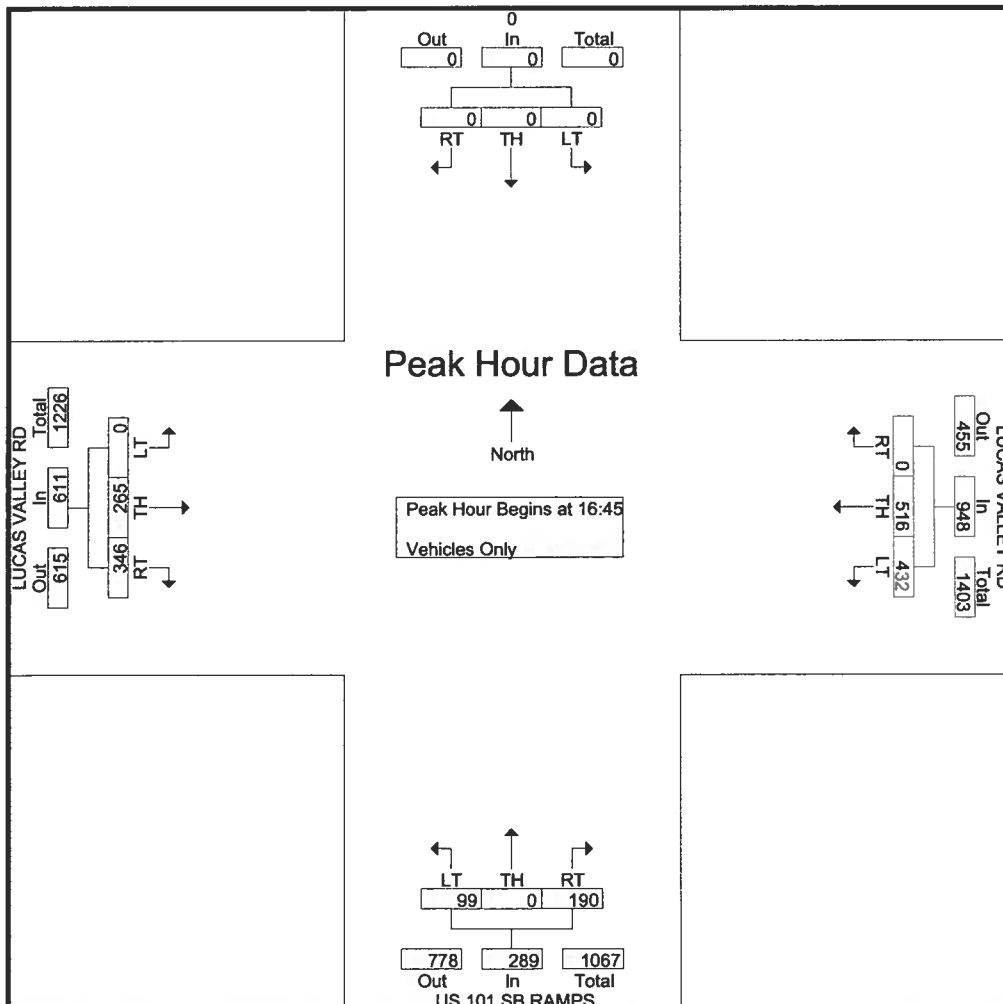
| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 SB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|--------------|----|----|------------|---------------------------|------|------|------------|----------------------------|----|------|------------|---------------------------|------|----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 113 | 125 | 238 | 64 | 0 | 14 | 78 | 81 | 64 | 0 | 145 | 461 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 96 | 127 | 223 | 57 | 0 | 12 | 69 | 88 | 64 | 0 | 152 | 444 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 89 | 95 | 184 | 55 | 0 | 29 | 84 | 77 | 63 | 0 | 140 | 408 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 137 | 122 | 259 | 60 | 0 | 29 | 89 | 69 | 66 | 0 | 135 | 483 |
| Total | 0 | 0 | 0 | 0 | 0 | 435 | 469 | 904 | 236 | 0 | 84 | 320 | 315 | 257 | 0 | 572 | 1796 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 130 | 123 | 253 | 43 | 0 | 27 | 70 | 102 | 61 | 0 | 163 | 486 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 127 | 92 | 219 | 45 | 0 | 23 | 68 | 97 | 82 | 0 | 179 | 466 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 122 | 95 | 217 | 42 | 0 | 20 | 62 | 78 | 56 | 0 | 134 | 413 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 101 | 80 | 181 | 37 | 0 | 35 | 72 | 71 | 43 | 0 | 114 | 367 |
| Total | 0 | 0 | 0 | 0 | 0 | 480 | 390 | 870 | 167 | 0 | 105 | 272 | 348 | 242 | 0 | 590 | 1732 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 915 | 859 | 1774 | 403 | 0 | 189 | 592 | 663 | 499 | 0 | 1162 | 3528 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 51.6 | 48.4 | 50.3 | 68.1 | 0 | 31.9 | 16.8 | 57.1 | 42.9 | 0 | 32.9 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 25.9 | 24.3 | 50.3 | 11.4 | 0 | 5.4 | 16.8 | 18.8 | 14.1 | 0 | 32.9 | |

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 SB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|--------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 137 | 122 | 259 | 60 | 0 | 29 | 89 | 69 | 66 | 0 | 135 | 483 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 130 | 123 | 253 | 43 | 0 | 27 | 70 | 102 | 61 | 0 | 163 | 486 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 127 | 92 | 219 | 45 | 0 | 23 | 68 | 97 | 82 | 0 | 179 | 466 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 122 | 95 | 217 | 42 | 0 | 20 | 62 | 78 | 56 | 0 | 134 | 413 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 516 | 432 | 948 | 190 | 0 | 99 | 289 | 346 | 265 | 0 | 611 | 1848 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | 54.4 | 45.6 | 50.3 | 65.7 | 0 | 34.3 | 16.8 | 56.6 | 43.4 | 0 | 32.9 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .942 | .878 | .915 | .792 | .000 | .853 | .812 | .848 | .808 | .000 | .853 | .951 |

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 16:45

Peak Hour Data



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : 101nb-lucas-a

par
Mietek 916-806-0250

Site Code : 1

Start Date : 10/27/2009

Page No : 1

Groups Printed- Vehicles Only

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 NB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|--------------|----|----|------------|---------------------------|------|----|------------|----------------------------|----|------|------------|---------------------------|------|----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 44 | 50 | 0 | 37 | 87 | 24 | 122 | 0 | 146 | 277 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 65 | 54 | 0 | 39 | 93 | 15 | 155 | 0 | 170 | 328 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 93 | 0 | 93 | 67 | 0 | 63 | 130 | 23 | 164 | 0 | 187 | 410 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 88 | 0 | 88 | 99 | 0 | 103 | 202 | 28 | 188 | 0 | 216 | 506 |
| Total | 0 | 0 | 0 | 0 | 0 | 290 | 0 | 290 | 270 | 0 | 242 | 512 | 90 | 629 | 0 | 719 | 1521 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 64 | 0 | 64 | 92 | 0 | 89 | 181 | 23 | 210 | 0 | 233 | 478 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 73 | 103 | 0 | 106 | 209 | 43 | 188 | 0 | 231 | 513 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 70 | 83 | 0 | 84 | 167 | 30 | 170 | 0 | 200 | 437 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 73 | 92 | 0 | 106 | 198 | 39 | 174 | 0 | 213 | 484 |
| Total | 0 | 0 | 0 | 0 | 0 | 280 | 0 | 280 | 370 | 0 | 385 | 755 | 135 | 742 | 0 | 877 | 1912 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 570 | 0 | 570 | 640 | 0 | 627 | 1267 | 225 | 1371 | 0 | 1596 | 3433 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 50.5 | 0 | 49.5 | 14.1 | 85.9 | 0 | 0 | 0 | 0 |
| Total % | 0 | 0 | 0 | 0 | 0 | 16.6 | 0 | 16.6 | 18.6 | 0 | 18.3 | 36.9 | 6.6 | 39.9 | 0 | 46.5 | |

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 NB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|--------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 88 | 0 | 88 | 99 | 0 | 103 | 202 | 28 | 188 | 0 | 216 | 506 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 64 | 0 | 64 | 92 | 0 | 89 | 181 | 23 | 210 | 0 | 233 | 478 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 73 | 0 | 73 | 103 | 0 | 106 | 209 | 43 | 188 | 0 | 231 | 513 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 70 | 83 | 0 | 84 | 167 | 30 | 170 | 0 | 200 | 437 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 295 | 0 | 295 | 377 | 0 | 382 | 759 | 124 | 756 | 0 | 880 | 1934 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 49.7 | 0 | 50.3 | 14.1 | 85.9 | 0 | 0 | 0 | 0 |
| PHF | .000 | .000 | .000 | .000 | .000 | .838 | .000 | .838 | .915 | .000 | .901 | .908 | .721 | .900 | .000 | .944 | .942 |

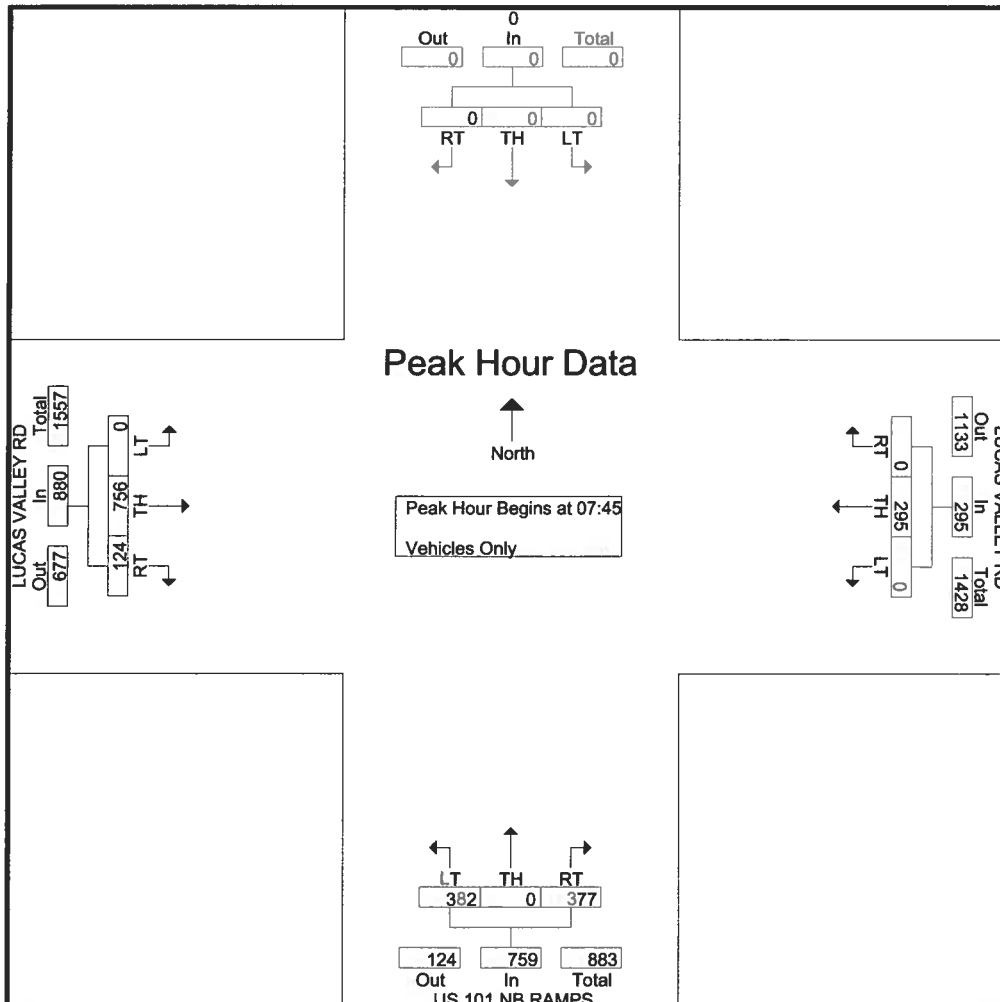
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45

Peak Hour Data



Peak Hour Begins at 07:45
Vehicles Only



MARKS TRAFFIC DATA

CITY OF SAN RAFAEL

File Name : 101nb-lucas-p

Site Code : 1

Start Date : 10/27/2009

Page No : 1

par
Mietek 916-806-0250

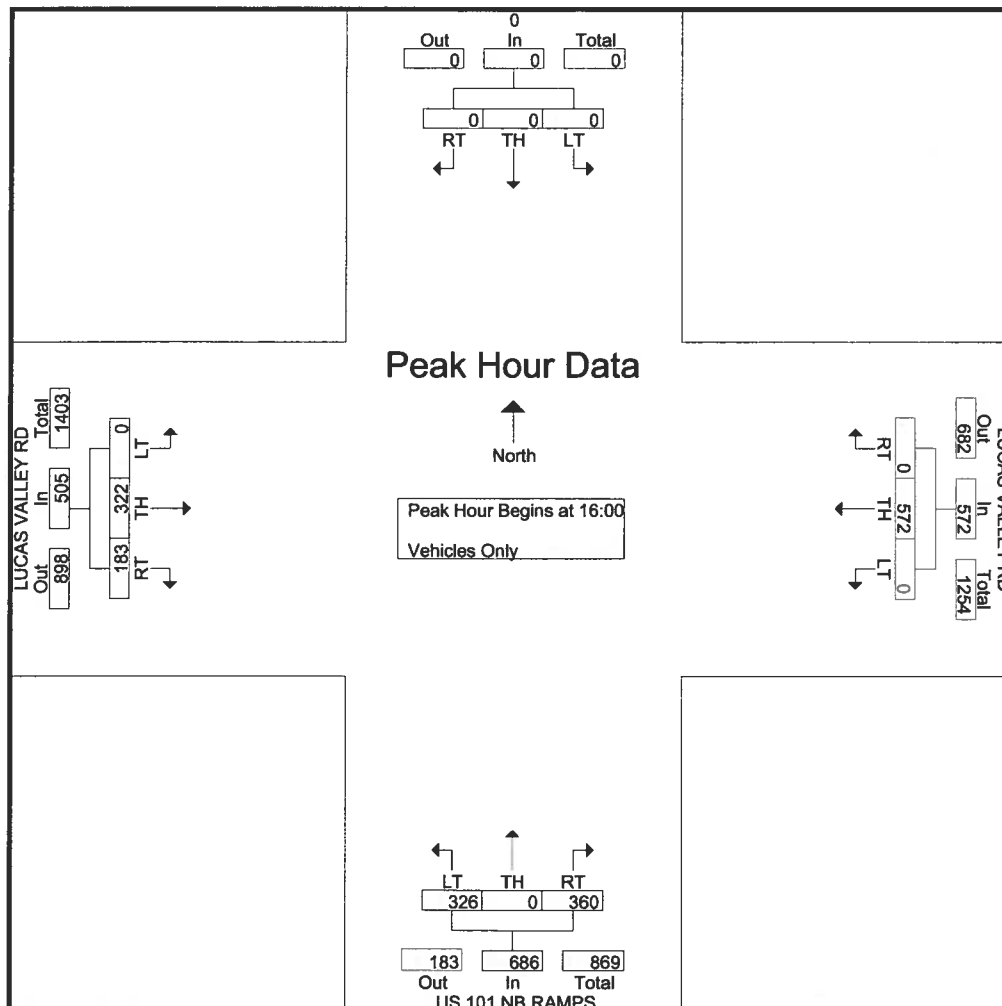
Groups Printed- Vehicles Only

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 NB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|-------------|--------------|----|----|------------|---------------------------|------|----|------------|----------------------------|----|------|------------|---------------------------|------|----|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 151 | 0 | 151 | 99 | 0 | 87 | 186 | 49 | 81 | 0 | 130 | 467 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 147 | 100 | 0 | 71 | 171 | 48 | 82 | 0 | 130 | 448 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 121 | 0 | 121 | 86 | 0 | 71 | 157 | 45 | 72 | 0 | 117 | 395 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 153 | 0 | 153 | 75 | 0 | 97 | 172 | 41 | 87 | 0 | 128 | 453 |
| Total | 0 | 0 | 0 | 0 | 0 | 572 | 0 | 572 | 360 | 0 | 326 | 686 | 183 | 322 | 0 | 505 | 1763 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 161 | 0 | 161 | 74 | 0 | 93 | 167 | 39 | 65 | 0 | 104 | 432 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 124 | 71 | 0 | 101 | 172 | 58 | 66 | 0 | 124 | 420 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 117 | 0 | 117 | 90 | 0 | 103 | 193 | 36 | 62 | 0 | 98 | 408 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 93 | 0 | 93 | 82 | 0 | 80 | 162 | 30 | 50 | 0 | 80 | 335 |
| Total | 0 | 0 | 0 | 0 | 0 | 495 | 0 | 495 | 317 | 0 | 377 | 694 | 163 | 243 | 0 | 406 | 1595 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 1067 | 0 | 1067 | 677 | 0 | 703 | 1380 | 346 | 565 | 0 | 911 | 3358 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 49.1 | 0 | 50.9 | 41.1 | 38 | 62 | 0 | 27.1 | |
| Total % | 0 | 0 | 0 | 0 | 0 | 31.8 | 0 | 31.8 | 20.2 | 0 | 20.9 | 41.1 | 10.3 | 16.8 | 0 | 27.1 | |

| Start Time | 0 Southbound | | | | LUCAS VALLEY RD Westbound | | | | US 101 NB RAMPS Northbound | | | | LUCAS VALLEY RD Eastbound | | | | Int. Total |
|--------------|--------------|------|------|------------|---------------------------|------|------|------------|----------------------------|------|------|------------|---------------------------|------|------|------------|------------|
| | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | RT | TH | LT | App. Total | |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 151 | 0 | 151 | 99 | 0 | 87 | 186 | 49 | 81 | 0 | 130 | 467 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 147 | 0 | 147 | 100 | 0 | 71 | 171 | 48 | 82 | 0 | 130 | 448 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 121 | 0 | 121 | 86 | 0 | 71 | 157 | 45 | 72 | 0 | 117 | 395 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 153 | 0 | 153 | 75 | 0 | 97 | 172 | 41 | 87 | 0 | 128 | 453 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 572 | 0 | 572 | 360 | 0 | 326 | 686 | 183 | 322 | 0 | 505 | 1763 |
| % App. Total | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 52.5 | 0 | 47.5 | 41.1 | 36.2 | 63.8 | 0 | 27.1 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .935 | .000 | .935 | .900 | .000 | .840 | .922 | .934 | .925 | .000 | .971 | .944 |

Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 16:00

Peak Hour Data



MARKS TRAFFIC DATA

OF SAN RAFAEL
SKYWALKER RANCH DW @ 5858 LUCAS VALLEY

Site Code: 3
RANCH DWY

| Start Time | 28-Oct-09 | | | | Both Dir. Total | 29-Oct-09 | | | | Both Dir. Total | 30-Oct-09 | | | | Both Dir. Total | 3-Day Total | |
|------------------|-----------|-------|-------|-------|-----------------|-----------|-------|-------|-------|-----------------|-----------|-------|-------|-------|-----------------|-------------|------|
| | NB | | SB | | | NB | | SB | | | NB | | SB | | | A.M. | P.M. |
| Wed | A.M. | P.M. | A.M. | P.M. | Thu | A.M. | P.M. | A.M. | P.M. | Fri | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | |
| 12:00 | 0 | 3 | 0 | 3 | 6 | 0 | 6 | 0 | 1 | 7 | 0 | 9 | 1 | 5 | 15 | 1 | 27 |
| 12:15 | 1 | 1 | 0 | 1 | 3 | 0 | 8 | 1 | 0 | 9 | 0 | 6 | 0 | 5 | 11 | 2 | 21 |
| 12:30 | 0 | 4 | 0 | 0 | 4 | 0 | 7 | 0 | 2 | 3 | 0 | 2 | 0 | 3 | 5 | 0 | 12 |
| 12:45 | 0 | 2 | 0 | 5 | 7 | 0 | 6 | 1 | 8 | 15 | 1 | 4 | 1 | 2 | 8 | 3 | 27 |
| 01:00 | 0 | 3 | 1 | 5 | 9 | 0 | 6 | 0 | 4 | 10 | 0 | 4 | 0 | 3 | 7 | 1 | 25 |
| 01:15 | 0 | 0 | 1 | 3 | 4 | 2 | 3 | 1 | 5 | 11 | 0 | 1 | 0 | 6 | 7 | 4 | 18 |
| 01:30 | 0 | 5 | 1 | 8 | 14 | 0 | 1 | 1 | 2 | 4 | 0 | 3 | 1 | 6 | 10 | 3 | 25 |
| 01:45 | 0 | 1 | 0 | 6 | 7 | 0 | 2 | 0 | 5 | 7 | 0 | 4 | 0 | 2 | 6 | 0 | 20 |
| 02:00 | 0 | 3 | 0 | 3 | 6 | 0 | 1 | 0 | 7 | 8 | 0 | 3 | 0 | 2 | 5 | 0 | 19 |
| 02:15 | 0 | 2 | 0 | 5 | 7 | 0 | 0 | 0 | 7 | 7 | 0 | 1 | 0 | 8 | 9 | 0 | 23 |
| 02:30 | 0 | 2 | 0 | 3 | 5 | 0 | 3 | 0 | 2 | 5 | 0 | 1 | 0 | 2 | 3 | 0 | 13 |
| 02:45 | 0 | 2 | 0 | 3 | 5 | 0 | 2 | 0 | 3 | 5 | 0 | 2 | 0 | 5 | 7 | 0 | 17 |
| 03:00 | 0 | 2 | 0 | 4 | 6 | 0 | 3 | 0 | 8 | 11 | 0 | 2 | 0 | 9 | 11 | 0 | 28 |
| 03:15 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 8 | 9 | 0 | 0 | 0 | 2 | 2 | 0 | 13 |
| 03:30 | 0 | 1 | 0 | 7 | 8 | 0 | 2 | 0 | 5 | 7 | 0 | 3 | 0 | 5 | 8 | 0 | 23 |
| 03:45 | 0 | 1 | 0 | 5 | 6 | 0 | 2 | 0 | 4 | 6 | 0 | 2 | 0 | 7 | 9 | 0 | 21 |
| 04:00 | 0 | 2 | 0 | 5 | 7 | 0 | 1 | 0 | 6 | 7 | 0 | 2 | 0 | 3 | 5 | 0 | 19 |
| 04:15 | 0 | 3 | 0 | 6 | 9 | 0 | 0 | 0 | 5 | 5 | 0 | 1 | 0 | 6 | 7 | 0 | 21 |
| 04:30 | 0 | 5 | 0 | 7 | 12 | 0 | 4 | 0 | 3 | 7 | 0 | 1 | 0 | 4 | 5 | 0 | 24 |
| 04:45 | 0 | 2 | 0 | 4 | 6 | 0 | 5 | 0 | 6 | 11 | 0 | 2 | 0 | 8 | 10 | 0 | 27 |
| 05:00 | 0 | 1 | 0 | 7 | 8 | 0 | 3 | 0 | 5 | 8 | 0 | 1 | 0 | 5 | 6 | 0 | 22 |
| 05:15 | 0 | 2 | 0 | 7 | 9 | 0 | 0 | 0 | 7 | 7 | 0 | 1 | 0 | 8 | 9 | 0 | 25 |
| 05:30 | 0 | 1 | 0 | 9 | 10 | 0 | 2 | 0 | 5 | 7 | 0 | 2 | 0 | 6 | 8 | 0 | 25 |
| 05:45 | 1 | 0 | 0 | 6 | 7 | 0 | 0 | 0 | 6 | 6 | 0 | 1 | 0 | 2 | 3 | 1 | 15 |
| 06:00 | 0 | 2 | 0 | 9 | 11 | 1 | 0 | 0 | 12 | 13 | 0 | 1 | 0 | 16 | 17 | 1 | 40 |
| 06:15 | 1 | 3 | 1 | 9 | 14 | 1 | 3 | 0 | 5 | 9 | 0 | 3 | 0 | 12 | 15 | 3 | 35 |
| 06:30 | 4 | 7 | 0 | 7 | 18 | 2 | 0 | 1 | 9 | 12 | 5 | 0 | 1 | 8 | 14 | 13 | 31 |
| 06:45 | 1 | 8 | 1 | 6 | 16 | 2 | 2 | 0 | 4 | 8 | 1 | 0 | 0 | 3 | 4 | 5 | 23 |
| 07:00 | 7 | 3 | 0 | 8 | 18 | 3 | 3 | 0 | 8 | 14 | 13 | 0 | 0 | 11 | 24 | 23 | 33 |
| 07:15 | 6 | 0 | 1 | 7 | 14 | 9 | 3 | 1 | 7 | 20 | 7 | 0 | 0 | 9 | 16 | 24 | 26 |
| 07:30 | 11 | 4 | 1 | 8 | 24 | 12 | 2 | 4 | 9 | 27 | 6 | 1 | 3 | 4 | 14 | 37 | 28 |
| 07:45 | 8 | 0 | 2 | 5 | 15 | 11 | 0 | 2 | 4 | 17 | 12 | 1 | 1 | 6 | 20 | 36 | 16 |
| 08:00 | 16 | 0 | 1 | 7 | 24 | 13 | 1 | 1 | 2 | 17 | 17 | 0 | 0 | 5 | 22 | 48 | 15 |
| 08:15 | 15 | 0 | 4 | 6 | 25 | 11 | 0 | 2 | 0 | 13 | 13 | 1 | 2 | 1 | 17 | 47 | 8 |
| 08:30 | 16 | 0 | 4 | 6 | 26 | 23 | 0 | 1 | 7 | 31 | 18 | 0 | 3 | 2 | 23 | 65 | 15 |
| 08:45 | 16 | 1 | 2 | 3 | 22 | 16 | 2 | 3 | 7 | 28 | 24 | 0 | 2 | 1 | 27 | 63 | 14 |
| 09:00 | 16 | 0 | 3 | 1 | 20 | 20 | 0 | 3 | 7 | 30 | 16 | 0 | 1 | 1 | 18 | 59 | 9 |
| 09:15 | 16 | 0 | 1 | 19 | 36 | 8 | 0 | 5 | 2 | 15 | 9 | 0 | 3 | 1 | 13 | 42 | 22 |
| 09:30 | 7 | 3 | 3 | 2 | 15 | 11 | 2 | 0 | 3 | 16 | 9 | 0 | 1 | 0 | 10 | 31 | 10 |
| 09:45 | 10 | 0 | 0 | 1 | 11 | 10 | 0 | 1 | 2 | 13 | 5 | 0 | 0 | 1 | 6 | 26 | 4 |
| 10:00 | 5 | 0 | 0 | 0 | 5 | 7 | 0 | 2 | 3 | 12 | 7 | 0 | 5 | 2 | 14 | 26 | 5 |
| 10:15 | 9 | 0 | 0 | 0 | 9 | 4 | 0 | 0 | 3 | 7 | 4 | 0 | 3 | 2 | 9 | 20 | 5 |
| 10:30 | 2 | 0 | 1 | 3 | 6 | 3 | 1 | 2 | 2 | 8 | 4 | 0 | 0 | 1 | 5 | 12 | 7 |
| 10:45 | 3 | 1 | 2 | 12 | 18 | 0 | 1 | 2 | 9 | 12 | 5 | 1 | 5 | 8 | 19 | 17 | 32 |
| 11:00 | 3 | 0 | 5 | 2 | 10 | 2 | 0 | 4 | 5 | 11 | 1 | 0 | 5 | 7 | 13 | 20 | 14 |
| 11:15 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 2 | 2 | 5 | 2 | 0 | 2 | 0 | 4 | 9 | 2 |
| 11:30 | 1 | 0 | 2 | 0 | 3 | 1 | 0 | 2 | 0 | 3 | 1 | 0 | 4 | 2 | 7 | 11 | 2 |
| 11:45 | 4 | 0 | 1 | 1 | 6 | 2 | 0 | 2 | 0 | 4 | 4 | 0 | 4 | 1 | 9 | 17 | 2 |
| Total | 181 | 80 | 38 | 236 | 535 | 175 | 82 | 44 | 226 | 527 | 184 | 66 | 48 | 218 | 516 | 670 | 908 |
| Day Total | 261 | | 274 | | | 257 | | 270 | | | 250 | | 266 | | 1578 | | |
| Percent | 69.3% | 30.7% | 13.9% | 86.1% | | 68.1% | 31.9% | 16.3% | 83.7% | | 73.6% | 26.4% | 18.0% | 82.0% | 42.5% | 57.5% | |
| Peak Vol. | 08:30 | 06:15 | 08:15 | 05:30 | | 08:15 | 12:00 | 08:30 | 05:45 | | 08:00 | 12:00 | 10:45 | 06:00 | | | |
| Vol. | 64 | 21 | 13 | 33 | | 70 | 21 | 12 | 32 | | 72 | 21 | 16 | 39 | | | |
| Σ | 1.000 | 0.656 | 0.813 | 0.917 | | 0.761 | 0.656 | 0.600 | 0.667 | | 0.750 | 0.583 | 0.800 | 0.609 | | | |

MARKS TRAFFIC DATA

CITY OF SAN RAFAEL
SKYWALKER RANCH D/W @ 5858 LUCAS VALLEY

Site Code: 3
RANCH DWY

| Start Time | 31-Oct-09 | | NB | | SB | | Both Dir. Total | 01-Nov-09 | | NB | | SB | | Both Dir. Total | 02-Nov-09 | | NB | | SB | | Both Dir. Total | 3-Day Total | |
|------------------|-----------|--|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|-----------|--------------|-----------------|--------------|--------------|------------|--------------|--------------|------|-----------------|-------------|------|
| | Sat | | A.M. | P.M. | A.M. | P.M. | | Sun | A.M. | P.M. | A.M. | P.M. | Mon | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | | A.M. | P.M. |
| 12:00 | | | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 2 | 2 | 0 | 5 | 0 | 5 | 10 | 0 | 15 | | | | |
| 12:15 | | | 1 | 2 | 0 | 1 | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 4 | 1 | 8 | | | | |
| 12:30 | | | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 0 | 5 | | | | | |
| 12:45 | | | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 6 | 8 | 1 | 10 | | | | |
| 01:00 | | | 0 | 0 | 1 | 2 | 3 | 0 | 2 | 0 | 0 | 2 | 0 | 5 | 0 | 4 | 9 | 1 | 13 | | | | |
| 01:15 | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 10 | 0 | 11 | | | | | |
| 01:30 | | | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 3 | 1 | 3 | | | | | |
| 01:45 | | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 6 | 0 | 7 | | | | | |
| 02:00 | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 3 | 4 | 0 | 6 | | | | |
| 02:15 | | | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 7 | 0 | 11 | | | | | |
| 02:30 | | | 0 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 9 | 0 | 12 | | | | | |
| 02:45 | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 4 | 6 | 0 | 7 | | | | | |
| 03:00 | | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 2 | 4 | 0 | 6 | | | | | |
| 03:15 | | | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 7 | 0 | 9 | | | | | |
| 03:30 | | | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 5 | 0 | 7 | | | | | |
| 03:45 | | | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 11 | 13 | 0 | 16 | | | | | |
| 04:00 | | | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 4 | 5 | 0 | 9 | | | | |
| 04:15 | | | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 4 | 0 | 7 | | | | |
| 04:30 | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 0 | 4 | | | | | |
| 04:45 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | | | | | |
| 05:00 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 8 | 12 | 0 | 12 | | | | | |
| 05:15 | | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 13 | 15 | 0 | 16 | | | | | |
| 05:30 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 0 | 7 | | | | | |
| 05:45 | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 9 | 0 | 10 | | | | | |
| 06:00 | | | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 13 | 3 | 13 | | | | | |
| 06:15 | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 10 | 1 | 10 | | | | | |
| 06:30 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 5 | 9 | 3 | 6 | | | | |
| 06:45 | | | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 2 | 5 | 3 | 3 | | | | |
| 07:00 | | | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 11 | 18 | 8 | 12 | | | | |
| 07:15 | | | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 1 | 4 | 8 | 2 | 1 | 8 | 19 | 12 | 13 | | | | |
| 07:30 | | | 3 | 0 | 1 | 0 | 4 | 2 | 2 | 0 | 1 | 5 | 3 | 0 | 2 | 10 | 15 | 11 | 13 | | | | |
| 07:45 | | | 3 | 0 | 0 | 1 | 4 | 3 | 0 | 0 | 3 | 6 | 14 | 0 | 1 | 13 | 28 | 21 | 17 | | | | |
| 08:00 | | | 1 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 16 | 0 | 1 | 5 | 22 | 21 | 5 | | | | |
| 08:15 | | | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 2 | 0 | 4 | 13 | 0 | 3 | 4 | 20 | 21 | 5 | | | | |
| 08:30 | | | 4 | 0 | 0 | 0 | 4 | 6 | 0 | 0 | 0 | 6 | 22 | 0 | 1 | 4 | 27 | 33 | 4 | | | | |
| 08:45 | | | 3 | 0 | 0 | 0 | 3 | 6 | 1 | 0 | 0 | 7 | 21 | 1 | 0 | 1 | 23 | 30 | 3 | | | | |
| 09:00 | | | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 2 | 0 | 17 | 18 | 1 | | | | |
| 09:15 | | | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 6 | 6 | 12 | 0 | 2 | 0 | 14 | 17 | 6 | | | | |
| 09:30 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 13 | 0 | 3 | 0 | 16 | 16 | 3 | | | | |
| 09:45 | | | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 7 | 4 | 0 | 4 | 0 | 8 | 8 | 8 | | | | |
| 10:00 | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 2 | 1 | 7 | 6 | 3 | | | | |
| 10:15 | | | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 4 | 1 | | | | |
| 10:30 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | | | | |
| 10:45 | | | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 8 | 0 | 10 | 11 | 2 | | | | |
| 11:00 | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 0 | 4 | 0 | 8 | 8 | 2 | | | | |
| 11:15 | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 3 | 2 | 3 | | | | |
| 11:30 | | | 0 | 1 | 2 | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 3 | 6 | 1 | | | | |
| 11:45 | | | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 6 | 7 | 0 | | | | |
| Total | | | 22 | 15 | 13 | 30 | 80 | 23 | 14 | 3 | 32 | 72 | 171 | 60 | 43 | 198 | 472 | 275 | 349 | | | | |
| Day Total | | | 37 | | 43 | | | 37 | | 35 | | | 231 | | 241 | | | 624 | | | | | |
| Percent | | | 59.5% | 40.5% | 30.2% | 69.8% | | 62.2% | 37.8% | 8.6% | 91.4% | | 74.0% | 26.0% | 17.8% | 82.2% | | 44.1% | 55.9% | | | | |
| Peak Vol. | | | 07:45 | 02:30 | 07:30 | 03:30 | | 08:00 | 00:15 | 07:30 | 09:15 | | 08:00 | 01:00 | 10:45 | 07:00 | | | | | | | |
| P.H.F. | | | 0.563 | 0.500 | 0.750 | 0.438 | | 0.625 | 0.500 | 0.250 | 0.607 | | 0.818 | 0.800 | 0.469 | 0.808 | | | | | | | |

MARKS TRAFFIC DATA

OF SAN RAFAEL
SKYWALKER RANCH DW @ 5858 LUCAS VALLEY

Site Code: 3
RANCH DWY

| Start Time | 03-Nov-09 | | | | Both Dir. Total | 04-Nov-09 | | | | Both Dir. Total | 05-Nov-09 | | | | Both Dir. Total | 3-Day Total | |
|------------------|-----------|-------|-------|-------|-----------------|-----------|------|------|------|-----------------|-----------|------|------|------|-----------------|-------------|-------|
| | NB | | SB | | | NB | | SB | | | NB | | SB | | | A.M. | P.M. |
| | Tue | A.M. | P.M. | A.M. | P.M. | Wed | A.M. | P.M. | A.M. | P.M. | Thu | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | | 1 | 7 | 1 | 1 | 10 | * | * | * | * | * | * | * | * | * | 2 | 8 |
| 12:15 | | 0 | 4 | 0 | 3 | 7 | * | * | * | * | * | * | * | * | * | 0 | 7 |
| 12:30 | | 0 | 4 | 0 | 7 | 11 | * | * | * | * | * | * | * | * | * | 0 | 11 |
| 12:45 | | 0 | 0 | 0 | 0 | 0 | * | * | * | * | * | * | * | * | * | 0 | 0 |
| 01:00 | | 0 | 1 | 0 | 2 | 3 | * | * | * | * | * | * | * | * | * | 0 | 3 |
| 01:15 | | 0 | 0 | 1 | 10 | 11 | * | * | * | * | * | * | * | * | * | 1 | 10 |
| 01:30 | | 0 | 2 | 1 | 1 | 4 | * | * | * | * | * | * | * | * | * | 1 | 3 |
| 01:45 | | 0 | 2 | 0 | 1 | 3 | * | * | * | * | * | * | * | * | * | 0 | 3 |
| 02:00 | | 0 | 3 | 0 | 1 | 4 | * | * | * | * | * | * | * | * | * | 0 | 4 |
| 02:15 | | 0 | 3 | 0 | 3 | 6 | * | * | * | * | * | * | * | * | * | 0 | 6 |
| 02:30 | | 0 | 4 | 0 | 3 | 7 | * | * | * | * | * | * | * | * | * | 0 | 7 |
| 02:45 | | 0 | 0 | 0 | 3 | 3 | * | * | * | * | * | * | * | * | * | 0 | 3 |
| 03:00 | | 0 | 3 | 0 | 6 | 9 | * | * | * | * | * | * | * | * | * | 0 | 9 |
| 03:15 | | 0 | 1 | 0 | 4 | 5 | * | * | * | * | * | * | * | * | * | 0 | 5 |
| 03:30 | | 0 | 2 | 0 | 5 | 7 | * | * | * | * | * | * | * | * | * | 0 | 7 |
| 03:45 | | 0 | 2 | 0 | 7 | 9 | * | * | * | * | * | * | * | * | * | 0 | 9 |
| 04:00 | | 0 | 2 | 0 | 5 | 7 | * | * | * | * | * | * | * | * | * | 0 | 7 |
| 04:15 | | 0 | 0 | 0 | 2 | 2 | * | * | * | * | * | * | * | * | * | 0 | 2 |
| 04:30 | | 0 | 2 | 0 | 6 | 8 | * | * | * | * | * | * | * | * | * | 0 | 8 |
| 04:45 | | 0 | 3 | 0 | 4 | 7 | * | * | * | * | * | * | * | * | * | 0 | 7 |
| 05:00 | | 0 | 1 | 0 | 11 | 12 | * | * | * | * | * | * | * | * | * | 0 | 12 |
| 05:15 | | 0 | 0 | 0 | 7 | 7 | * | * | * | * | * | * | * | * | * | 0 | 7 |
| 05:30 | | 0 | 4 | 0 | 7 | 11 | * | * | * | * | * | * | * | * | * | 0 | 11 |
| 05:45 | | 0 | 0 | 0 | 5 | 5 | * | * | * | * | * | * | * | * | * | 0 | 5 |
| 06:00 | | 1 | 1 | 0 | 13 | 15 | * | * | * | * | * | * | * | * | * | 1 | 14 |
| 06:15 | | 2 | 1 | 1 | 11 | 15 | * | * | * | * | * | * | * | * | * | 3 | 12 |
| 06:30 | | 5 | 1 | 0 | 6 | 12 | * | * | * | * | * | * | * | * | * | 5 | 7 |
| 06:45 | | 2 | 4 | 0 | 5 | 11 | * | * | * | * | * | * | * | * | * | 2 | 9 |
| 07:00 | | 6 | 3 | 0 | 11 | 20 | * | * | * | * | * | * | * | * | * | 6 | 14 |
| 07:15 | | 9 | 1 | 1 | 14 | 25 | * | * | * | * | * | * | * | * | * | 10 | 15 |
| 07:30 | | 5 | 2 | 1 | 9 | 17 | * | * | * | * | * | * | * | * | * | 6 | 11 |
| 07:45 | | 15 | 1 | 1 | 3 | 20 | * | * | * | * | * | * | * | * | * | 16 | 4 |
| 08:00 | | 16 | 0 | 3 | 9 | 28 | * | * | * | * | * | * | * | * | * | 19 | 9 |
| 08:15 | | 12 | 0 | 1 | 1 | 14 | * | * | * | * | * | * | * | * | * | 13 | 1 |
| 08:30 | | 13 | 0 | 0 | 0 | 13 | * | * | * | * | * | * | * | * | * | 13 | 0 |
| 08:45 | | 19 | 0 | 3 | 11 | 33 | * | * | * | * | * | * | * | * | * | 22 | 11 |
| 09:00 | | 17 | 0 | 1 | 0 | 18 | * | * | * | * | * | * | * | * | * | 18 | 0 |
| 09:15 | | 8 | 0 | 2 | 0 | 10 | * | * | * | * | * | * | * | * | * | 10 | 0 |
| 09:30 | | 4 | 1 | 0 | 0 | 5 | * | * | * | * | * | * | * | * | * | 4 | 1 |
| 09:45 | | 12 | 0 | 1 | 0 | 13 | * | * | * | * | * | * | * | * | * | 13 | 0 |
| 10:00 | | 6 | 0 | 1 | 1 | 8 | * | * | * | * | * | * | * | * | * | 7 | 1 |
| 10:15 | | 1 | 0 | 0 | 0 | 1 | * | * | * | * | * | * | * | * | * | 1 | 0 |
| 10:30 | | 3 | 1 | 1 | 2 | 7 | * | * | * | * | * | * | * | * | * | 4 | 3 |
| 10:45 | | 2 | 1 | 1 | 0 | 4 | * | * | * | * | * | * | * | * | * | 3 | 1 |
| 11:00 | | 1 | 0 | 3 | 0 | 4 | * | * | * | * | * | * | * | * | * | 4 | 0 |
| 11:15 | | 0 | 0 | 2 | 1 | 3 | * | * | * | * | * | * | * | * | * | 2 | 1 |
| 11:30 | | 1 | 0 | 4 | 0 | 5 | * | * | * | * | * | * | * | * | * | 5 | 0 |
| 11:45 | | 1 | 1 | 6 | 0 | 8 | * | * | * | * | * | * | * | * | * | 7 | 1 |
| Total | | 162 | 68 | 36 | 201 | 467 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 198 | 269 |
| Day Total | | 230 | | 237 | | | 0 | | 0 | | | 0 | | 0 | | 467 | |
| Percent | | 70.4% | 29.6% | 15.2% | 84.8% | | 0.0% | 0.0% | 0.0% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | 42.4% | 57.6% |

Peak Vol. P.H.F.

| | | | |
|-------|-------|-------|-------|
| 08:15 | 12:00 | 11:00 | 06:45 |
| 61 | 15 | 15 | 39 |
| 0.803 | 0.536 | 0.625 | 0.696 |

