

FINAL

ENVIRONMENTAL IMPACT REPORT FOR THE

LAWSON'S LANDING MASTER PLAN



SCH# 2000092067

VOLUME IA: FINAL DRAFT EIR TEXT
CHAPTER 1 THROUGH CHAPTER 6

September 28, 2007

EDAW

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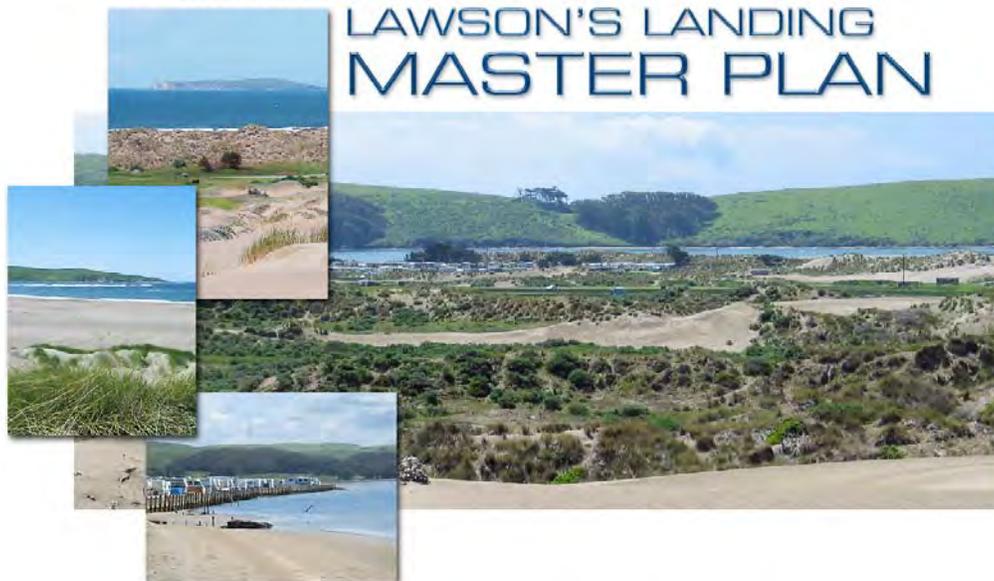
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FINAL

ENVIRONMENTAL IMPACT REPORT FOR THE

LAWSON'S LANDING MASTER PLAN



Volume Ia: Final Draft EIR Text
Chapter 1 through Chapter 6

SCH# 2000092067

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EDAW

1 INTRODUCTION

1.1 MARIN COUNTY PLANNING AND PROJECT REVIEW PROCESS

Based on a Preliminary Project Review prepared by Marin County, it was determined that a full-scope Environmental Impact Report (EIR) would be prepared for the proposed approval of the Lawson's Landing Master Plan, Coastal Permit, and Tidelands Permit. The County of Marin prepared a Notice of Preparation (NOP) of an EIR for the Lawson's Landing Master Plan pursuant to Section 15082 of the State CEQA Guidelines to seek comments from affected agencies and the public about the scope and content of the EIR. On September 26, 2002, the County circulated the NOP for public review and comment. On December 5, 2002, the County of Marin held a public scoping session (meeting) regarding the project. The public scoping meeting was held to help identify potentially significant environmental effects to be analyzed in depth in the EIR. Approximately 40 members of the public attended. Many people provided comments on a number of issues including public access, biological resources, onsite wastewater treatment, and hang-gliding. Public comments on the scope of the EIR were accepted through December 9, 2002. A copy of the NOP is included in Appendix A of this EIR. Appendix B of this Draft EIR contains a summary of the [written](#) public comments received on the NOP during the review period and those received during the public scoping meeting together with an indication of where the issue raised by individual commenters is addressed in this Draft EIR.

This Draft EIR has been prepared by EDAW under contract to Marin County. The document has been reviewed by Marin County staff. Subconsultants to EDAW have assisted with technical analysis and peer-review of reports prepared by the applicant. EDAW's subconsultants include: Psomas (wastewater issues), William Lettis and Associates (geologic hazards), Whitlock and Weinberger Transportation (traffic), HSI Hydrological Systems (hydrology and water quality), and Pacific Watershed Associates (physical processes and geomorphology).