MARKS TRAFFIC DATA

CITY OF SAN RAFAEL
SKYWALKER RANCH D/W @ 5858 LUCAS VALLEY

Site Code: 2
RANCH DWY2

| Start Time | 01-Dec-09 | | | | Both Dir. Total | 02-Dec-09 | | | | Both Dir. Total | 03-Dec-09 | | | | Both Dir. Total | 3-Day Total | |
|------------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|
| | NB | | SB | | | NB | | SB | | | NB | | SB | | | A.M. | P.M. |
| | Tue | A.M. | P.M. | A.M. | P.M. | Wed | A.M. | P.M. | A.M. | P.M. | Thu | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. |
| 12:00 | 0 | 7 | 0 | 1 | 8 | 1 | 7 | 0 | 3 | 11 | 0 | 6 | 0 | 0 | 6 | 1 | 24 |
| 12:15 | 0 | 3 | 0 | 1 | 4 | 0 | 4 | 0 | 1 | 5 | 1 | 5 | 0 | 4 | 10 | 1 | 18 |
| 12:30 | 0 | 4 | 0 | 2 | 6 | 0 | 3 | 0 | 0 | 3 | 1 | 7 | 0 | 3 | 11 | 1 | 19 |
| 12:45 | 0 | 2 | 0 | 1 | 3 | 0 | 5 | 0 | 2 | 7 | 0 | 5 | 0 | 3 | 8 | 0 | 18 |
| 01:00 | 0 | 0 | 0 | 4 | 4 | 0 | 3 | 0 | 3 | 6 | 0 | 1 | 0 | 2 | 3 | 0 | 13 |
| 01:15 | 0 | 1 | 1 | 6 | 8 | 1 | 4 | 0 | 4 | 9 | 0 | 3 | 1 | 3 | 7 | 3 | 21 |
| 01:30 | 0 | 4 | 1 | 6 | 11 | 0 | 3 | 2 | 4 | 9 | 0 | 1 | 1 | 7 | 9 | 4 | 25 |
| 01:45 | 0 | 2 | 0 | 4 | 6 | 0 | 3 | 0 | 3 | 6 | 0 | 5 | 0 | 4 | 9 | 0 | 21 |
| 02:00 | 0 | 1 | 0 | 5 | 6 | 0 | 2 | 0 | 11 | 13 | 0 | 3 | 0 | 3 | 6 | 0 | 25 |
| 02:15 | 0 | 4 | 0 | 10 | 14 | 0 | 2 | 0 | 2 | 4 | 0 | 3 | 0 | 5 | 8 | 0 | 26 |
| 02:30 | 0 | 1 | 0 | 3 | 4 | 0 | 2 | 0 | 3 | 5 | 0 | 0 | 0 | 8 | 8 | 0 | 17 |
| 02:45 | 0 | 3 | 0 | 6 | 9 | 0 | 1 | 0 | 7 | 8 | 0 | 6 | 0 | 5 | 11 | 0 | 28 |
| 03:00 | 0 | 2 | 0 | 2 | 4 | 0 | 0 | 0 | 2 | 2 | 0 | 3 | 0 | 6 | 9 | 0 | 15 |
| 03:15 | 0 | 4 | 0 | 3 | 7 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 0 | 3 | 4 | 0 | 13 |
| 03:30 | 0 | 0 | 0 | 8 | 8 | 0 | 3 | 0 | 9 | 12 | 0 | 1 | 0 | 3 | 4 | 0 | 24 |
| 03:45 | 0 | 2 | 0 | 4 | 6 | 0 | 2 | 0 | 7 | 9 | 0 | 5 | 0 | 4 | 9 | 0 | 24 |
| 04:00 | 0 | 1 | 0 | 5 | 6 | 0 | 4 | 0 | 5 | 9 | 0 | 2 | 0 | 6 | 8 | 0 | 23 |
| 04:15 | 0 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 5 | 8 | 0 | 4 | 0 | 8 | 12 | 0 | 23 |
| 04:30 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 3 | 3 | 0 | 1 | 0 | 3 | 4 | 0 | 9 |
| 04:45 | 0 | 1 | 0 | 2 | 3 | 0 | 2 | 0 | 6 | 8 | 0 | 1 | 0 | 5 | 6 | 0 | 17 |
| 05:00 | 0 | 1 | 0 | 9 | 10 | 0 | 0 | 0 | 9 | 9 | 0 | 1 | 0 | 8 | 9 | 0 | 28 |
| 05:15 | 0 | 2 | 0 | 8 | 10 | 0 | 1 | 0 | 9 | 10 | 0 | 3 | 0 | 4 | 7 | 0 | 27 |
| 05:30 | 0 | 1 | 0 | 3 | 4 | 0 | 1 | 0 | 7 | 8 | 0 | 0 | 0 | 6 | 6 | 0 | 18 |
| 05:45 | 0 | 0 | 0 | 3 | 3 | 0 | 1 | 0 | 3 | 4 | 0 | 0 | 0 | 6 | 6 | 0 | 13 |
| 06:00 | 3 | 1 | 0 | 16 | 20 | 3 | 1 | 0 | 13 | 17 | 1 | 0 | 0 | 16 | 17 | 7 | 47 |
| 06:15 | 1 | 2 | 1 | 10 | 14 | 2 | 0 | 1 | 10 | 13 | 2 | 0 | 1 | 16 | 19 | 8 | 38 |
| 06:30 | 2 | 4 | 0 | 4 | 10 | 2 | 0 | 0 | 9 | 11 | 2 | 1 | 0 | 5 | 8 | 6 | 23 |
| 06:45 | 3 | 4 | 0 | 4 | 11 | 1 | 0 | 0 | 3 | 4 | 0 | 1 | 0 | 4 | 5 | 4 | 16 |
| 07:00 | 6 | 6 | 0 | 11 | 23 | 4 | 0 | 0 | 16 | 20 | 4 | 0 | 0 | 7 | 11 | 14 | 40 |
| 07:15 | 3 | 2 | 2 | 12 | 19 | 9 | 0 | 0 | 8 | 17 | 7 | 2 | 0 | 23 | 32 | 21 | 47 |
| 07:30 | 18 | 1 | 0 | 5 | 24 | 8 | 0 | 1 | 6 | 15 | 11 | 0 | 3 | 4 | 18 | 41 | 16 |
| 07:45 | 12 | 1 | 1 | 9 | 23 | 5 | 0 | 2 | 7 | 14 | 9 | 0 | 1 | 7 | 17 | 30 | 24 |
| 08:00 | 12 | 0 | 4 | 5 | 21 | 15 | 0 | 1 | 8 | 24 | 11 | 0 | 1 | 6 | 18 | 44 | 19 |
| 08:15 | 9 | 0 | 4 | 2 | 15 | 18 | 0 | 3 | 8 | 29 | 14 | 0 | 4 | 5 | 23 | 52 | 15 |
| 08:30 | 17 | 1 | 2 | 2 | 22 | 21 | 0 | 1 | 3 | 25 | 19 | 1 | 2 | 6 | 28 | 62 | 13 |
| 08:45 | 25 | 0 | 1 | 5 | 31 | 20 | 0 | 2 | 0 | 22 | 19 | 0 | 3 | 2 | 24 | 70 | 7 |
| 09:00 | 24 | 0 | 4 | 0 | 28 | 22 | 0 | 0 | 0 | 22 | 26 | 1 | 4 | 2 | 33 | 80 | 3 |
| 09:15 | 9 | 0 | 3 | 4 | 16 | 8 | 1 | 1 | 1 | 11 | 18 | 0 | 2 | 0 | 20 | 41 | 6 |
| 09:30 | 13 | 0 | 2 | 2 | 17 | 11 | 1 | 3 | 2 | 17 | 16 | 0 | 3 | 0 | 19 | 48 | 5 |
| 09:45 | 7 | 0 | 4 | 10 | 21 | 7 | 1 | 3 | 1 | 12 | 6 | 0 | 2 | 0 | 8 | 29 | 12 |
| 10:00 | 4 | 0 | 2 | 10 | 16 | 3 | 0 | 1 | 0 | 4 | 8 | 0 | 5 | 0 | 13 | 23 | 10 |
| 10:15 | 4 | 0 | 2 | 5 | 11 | 3 | 0 | 0 | 2 | 5 | 4 | 0 | 0 | 1 | 5 | 13 | 8 |
| 10:30 | 3 | 0 | 4 | 1 | 8 | 5 | 0 | 2 | 0 | 7 | 3 | 1 | 7 | 0 | 11 | 24 | 2 |
| 10:45 | 2 | 1 | 2 | 0 | 5 | 3 | 2 | 3 | 0 | 8 | 6 | 1 | 0 | 0 | 7 | 16 | 4 |
| 11:00 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 4 | 0 | 6 | 0 | 10 | 11 | 1 |
| 11:15 | 2 | 0 | 4 | 1 | 7 | 2 | 0 | 1 | 0 | 3 | 2 | 2 | 6 | 3 | 13 | 17 | 6 |
| 11:30 | 4 | 0 | 0 | 0 | 4 | 2 | 0 | 3 | 2 | 7 | 2 | 0 | 2 | 3 | 7 | 13 | 5 |
| 11:45 | 3 | 0 | 3 | 1 | 7 | 3 | 0 | 4 | 1 | 8 | 6 | 0 | 6 | 0 | 12 | 25 | 2 |
| Total | 186 | 69 | 47 | 221 | 523 | 179 | 62 | 35 | 210 | 486 | 202 | 77 | 60 | 219 | 558 | 709 | 858 |
| Day Total | 255 | 268 | | | | 241 | 245 | | | | 279 | 279 | | | 1567 | | |
| Percent | 72.9% | 27.1% | 17.5% | 82.5% | | 74.3% | 25.7% | 14.3% | 85.7% | | 72.4% | 27.6% | 21.5% | 78.5% | | 45.2% | 54.8% |
| Peak Vol. | 08:15 | 12:00 | 09:00 | 07:00 | | 08:15 | 12:00 | 11:00 | 06:15 | | 08:30 | 12:00 | 11:00 | 05:30 | | | |
| P.H.F. | 0.750 | 0.571 | 0.813 | 0.771 | | 0.920 | 0.679 | 0.563 | 0.594 | | 0.788 | 0.821 | 0.833 | 0.688 | | | |

MARKS TRAFFIC DATA

OF SAN RAFAEL
LUCAS VALLEY RD. W/O MT. LASSEN DR.

Site Code: 2
LUCAS2

| Start Time | 28-Oct-09 | | | | Both Dir. Total | 29-Oct-09 | | | | Both Dir. Total | 30-Oct-09 | | | | Both Dir. Total | 3-Day Total | | |
|------------|-----------|-------|-------|-------|-----------------|-----------|-------|-------|-------|-----------------|-----------|-------|-------|-------|-----------------|-------------|-------|-------|
| | Wed | WB | | EB | | Thu | WB | | EB | | Fri | WB | | EB | | A.M. | P.M. | |
| 12:00 | | 1 | 45 | 2 | 58 | 106 | 3 | 63 | 0 | 58 | 124 | 5 | 50 | 0 | 83 | 138 | 11 | 357 |
| 12:15 | | 4 | 44 | 0 | 60 | 108 | 1 | 79 | 3 | 59 | 142 | 4 | 63 | 1 | 48 | 116 | 13 | 353 |
| 12:30 | | 2 | 39 | 3 | 42 | 86 | 2 | 47 | 0 | 54 | 103 | 2 | 70 | 1 | 48 | 121 | 10 | 300 |
| 12:45 | | 4 | 48 | 2 | 60 | 114 | 1 | 60 | 1 | 63 | 125 | 1 | 101 | 1 | 51 | 154 | 10 | 383 |
| 01:00 | | 0 | 83 | 1 | 48 | 132 | 2 | 56 | 0 | 61 | 119 | 0 | 64 | 0 | 56 | 120 | 3 | 368 |
| 01:15 | | 1 | 57 | 1 | 53 | 112 | 0 | 58 | 0 | 58 | 116 | 3 | 45 | 0 | 48 | 96 | 5 | 319 |
| 01:30 | | 2 | 50 | 2 | 80 | 134 | 2 | 64 | 2 | 60 | 128 | 1 | 72 | 2 | 74 | 149 | 11 | 400 |
| 01:45 | | 0 | 63 | 4 | 60 | 127 | 0 | 48 | 2 | 59 | 109 | 0 | 61 | 2 | 68 | 131 | 8 | 359 |
| 02:00 | | 0 | 53 | 0 | 56 | 109 | 1 | 70 | 0 | 59 | 130 | 0 | 58 | 0 | 51 | 109 | 1 | 347 |
| 02:15 | | 0 | 53 | 0 | 54 | 107 | 0 | 93 | 0 | 52 | 145 | 0 | 81 | 0 | 61 | 142 | 0 | 394 |
| 02:30 | | 0 | 47 | 0 | 44 | 91 | 0 | 70 | 1 | 52 | 123 | 2 | 73 | 2 | 61 | 138 | 5 | 347 |
| 02:45 | | 1 | 59 | 1 | 54 | 115 | 0 | 64 | 0 | 93 | 157 | 2 | 81 | 2 | 101 | 186 | 6 | 452 |
| 03:00 | | 0 | 59 | 0 | 79 | 138 | 0 | 67 | 0 | 62 | 129 | 1 | 64 | 2 | 75 | 142 | 3 | 406 |
| 03:15 | | 1 | 79 | 0 | 65 | 145 | 0 | 70 | 0 | 64 | 134 | 1 | 60 | 0 | 77 | 138 | 2 | 415 |
| 03:30 | | 1 | 69 | 1 | 73 | 144 | 0 | 63 | 0 | 79 | 142 | 2 | 72 | 2 | 61 | 137 | 6 | 417 |
| 03:45 | | 1 | 73 | 1 | 89 | 164 | 1 | 54 | 1 | 67 | 123 | 0 | 75 | 0 | 57 | 132 | 4 | 415 |
| 04:00 | | 0 | 77 | 1 | 63 | 141 | 0 | 73 | 0 | 62 | 135 | 0 | 57 | 1 | 68 | 126 | 2 | 400 |
| 04:15 | | 0 | 63 | 2 | 54 | 119 | 0 | 67 | 3 | 79 | 149 | 0 | 65 | 1 | 43 | 109 | 6 | 371 |
| 04:30 | | 1 | 69 | 3 | 57 | 130 | 0 | 82 | 4 | 63 | 149 | 0 | 79 | 1 | 70 | 150 | 9 | 420 |
| 04:45 | | 1 | 69 | 5 | 63 | 138 | 1 | 77 | 4 | 52 | 134 | 1 | 79 | 3 | 70 | 153 | 15 | 410 |
| 05:00 | | 0 | 85 | 11 | 64 | 160 | 0 | 77 | 9 | 83 | 169 | 2 | 87 | 6 | 78 | 173 | 28 | 474 |
| 05:15 | | 3 | 60 | 13 | 62 | 138 | 2 | 87 | 18 | 71 | 178 | 1 | 89 | 12 | 60 | 162 | 49 | 429 |
| 05:30 | | 1 | 57 | 19 | 78 | 155 | 5 | 62 | 13 | 63 | 143 | 5 | 66 | 17 | 58 | 146 | 60 | 384 |
| 05:45 | | 4 | 59 | 10 | 67 | 140 | 2 | 74 | 15 | 58 | 149 | 3 | 61 | 8 | 47 | 119 | 42 | 368 |
| 06:00 | | 8 | 76 | 20 | 65 | 169 | 6 | 72 | 13 | 72 | 163 | 7 | 65 | 20 | 68 | 160 | 74 | 418 |
| 06:15 | | 12 | 65 | 24 | 60 | 161 | 11 | 72 | 22 | 80 | 185 | 16 | 66 | 20 | 65 | 167 | 105 | 408 |
| 06:30 | | 16 | 77 | 29 | 62 | 184 | 18 | 49 | 28 | 59 | 154 | 20 | 42 | 30 | 72 | 164 | 141 | 361 |
| 06:45 | | 22 | 65 | 40 | 44 | 171 | 18 | 60 | 37 | 63 | 178 | 27 | 54 | 26 | 44 | 151 | 170 | 330 |
| 07:00 | | 21 | 67 | 47 | 40 | 175 | 24 | 72 | 52 | 43 | 191 | 23 | 64 | 44 | 47 | 178 | 211 | 333 |
| 07:15 | | 34 | 53 | 72 | 32 | 191 | 41 | 53 | 72 | 40 | 206 | 33 | 58 | 68 | 41 | 200 | 320 | 277 |
| 07:30 | | 43 | 44 | 85 | 39 | 211 | 42 | 42 | 94 | 36 | 214 | 38 | 37 | 89 | 46 | 210 | 391 | 244 |
| 07:45 | | 61 | 45 | 84 | 25 | 215 | 70 | 34 | 80 | 22 | 206 | 75 | 45 | 62 | 34 | 216 | 432 | 205 |
| 08:00 | | 106 | 38 | 108 | 29 | 281 | 106 | 29 | 92 | 8 | 235 | 113 | 35 | 83 | 28 | 259 | 608 | 167 |
| 08:15 | | 67 | 35 | 108 | 18 | 228 | 60 | 40 | 105 | 13 | 218 | 55 | 47 | 101 | 21 | 224 | 496 | 174 |
| 08:30 | | 49 | 37 | 67 | 16 | 169 | 61 | 39 | 83 | 19 | 202 | 72 | 32 | 68 | 26 | 198 | 400 | 169 |
| 08:45 | | 71 | 42 | 62 | 20 | 195 | 62 | 35 | 81 | 13 | 191 | 47 | 20 | 61 | 15 | 143 | 384 | 145 |
| 09:00 | | 67 | 42 | 73 | 13 | 195 | 73 | 29 | 65 | 17 | 184 | 68 | 25 | 72 | 14 | 179 | 418 | 140 |
| 09:15 | | 52 | 39 | 54 | 8 | 153 | 57 | 37 | 59 | 13 | 166 | 53 | 28 | 53 | 9 | 143 | 328 | 134 |
| 09:30 | | 54 | 24 | 55 | 25 | 158 | 47 | 28 | 50 | 7 | 132 | 58 | 27 | 55 | 15 | 155 | 319 | 126 |
| 09:45 | | 46 | 31 | 64 | 8 | 149 | 51 | 20 | 54 | 7 | 132 | 44 | 26 | 57 | 10 | 137 | 316 | 102 |
| 10:00 | | 57 | 23 | 52 | 7 | 139 | 38 | 28 | 55 | 6 | 127 | 33 | 28 | 46 | 8 | 115 | 281 | 100 |
| 10:15 | | 36 | 15 | 34 | 3 | 88 | 41 | 20 | 63 | 6 | 130 | 52 | 17 | 40 | 18 | 127 | 266 | 79 |
| 10:30 | | 36 | 10 | 63 | 8 | 117 | 32 | 18 | 52 | 10 | 112 | 49 | 22 | 53 | 16 | 140 | 285 | 84 |
| 10:45 | | 40 | 11 | 61 | 7 | 119 | 31 | 5 | 52 | 11 | 99 | 62 | 18 | 51 | 16 | 147 | 297 | 68 |
| 11:00 | | 54 | 3 | 53 | 13 | 123 | 44 | 8 | 49 | 6 | 107 | 57 | 12 | 53 | 13 | 135 | 310 | 55 |
| 11:15 | | 51 | 4 | 64 | 3 | 122 | 43 | 9 | 45 | 9 | 106 | 58 | 19 | 75 | 11 | 163 | 336 | 55 |
| 11:30 | | 53 | 6 | 58 | 2 | 119 | 56 | 4 | 60 | 1 | 121 | 56 | 16 | 56 | 7 | 135 | 339 | 36 |
| 11:45 | | 67 | 5 | 39 | 4 | 115 | 54 | 4 | 53 | 1 | 112 | 62 | 16 | 57 | 4 | 139 | 332 | 34 |
| Total | | 1151 | 2317 | 1498 | 2034 | 7000 | 1109 | 2432 | 1492 | 2093 | 7126 | 1214 | 2492 | 1404 | 2162 | 7272 | 7868 | 13530 |
| Day Total | | 3468 | | 3532 | | | 3541 | | 3585 | | | 3706 | | 3566 | | | 21398 | |
| Percent | | 33.2% | 66.8% | 42.4% | 57.6% | | 31.3% | 68.7% | 41.6% | 58.4% | | 32.8% | 67.2% | 39.4% | 60.6% | | 36.8% | 63.2% |
| Peak Vol. | | 08:00 | 03:15 | 07:30 | 03:00 | | 07:45 | 04:30 | 07:30 | 02:45 | | 07:45 | 04:30 | 07:30 | 02:30 | | | |
| P.H.F. | | 293 | 298 | 385 | 306 | | 297 | 323 | 371 | 298 | | 315 | 334 | 335 | 314 | | | |
| | | 0.691 | 0.943 | 0.891 | 0.860 | | 0.700 | 0.928 | 0.883 | 0.801 | | 0.697 | 0.938 | 0.829 | 0.777 | | | |

MARKS TRAFFIC DATA

CITY OF SAN RAFAEL
LUCAS VALLEY RD. W/O MT. LASSEN DR.

Site Code: 2
LUCAS2

| Start Time | 31-Oct-09 | | WB | | EB | | Both Dir. Total | 01-Nov-09 | | WB | | EB | | Both Dir. Total | 02-Nov-09 | | WB | | EB | | Both Dir. Total | 3-Day Total | |
|------------------|-----------|-----------|-----------|-----------|-----------|------|-----------------|------------|-----------|-----------|-----------|------|-----|-----------------|------------|------------|-----------|------|------|-------|-----------------|-------------|------|
| | Sat | | A.M. | P.M. | A.M. | P.M. | | Sun | A.M. | P.M. | A.M. | P.M. | Mon | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | | A.M. | P.M. |
| 12:00 | | 10 | 67 | 5 | 69 | 151 | | 1 | 53 | 4 | 57 | 115 | | 2 | 44 | 2 | 51 | 99 | | 24 | 341 | | |
| 12:15 | | 6 | 63 | 8 | 50 | 127 | | 2 | 64 | 4 | 64 | 134 | | 4 | 47 | 2 | 43 | 96 | | 26 | 331 | | |
| 12:30 | | 4 | 78 | 2 | 68 | 152 | | 0 | 71 | 0 | 58 | 129 | | 1 | 51 | 0 | 40 | 92 | | 7 | 366 | | |
| 12:45 | | 1 | 71 | 1 | 49 | 122 | | 9 | 69 | 1 | 47 | 126 | | 1 | 61 | 1 | 39 | 102 | | 14 | 336 | | |
| 01:00 | | 3 | 50 | 3 | 66 | 122 | | 1 | 71 | 2 | 58 | 132 | | 1 | 40 | 0 | 55 | 96 | | 10 | 340 | | |
| 01:15 | | 0 | 62 | 0 | 57 | 119 | | 3 | 67 | 4 | 71 | 145 | | 0 | 46 | 1 | 47 | 94 | | 8 | 350 | | |
| 01:30 | | 3 | 70 | 2 | 45 | 120 | | 3 | 69 | 3 | 56 | 131 | | 3 | 63 | 3 | 37 | 106 | | 17 | 340 | | |
| 01:45 | | 0 | 62 | 0 | 62 | 124 | | 2 | 71 | 3 | 56 | 132 | | 1 | 58 | 2 | 57 | 118 | | 8 | 366 | | |
| 02:00 | | 1 | 59 | 0 | 49 | 109 | | 3 | 49 | 2 | 46 | 100 | | 0 | 42 | 0 | 34 | 76 | | 6 | 279 | | |
| 02:15 | | 1 | 61 | 1 | 61 | 124 | | 1 | 63 | 0 | 55 | 119 | | 0 | 76 | 0 | 51 | 127 | | 3 | 367 | | |
| 02:30 | | 1 | 60 | 1 | 46 | 108 | | 1 | 54 | 0 | 51 | 106 | | 1 | 67 | 0 | 53 | 121 | | 4 | 331 | | |
| 02:45 | | 1 | 60 | 0 | 54 | 115 | | 2 | 73 | 2 | 58 | 135 | | 0 | 54 | 0 | 94 | 148 | | 5 | 393 | | |
| 03:00 | | 4 | 56 | 0 | 71 | 131 | | 2 | 44 | 1 | 75 | 122 | | 1 | 64 | 0 | 79 | 144 | | 8 | 389 | | |
| 03:15 | | 1 | 62 | 1 | 51 | 115 | | 2 | 60 | 1 | 57 | 120 | | 0 | 50 | 0 | 52 | 102 | | 5 | 332 | | |
| 03:30 | | 3 | 66 | 1 | 62 | 132 | | 1 | 48 | 2 | 63 | 114 | | 2 | 92 | 0 | 63 | 157 | | 9 | 394 | | |
| 03:45 | | 0 | 62 | 2 | 62 | 126 | | 1 | 64 | 2 | 70 | 137 | | 1 | 60 | 0 | 73 | 134 | | 6 | 391 | | |
| 04:00 | | 1 | 54 | 1 | 53 | 109 | | 0 | 60 | 0 | 51 | 111 | | 0 | 79 | 0 | 66 | 145 | | 2 | 363 | | |
| 04:15 | | 2 | 63 | 2 | 64 | 131 | | 1 | 56 | 0 | 65 | 122 | | 0 | 56 | 1 | 62 | 119 | | 6 | 366 | | |
| 04:30 | | 0 | 67 | 1 | 43 | 111 | | 3 | 53 | 3 | 56 | 115 | | 0 | 58 | 4 | 50 | 112 | | 11 | 327 | | |
| 04:45 | | 1 | 48 | 1 | 69 | 119 | | 0 | 49 | 0 | 66 | 115 | | 1 | 71 | 8 | 60 | 140 | | 11 | 53 | | |
| 05:00 | | 1 | 86 | 2 | 66 | 155 | | 2 | 50 | 1 | 52 | 105 | | 4 | 85 | 12 | 63 | 164 | | 22 | J2 | | |
| 05:15 | | 1 | 64 | 2 | 60 | 127 | | 1 | 55 | 3 | 33 | 92 | | 6 | 107 | 14 | 70 | 197 | | 27 | 389 | | |
| 05:30 | | 1 | 62 | 3 | 50 | 116 | | 1 | 47 | 1 | 41 | 90 | | 3 | 86 | 7 | 71 | 167 | | 16 | 357 | | |
| 05:45 | | 2 | 55 | 2 | 36 | 95 | | 2 | 34 | 2 | 32 | 70 | | 7 | 84 | 13 | 54 | 158 | | 28 | 295 | | |
| 06:00 | | 2 | 59 | 7 | 48 | 116 | | 0 | 40 | 8 | 27 | 75 | | 6 | 63 | 25 | 64 | 158 | | 48 | 301 | | |
| 06:15 | | 0 | 47 | 5 | 44 | 96 | | 5 | 41 | 3 | 43 | 92 | | 12 | 73 | 36 | 77 | 198 | | 61 | 325 | | |
| 06:30 | | 1 | 35 | 3 | 37 | 76 | | 5 | 31 | 11 | 25 | 72 | | 14 | 66 | 37 | 61 | 178 | | 71 | 255 | | |
| 06:45 | | 6 | 53 | 10 | 25 | 94 | | 1 | 29 | 10 | 23 | 63 | | 30 | 50 | 38 | 41 | 159 | | 95 | 221 | | |
| 07:00 | | 11 | 34 | 12 | 31 | 88 | | 8 | 20 | 11 | 25 | 64 | | 27 | 63 | 62 | 33 | 185 | | 131 | 206 | | |
| 07:15 | | 9 | 28 | 16 | 33 | 86 | | 10 | 20 | 16 | 24 | 70 | | 35 | 54 | 76 | 45 | 210 | | 162 | 204 | | |
| 07:30 | | 12 | 24 | 23 | 29 | 88 | | 11 | 10 | 19 | 22 | 62 | | 43 | 40 | 96 | 35 | 214 | | 204 | 160 | | |
| 07:45 | | 18 | 24 | 33 | 25 | 100 | | 16 | 20 | 34 | 15 | 85 | | 85 | 28 | 80 | 19 | 212 | | 266 | 131 | | |
| 08:00 | | 24 | 22 | 34 | 33 | 113 | | 19 | 11 | 24 | 18 | 72 | | 83 | 26 | 87 | 21 | 217 | | 271 | 131 | | |
| 08:15 | | 28 | 34 | 28 | 24 | 114 | | 37 | 24 | 24 | 20 | 105 | | 60 | 23 | 105 | 18 | 206 | | 282 | 143 | | |
| 08:30 | | 42 | 36 | 40 | 21 | 139 | | 31 | 16 | 38 | 11 | 96 | | 50 | 27 | 82 | 12 | 171 | | 283 | 123 | | |
| 08:45 | | 25 | 30 | 36 | 25 | 116 | | 22 | 17 | 37 | 21 | 97 | | 80 | 24 | 57 | 14 | 175 | | 257 | 131 | | |
| 09:00 | | 25 | 23 | 45 | 27 | 120 | | 38 | 16 | 44 | 18 | 116 | | 64 | 21 | 59 | 14 | 158 | | 275 | 119 | | |
| 09:15 | | 37 | 32 | 57 | 17 | 143 | | 46 | 17 | 51 | 12 | 126 | | 66 | 33 | 54 | 23 | 176 | | 311 | 134 | | |
| 09:30 | | 38 | 33 | 59 | 18 | 148 | | 50 | 10 | 56 | 13 | 129 | | 48 | 17 | 45 | 10 | 120 | | 296 | 101 | | |
| 09:45 | | 57 | 28 | 57 | 29 | 171 | | 38 | 26 | 50 | 13 | 127 | | 52 | 14 | 55 | 5 | 128 | | 309 | 115 | | |
| 10:00 | | 50 | 20 | 50 | 17 | 137 | | 56 | 11 | 43 | 9 | 119 | | 37 | 10 | 61 | 3 | 111 | | 297 | 70 | | |
| 10:15 | | 57 | 22 | 64 | 20 | 163 | | 54 | 7 | 55 | 5 | 121 | | 43 | 12 | 52 | 7 | 114 | | 325 | 73 | | |
| 10:30 | | 53 | 20 | 50 | 15 | 138 | | 63 | 5 | 55 | 6 | 129 | | 39 | 11 | 59 | 2 | 111 | | 319 | 59 | | |
| 10:45 | | 56 | 14 | 70 | 21 | 161 | | 187 | 9 | 52 | 2 | 250 | | 41 | 6 | 66 | 0 | 113 | | 472 | 52 | | |
| 11:00 | | 61 | 13 | 60 | 21 | 155 | | 70 | 5 | 46 | 3 | 124 | | 40 | 6 | 54 | 3 | 103 | | 331 | 51 | | |
| 11:15 | | 64 | 21 | 48 | 9 | 142 | | 61 | 5 | 65 | 4 | 135 | | 50 | 9 | 44 | 2 | 105 | | 332 | 50 | | |
| 11:30 | | 69 | 9 | 63 | 8 | 149 | | 77 | 5 | 58 | 1 | 141 | | 58 | 4 | 64 | 2 | 128 | | 389 | 29 | | |
| 11:45 | | 68 | 10 | 57 | 9 | 144 | | 61 | 3 | 35 | 0 | 99 | | 58 | 2 | 52 | 2 | 114 | | 331 | 26 | | |
| Total | | 861 | 2179 | 968 | 1949 | 5957 | | 1010 | 1792 | 886 | 1698 | 5386 | | 1160 | 2223 | 1516 | 1877 | 6776 | | 6401 | 11718 | | |
| Day Total | | 3040 | | 2917 | | | | 2802 | | 2584 | | | | 3383 | | 3393 | | | | 18119 | | | |
| Percent | | 28.3% | 71.7% | 33.2% | 66.8% | | | 36.0% | 64.0% | 34.3% | 65.7% | | | 34.3% | 65.7% | 44.7% | 55.3% | | | 35.3% | 64.7% | | |
| Peak | | 11:00 | 12:00 | 10:15 | 03:00 | | | 10:45 | 00:30 | 10:45 | 03:00 | | | 07:45 | 05:00 | 07:30 | 02:45 | | | | | | |
| Vol. | | 262 | 279 | 244 | 246 | | | 395 | 278 | 221 | 265 | | | 278 | 362 | 368 | 288 | | | | | | |
| P.H.F. | | 0.949 | 0.894 | 0.871 | 0.866 | | | 0.528 | 0.979 | 0.850 | 0.883 | | | 0.818 | 0.846 | 0.876 | 0.766 | | | | | | |

MARKS TRAFFIC DATA

OF SAN RAFAEL
LUCAS VALLEY RD. W/O MT. LASSEN DR.

Site Code: 2
LUCAS2

| Start Time | 03-Nov-09 | | | | Both Dir. Total | 04-Nov-09 | | | | Both Dir. Total | 05-Nov-09 | | | | Both Dir. Total | 3-Day Total | |
|------------|-----------|-----------|-----------|------------|-----------------|-----------|------|------|------|-----------------|-----------|------|------|------|-----------------|-------------|-------|
| | Tue | WB | | EB | | Wed | WB | | EB | | Thu | WB | | EB | | A.M. | P.M. |
| 12:00 | | 5 | 53 | 0 | 80 | 138 | * | * | * | * | * | * | * | * | * | 5 | 133 |
| 12:15 | | 1 | 71 | 1 | 59 | 132 | * | * | * | * | * | * | * | * | * | 2 | 130 |
| 12:30 | | 4 | 42 | 0 | 74 | 120 | * | * | * | * | * | * | * | * | * | 4 | 116 |
| 12:45 | | 3 | 58 | 1 | 52 | 114 | * | * | * | * | * | * | * | * | * | 4 | 110 |
| 01:00 | | 0 | 60 | 0 | 43 | 103 | * | * | * | * | * | * | * | * | * | 0 | 103 |
| 01:15 | | 2 | 57 | 0 | 52 | 111 | * | * | * | * | * | * | * | * | * | 2 | 109 |
| 01:30 | | 0 | 52 | 2 | 54 | 108 | * | * | * | * | * | * | * | * | * | 2 | 106 |
| 01:45 | | 0 | 51 | 3 | 58 | 112 | * | * | * | * | * | * | * | * | * | 3 | 109 |
| 02:00 | | 0 | 55 | 0 | 49 | 104 | * | * | * | * | * | * | * | * | * | 0 | 104 |
| 02:15 | | 0 | 82 | 2 | 57 | 141 | * | * | * | * | * | * | * | * | * | 2 | 139 |
| 02:30 | | 1 | 84 | 0 | 51 | 136 | * | * | * | * | * | * | * | * | * | 1 | 135 |
| 02:45 | | 1 | 60 | 0 | 72 | 133 | * | * | * | * | * | * | * | * | * | 1 | 132 |
| 03:00 | | 2 | 63 | 1 | 62 | 128 | * | * | * | * | * | * | * | * | * | 3 | 125 |
| 03:15 | | 1 | 74 | 2 | 67 | 144 | * | * | * | * | * | * | * | * | * | 3 | 141 |
| 03:30 | | 0 | 79 | 0 | 68 | 147 | * | * | * | * | * | * | * | * | * | 0 | 147 |
| 03:45 | | 1 | 74 | 1 | 89 | 165 | * | * | * | * | * | * | * | * | * | 2 | 163 |
| 04:00 | | 1 | 61 | 2 | 74 | 138 | * | * | * | * | * | * | * | * | * | 3 | 135 |
| 04:15 | | 1 | 71 | 2 | 65 | 139 | * | * | * | * | * | * | * | * | * | 3 | 136 |
| 04:30 | | 0 | 81 | 0 | 60 | 141 | * | * | * | * | * | * | * | * | * | 0 | 141 |
| 04:45 | | 0 | 78 | 6 | 69 | 151 | * | * | * | * | * | * | * | * | * | 6 | 145 |
| 05:00 | | 0 | 85 | 8 | 65 | 158 | * | * | * | * | * | * | * | * | * | 8 | 150 |
| 05:15 | | 4 | 79 | 8 | 96 | 187 | * | * | * | * | * | * | * | * | * | 12 | 175 |
| 05:30 | | 7 | 88 | 16 | 71 | 182 | * | * | * | * | * | * | * | * | * | 23 | 159 |
| 05:45 | | 7 | 75 | 14 | 62 | 158 | * | * | * | * | * | * | * | * | * | 21 | 137 |
| 06:00 | | 12 | 58 | 12 | 62 | 144 | * | * | * | * | * | * | * | * | * | 24 | 120 |
| 06:15 | | 15 | 58 | 35 | 68 | 176 | * | * | * | * | * | * | * | * | * | 50 | 126 |
| 06:30 | | 17 | 59 | 38 | 49 | 163 | * | * | * | * | * | * | * | * | * | 55 | 108 |
| 06:45 | | 32 | 46 | 37 | 65 | 180 | * | * | * | * | * | * | * | * | * | 69 | 111 |
| 07:00 | | 23 | 59 | 66 | 40 | 188 | * | * | * | * | * | * | * | * | * | 89 | 99 |
| 07:15 | | 33 | 53 | 88 | 42 | 216 | * | * | * | * | * | * | * | * | * | 121 | 95 |
| 07:30 | | 44 | 36 | 102 | 26 | 208 | * | * | * | * | * | * | * | * | * | 146 | 62 |
| 07:45 | | 78 | 30 | 80 | 18 | 206 | * | * | * | * | * | * | * | * | * | 158 | 48 |
| 08:00 | | 94 | 34 | 84 | 20 | 232 | * | * | * | * | * | * | * | * | * | 178 | 54 |
| 08:15 | | 67 | 30 | 108 | 14 | 219 | * | * | * | * | * | * | * | * | * | 175 | 44 |
| 08:30 | | 50 | 29 | 74 | 14 | 167 | * | * | * | * | * | * | * | * | * | 124 | 43 |
| 08:45 | | 77 | 24 | 72 | 15 | 188 | * | * | * | * | * | * | * | * | * | 149 | 39 |
| 09:00 | | 85 | 27 | 44 | 19 | 175 | * | * | * | * | * | * | * | * | * | 129 | 46 |
| 09:15 | | 56 | 26 | 65 | 5 | 152 | * | * | * | * | * | * | * | * | * | 121 | 31 |
| 09:30 | | 54 | 33 | 76 | 6 | 169 | * | * | * | * | * | * | * | * | * | 130 | 39 |
| 09:45 | | 53 | 27 | 60 | 3 | 143 | * | * | * | * | * | * | * | * | * | 113 | 30 |
| 10:00 | | 36 | 18 | 49 | 5 | 108 | * | * | * | * | * | * | * | * | * | 85 | 23 |
| 10:15 | | 45 | 14 | 43 | 5 | 107 | * | * | * | * | * | * | * | * | * | 88 | 19 |
| 10:30 | | 48 | 13 | 48 | 3 | 112 | * | * | * | * | * | * | * | * | * | 96 | 16 |
| 10:45 | | 36 | 9 | 46 | 2 | 93 | * | * | * | * | * | * | * | * | * | 82 | 11 |
| 11:00 | | 45 | 4 | 39 | 1 | 89 | * | * | * | * | * | * | * | * | * | 84 | 5 |
| 11:15 | | 55 | 2 | 50 | 2 | 109 | * | * | * | * | * | * | * | * | * | 105 | 4 |
| 11:30 | | 46 | 6 | 59 | 2 | 113 | * | * | * | * | * | * | * | * | * | 105 | 8 |
| 11:45 | | 54 | 5 | 51 | 0 | 110 | * | * | * | * | * | * | * | * | * | 105 | 5 |
| Total | 1196 | 2331 | 1495 | 2035 | 7057 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2691 | 4366 |
| Day Total | 3527 | | 3530 | | | 0 | 0 | | 0 | | 0 | 0 | | | 7057 | | |
| Percent | 33.9% | 66.1% | 42.4% | 57.6% | | 0.0% | 0.0% | 0.0% | 0.0% | | 0.0% | 0.0% | 0.0% | 0.0% | | 38.1% | 61.9% |

Peak Vol. 07:45 04:45 07:30 04:45
 P.H.F. 0.769 0.932 0.866 0.784

MARKS TRAFFIC DATA

CITY OF SAN RAFAEL
 LUCAS VALLEY RD.- LOS GAMOS DR. to
 LOS GALLINAS AV.

Site Code: 1
 LUCAS1

| Start Time | 28-Oct-09 | | | | Both Dir. Total | 29-Oct-09 | | | | Both Dir. Total | 30-Oct-09 | | | | Both Dir. Total | 3-Day Total | | | | | | | |
|------------------|-----------|-------|-------|-------|-----------------|-----------|-------|-------|-------|-----------------|-----------|-------|-------|-------|-----------------|-------------|-------|-------|--|--|--|-------|--|
| | Wed | EB | | WB | | Thu | EB | | WB | | Fri | EB | | WB | | A.M. | P.M. | | | | | | |
| 12:00 | 4 | 119 | 8 | 102 | 233 | 8 | 126 | 11 | 106 | 251 | 1 | 136 | 7 | 112 | 256 | 39 | 701 | | | | | | |
| 12:15 | 2 | 115 | 4 | 84 | 205 | 3 | 141 | 7 | 132 | 283 | 4 | 136 | 6 | 102 | 248 | 26 | 710 | | | | | | |
| 12:30 | 3 | 88 | 3 | 116 | 210 | 2 | 88 | 2 | 90 | 182 | 4 | 94 | 4 | 177 | 279 | 18 | 653 | | | | | | |
| 12:45 | 3 | 123 | 2 | 99 | 227 | 0 | 124 | 1 | 100 | 225 | 3 | 113 | 2 | 157 | 275 | 11 | 716 | | | | | | |
| 01:00 | 1 | 134 | 0 | 86 | 221 | 1 | 121 | 6 | 101 | 229 | 2 | 123 | 5 | 114 | 244 | 15 | 679 | | | | | | |
| 01:15 | 2 | 101 | 4 | 83 | 190 | 2 | 100 | 0 | 109 | 211 | 2 | 106 | 5 | 103 | 216 | 15 | 602 | | | | | | |
| 01:30 | 1 | 141 | 4 | 86 | 232 | 3 | 106 | 2 | 99 | 210 | 1 | 118 | 4 | 109 | 232 | 15 | 659 | | | | | | |
| 01:45 | 7 | 103 | 1 | 78 | 189 | 4 | 105 | 2 | 108 | 219 | 8 | 117 | 0 | 108 | 233 | 22 | 619 | | | | | | |
| 02:00 | 1 | 128 | 1 | 98 | 228 | 1 | 138 | 2 | 115 | 256 | 3 | 117 | 0 | 91 | 211 | 8 | 687 | | | | | | |
| 02:15 | 2 | 123 | 1 | 91 | 217 | 1 | 115 | 0 | 118 | 234 | 2 | 120 | 5 | 112 | 239 | 11 | 679 | | | | | | |
| 02:30 | 0 | 105 | 3 | 87 | 195 | 1 | 116 | 4 | 116 | 237 | 2 | 122 | 5 | 101 | 230 | 15 | 647 | | | | | | |
| 02:45 | 3 | 120 | 2 | 99 | 224 | 2 | 136 | 1 | 78 | 217 | 4 | 150 | 4 | 106 | 264 | 16 | 689 | | | | | | |
| 03:00 | 0 | 122 | 0 | 108 | 230 | 2 | 125 | 1 | 91 | 219 | 1 | 146 | 3 | 120 | 270 | 7 | 712 | | | | | | |
| 03:15 | 1 | 132 | 2 | 106 | 241 | 0 | 130 | 2 | 94 | 226 | 1 | 154 | 0 | 114 | 269 | 6 | 730 | | | | | | |
| 03:30 | 3 | 145 | 0 | 100 | 248 | 3 | 150 | 0 | 101 | 254 | 4 | 140 | 1 | 116 | 261 | 11 | 752 | | | | | | |
| 03:45 | 3 | 137 | 1 | 122 | 263 | 1 | 119 | 0 | 120 | 240 | 3 | 137 | 1 | 99 | 240 | 9 | 734 | | | | | | |
| 04:00 | 5 | 141 | 0 | 98 | 244 | 1 | 120 | 0 | 116 | 237 | 4 | 107 | 1 | 91 | 203 | 11 | 673 | | | | | | |
| 04:15 | 3 | 104 | 0 | 95 | 202 | 6 | 132 | 0 | 98 | 236 | 3 | 109 | 4 | 87 | 203 | 16 | 625 | | | | | | |
| 04:30 | 4 | 110 | 1 | 105 | 220 | 10 | 124 | 2 | 103 | 239 | 4 | 141 | 0 | 104 | 249 | 21 | 687 | | | | | | |
| 04:45 | 9 | 124 | 2 | 111 | 246 | 9 | 117 | 1 | 113 | 240 | 7 | 119 | 2 | 121 | 249 | 30 | 75 | | | | | | |
| 05:00 | 18 | 101 | 4 | 132 | 255 | 19 | 135 | 1 | 111 | 266 | 18 | 124 | 3 | 96 | 241 | 63 | 39 | | | | | | |
| 05:15 | 36 | 125 | 3 | 119 | 283 | 42 | 119 | 3 | 120 | 284 | 31 | 124 | 2 | 108 | 265 | 117 | 715 | | | | | | |
| 05:30 | 39 | 124 | 4 | 114 | 281 | 46 | 106 | 3 | 114 | 269 | 33 | 92 | 4 | 113 | 242 | 129 | 663 | | | | | | |
| 05:45 | 28 | 114 | 6 | 100 | 248 | 37 | 102 | 5 | 128 | 272 | 22 | 98 | 10 | 105 | 235 | 108 | 647 | | | | | | |
| 06:00 | 44 | 107 | 9 | 112 | 272 | 40 | 105 | 13 | 113 | 271 | 39 | 93 | 6 | 130 | 268 | 151 | 660 | | | | | | |
| 06:15 | 55 | 112 | 17 | 105 | 289 | 57 | 131 | 19 | 119 | 326 | 51 | 110 | 19 | 86 | 266 | 218 | 663 | | | | | | |
| 06:30 | 61 | 101 | 19 | 98 | 279 | 56 | 99 | 20 | 94 | 269 | 54 | 105 | 21 | 68 | 248 | 231 | 565 | | | | | | |
| 06:45 | 78 | 71 | 20 | 95 | 264 | 84 | 89 | 22 | 99 | 294 | 60 | 90 | 29 | 99 | 278 | 293 | 543 | | | | | | |
| 07:00 | 103 | 78 | 46 | 106 | 333 | 103 | 78 | 41 | 101 | 323 | 77 | 66 | 37 | 113 | 293 | 407 | 542 | | | | | | |
| 07:15 | 127 | 50 | 48 | 90 | 315 | 116 | 66 | 55 | 81 | 318 | 111 | 78 | 50 | 86 | 325 | 507 | 451 | | | | | | |
| 07:30 | 146 | 50 | 67 | 74 | 337 | 162 | 58 | 61 | 69 | 350 | 160 | 82 | 76 | 78 | 396 | 672 | 411 | | | | | | |
| 07:45 | 169 | 54 | 111 | 71 | 405 | 165 | 44 | 121 | 67 | 397 | 138 | 43 | 112 | 71 | 364 | 816 | 350 | | | | | | |
| 08:00 | 178 | 60 | 109 | 69 | 416 | 154 | 29 | 122 | 66 | 371 | 132 | 48 | 124 | 70 | 374 | 819 | 342 | | | | | | |
| 08:15 | 181 | 34 | 96 | 63 | 374 | 197 | 20 | 96 | 71 | 384 | 156 | 31 | 77 | 71 | 335 | 803 | 290 | | | | | | |
| 08:30 | 160 | 31 | 74 | 63 | 328 | 138 | 30 | 81 | 60 | 309 | 155 | 51 | 90 | 58 | 354 | 698 | 293 | | | | | | |
| 08:45 | 135 | 21 | 91 | 69 | 316 | 159 | 33 | 94 | 63 | 349 | 155 | 26 | 79 | 55 | 315 | 713 | 267 | | | | | | |
| 09:00 | 176 | 29 | 105 | 66 | 376 | 120 | 29 | 95 | 67 | 311 | 142 | 23 | 92 | 39 | 296 | 730 | 253 | | | | | | |
| 09:15 | 148 | 18 | 67 | 60 | 293 | 150 | 30 | 86 | 48 | 314 | 121 | 26 | 90 | 54 | 291 | 662 | 236 | | | | | | |
| 09:30 | 118 | 30 | 71 | 47 | 266 | 126 | 17 | 72 | 43 | 258 | 131 | 24 | 87 | 54 | 296 | 605 | 215 | | | | | | |
| 09:45 | 125 | 20 | 71 | 48 | 264 | 111 | 19 | 77 | 43 | 250 | 109 | 15 | 62 | 43 | 229 | 555 | 188 | | | | | | |
| 10:00 | 115 | 21 | 90 | 46 | 272 | 114 | 18 | 60 | 49 | 241 | 111 | 40 | 71 | 48 | 270 | 561 | 222 | | | | | | |
| 10:15 | 87 | 9 | 66 | 29 | 191 | 115 | 9 | 68 | 35 | 227 | 98 | 35 | 74 | 30 | 237 | 508 | 147 | | | | | | |
| 10:30 | 102 | 6 | 73 | 14 | 195 | 101 | 19 | 65 | 30 | 215 | 114 | 31 | 88 | 44 | 277 | 543 | 144 | | | | | | |
| 10:45 | 118 | 11 | 62 | 23 | 214 | 111 | 16 | 54 | 20 | 201 | 122 | 28 | 89 | 29 | 268 | 556 | 127 | | | | | | |
| 11:00 | 116 | 21 | 88 | 11 | 236 | 80 | 9 | 71 | 14 | 174 | 116 | 23 | 105 | 25 | 269 | 576 | 103 | | | | | | |
| 11:15 | 95 | 6 | 77 | 13 | 191 | 96 | 15 | 68 | 16 | 195 | 140 | 22 | 97 | 30 | 289 | 573 | 102 | | | | | | |
| 11:30 | 101 | 4 | 99 | 14 | 218 | 116 | 5 | 91 | 13 | 225 | 124 | 14 | 112 | 24 | 274 | 643 | 74 | | | | | | |
| 11:45 | 86 | 9 | 111 | 12 | 218 | 111 | 6 | 114 | 8 | 239 | 113 | 11 | 111 | 30 | 265 | 646 | 76 | | | | | | |
| Total | | 3002 | 3832 | 1743 | 3817 | 12394 | 2986 | 3869 | 1722 | 3970 | 12547 | 2896 | 4058 | 1876 | 4101 | 12931 | 14225 | 23647 | | | | | |
| Day Total | | 6834 | | | | | 6855 | | | | | 6954 | | | | | 5977 | | | | | 37872 | |
| Percent | | 43.9% | 56.1% | 31.3% | 68.7% | | 43.6% | 56.4% | 30.3% | 69.7% | | 41.6% | 58.4% | 31.4% | 68.6% | | 37.6% | 62.4% | | | | | |
| Peak | | 07:45 | 03:15 | 07:45 | 04:45 | | 07:30 | 02:45 | 07:45 | 05:15 | | 08:15 | 02:45 | 11:00 | 00:30 | | | | | | | | |
| Vol. | | 688 | 555 | 390 | 476 | | 678 | 541 | 420 | 475 | | 608 | 590 | 425 | 551 | | | | | | | | |
| P.H.F. | | 0.950 | 0.957 | 0.878 | 0.902 | | 0.860 | 0.902 | 0.861 | 0.928 | | 0.974 | 0.958 | 0.857 | 0.778 | | | | | | | | |