Marin County will circulate the Lawson's Landing Master Plan Draft EIR to the public for review by public agencies, interested parties, and organizations for a 57-day period, in accordance with State CEQA Guidelines Section 15087. Written comments will be accepted at the Marin County Community Development Agency until the closing day of the review period. Oral and written comments will be accepted at a hearing on the Draft EIR by the Planning Commission before the close of the review period.

Written comments should be submitted to the Environmental Coordinator, Marin County Community Development Agency, 3501 Civic Center Drive, Room 308, San Rafael, California, 94903.

At the close of the Draft EIR review period, Marin County will assemble all of the written comments received before the closure date and verbal comments received at the public hearing on the Draft EIR. As required by State CEQA Guidelines Section 15088, the County will evaluate comments received on the Draft EIR and prepare written responses to significant environmental issues raised in them. The comments and responses will be included in the Final EIR as a separate chapter.

The County will circulate the Final EIR to Responsible and Trustee Agencies that commented on the Draft EIR and all interested parties for a two-week review of the adequacy of the response to comments. Upon the conclusion of the review, the County Planning Commission will consider the Final EIR for certification and make its recommendation to the Board of Supervisors.

In certifying a Final EIR, the Board of Supervisors would be affirming that the Final EIR is adequate and complete pursuant to CEQA and the County Environmental Review Guidelines. In conjunction with a decision on the project, the Board of Supervisors would also find that it reviewed and considered the

information contained in the Final EIR before taking action on the project (State CEQA Guidelines Section 15090).

No action can be taken to approve the project until the Final EIR has been certified. However, County acceptance of the Final EIR upon certification does not require nor ensure approval of the project studied in the Final EIR.

1.2 DOCUMENTS INCORPORATED BY REFERENCE IN THE DRAFT EIR

An EIR may "... incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public" (State CEQA Guidelines Section 15150). Portions of the documents that are relevant to the environmental analysis for the project have been summarized in various sections throughout the Lawson's Landing Master Plan Draft EIR and are described below. All referenced documents are available at the Marin County Community Development Agency, 3501 Civic Center Drive, Room 308, San Rafael, California, 94903.

Marin, County of. 1995 (October). *Title 22 of the Marin County Code. Zoning.* — Project consistency with relevant provisions of the Marin County Zoning Ordinance is assessed in Section 4.2, "Land Use Plan Consistency," of the EIR.

Marin, County of. 1994 (January). *The Marin Countywide Plan.* — Project consistency with relevant provisions of the *Marin Countywide Plan* is assessed in Section 4.2, "Land Use Plan Consistency."

Marin County Community Development Agency. 2004 (June). *PROPDEV: Semi-Annual Proposed Development Survey.* — PROPDEV is a series of surveys of proposed development projects in Marin County including cities. The proposed development projects contained in the PROPDEV 38 (June 2004) were considered in the cumulative impact analysis of this Draft EIR as discussed in Section 4.1.2, "Introduction to the Cumulative Impact Analysis."

Marin, County of. 1981 (April). *Marin County Local Coastal Program Unit 2.* — Project consistency with relevant policies of the Marin County Local Coastal Program Unit 2 is assessed in Section 4.2, "Land Use Plan Consistency."

Marin, County of. 1988 (November). *Dillon Beach Community Plan* — Project consistency with relevant policies of the Dillon Beach Community Plan is assessed in Section 4.2, "Land Use Plan Consistency."

The project applicant submitted the following materials to the County as part of the application for the project. These materials were peer-reviewed and determined to be acceptable for use in the EIR. The following documents are also available for public review at the Marin County Community Development Agency, 3501 Civic Center Drive, Room 308, San Rafael, California, 94903.

Shannon & Associates. 1997 (November). *Lawson's Landing Master Plan* — This report was prepared for the project applicant and provides information about the project description, including project location, background information, and master plan's components. The Lawson's