MARKS TRAFFIC DATA

OF SAN RAFAEL
LUCAS VALLEY RD.- LOS GAMOS DR. to
LOS GALLINAS AV.

Site Code: 1
LUCAS1

| Start Time | 31-Oct-09 | | EB | | WB | | Both Dir. Total | 01-Nov-09 | | EB | | WB | | Both Dir. Total | 02-Nov-09 | | EB | | WB | | Both Dir. Total | 3-Day Total | |
|------------------|-----------|--|-------|-------|-------|-------|-----------------|-----------|-------|-------|-------|------|-------|-----------------|-----------|-------|-------|-------|-------|------|-----------------|-------------|------|
| | Sat | | A.M. | P.M. | A.M. | P.M. | | Sun | A.M. | P.M. | A.M. | P.M. | Mon | | A.M. | P.M. | A.M. | P.M. | A.M. | P.M. | | A.M. | P.M. |
| 12:00 | | | 11 | 105 | 19 | 97 | 232 | 7 | 85 | 9 | 88 | 189 | 2 | 93 | 3 | 104 | 202 | 51 | 572 | | | | |
| 12:15 | | | 8 | 105 | 14 | 112 | 239 | 3 | 135 | 6 | 106 | 250 | 3 | 105 | 4 | 92 | 204 | 38 | 655 | | | | |
| 12:30 | | | 8 | 133 | 20 | 100 | 261 | 5 | 114 | 5 | 87 | 211 | 1 | 92 | 4 | 98 | 195 | 43 | 624 | | | | |
| 12:45 | | | 2 | 124 | 7 | 90 | 223 | 5 | 94 | 5 | 87 | 191 | 1 | 116 | 2 | 96 | 215 | 22 | 607 | | | | |
| 01:00 | | | 6 | 114 | 9 | 90 | 219 | 3 | 88 | 5 | 85 | 181 | 1 | 128 | 2 | 89 | 220 | 26 | 594 | | | | |
| 01:15 | | | 3 | 119 | 1 | 98 | 221 | 8 | 115 | 6 | 83 | 212 | 0 | 117 | 1 | 69 | 187 | 19 | 601 | | | | |
| 01:30 | | | 6 | 114 | 6 | 104 | 230 | 4 | 108 | 8 | 113 | 233 | 0 | 114 | 1 | 88 | 203 | 25 | 641 | | | | |
| 01:45 | | | 8 | 132 | 6 | 106 | 252 | 4 | 108 | 5 | 87 | 204 | 5 | 105 | 1 | 86 | 197 | 29 | 624 | | | | |
| 02:00 | | | 3 | 102 | 6 | 93 | 204 | 3 | 82 | 4 | 71 | 160 | 2 | 102 | 0 | 83 | 187 | 18 | 533 | | | | |
| 02:15 | | | 2 | 108 | 4 | 97 | 211 | 1 | 90 | 7 | 84 | 182 | 0 | 92 | 0 | 114 | 206 | 14 | 585 | | | | |
| 02:30 | | | 3 | 90 | 3 | 100 | 196 | 1 | 74 | 4 | 66 | 145 | 0 | 100 | 1 | 110 | 211 | 12 | 540 | | | | |
| 02:45 | | | 5 | 76 | 3 | 79 | 163 | 2 | 91 | 6 | 80 | 179 | 0 | 143 | 1 | 117 | 261 | 17 | 586 | | | | |
| 03:00 | | | 3 | 119 | 6 | 97 | 225 | 1 | 99 | 5 | 57 | 162 | 1 | 156 | 0 | 130 | 287 | 16 | 658 | | | | |
| 03:15 | | | 5 | 101 | 1 | 87 | 194 | 3 | 106 | 2 | 71 | 182 | 1 | 123 | 2 | 104 | 230 | 14 | 592 | | | | |
| 03:30 | | | 2 | 104 | 4 | 109 | 219 | 2 | 87 | 2 | 79 | 170 | 4 | 126 | 3 | 111 | 244 | 17 | 616 | | | | |
| 03:45 | | | 3 | 118 | 2 | 101 | 224 | 1 | 108 | 4 | 80 | 193 | 1 | 123 | 1 | 107 | 232 | 12 | 637 | | | | |
| 04:00 | | | 3 | 114 | 2 | 79 | 198 | 1 | 96 | 2 | 82 | 181 | 5 | 126 | 0 | 110 | 241 | 13 | 607 | | | | |
| 04:15 | | | 2 | 101 | 0 | 97 | 200 | 0 | 103 | 3 | 78 | 184 | 2 | 121 | 3 | 103 | 229 | 10 | 603 | | | | |
| 04:30 | | | 1 | 71 | 0 | 92 | 164 | 5 | 102 | 3 | 89 | 199 | 6 | 116 | 0 | 88 | 210 | 15 | 558 | | | | |
| 04:45 | | | 1 | 91 | 0 | 85 | 177 | 0 | 83 | 3 | 75 | 161 | 13 | 131 | 2 | 127 | 273 | 19 | 592 | | | | |
| 05:00 | | | 4 | 106 | 4 | 90 | 204 | 1 | 94 | 3 | 73 | 171 | 20 | 133 | 7 | 123 | 283 | 39 | 619 | | | | |
| 05:15 | | | 6 | 83 | 2 | 108 | 199 | 6 | 75 | 0 | 79 | 160 | 34 | 107 | 4 | 139 | 284 | 52 | 591 | | | | |
| 05:30 | | | 4 | 93 | 1 | 82 | 180 | 5 | 51 | 1 | 68 | 125 | 32 | 117 | 4 | 138 | 291 | 47 | 549 | | | | |
| 05:45 | | | 9 | 62 | 6 | 84 | 161 | 8 | 72 | 3 | 56 | 139 | 30 | 106 | 7 | 138 | 281 | 63 | 518 | | | | |
| 06:00 | | | 17 | 73 | 4 | 79 | 173 | 10 | 64 | 1 | 73 | 148 | 48 | 95 | 8 | 130 | 281 | 88 | 514 | | | | |
| 06:15 | | | 10 | 62 | 2 | 67 | 141 | 10 | 55 | 7 | 61 | 133 | 72 | 88 | 23 | 121 | 304 | 124 | 454 | | | | |
| 06:30 | | | 8 | 61 | 3 | 68 | 140 | 20 | 56 | 5 | 59 | 140 | 83 | 107 | 20 | 114 | 324 | 139 | 465 | | | | |
| 06:45 | | | 22 | 50 | 13 | 61 | 146 | 20 | 49 | 3 | 55 | 127 | 88 | 66 | 32 | 85 | 271 | 178 | 366 | | | | |
| 07:00 | | | 26 | 50 | 10 | 63 | 149 | 21 | 46 | 9 | 42 | 118 | 97 | 63 | 44 | 103 | 307 | 207 | 367 | | | | |
| 07:15 | | | 35 | 52 | 16 | 51 | 154 | 29 | 42 | 10 | 53 | 134 | 137 | 66 | 49 | 91 | 343 | 276 | 355 | | | | |
| 07:30 | | | 37 | 54 | 14 | 44 | 149 | 31 | 49 | 20 | 32 | 132 | 144 | 54 | 80 | 73 | 351 | 326 | 306 | | | | |
| 07:45 | | | 55 | 40 | 37 | 38 | 170 | 58 | 27 | 23 | 39 | 147 | 181 | 54 | 121 | 60 | 416 | 475 | 258 | | | | |
| 08:00 | | | 62 | 49 | 31 | 41 | 183 | 58 | 24 | 32 | 37 | 151 | 172 | 45 | 117 | 42 | 376 | 472 | 238 | | | | |
| 08:15 | | | 67 | 43 | 31 | 43 | 184 | 50 | 25 | 23 | 34 | 132 | 200 | 25 | 86 | 43 | 354 | 457 | 213 | | | | |
| 08:30 | | | 70 | 46 | 55 | 46 | 217 | 65 | 35 | 47 | 25 | 172 | 159 | 29 | 68 | 61 | 317 | 464 | 242 | | | | |
| 08:45 | | | 83 | 53 | 53 | 40 | 229 | 66 | 31 | 47 | 30 | 174 | 158 | 25 | 109 | 39 | 331 | 516 | 218 | | | | |
| 09:00 | | | 90 | 39 | 44 | 41 | 214 | 88 | 22 | 61 | 33 | 204 | 137 | 25 | 95 | 46 | 303 | 515 | 206 | | | | |
| 09:15 | | | 77 | 46 | 60 | 49 | 232 | 83 | 19 | 54 | 23 | 179 | 128 | 48 | 84 | 58 | 318 | 486 | 243 | | | | |
| 09:30 | | | 111 | 31 | 48 | 44 | 234 | 109 | 20 | 64 | 24 | 217 | 111 | 36 | 80 | 35 | 262 | 523 | 190 | | | | |
| 09:45 | | | 118 | 33 | 68 | 41 | 260 | 85 | 32 | 70 | 49 | 236 | 134 | 19 | 72 | 31 | 256 | 547 | 205 | | | | |
| 10:00 | | | 96 | 33 | 73 | 56 | 258 | 96 | 15 | 71 | 21 | 203 | 116 | 19 | 89 | 18 | 242 | 541 | 162 | | | | |
| 10:15 | | | 130 | 37 | 70 | 29 | 266 | 84 | 6 | 87 | 17 | 194 | 110 | 7 | 66 | 23 | 206 | 547 | 119 | | | | |
| 10:30 | | | 99 | 20 | 86 | 40 | 245 | 88 | 7 | 95 | 14 | 204 | 94 | 6 | 72 | 27 | 199 | 534 | 114 | | | | |
| 10:45 | | | 111 | 28 | 86 | 35 | 260 | 95 | 4 | 215 | 17 | 331 | 132 | 3 | 80 | 15 | 230 | 719 | 102 | | | | |
| 11:00 | | | 98 | 23 | 92 | 31 | 244 | 107 | 7 | 83 | 12 | 209 | 121 | 6 | 70 | 9 | 206 | 571 | 88 | | | | |
| 11:15 | | | 98 | 21 | 90 | 26 | 235 | 80 | 6 | 81 | 6 | 173 | 94 | 5 | 80 | 18 | 197 | 523 | 82 | | | | |
| 11:30 | | | 100 | 12 | 98 | 23 | 233 | 103 | 2 | 105 | 5 | 215 | 118 | 1 | 88 | 8 | 215 | 612 | 51 | | | | |
| 11:45 | | | 108 | 20 | 86 | 26 | 240 | 76 | 1 | 93 | 6 | 176 | 111 | 2 | 101 | 3 | 217 | 575 | 58 | | | | |
| Total | | | 1836 | 3461 | 1296 | 3359 | 9952 | 1611 | 2904 | 1407 | 2691 | 8613 | 3109 | 3686 | 1787 | 3817 | 12399 | 11046 | 19918 | | | | |
| Day Total | | | 5297 | | 4655 | | | 4515 | | 4098 | | | 6795 | | 5604 | | | 30964 | | | | | |
| Percent | | | 34.7% | 65.3% | 27.8% | 72.2% | | 35.7% | 64.3% | 34.3% | 65.7% | | 45.8% | 54.2% | 31.9% | 68.1% | | 35.7% | 64.3% | | | | |
| Peak | | | 09:30 | 00:30 | 10:45 | 01:15 | | 10:45 | 00:15 | 10:45 | 12:00 | | 07:45 | 02:45 | 07:30 | 05:15 | | | | | | | |
| l. | | | 455 | 490 | 366 | 401 | | 385 | 431 | 484 | 368 | | 712 | 548 | 404 | 545 | | | | | | | |
| l. | | | 0.875 | 0.921 | 0.934 | 0.895 | | 0.900 | 0.798 | 0.563 | 0.868 | | 0.890 | 0.878 | 0.835 | 0.980 | | | | | | | |

MARKS TRAFFIC DATA

CITY OF SAN RAFAEL
LUCAS VALLEY RD.- LOS GAMOS DR. to
LOS GALLINAS AV.

Site Code: 1
LUCAS1

| Start Time | 03-Nov-09 | | | | Both Dir. Total | 04-Nov-09 | | | | Both Dir. Total | 05-Nov-09 | | | | Both Dir. Total | 3-Day Total | |
|------------------|-----------|------------|------------|------------|-----------------|-----------|------|---|------|-----------------|-----------|------|---|------|-----------------|-------------|-------|
| | Tue | EB | | WB | | Wed | EB | | WB | | Thu | EB | | WB | | A.M. | P.M. |
| 12:00 | | 1 | 126 | 7 | 99 | 233 | * | * | * | * | * | * | * | * | * | 8 | 225 |
| 12:15 | | 3 | 119 | 1 | 104 | 227 | * | * | * | * | * | * | * | * | * | 4 | 223 |
| 12:30 | | 4 | 118 | 8 | 94 | 224 | * | * | * | * | * | * | * | * | * | 12 | 212 |
| 12:45 | | 4 | 103 | 5 | 84 | 196 | * | * | * | * | * | * | * | * | * | 9 | 187 |
| 01:00 | | 1 | 114 | 9 | 98 | 222 | * | * | * | * | * | * | * | * | * | 10 | 212 |
| 01:15 | | 2 | 114 | 4 | 74 | 194 | * | * | * | * | * | * | * | * | * | 6 | 188 |
| 01:30 | | 3 | 92 | 0 | 79 | 174 | * | * | * | * | * | * | * | * | * | 3 | 171 |
| 01:45 | | 4 | 93 | 1 | 76 | 174 | * | * | * | * | * | * | * | * | * | 5 | 169 |
| 02:00 | | 0 | 101 | 1 | 85 | 187 | * | * | * | * | * | * | * | * | * | 1 | 186 |
| 02:15 | | 3 | 116 | 0 | 117 | 236 | * | * | * | * | * | * | * | * | * | 3 | 233 |
| 02:30 | | 1 | 99 | 3 | 104 | 207 | * | * | * | * | * | * | * | * | * | 4 | 203 |
| 02:45 | | 0 | 132 | 2 | 127 | 261 | * | * | * | * | * | * | * | * | * | 2 | 259 |
| 03:00 | | 3 | 153 | 4 | 121 | 281 | * | * | * | * | * | * | * | * | * | 7 | 274 |
| 03:15 | | 3 | 165 | 0 | 136 | 304 | * | * | * | * | * | * | * | * | * | 3 | 301 |
| 03:30 | | 3 | 144 | 4 | 113 | 264 | * | * | * | * | * | * | * | * | * | 7 | 257 |
| 03:45 | | 6 | 122 | 1 | 120 | 249 | * | * | * | * | * | * | * | * | * | 7 | 242 |
| 04:00 | | 5 | 125 | 1 | 105 | 236 | * | * | * | * | * | * | * | * | * | 6 | 230 |
| 04:15 | | 2 | 120 | 1 | 125 | 248 | * | * | * | * | * | * | * | * | * | 3 | 245 |
| 04:30 | | 2 | 116 | 0 | 106 | 224 | * | * | * | * | * | * | * | * | * | 2 | 222 |
| 04:45 | | 8 | 114 | 1 | 129 | 252 | * | * | * | * | * | * | * | * | * | 9 | 243 |
| 05:00 | | 21 | 125 | 0 | 131 | 277 | * | * | * | * | * | * | * | * | * | 21 | 266 |
| 05:15 | | 34 | 138 | 3 | 133 | 308 | * | * | * | * | * | * | * | * | * | 37 | 271 |
| 05:30 | | 42 | 133 | 11 | 119 | 305 | * | * | * | * | * | * | * | * | * | 53 | 252 |
| 05:45 | | 45 | 107 | 9 | 114 | 275 | * | * | * | * | * | * | * | * | * | 54 | 221 |
| 06:00 | | 33 | 93 | 14 | 103 | 243 | * | * | * | * | * | * | * | * | * | 47 | 196 |
| 06:15 | | 70 | 117 | 20 | 97 | 304 | * | * | * | * | * | * | * | * | * | 90 | 214 |
| 06:30 | | 73 | 83 | 25 | 109 | 290 | * | * | * | * | * | * | * | * | * | 98 | 192 |
| 06:45 | | 94 | 92 | 38 | 82 | 306 | * | * | * | * | * | * | * | * | * | 132 | 174 |
| 07:00 | | 119 | 74 | 36 | 102 | 331 | * | * | * | * | * | * | * | * | * | 155 | 176 |
| 07:15 | | 161 | 65 | 45 | 79 | 350 | * | * | * | * | * | * | * | * | * | 206 | 144 |
| 07:30 | | 180 | 50 | 81 | 65 | 376 | * | * | * | * | * | * | * | * | * | 261 | 115 |
| 07:45 | | 186 | 49 | 126 | 57 | 418 | * | * | * | * | * | * | * | * | * | 312 | 106 |
| 08:00 | | 182 | 40 | 123 | 78 | 423 | * | * | * | * | * | * | * | * | * | 305 | 118 |
| 08:15 | | 208 | 40 | 86 | 56 | 390 | * | * | * | * | * | * | * | * | * | 294 | 96 |
| 08:30 | | 173 | 27 | 82 | 42 | 324 | * | * | * | * | * | * | * | * | * | 255 | 69 |
| 08:45 | | 199 | 30 | 105 | 57 | 391 | * | * | * | * | * | * | * | * | * | 304 | 87 |
| 09:00 | | 152 | 37 | 103 | 59 | 351 | * | * | * | * | * | * | * | * | * | 255 | 96 |
| 09:15 | | 131 | 28 | 81 | 58 | 298 | * | * | * | * | * | * | * | * | * | 212 | 86 |
| 09:30 | | 138 | 13 | 74 | 60 | 285 | * | * | * | * | * | * | * | * | * | 212 | 73 |
| 09:45 | | 122 | 24 | 106 | 57 | 309 | * | * | * | * | * | * | * | * | * | 228 | 81 |
| 10:00 | | 109 | 10 | 77 | 44 | 240 | * | * | * | * | * | * | * | * | * | 186 | 54 |
| 10:15 | | 103 | 10 | 73 | 33 | 219 | * | * | * | * | * | * | * | * | * | 176 | 43 |
| 10:30 | | 91 | 7 | 93 | 28 | 219 | * | * | * | * | * | * | * | * | * | 184 | 35 |
| 10:45 | | 114 | 7 | 84 | 18 | 223 | * | * | * | * | * | * | * | * | * | 198 | 25 |
| 11:00 | | 92 | 6 | 83 | 10 | 191 | * | * | * | * | * | * | * | * | * | 175 | 16 |
| 11:15 | | 93 | 2 | 93 | 11 | 199 | * | * | * | * | * | * | * | * | * | 186 | 13 |
| 11:30 | | 112 | 1 | 82 | 13 | 208 | * | * | * | * | * | * | * | * | * | 194 | 14 |
| 11:45 | | 118 | 5 | 74 | 10 | 207 | * | * | * | * | * | * | * | * | * | 192 | 15 |
| Total Day | | 3253 | 3799 | 1880 | 3921 | 12853 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5133 | 7720 |
| Day Total | | 7052 | | 5801 | | | 0 | | 0 | | | 0 | | 0 | | 12853 | |
| Percent | | 46.1% | 53.9% | 32.4% | 67.6% | | 0.0% | | 0.0% | | | 0.0% | | 0.0% | | 39.9% | 60.1% |

Peak 08:00 02:45 07:45 04:45
Vol. 762 594 417 512
P.H.F. 0.916 0.900 0.827 0.962

HCM Unsignalized Intersection Capacity Analysis
 3: Lucas Valley Rd & Grady Ranch

AM Existing HCM
 12/7/2009



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------------|-------------|-------------|-------------|-------------|----------------------|------|
| Lane Configurations | | ↔ | ↔ | | ↔ | ↔ |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Volume (veh/h) | 1 | 188 | 149 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 1 | 204 | 162 | 1 | 1 | 1 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | | |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX: platoon unblocked | | | | | | |
| vC: conflicting volume | 163 | | | | 369 | 162 |
| vC1: stage 1 conf vol | | | | | | |
| vC2: stage 2 conf vol | | | | | | |
| vCu: unblocked vol | 163 | | | | 369 | 162 |
| tC: single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC: 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 100 | | | | 100 | 100 |
| cM capacity (veh/h) | 1416 | | | | 631 | 882 |
| Direction, Lane-# | EB 1 | WB 1 | SB 1 | SB 2 | | |
| Volume Total | 205 | 163 | 1 | 1 | | |
| Volume Left | 1 | 0 | 1 | 0 | | |
| Volume Right | 0 | 1 | 0 | 1 | | |
| cSH | 1416 | 1700 | 631 | 882 | | |
| Volume to Capacity | 0.00 | 0.10 | 0.00 | 0.00 | | |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | | |
| Control Delay (s) | 0.0 | 0.0 | 10.7 | 9.1 | | |
| Lane LOS | A | | B | A | | |
| Approach Delay (s) | 0.0 | 0.0 | 9.9 | | | |
| Approach LOS | | | A | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 0.1 | | | |
| Intersection Capacity Utilization | | | 20.7% | | ICU Level of Service | A |
| Analysis Period (min) | | | 15 | | | |

HCM Unsignalized Intersection Capacity Analysis
 5: Lucas Valley Rd & Mt Lassen Dr

AM Existing HCM
 12/7/2009



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↗ | | | ↕ | | | ↕ | | | ↖ | ↗ |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 7 | 365 | 2 | 1 | 298 | 164 | 1 | 0 | 2 | 140 | 0 | 7 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 8 | 397 | 2 | 1 | 324 | 178 | 1 | 0 | 2 | 152 | 0 | 8 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage (veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 502 | | | 399 | | | 836 | 917 | 398 | 829 | 829 | 413 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 502 | | | 399 | | | 836 | 917 | 398 | 829 | 829 | 413 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 99 | | | 100 | | | 100 | 100 | 100 | 47 | 100 | 99 |
| cM capacity (veh/h) | 1062 | | | 1160 | | | 282 | 270 | 652 | 287 | 303 | 639 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | NB 1 | SB 1 | SB 2 |
|------------------------|------|------|------|------|------|------|
| Volume Total | 8 | 399 | 503 | 3 | 152 | 8 |
| Volume Left | 8 | 0 | 1 | 1 | 152 | 0 |
| Volume Right | 0 | 2 | 178 | 2 | 0 | 8 |
| cSH | 1062 | 1700 | 1160 | 453 | 287 | 639 |
| Volume to Capacity | 0.01 | 0.23 | 0.00 | 0.01 | 0.53 | 0.01 |
| Queue Length 95th (ft) | 1 | 0 | 0 | 1 | 72 | 1 |
| Control Delay (s) | 8.4 | 0.0 | 0.0 | 13.0 | 30.9 | 10.7 |
| Lane LOS | A | | A | B | D | B |
| Approach Delay (s) | 0.2 | | 0.0 | 13.0 | 29.9 | |
| Approach LOS | | | | B | D | |

| Intersection Summary | | |
|-----------------------------------|-------|------------------------|
| Average Delay | | 4.6 |
| Intersection Capacity Utilization | 47.6% | ICU Level of Service A |
| Analysis Period (min) | | 15 |

HCM Signalized Intersection Capacity Analysis
7: Lucas Valley Rd & Miller Creek Rd

AM Existing HCM
12/7/2009



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------------|------|-------|-------|------|----------------------|------|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.97 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1803 | | 1770 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1803 | | 1770 | 1583 |
| Volume (vph) | 42 | 514 | 330 | 103 | 207 | 90 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 46 | 559 | 359 | 112 | 225 | 98 |
| RTOR Reduction (vph) | 0 | 0 | 14 | 0 | 0 | 72 |
| Lane Group Flow (vph) | 46 | 559 | 457 | 0 | 225 | 26 |
| Turn Type | Prot | | | Perm | | |
| Protected Phases | 7 | 4 | 8 | | 6 | |
| Permitted Phases | | | | | | 6 |
| Actuated Green, G (s) | 2.3 | 23.4 | 17.1 | | 11.3 | 11.3 |
| Effective Green, g (s) | 2.3 | 23.4 | 17.1 | | 11.3 | 11.3 |
| Actuated g/C Ratio | 0.05 | 0.55 | 0.40 | | 0.26 | 0.26 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 95 | 1021 | 722 | | 468 | 419 |
| v/s Ratio Prot | 0.03 | c0.30 | c0.25 | | c0.13 | |
| v/s Ratio Perm | | | | | | 0.02 |
| v/c Ratio | 0.48 | 0.55 | 0.63 | | 0.48 | 0.06 |
| Uniform Delay, d1 | 19.6 | 6.2 | 10.3 | | 13.2 | 11.7 |
| Progression Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.8 | 0.6 | 1.8 | | 0.8 | 0.1 |
| Delay (s) | 23.5 | 6.8 | 12.1 | | 14.0 | 11.8 |
| Level of Service | C | A | B | | B | B |
| Approach Delay (s) | | 8.1 | 12.1 | | 13.3 | |
| Approach LOS | | A | B | | B | |
| Intersection Summary | | | | | | |
| HCM Average Control Delay | | | 10.7 | | HCM Level of Service | B |
| HCM Volume to Capacity ratio | | | 0.60 | | | |
| Actuated Cycle Length (s) | | | 42.7 | | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | | | 48.4% | | ICU Level of Service | A |
| Analysis Period (min) | | | 15 | | | |
| c Critical Lane Group | | | | | | |

HCM Signalized Intersection Capacity Analysis
 9: Lucas Valley Rd & Las Gallinas Av

AM Existing HCM
 12/7/2009

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|------|-------|------|------|------|------|------|-------|-------|------|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Volume (vph) | 32 | 452 | 245 | 40 | 283 | 93 | 107 | 173 | 106 | 184 | 391 | 25 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 35 | 491 | 266 | 43 | 308 | 101 | 116 | 188 | 115 | 200 | 425 | 27 |
| RTOR Reduction (vph) | 0 | 0 | 185 | 0 | 0 | 72 | 0 | 0 | 77 | 0 | 0 | 17 |
| Lane Group Flow (vph) | 35 | 491 | 81 | 43 | 308 | 29 | 116 | 188 | 38 | 200 | 425 | 10 |
| Turn Type | Prot | | Perm | Prot | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 3.1 | 24.3 | 24.3 | 2.1 | 23.3 | 23.3 | 7.1 | 26.5 | 26.5 | 11.2 | 30.6 | 30.6 |
| Effective Green, g (s) | 3.1 | 24.3 | 24.3 | 2.1 | 23.3 | 23.3 | 7.1 | 26.5 | 26.5 | 11.2 | 30.6 | 30.6 |
| Actuated g/C Ratio | 0.04 | 0.30 | 0.30 | 0.03 | 0.29 | 0.29 | 0.09 | 0.33 | 0.33 | 0.14 | 0.38 | 0.38 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 69 | 565 | 480 | 46 | 542 | 460 | 157 | 616 | 524 | 247 | 712 | 605 |
| v/s Ratio Prot | 0.02 | c0.26 | | c0.02 | 0.17 | | 0.07 | 0.10 | | c0.11 | c0.23 | |
| v/s Ratio Perm | | | 0.05 | | | 0.02 | | | 0.02 | | | 0.01 |
| v/c Ratio | 0.51 | 0.87 | 0.17 | 0.93 | 0.57 | 0.06 | 0.74 | 0.31 | 0.07 | 0.81 | 0.60 | 0.02 |
| Uniform Delay, d1 | 37.8 | 26.4 | 20.5 | 38.9 | 24.1 | 20.5 | 35.6 | 19.9 | 18.4 | 33.4 | 19.8 | 15.4 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.8 | 13.4 | 0.2 | 107.1 | 1.4 | 0.1 | 16.5 | 1.3 | 0.3 | 17.5 | 3.7 | 0.1 |
| Delay (s) | 43.5 | 39.8 | 20.6 | 146.0 | 25.5 | 20.6 | 52.1 | 21.2 | 18.6 | 50.9 | 23.5 | 15.4 |
| Level of Service | D | D | C | F | C | C | D | C | B | D | C | B |
| Approach Delay (s) | | 33.5 | | | 35.9 | | | 29.1 | | | 31.6 | |
| Approach LOS | | C | | | D | | | C | | | C | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 32.6 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.69 | | |
| Actuated Cycle Length (s) | 80.1 | Sum of lost time (s) | 8.0 |
| Intersection Capacity Utilization | 67.0% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis
 12: Lucas Valley Rd & Los Gamos Rd

AM Existing HCM
 12/7/2009

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|-----------------------------------|-------------|-------------|-------------|-------------|----------------------|-------------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑ | ↗ | ↘ | ↑ | ↘ | ↗ |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 648 | 84 | 154 | 418 | 21 | 78 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 704 | 91 | 167 | 454 | 23 | 85 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 796 | | 1493 | 704 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 796 | | 1493 | 704 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 80 | | 79 | 81 |
| cM capacity (veh/h) | | | 826 | | 108 | 437 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | NB 2 |
| Volume Total | 704 | 91 | 167 | 454 | 23 | 85 |
| Volume Left | 0 | 0 | 167 | 0 | 23 | 0 |
| Volume Right | 0 | 91 | 0 | 0 | 0 | 85 |
| cSH | 1700 | 1700 | 826 | 1700 | 108 | 437 |
| Volume to Capacity | 0.41 | 0.05 | 0.20 | 0.27 | 0.21 | 0.19 |
| Queue Length 95th (ft) | 0 | 0 | 19 | 0 | 19 | 18 |
| Control Delay (s) | 0.0 | 0.0 | 10.5 | 0.0 | 47.0 | 15.2 |
| Lane LOS | | | B | | E | C |
| Approach Delay (s) | 0.0 | | 2.8 | | 22.0 | |
| Approach LOS | | | | | C | |
| Intersection Summary | | | | | | |
| Average Delay | | | 2.7 | | | |
| Intersection Capacity Utilization | | | 56.0% | | ICU Level of Service | B |
| Analysis Period (min) | | | 15 | | | |

HCM Signalized Intersection Capacity Analysis
 14: Lucas Valley Rd & SB US 101 on

AM Existing HCM
 12/7/2009



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|------------------------|-------|------|-------|------|------|-------|
| Lane Configurations | ↑ | ↗ | ↖ | ↑ | ↖ | ↗ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Volume (vph) | 302 | 431 | 215 | 459 | 122 | 583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 328 | 468 | 234 | 499 | 133 | 634 |
| RTOR Reduction (vph) | 0 | 356 | 0 | 0 | 0 | 356 |
| Lane Group Flow (vph) | 328 | 112 | 234 | 499 | 133 | 278 |
| Turn Type | | Perm | Prot | | | Perm |
| Protected Phases | 4 | | 3 | 8 | 2 | |
| Permitted Phases | | 4 | | | | 2 |
| Actuated Green, G (s) | 19.1 | 19.1 | 14.9 | 38.0 | 33.5 | 33.5 |
| Effective Green, g (s) | 19.1 | 19.1 | 14.9 | 38.0 | 33.5 | 33.5 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.19 | 0.48 | 0.42 | 0.42 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 448 | 380 | 332 | 890 | 746 | 667 |
| v/s Ratio Prot | c0.18 | | c0.13 | 0.27 | 0.08 | |
| v/s Ratio Perm | | 0.07 | | | | c0.18 |
| v/c Ratio | 0.73 | 0.30 | 0.70 | 0.56 | 0.18 | 0.42 |
| Uniform Delay, d1 | 27.8 | 24.7 | 30.2 | 14.8 | 14.4 | 16.1 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 6.1 | 0.4 | 6.7 | 0.8 | 0.5 | 1.9 |
| Delay (s) | 33.9 | 25.1 | 36.9 | 15.6 | 14.9 | 18.1 |
| Level of Service | C | C | D | B | B | B |
| Approach Delay (s) | 28.8 | | | 22.4 | 17.5 | |
| Approach LOS | C | | | C | B | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 23.0 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.57 | | |
| Actuated Cycle Length (s) | 79.5 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 58.7% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Signalized Intersection Capacity Analysis
 16: Lucas Valley Rd & NB US 101 off

AM Existing HCM
 12/7/2009

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|------------------------|-------|------|------|------|-------|------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | ↑ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Volume (vph) | 756 | 124 | 0 | 295 | 382 | 377 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 822 | 135 | 0 | 321 | 415 | 410 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 822 | 135 | 0 | 321 | 415 | 410 |
| Turn Type | | Free | | | | Free |
| Protected Phases | 4 | | | 8 | 2 | |
| Permitted Phases | | Free | | | | Free |
| Actuated Green, G (s) | 37.8 | 77.4 | | 37.8 | 31.6 | 77.4 |
| Effective Green, g (s) | 37.8 | 77.4 | | 37.8 | 31.6 | 77.4 |
| Actuated g/C Ratio | 0.49 | 1.00 | | 0.49 | 0.41 | 1.00 |
| Clearance Time (s) | 4.0 | | | 4.0 | 4.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 910 | 1583 | | 910 | 723 | 1583 |
| v/s Ratio Prot | c0.44 | | | 0.17 | c0.23 | |
| v/s Ratio Perm | | 0.09 | | | | 0.26 |
| v/c Ratio | 0.90 | 0.09 | | 0.35 | 0.57 | 0.26 |
| Uniform Delay, d1 | 18.1 | 0.0 | | 12.2 | 17.7 | 0.0 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 12.1 | 0.1 | | 0.2 | 3.3 | 0.4 |
| Delay (s) | 30.3 | 0.1 | | 12.5 | 21.0 | 0.4 |
| Level of Service | C | A | | B | C | A |
| Approach Delay (s) | 26.0 | | | 12.5 | 10.8 | |
| Approach LOS | C | | | B | B | |

| Intersection Summary | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 18.0 | HCM Level of Service | B |
| HCM Volume to Capacity ratio | 0.75 | | |
| Actuated Cycle Length (s) | 77.4 | Sum of lost time (s) | 8.0 |
| Intersection Capacity Utilization | 67.6% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis
 3: Lucas Valley Rd & Grady Ranch

PM Existing HCM
 12/7/2009



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | ↕ | | ↗ | ↗ |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Volume (veh/h) | 134 | 1 | 143 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 146 | 1 | 155 | 1 | 1 | 1 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | | |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 157 | | | | 448 | 156 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 157 | | | | 448 | 156 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 90 | | | | 100 | 100 |
| cM capacity (veh/h) | 1423 | | | | 510 | 890 |

| Direction, Lane # | EB 1 | WB 1 | SB 1 | SB 2 |
|------------------------|------|------|------|------|
| Volume Total | 147 | 157 | 1 | 1 |
| Volume Left | 146 | 0 | 1 | 0 |
| Volume Right | 0 | 1 | 0 | 1 |
| cSH | 1423 | 1700 | 510 | 890 |
| Volume to Capacity | 0.10 | 0.09 | 0.00 | 0.00 |
| Queue Length 95th (ft) | 9 | 0 | 0 | 0 |
| Control Delay (s) | 7.8 | 0.0 | 12.1 | 9.1 |
| Lane LOS | A | | B | A |
| Approach Delay (s) | 7.8 | 0.0 | 10.6 | |
| Approach LOS | | | B | |

| Intersection Summary | | | |
|-----------------------------------|-------|-----|------------------------|
| Average Delay | | 3.8 | |
| Intersection Capacity Utilization | 28.4% | | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

HCM Unsignalized Intersection Capacity Analysis
5: Lucas Valley Rd & Mt Lassen Dr

PM Existing HCM
12/7/2009

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 2 | 266 | 1 | 1 | 286 | 93 | 0 | 1 | 0 | 102 | 0 | 9 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 2 | 289 | 1 | 1 | 311 | 101 | 0 | 1 | 0 | 111 | 0 | 10 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | None | | | None | | |
| Median storage (veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 412 | | | 290 | | | 667 | 708 | 290 | 658 | 658 | 361 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 412 | | | 290 | | | 667 | 708 | 290 | 658 | 658 | 361 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 100 | | | 100 | 100 | 100 | 71 | 100 | 99 |
| cM capacity (veh/h) | 1147 | | | 1272 | | | 366 | 358 | 749 | 376 | 383 | 683 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | NB 1 | SB 1 | SB 2 | | | | | | |
| Volume Total | 2 | 290 | 413 | 1 | 111 | 10 | | | | | | |
| Volume Left | 2 | 0 | 1 | 0 | 111 | 0 | | | | | | |
| Volume Right | 0 | 1 | 101 | 0 | 0 | 10 | | | | | | |
| cSH | 1147 | 1700 | 1272 | 358 | 376 | 683 | | | | | | |
| Volume to Capacity | 0.00 | 0.17 | 0.00 | 0.00 | 0.29 | 0.01 | | | | | | |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 30 | 1 | | | | | | |
| Control Delay (s) | 8.1 | 0.0 | 0.0 | 15.1 | 18.5 | 10.3 | | | | | | |
| Lane LOS | A | | A | C | C | B | | | | | | |
| Approach Delay (s) | 0.1 | | 0.0 | 15.1 | 17.9 | | | | | | | |
| Approach LOS | | | | C | C | | | | | | | |

Intersection Summary

| | |
|-----------------------------------|-------|
| Average Delay | 2.7 |
| Intersection Capacity Utilization | 40.5% |
| ICU Level of Service | A |
| Analysis Period (min) | 15 |

HCM Signalized Intersection Capacity Analysis
7: Lucas Valley Rd & Miller Creek Rd

PM Existing HCM
12/7/2009



























| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------|------|-------|-------|------|-------|------|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.97 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1813 | | 1770 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1813 | | 1770 | 1583 |
| Volume (vph) | 19 | 357 | 388 | 97 | 43 | 59 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 21 | 388 | 422 | 105 | 47 | 64 |
| RTOR Reduction (vph) | 0 | 0 | 12 | 0 | 0 | 51 |
| Lane Group Flow (vph) | 21 | 388 | 515 | 0 | 47 | 13 |
| Turn Type | Prot | | | Perm | | |
| Protected Phases | 7 | 4 | 8 | | 6 | |
| Permitted Phases | | | | | | 6 |
| Actuated Green, G (s) | 0.8 | 19.2 | 14.4 | | 7.0 | 7.0 |
| Effective Green, g (s) | 0.8 | 19.2 | 14.4 | | 7.0 | 7.0 |
| Actuated g/C Ratio | 0.02 | 0.56 | 0.42 | | 0.20 | 0.20 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 41 | 1046 | 763 | | 362 | 324 |
| v/s Ratio Prot | 0.01 | c0.21 | c0.28 | | c0.03 | |
| v/s Ratio Perm | | | | | | 0.01 |
| v/c Ratio | 0.51 | 0.37 | 0.68 | | 0.13 | 0.04 |
| Uniform Delay, d1 | 16.5 | 4.2 | 8.0 | | 11.1 | 10.9 |
| Progression Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 10.4 | 0.2 | 2.4 | | 0.2 | 0.1 |
| Delay (s) | 26.9 | 4.4 | 10.4 | | 11.3 | 11.0 |
| Level of Service | C | A | B | | B | B |
| Approach Delay (s) | | 5.5 | 10.4 | | 11.1 | |
| Approach LOS | | A | B | | B | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 8.6 | HCM Level of Service | A |
| HCM Volume to Capacity ratio | 0.52 | | |
| Actuated Cycle Length (s) | 34.2 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 36.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Signalized Intersection Capacity Analysis
 9: Lucas Valley Rd & Las Gallinas Av

PM Existing HCM
 12/7/2009

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Volume (vph) | 14 | 329 | 102 | 95 | 343 | 74 | 133 | 106 | 110 | 52 | 71 | 19 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 15 | 358 | 111 | 103 | 373 | 80 | 145 | 115 | 120 | 57 | 77 | 21 |
| RTOR Reduction (vph) | 0 | 0 | 81 | 0 | 0 | 52 | 0 | 0 | 75 | 0 | 0 | 14 |
| Lane Group Flow (vph) | 15 | 358 | 30 | 103 | 373 | 28 | 145 | 115 | 45 | 57 | 77 | 7 |
| Turn Type | Prot | | Perm | Prot | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 0.8 | 21.0 | 21.0 | 7.5 | 27.7 | 27.7 | 9.0 | 29.3 | 29.3 | 4.1 | 24.4 | 24.4 |
| Effective Green, g (s) | 0.8 | 21.0 | 21.0 | 7.5 | 27.7 | 27.7 | 9.0 | 29.3 | 29.3 | 4.1 | 24.4 | 24.4 |
| Actuated g/C Ratio | 0.01 | 0.27 | 0.27 | 0.10 | 0.36 | 0.36 | 0.12 | 0.38 | 0.38 | 0.05 | 0.31 | 0.31 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 18 | 502 | 427 | 170 | 662 | 563 | 204 | 701 | 595 | 93 | 584 | 496 |
| v/s Ratio Prot | 0.01 | 0.19 | | 0.06 | 0.20 | | 0.08 | 0.06 | | 0.03 | 0.04 | |
| v/s Ratio Perm | | | 0.02 | | | 0.02 | | | 0.03 | | | 0.00 |
| v/c Ratio | 0.83 | 0.71 | 0.07 | 0.61 | 0.56 | 0.05 | 0.71 | 0.16 | 0.08 | 0.61 | 0.13 | 0.01 |
| Uniform Delay, d1 | 38.5 | 25.7 | 21.2 | 33.8 | 20.2 | 16.5 | 33.2 | 16.2 | 15.6 | 36.1 | 19.2 | 18.4 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 131.9 | 4.8 | 0.1 | 6.0 | 1.1 | 0.0 | 11.1 | 0.5 | 0.2 | 11.4 | 0.5 | 0.0 |
| Delay (s) | 170.4 | 30.5 | 21.3 | 39.8 | 21.3 | 16.5 | 44.3 | 16.7 | 15.9 | 47.5 | 19.6 | 18.5 |
| Level of Service | F | C | C | D | C | B | D | B | B | D | B | B |
| Approach Delay (s) | | 32.7 | | | 24.1 | | | 26.9 | | | 29.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 28.0 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.46 | | |
| Actuated Cycle Length (s) | 77.9 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 46.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis
 12: Lucas Valley Rd & Los Gamos Rd

PM Existing HCM
 12/7/2009



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------------|-------------|-------------|-------------|----------------------|-------------|
| Lane Configurations | ↑ | ↗ | ↘ | ↑ | ↘ | ↗ |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 458 | 45 | 136 | 473 | 33 | 149 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 498 | 49 | 148 | 514 | 36 | 162 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 547 | | 1308 | 498 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 547 | | 1308 | 498 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 86 | | 76 | 72 |
| cM capacity (veh/h) | | | 1023 | | 151 | 572 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | NB 2 |
| Volume Total | 498 | 49 | 148 | 514 | 36 | 162 |
| Volume Left | 0 | 0 | 148 | 0 | 36 | 0 |
| Volume Right | 0 | 49 | 0 | 0 | 0 | 162 |
| cSH | 1700 | 1700 | 1023 | 1700 | 151 | 572 |
| Volume to Capacity | 0.29 | 0.03 | 0.14 | 0.30 | 0.24 | 0.28 |
| Queue Length 95th (ft) | 0 | 0 | 13 | 0 | 22 | 29 |
| Control Delay (s) | 0.0 | 0.0 | 9.1 | 0.0 | 36.2 | 13.8 |
| Lane LOS | | | A | | E | B |
| Approach Delay (s) | 0.0 | | 2.0 | | 17.8 | |
| Approach LOS | | | | | C | |
| Intersection Summary | | | | | | |
| Average Delay | | | 3.5 | | | |
| Intersection Capacity Utilization | | | 45.0% | | ICU Level of Service | A |
| Analysis Period (min) | | | 15 | | | |

HCM Signalized Intersection Capacity Analysis
 14: Lucas Valley Rd & SB US 101 on

PM Existing HCM
 12/7/2009



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|------------------------|-------|------|-------|------|-------|------|
| Lane Configurations | ↑ | ↗ | ↖ | ↑ | ↖ | ↗ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Volume (vph) | 265 | 346 | 432 | 516 | 99 | 190 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 288 | 376 | 470 | 561 | 108 | 207 |
| RTOR Reduction (vph) | 0 | 291 | 0 | 0 | 0 | 151 |
| Lane Group Flow (vph) | 288 | 85 | 470 | 561 | 108 | 56 |
| Turn Type | | Perm | Prot | | | Perm |
| Protected Phases | 4 | | 3 | 8 | 2 | |
| Permitted Phases | | 4 | | | | 2 |
| Actuated Green, G (s) | 15.8 | 15.8 | 23.0 | 42.8 | 18.8 | 18.8 |
| Effective Green, g (s) | 15.8 | 15.8 | 23.0 | 42.8 | 18.8 | 18.8 |
| Actuated g/C Ratio | 0.23 | 0.23 | 0.33 | 0.61 | 0.27 | 0.27 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 423 | 359 | 585 | 1146 | 478 | 428 |
| v/s Ratio Prot | c0.15 | | c0.27 | 0.30 | c0.06 | |
| v/s Ratio Perm | | 0.05 | | | | 0.04 |
| v/c Ratio | 0.68 | 0.24 | 0.80 | 0.49 | 0.23 | 0.13 |
| Uniform Delay, d1 | 24.6 | 22.0 | 21.2 | 7.4 | 19.7 | 19.2 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 4.5 | 0.3 | 7.9 | 0.3 | 1.1 | 0.6 |
| Delay (s) | 29.1 | 22.3 | 29.1 | 7.7 | 20.8 | 19.8 |
| Level of Service | C | C | C | A | C | B |
| Approach Delay (s) | 25.2 | | | 17.5 | 20.2 | |
| Approach LOS | C | | | B | C | |

| Intersection Summary | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 20.5 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 69.6 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 53.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Signalized Intersection Capacity Analysis
 16: Lucas Valley Rd & NB US 101 off

PM Existing HCM
 12/7/2009



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | ↑ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Volume (vph) | 322 | 183 | 0 | 572 | 326 | 360 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 350 | 199 | 0 | 622 | 354 | 391 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 350 | 199 | 0 | 622 | 354 | 391 |
| Turn Type | | Free | | | | Free |
| Protected Phases | 4 | | | 8 | 2 | |
| Permitted Phases | | Free | | | | Free |
| Actuated Green, G (s) | 27.9 | 69.5 | | 27.9 | 33.6 | 69.5 |
| Effective Green, g (s) | 27.9 | 69.5 | | 27.9 | 33.6 | 69.5 |
| Actuated g/C Ratio | 0.40 | 1.00 | | 0.40 | 0.48 | 1.00 |
| Clearance Time (s) | 4.0 | | | 4.0 | 4.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 748 | 1583 | | 748 | 856 | 1583 |
| v/s Ratio Prot | 0.19 | | | 0.33 | 0.20 | |
| v/s Ratio Perm | | 0.13 | | | | 0.25 |
| v/c Ratio | 0.47 | 0.13 | | 0.83 | 0.41 | 0.25 |
| Uniform Delay, d1 | 15.3 | 0.0 | | 18.7 | 11.6 | 0.0 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.5 | 0.2 | | 7.8 | 1.5 | 0.4 |
| Delay (s) | 15.8 | 0.2 | | 26.5 | 13.1 | 0.4 |
| Level of Service | B | A | | C | B | A |
| Approach Delay (s) | 10.1 | | | 26.5 | 6.4 | |
| Approach LOS | B | | | C | A | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 14.0 | HCM Level of Service | B |
| HCM Volume to Capacity ratio | 0.60 | | |
| Actuated Cycle Length (s) | 69.5 | Sum of lost time (s) | 8.0 |
| Intersection Capacity Utilization | 54.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c - Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis
 3: Lucas Valley Rd & Grady Ranch

AM Exisit + Proj HCM
 12/7/2009



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------------|------|------|-------|------|----------------------|------|
| Lane Configurations | | ↕ | ↕ | | ↕ | ↕ |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Volume (veh/h) | 29 | 188 | 149 | 84 | 12 | 4 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 32 | 204 | 162 | 91 | 13 | 4 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage (veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 253 | | | | 475 | 208 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 253 | | | | 475 | 208 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 98 | | | | 98 | 99 |
| cM capacity (veh/h) | 1312 | | | | 535 | 833 |
| Direction, Lane # | EB 1 | WB 1 | SB 1 | SB 2 | | |
| Volume Total | 236 | 253 | 13 | 4 | | |
| Volume Left | 32 | 0 | 13 | 0 | | |
| Volume Right | 0 | 91 | 0 | 4 | | |
| cSH | 1312 | 1700 | 535 | 833 | | |
| Volume to Capacity | 0.02 | 0.15 | 0.02 | 0.01 | | |
| Queue Length, 95th (ft) | 2 | 0 | 2 | 0 | | |
| Control Delay (s) | 1.2 | 0.0 | 11.9 | 9.3 | | |
| Lane LOS | A | | B | A | | |
| Approach Delay (s) | 1.2 | 0.0 | 11.3 | | | |
| Approach LOS | | | B | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 1.0 | | | |
| Intersection Capacity Utilization | | | 37.8% | | ICU Level of Service | A |
| Analysis Period (min) | | | 15 | | | |

HCM Unsignalized Intersection Capacity Analysis
 5: Lucas Valley Rd & Mt Lassen Dr

AM Exisit + Proj HCM
 12/7/2009



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
|-----------------------------------|------|------|-------|----------------------|------|------|------|------|------|------|------|------|-----|
| Lane Configurations | ↖ | ↗ | | | ↕ | | | ↕ | | | ↖ | ↗ | |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | | |
| Volume (veh/h) | 7 | 377 | 2 | 1 | 382 | 164 | 1 | 0 | 2 | 140 | 0 | 7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Hourly flow rate (vph) | 8 | 410 | 2 | 1 | 415 | 178 | 1 | 0 | 2 | 152 | 0 | 8 | |
| Pedestrians | | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | | |
| Median type | | | | | | | None | | | | | | |
| Median storage (veh) | | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | | |
| vC, conflicting volume | 593 | | | 412 | | | | 940 | 1022 | 411 | 934 | 934 | 504 |
| vC1, stage 1 conf vol | | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | | |
| vCu, unblocked vol | 593 | | | 412 | | | | 940 | 1022 | 411 | 934 | 934 | 504 |
| tC, single (s) | 4.1 | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 99 | | | 100 | | | | 100 | 100 | 100 | 38 | 100 | 99 |
| cM capacity (veh/h) | 983 | | | 1147 | | | | 239 | 234 | 641 | 244 | 264 | 568 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | NB 1 | SB 1 | SB 2 | | | | | | | |
| Volume Total | 8 | 412 | 595 | 3 | 152 | 8 | | | | | | | |
| Volume Left | 8 | 0 | 1 | 1 | 152 | 0 | | | | | | | |
| Volume Right | 0 | 2 | 178 | 2 | 0 | 8 | | | | | | | |
| cSH | 983 | 1700 | 1147 | 410 | 244 | 568 | | | | | | | |
| Volume to Capacity | 0.01 | 0.24 | 0.00 | 0.01 | 0.62 | 0.01 | | | | | | | |
| Queue Length 95th (ft) | 1 | 0 | 0 | 1 | 94 | 1 | | | | | | | |
| Control Delay (s) | 8.7 | 0.0 | 0.0 | 13.8 | 41.5 | 11.4 | | | | | | | |
| Lane LOS | A | | A | B | E | B | | | | | | | |
| Approach Delay (s) | 0.2 | | 0.0 | 13.8 | 40.1 | | | | | | | | |
| Approach LOS | | | | B | E | | | | | | | | |
| Intersection Summary | | | | | | | | | | | | | |
| Average Delay | | | 5.6 | | | | | | | | | | |
| Intersection Capacity Utilization | | | 52.0% | ICU Level of Service | | | | A | | | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | | |

HCM Signalized Intersection Capacity Analysis
7: Lucas Valley Rd & Miller Creek Rd

AM Exisit + Proj HCM
12/7/2009



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------|------|-------|-------|-------|------|------|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.97 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1813 | | 1770 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1813 | | 1770 | 1583 |
| Volume (vph) | 42 | 526 | 414 | 103 | 207 | 90 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 46 | 572 | 450 | 112 | 225 | 98 |
| RTOR Reduction (vph) | 0 | 0 | 11 | 0 | 0 | 72 |
| Lane Group Flow (vph) | 46 | 572 | 551 | 0 | 225 | 26 |
| Turn Type | Prot | | | Perm | | |
| Protected Phases | 7 | 4 | 8 | 6 | | |
| Permitted Phases | | | | | | 6 |
| Actuated Green, G (s) | 2.2 | 25.7 | 19.5 | 12.0 | | |
| Effective Green, g (s) | 2.2 | 25.7 | 19.5 | 12.0 | | |
| Actuated g/C Ratio | 0.05 | 0.56 | 0.43 | 0.26 | | |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | | |
| Lane Grp Cap (vph) | 85 | 1048 | 774 | 465 | | |
| v/s Ratio Prot | 0.03 | c0.31 | c0.30 | c0.13 | | |
| v/s Ratio Perm | | | | | | 0.02 |
| v/c Ratio | 0.54 | 0.55 | 0.71 | 0.48 | | |
| Uniform Delay, d1 | 21.3 | 6.3 | 10.8 | 14.2 | | |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Incremental Delay, d2 | 6.9 | 0.6 | 3.1 | 0.8 | | |
| Delay (s) | 28.1 | 6.9 | 13.9 | 15.0 | | |
| Level of Service | C | A | B | B | | |
| Approach Delay (s) | 8.5 | | 13.9 | 14.3 | | |
| Approach LOS | A | | B | B | | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 11.8 | HCM Level of Service | B |
| HCM Volume to Capacity ratio | 0.64 | | |
| Actuated Cycle Length (s) | 45.7 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 52.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Signalized Intersection Capacity Analysis
 9: Lucas Valley Rd & Las Gallinas Av

AM Exisit + Proj HCM
 12/7/2009



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|-------|------|-------|------|------|------|------|------|-------|-------|------|
| Lane Configurations | ↙ | ↖ | ↗ | ↘ | ↖ | ↗ | ↘ | ↖ | ↗ | ↘ | ↖ | ↗ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Volume (vph) | 32 | 464 | 245 | 40 | 365 | 93 | 109 | 173 | 106 | 184 | 391 | 25 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 35 | 504 | 266 | 43 | 397 | 101 | 118 | 188 | 115 | 200 | 425 | 27 |
| RTOR Reduction (vph) | 0 | 0 | 184 | 0 | 0 | 70 | 0 | 0 | 77 | 0 | 0 | 17 |
| Lane Group Flow (vph) | 35 | 504 | 82 | 43 | 397 | 31 | 118 | 188 | 38 | 200 | 425 | 10 |
| Turn Type | Prot | | Perm | Prot | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 2.1 | 24.8 | 24.8 | 2.1 | 24.8 | 24.8 | 7.1 | 26.5 | 26.5 | 11.2 | 30.6 | 30.6 |
| Effective Green, g (s) | 2.1 | 24.8 | 24.8 | 2.1 | 24.8 | 24.8 | 7.1 | 26.5 | 26.5 | 11.2 | 30.6 | 30.6 |
| Actuated g/C Ratio | 0.03 | 0.31 | 0.31 | 0.03 | 0.31 | 0.31 | 0.09 | 0.33 | 0.33 | 0.14 | 0.38 | 0.38 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 46 | 573 | 487 | 46 | 573 | 487 | 156 | 613 | 520 | 246 | 707 | 601 |
| v/s Ratio Prot | 0.02 | c0.27 | | c0.02 | 0.21 | | 0.07 | 0.10 | | c0.11 | c0.23 | |
| v/s Ratio Perm | | | 0.05 | | | 0.02 | | | 0.02 | | | 0.01 |
| v/c Ratio | 0.76 | 0.88 | 0.17 | 0.93 | 0.69 | 0.06 | 0.76 | 0.31 | 0.07 | 0.81 | 0.60 | 0.02 |
| Uniform Delay, d1 | 39.0 | 26.5 | 20.4 | 39.2 | 24.5 | 19.7 | 35.9 | 20.2 | 18.6 | 33.7 | 20.1 | 15.6 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 52.3 | 14.4 | 0.2 | 107.1 | 3.6 | 0.1 | 18.7 | 1.3 | 0.3 | 18.2 | 3.8 | 0.1 |
| Delay (s) | 91.3 | 40.8 | 20.5 | 146.3 | 28.2 | 19.8 | 54.6 | 21.5 | 18.9 | 51.9 | 23.9 | 15.7 |
| Level of Service | F | D | C | F | C | B | D | C | B | D | C | B |
| Approach Delay (s) | | 36.3 | | | 36.0 | | | 30.0 | | | 32.1 | |
| Approach LOS | | D | | | D | | | C | | | C | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 34.0 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.73 | | |
| Actuated Cycle Length (s) | 80.6 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 67.7% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 12: Lucas Valley Rd & Los Gamos Rd

AM Exist + Proj HCM
 12/7/2009

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|-----------------------------------|-------------|-------------|-------------|-------------|----------------------|-------------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑ | ↗ | ↙ | ↑ | ↖ | ↗ |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 660 | 84 | 154 | 500 | 21 | 78 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 717 | 91 | 167 | 543 | 23 | 85 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | None | | |
| Median storage veh | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 809 | | 1596 | 717 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 809 | | 1596 | 717 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 80 | | 76 | 80 |
| cM capacity (veh/h) | | | 817 | | 93 | 429 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | NB 2 |
| Volume Total | 717 | 91 | 167 | 543 | 23 | 85 |
| Volume Left | 0 | 0 | 167 | 0 | 23 | 0 |
| Volume Right | 0 | 91 | 0 | 0 | 0 | 85 |
| cSH | 1700 | 1700 | 817 | 1700 | 93 | 429 |
| Volume to Capacity | 0.42 | 0.05 | 0.20 | 0.32 | 0.24 | 0.20 |
| Queue Length 95th (ft) | 0 | 0 | 19 | 0 | 22 | 18 |
| Control Delay (s) | 0.0 | 0.0 | 10.5 | 0.0 | 55.6 | 15.4 |
| Lane LOS | | | B | | F | C |
| Approach Delay (s) | 0.0 | | 2.5 | | 24.0 | |
| Approach LOS | | | | | C | |
| Intersection Summary | | | | | | |
| Average Delay | | | 2.7 | | | |
| Intersection Capacity Utilization | | | 56.6% | | ICU Level of Service | B |
| Analysis Period (min) | | | 15 | | | |

HCM Signalized Intersection Capacity Analysis
 14: Lucas Valley Rd & SB US 101 on

AM Exisit + Proj HCM
 12/7/2009

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|------------------------|-------|------|-------|------|------|-------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑ | ↗ | ↖ | ↑ | ↖ | ↗ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Volume (vph) | 306 | 439 | 215 | 515 | 148 | 583 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 333 | 477 | 234 | 560 | 161 | 634 |
| RTOR Reduction (vph) | 0 | 360 | 0 | 0 | 0 | 358 |
| Lane Group Flow (vph) | 333 | 117 | 234 | 560 | 161 | 276 |
| Turn Type | | Perm | Prot | | | Perm |
| Protected Phases | 4 | | 3 | 8 | 2 | |
| Permitted Phases | | 4 | | | | 2 |
| Actuated Green, G (s) | 19.2 | 19.2 | 14.8 | 38.0 | 32.6 | 32.6 |
| Effective Green, g (s) | 19.2 | 19.2 | 14.8 | 38.0 | 32.6 | 32.6 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.19 | 0.48 | 0.41 | 0.41 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 455 | 387 | 333 | 901 | 734 | 657 |
| v/s Ratio Prot | c0.18 | | c0.13 | 0.30 | 0.09 | |
| v/s Ratio Perm | | 0.07 | | | | c0.17 |
| v/c Ratio | 0.73 | 0.30 | 0.70 | 0.62 | 0.22 | 0.42 |
| Uniform Delay, d1 | 27.3 | 24.2 | 29.8 | 15.0 | 14.8 | 16.3 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 6.0 | 0.4 | 6.6 | 1.3 | 0.7 | 2.0 |
| Delay (s) | 33.3 | 24.7 | 36.4 | 16.3 | 15.5 | 18.3 |
| Level of Service | C | C | D | B | B | B |
| Approach Delay (s) | 28.2 | | | 22.3 | 17.7 | |
| Approach LOS | C | | | C | B | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 22.8 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.57 | | |
| Actuated Cycle Length (s) | 78.6 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 58.9% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|------------------------|-------|------|------|------|-------|------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑ | ↗ | | ↑ | ↖ | ↗ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Volume (vph) | 756 | 128 | 0 | 295 | 438 | 377 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 822 | 139 | 0 | 321 | 476 | 410 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 822 | 139 | 0 | 321 | 476 | 410 |
| Turn Type | | Free | | | | Free |
| Protected Phases | 4 | | | 8 | 2 | |
| Permitted Phases | | Free | | | | Free |
| Actuated Green, G (s) | 37.8 | 77.4 | | 37.8 | 31.6 | 77.4 |
| Effective Green, g (s) | 37.8 | 77.4 | | 37.8 | 31.6 | 77.4 |
| Actuated g/C Ratio | 0.49 | 1.00 | | 0.49 | 0.41 | 1.00 |
| Clearance Time (s) | 4.0 | | | 4.0 | 4.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 910 | 1583 | | 910 | 723 | 1583 |
| v/s Ratio Prot | c0.44 | | | 0.17 | c0.27 | |
| v/s Ratio Perm | | 0.09 | | | | 0.26 |
| v/c Ratio | 0.90 | 0.09 | | 0.35 | 0.66 | 0.26 |
| Uniform Delay, d1 | 18.1 | 0.0 | | 12.2 | 18.5 | 0.0 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 12.1 | 0.1 | | 0.2 | 4.7 | 0.4 |
| Delay (s) | 30.3 | 0.1 | | 12.5 | 23.2 | 0.4 |
| Level of Service | C | A | | B | C | A |
| Approach Delay (s) | 25.9 | | | 12.5 | 12.6 | |
| Approach LOS | C | | | B | B | |

| Intersection Summary | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 18.5 | HCM Level of Service | B |
| HCM Volume to Capacity ratio | 0.79 | | |
| Actuated Cycle Length (s) | 77.4 | Sum of lost time (s) | 8.0 |
| Intersection Capacity Utilization | 70.7% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis
 3: Lucas Valley Rd & Grady Ranch

PM Exisit + Proj HCM
 12/7/2009



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|-----------------------------------|-------------|-------------|-------------|----------------------|------|------|
| Lane Configurations | | ↕ | ↕ | | ↕ | ↕ |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Volume (veh/h) | 134 | 2 | 143 | 5 | 35 | 12 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 146 | 2 | 155 | 5 | 38 | 13 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 161 | | | | 452 | 158 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 161 | | | | 452 | 158 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0, queue free % | 90 | | | | 93 | 99 |
| cM capacity (veh/h) | 1418 | | | | 508 | 887 |
| Direction, Lane # | EB 1 | WB 1 | SB 1 | SB 2 | | |
| Volume Total | 148 | 161 | 38 | 13 | | |
| Volume Left | 146 | 0 | 38 | 0 | | |
| Volume Right | 0 | 5 | 0 | 13 | | |
| cSH | 1418 | 1700 | 508 | 887 | | |
| Volume to Capacity | 0.10 | 0.09 | 0.07 | 0.01 | | |
| Queue Length 95th (ft) | 9 | 0 | 6 | 1 | | |
| Control Delay (s) | 7.7 | 0.0 | 12.7 | 9.1 | | |
| Lane LOS | A | | B | A | | |
| Approach Delay (s) | 7.7 | 0.0 | 11.8 | | | |
| Approach LOS | | | B | | | |
| Intersection Summary | | | | | | |
| Average Delay | | | 4.8 | | | |
| Intersection Capacity Utilization | | | 28.7% | ICU Level of Service | A | |
| Analysis Period (min) | | | 15 | | | |

HCM Unsignalized Intersection Capacity Analysis
 5: Lucas Valley Rd & Mt Lassen Dr

PM Exist + Proj HCM
 12/7/2009



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↶ | ↷ | | | ↕ | | | ↕ | | | ↕ | ↷ |
| Sign Control | | Free | | | Free | | | Stop | | | Stop | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 2 | 301 | 1 | 1 | 291 | 93 | 0 | 1 | 0 | 102 | 0 | 9 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 2 | 327 | 1 | 1 | 316 | 101 | 0 | 1 | 0 | 111 | 0 | 10 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | | | | | | None | | | None | |
| Median storage (veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 417 | | | 328 | | | 711 | 752 | 328 | 701 | 702 | 367 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 417 | | | 328 | | | 711 | 752 | 328 | 701 | 702 | 367 |
| tC, single (s) | 4.1 | | | 4.1 | | | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 2.2 | | | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |
| p0 queue free % | 100 | | | 100 | | | 100 | 100 | 100 | 68 | 100 | 99 |
| cM capacity (veh/h) | 1142 | | | 1231 | | | 342 | 338 | 714 | 352 | 362 | 678 |

| Direction, Lane # | EB 1 | EB 2 | WB 1 | NB 1 | SB 1 | SB 2 |
|------------------------|------|------|------|------|------|------|
| Volume Total | 2 | 328 | 418 | 1 | 111 | 10 |
| Volume Left | 2 | 0 | 1 | 0 | 111 | 0 |
| Volume Right | 0 | 1 | 101 | 0 | 0 | 10 |
| cSH | 1142 | 1700 | 1231 | 338 | 352 | 678 |
| Volume to Capacity | 0.00 | 0.19 | 0.00 | 0.00 | 0.32 | 0.01 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 33 | 1 |
| Control Delay (s) | 8.2 | 0.0 | 0.0 | 15.7 | 19.9 | 10.4 |
| Lane LOS | A | | A | C | C | B |
| Approach Delay (s) | 0.1 | | 0.0 | 15.7 | 19.1 | |
| Approach LOS | | | | C | C | |

| Intersection Summary | | |
|-----------------------------------|-------|------------------------|
| Average Delay | | 2.7 |
| Intersection Capacity Utilization | 40.8% | ICU Level of Service A |
| Analysis Period (min) | | 15 |

HCM Signalized Intersection Capacity Analysis
 7: Lucas Valley Rd & Miller Creek Rd

PM Exisit + Proj HCM
 12/7/2009



























| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.97 | | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1813 | | 1770 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1813 | | 1770 | 1583 |
| Volume (vph) | 19 | 392 | 393 | 97 | 43 | 59 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 21 | 426 | 427 | 105 | 47 | 64 |
| RTOR Reduction (vph) | 0 | 0 | 12 | 0 | 0 | 51 |
| Lane Group Flow (vph) | 21 | 426 | 520 | 0 | 47 | 13 |
| Turn Type | Prot | | | Perm | | |
| Protected Phases | 7 | 4 | 8 | | 6 | |
| Permitted Phases | | | | | | 6 |
| Actuated Green, G (s) | 0.8 | 19.3 | 14.5 | | 7.0 | 7.0 |
| Effective Green, g (s) | 0.8 | 19.3 | 14.5 | | 7.0 | 7.0 |
| Actuated g/C Ratio | 0.02 | 0.56 | 0.42 | | 0.20 | 0.20 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 41 | 1048 | 766 | | 361 | 323 |
| v/s Ratio Prot | 0.01 | 0.23 | 0.29 | | 0.03 | |
| v/s Ratio Perm | | | | | | 0.01 |
| v/c Ratio | 0.51 | 0.41 | 0.68 | | 0.13 | 0.04 |
| Uniform Delay, d1 | 16.6 | 4.3 | 8.0 | | 11.2 | 11.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | 10.4 | 0.3 | 2.4 | | 0.2 | 0.1 |
| Delay (s) | 26.9 | 4.5 | 10.4 | | 11.3 | 11.0 |
| Level of Service | C | A | B | | B | B |
| Approach Delay (s) | | 5.6 | 10.4 | | 11.1 | |
| Approach LOS | | A | B | | B | |

| Intersection Summary | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 8.5 | HCM Level of Service | A |
| HCM Volume to Capacity ratio | 0.52 | | |
| Actuated Cycle Length (s) | 34.3 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 36.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Signalized Intersection Capacity Analysis
 9: Lucas Valley Rd & Las Gallinas Av

PM Exisit + Proj HCM
 12/7/2009

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fr't | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Volume (vph) | 14 | 363 | 103 | 95 | 348 | 74 | 133 | 106 | 110 | 52 | 71 | 19 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 15 | 395 | 112 | 103 | 378 | 80 | 145 | 115 | 120 | 57 | 77 | 21 |
| RTOR Reduction (vph) | 0 | 0 | 80 | 0 | 0 | 50 | 0 | 0 | 75 | 0 | 0 | 15 |
| Lane Group Flow (vph) | 15 | 395 | 32 | 103 | 378 | 30 | 145 | 115 | 45 | 57 | 77 | 6 |
| Turn Type | Prot | | Perm | Prot | | Perm | Prot | | Perm | Prot | | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Actuated Green, G (s) | 0.7 | 22.6 | 22.6 | 7.2 | 29.1 | 29.1 | 8.8 | 29.3 | 29.3 | 3.6 | 24.1 | 24.1 |
| Effective Green, g (s) | 0.7 | 22.6 | 22.6 | 7.2 | 29.1 | 29.1 | 8.8 | 29.3 | 29.3 | 3.6 | 24.1 | 24.1 |
| Actuated g/C Ratio | 0.01 | 0.29 | 0.29 | 0.09 | 0.37 | 0.37 | 0.11 | 0.37 | 0.37 | 0.05 | 0.31 | 0.31 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 16 | 535 | 455 | 162 | 689 | 585 | 198 | 694 | 589 | 81 | 570 | 485 |
| v/s Ratio Prot | 0.01 | c0.21 | | c0.06 | 0.20 | | c0.08 | c0.06 | | 0.03 | 0.04 | |
| v/s Ratio Perm | | | 0.02 | | | 0.02 | | | 0.03 | | | 0.00 |
| v/c Ratio | 0.94 | 0.74 | 0.07 | 0.64 | 0.55 | 0.05 | 0.73 | 0.17 | 0.08 | 0.70 | 0.14 | 0.01 |
| Uniform Delay, d1 | 39.0 | 25.4 | 20.4 | 34.5 | 19.6 | 15.9 | 33.8 | 16.5 | 16.0 | 37.0 | 19.8 | 19.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 191.7 | 5.3 | 0.1 | 7.9 | 0.9 | 0.0 | 13.1 | 0.5 | 0.3 | 24.1 | 0.5 | 0.0 |
| Delay (s) | 230.7 | 30.7 | 20.5 | 42.4 | 20.5 | 16.0 | 46.9 | 17.0 | 16.2 | 61.2 | 20.2 | 19.1 |
| Level of Service | F | C | C | D | C | B | D | B | B | E | C | B |
| Approach Delay (s) | | 34.2 | | | 23.9 | | | 28.2 | | | 35.1 | |
| Approach LOS | | C | | | C | | | C | | | D | |

| Intersection Summary | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 29.3 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.48 | | |
| Actuated Cycle Length (s) | 78.7 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 48.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis
 12: Lucas Valley Rd & Los Gamos Rd

PM Exisit + Proj HCM
 12/7/2009



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------------|-------------|-------------|-------------|----------------------|-------------|
| Lane Configurations | ↑ | ↗ | ↖ | ↑ | ↖ | ↗ |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 492 | 45 | 136 | 478 | 33 | 149 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly flow rate (vph) | 535 | 49 | 148 | 520 | 36 | 162 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 584 | | 1350 | 535 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 584 | | 1350 | 535 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 85 | | 75 | 70 |
| cM capacity (veh/h) | | | 991 | | 141 | 545 |
| Direction, Lane # | EB 1 | EB 2 | WB 1 | WB 2 | NB 1 | NB 2 |
| Volume Total | 535 | 49 | 148 | 520 | 36 | 162 |
| Volume Left | 0 | 0 | 148 | 0 | 36 | 0 |
| Volume Right | 0 | 49 | 0 | 0 | 0 | 162 |
| cSH | 1700 | 1700 | 991 | 1700 | 141 | 545 |
| Volume to Capacity | 0.31 | 0.03 | 0.15 | 0.31 | 0.25 | 0.30 |
| Queue Length 95th (ft) | 0 | 0 | 13 | 0 | 24 | 31 |
| Control Delay (s) | 0.0 | 0.0 | 9.3 | 0.0 | 39.0 | 14.4 |
| Lane LOS | | | A | | E | B |
| Approach Delay (s) | 0.0 | | 2.1 | | 18.8 | |
| Approach LOS | | | | | C | |
| Intersection Summary | | | | | | |
| Average Delay | | | 3.5 | | | |
| Intersection Capacity Utilization | | | 46.8% | | ICU Level of Service | A |
| Analysis Period (min) | | | 15 | | | |

HCM Signalized Intersection Capacity Analysis
 14: Lucas Valley Rd & SB US 101 on

PM Exisit + Proj HCM
 12/7/2009

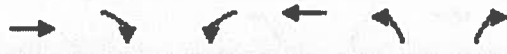
| | → | ↘ | ↙ | ← | ↖ | ↗ |
|-----------------------------------|------|------|-------|------|-------|------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑ | ↗ | ↘ | ↑ | ↘ | ↗ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fr _t | 1.00 | 0.85 | 1.00 | 1.00 | 1.00 | 0.85 |
| Fl _t Protected | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Fl _t Permitted | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | 1770 | 1863 | 1770 | 1583 |
| Volume (vph) | 276 | 369 | 432 | 519 | 101 | 190 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 300 | 401 | 470 | 564 | 110 | 207 |
| RTOR Reduction (vph) | 0 | 306 | 0 | 0 | 0 | 152 |
| Lane Group Flow (vph) | 300 | 95 | 470 | 564 | 110 | 55 |
| Turn Type | | Perm | Prot | | | Perm |
| Protected Phases | 4 | | 3 | 8 | 2 | |
| Permitted Phases | | 4 | | | | 2 |
| Actuated Green, G (s) | 16.6 | 16.6 | 22.9 | 43.5 | 18.8 | 18.8 |
| Effective Green, g (s) | 16.6 | 16.6 | 22.9 | 43.5 | 18.8 | 18.8 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.33 | 0.62 | 0.27 | 0.27 |
| Clearance Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 440 | 374 | 577 | 1153 | 473 | 423 |
| v/s Ratio Prot | | | c0.27 | 0.30 | c0.06 | |
| v/s Ratio Perm | | 0.06 | | | | 0.03 |
| v/c Ratio | 0.68 | 0.25 | 0.81 | 0.49 | 0.23 | 0.13 |
| Uniform Delay, d ₁ | 24.4 | 21.8 | 21.8 | 7.3 | 20.1 | 19.5 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d ₂ | 4.3 | 0.4 | 8.6 | 0.3 | 1.1 | 0.6 |
| Delay (s) | 28.8 | 22.2 | 30.4 | 7.7 | 21.3 | 20.2 |
| Level of Service | C | C | C | A | C | C |
| Approach Delay (s) | 25.0 | | | 18.0 | 20.6 | |
| Approach LOS | C | | | B | C | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|------|
| HCM Average Control Delay | 20.8 | HCM Level of Service | C |
| HCM Volume to Capacity ratio | 0.59 | | |
| Actuated Cycle Length (s) | 70.3 | Sum of lost time (s) | 12.0 |
| Intersection Capacity Utilization | 54.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Signalized Intersection Capacity Analysis
 16: Lucas Valley Rd & NB US 101 off

PM Exisit + Proj HCM
 12/7/2009



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑ | ↑ | | ↑ | ↑ | ↑ |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Flt Permitted | 1.00 | 1.00 | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1863 | 1583 | | 1863 | 1770 | 1583 |
| Volume (vph) | 322 | 194 | 0 | 572 | 329 | 360 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 350 | 211 | 0 | 622 | 358 | 391 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 350 | 211 | 0 | 622 | 358 | 391 |
| Turn Type | | Free | | | | Free |
| Protected Phases | 4 | | | 8 | 2 | |
| Permitted Phases | | Free | | | | Free |
| Actuated Green, G (s) | 27.9 | 69.5 | | 27.9 | 33.6 | 69.5 |
| Effective Green, g (s) | 27.9 | 69.5 | | 27.9 | 33.6 | 69.5 |
| Actuated g/C Ratio | 0.40 | 1.00 | | 0.40 | 0.48 | 1.00 |
| Clearance Time (s) | 4.0 | | | 4.0 | 4.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 748 | 1583 | | 748 | 856 | 1583 |
| v/s Ratio Prot | 0.19 | | | 0.33 | 0.20 | |
| v/s Ratio Perm | | 0.13 | | | | 0.25 |
| v/c Ratio | 0.47 | 0.13 | | 0.83 | 0.42 | 0.25 |
| Uniform Delay, d1 | 15.3 | 0.0 | | 18.7 | 11.6 | 0.0 |
| Progression Factor | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.5 | 0.2 | | 7.8 | 1.5 | 0.4 |
| Delay (s) | 15.8 | 0.2 | | 26.5 | 13.1 | 0.4 |
| Level of Service | B | A | | C | B | A |
| Approach Delay (s) | 9.9 | | | 26.5 | 6.5 | |
| Approach LOS | A | | | C | A | |

Intersection Summary

| | | | |
|-----------------------------------|-------|----------------------|-----|
| HCM Average Control Delay | 13.9 | HCM Level of Service | B |
| HCM Volume to Capacity ratio | 0.61 | | |
| Actuated Cycle Length (s) | 69.5 | Sum of lost time (s) | 8.0 |
| Intersection Capacity Utilization | 55.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

Appendix C

December 12, 2011

Planning Commission Meeting Minutes

Marin County Planning Commission
Regular Meeting
December 12, 2011

ROLL CALL The meeting was called to order by Chair Peter Theran at 10:05 a.m.

Present at Roll Call: Peter Theran; Katherine Crecelius; Don Dickenson; Mark Ginalski;
Randy Greenberg; Wade Holland; Joan Lubamersky.

Agenda

1. INITIAL TRANSACTIONS

a. Incorporate Staff Reports into Minutes

M/s Wade Holland - Joan Lubamersky to incorporate the staff report into the minutes.

Vote: Motion carried 7-0

AYES: Peter Theran; Katherine Crecelius; Don Dickenson; Mark Ginalski; Randy
Greenberg; Wade Holland; Joan Lubamersky.

b. Minutes

M/s Wade Holland - Katherine Crecelius to approve the minutes of the regular meeting of
November 28, 2011, as corrected, and acceptance of the following resolutions:

1. Resolution PC11-015 granting a Mitigated Negative Declaration of Environmental Impact for
the Swahn Design Review and Second Unit Permit (APN 059-231-02);
2. Resolution PC11-016 approving the Swahn Design Review (APN 059-231-02); and
3. Resolution PC11-017 recommending denial of the Bay Creek (650 San Pedro Road LLC)
Rezoning, Master Plan, Precise Development Plan, and Vesting Tentative Map applications to
the Board of Supervisors (APNs 18-231-05, -06, -07, -09 and 18-291-04).

Vote: Motion carried 7-0

AYES: Peter Theran; Katherine Crecelius; Don Dickenson; Mark Ginalski; Randy
Greenberg; Wade Holland; Joan Lubamersky.

c. Communications

None.

2. DIRECTOR'S REPORT

a. Preliminary Agenda Discussion Items, Field Trips

Draft Hearing Schedule

CDA Assistant Director Tom Lai provided clarification on procedures for the Golden Gate
Baptist Theological Seminary site visit scheduled on Wednesday, December 14, 2011.

3. OPEN TIME FOR PUBLIC EXPRESSION (LIMITED TO THREE MINUTES PER SPEAKER)

A member of the public suggested that the audience seating in the Planning Commission Chambers is in need of reupholstering.

4. GRADY RANCH PRECISE DEVELOPMENT PLAN DRAFT SUPPLEMENT TO THE 1996 GRADY RANCH/BIG ROCK RANCH MASTER PLAN FINAL ENVIRONMENTAL IMPACT REPORT

[Staff Report](#)

Chair Theran opened the public hearing.

Commissioner Dickenson indicated that he was the original County planner on what is now the Skywalker Ranch Master Plan, and subsequently through involvement in a number of community organizations he was a principal opponent of the Grady/Big Rock Ranch Master Plan. Commissioner Dickenson said he understands that the Master Plan is vested, and he is convinced that he can be objective in considering the issues before the Commission at today's hearing.

Commissioner Greenberg referred to a comment letter from Grasseti Environmental Consulting and indicated that her homeowner's association hired the firm six or seven years ago to represent their interest, but she has had no contact with the firm since then.

CDA staff present: CDA Assistant Director Tom Lai; Interim Environmental Coordinator Rachel Warner; and Planner Neal Osborne. Environmental Consultants Curtis Alling and Fran Ruger of Ascent Environmental were also present.

Mr. Lai made introductory comments and indicated that the purpose of the hearing is for the Planning Commission to receive public testimony on the adequacy of the Supplemental Draft Environmental Impact Report (DSEIR) for the project, and that no action is to be taken on the DSEIR or the project itself.

Interim Environmental Coordinator Rachel Warner gave a brief visual presentation summarizing the project highlights and the environmental review process. Ms. Warner recommended that the Planning Commission conduct a public hearing to receive public comments on the Draft Supplement to the 1996 Master Plan Final Environmental Impact Report.

Environmental Consultants Curtis Alling and Fran Ruger presented the approach to the environmental review and the major findings of the DSEIR.

Tom Forster, representing the applicant, discussed the project history and the current project and its relationship to the Master Plan EIR. Mr. Forster thanked the Planning Commission and staff for working with the applicant throughout the process.

The following organization representatives and members of the public provided public testimony:

Lucas Valley Estates Homeowners' Association: Tom Taylor, Hillary Scillaro, Ken Dale, Liz Dale, Jean Gallagher

Lucas Valley Homeowners' Association, Dale Miller, Rachel Kamman, Shelley Munson, Emily Shibata

North San Rafael Coalition of Residents: Carolyn Lenert

Marin Conservation League: Nona Dennis

Friends of Lucas Valley: Phil Kranenburg

Carpenters Local Union 35: Adrian Simi

Tom Monahan; Susan Monahan; Carl Fricke; Ron Marinoff; Herb Drake; William Grady; Penny Hicks; Barbara Rozen; Joy Dahlgren

Concerns about the adequacy of the DSEIR and the project included:

- Scale, height, size, grading, traffic, noise, light, seismic and watershed impacts;
- Realignment of Lucas Valley Road is not adequately addressed;
- Lack of detailed inventory of the 2.5 year construction process;
- Lack of detailed information on the project description, the wine cave, the water tanks, and the geothermal plant;
- Future use of the building when the current operation ceases is unclear;
- Alternate sites were not adequately addressed;
- Change of use does not fit existing zoning and is in conflict with the general plan;
- Existing infrastructure is inadequate to support the project;
- Inadequate independent analysis of environmental impacts;
- Public comment period was too short; public noticing was inadequate; electronic comments were not accepted;
- Quality of life impacts from the proposed outdoor stages; and
- The Precise Development Plan was not made available.

Supportive comments included:

- The DSEIR is adequate, and the project will be of benefit to the neighborhood and should be allowed to proceed;
- The creek restoration measures will help moderate the flow of the creek and reduce potential for downstream erosion; and
- Traffic, noise, air pollution and greenhouse gases can be mitigated with the use of electric vehicles.

The Commission recessed for lunch at 12:13 p.m. and reconvened at 1:10 p.m. with seven members present as indicated.

Staff, consultants, and applicant representatives answered questions from the Commission regarding the project description, including definition of "initial channel response"; the applicant's proposal to pay an in-lieu fee for inclusionary housing; potential for future development phases; residual square footage; grading reductions; the increase in size and the use of the water tanks; reductions in tree cutting; building uses; the number of employees on site; and backup power supply for the pump station.

The Commission discussed the Environment Checklist portion of the DSEIR and provided comments on the following sections:

Aesthetics

- Corrections to short- and long-range views across the project site (east should be west).
- Provide photo simulations to reflect impacts of height increase and show planned vegetation at maturity; provide reasons for height increase of knoll.

Biological Resources

- How does the transition from the raised stream bed to the existing stream bed at the east end of the stream restoration area occur? Has it been vetted for CEQA purposes?
- Provide various mitigation plans in order to assess adequacy of mitigation measures.
- How does the road realignment affect slides and the creek?
- Need assurance that there won't be unanticipated failures and erosion from raising the creek bed. How many feet from the creek will existing and new Lucas Valley Road run? What is the setback?
- What is the source of grading spoils, boulders and logs going into the creek and how will this material behave? Downstream impacts should be raised and assessed.
- There is no discussion specifically addressing impacts on the creek from grading (underground parking, wine cave, geo-exchange field). Need baseline figures; need to understand worse-case scenarios.
- What are impacts and mitigations regarding wetlands?
- Provide data on grading for the temporary sediment basins, sediment ponds, and silt traps.
- How will the proposed new floodplain function and what area will it cover? How will it work in conjunction with the knoll?
- Provide success standards for replacement plantings, seeding and monitoring on graded slopes (Mitigation Measure 5.3-1(a), last bullet).

Energy and Natural Resources

- Provide a detailed description of the geo-exchange field.

Geology and Soils

- Provide soil stability data for the proposed new berm.

Hydrology and Water Quality

- Provide analysis of impacts on sedimentation and water quality downstream due to higher stream level and increased water flow.

Noise

- Provide analysis of potential noise impacts from the outdoor stage.

Transportation and Traffic

- Provide analysis of quantified increase in traffic.
- The construction management plan should include a shuttle for construction workers to reduce on-site vehicular traffic.
- Provide mitigation for bicycle safety during construction.
- Does the fair share traffic mitigation fee that has already been paid include the Mt. Lassen - Lucas Valley intersection?
- Does the baseline take into account intersection improvement work that has already been done?

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Other

- The project description should clarify that the deer fencing previously proposed has been abandoned.

M/s Wade Holland - Mark Ginalski to direct staff to close the comment period at 4:00 p.m. on December 13, 2011, as originally scheduled.

Vote: Motion carried 7-0

AYES: Peter Theran; Katherine Crecelius; Don Dickenson; Mark Ginalski; Randy Greenberg; Wade Holland; Joan Lubamersky.

M/s Wade Holland - Katherine Crecelius to direct the Environmental Consultant to prepare a final Supplemental Environmental Impact Report based on all oral and written comments received at the hearing and during the review period.

Vote: Motion carried 7-0

AYES: Peter Theran; Katherine Crecelius; Don Dickenson; Mark Ginalski; Randy Greenberg; Wade Holland; Joan Lubamersky.

M/s Joan Lubamersky - Mark Ginalski to adjourn.

Vote: Motion carried 7-0

AYES: Peter Theran; Katherine Crecelius; Don Dickenson; Mark Ginalski; Randy Greenberg; Wade Holland; Joan Lubamersky.

Chair Theran adjourned the meeting at 2:18 p.m.

Special meetings of the Planning Commission are scheduled for December 14, 2011, and December 19, 2011.

Timestamps

00:08 - Staff Report

00:40 - Applicant's Presentation

00:48 - Public Testimony

01:50 - Commission Questions

02:10 - Commission Discussion

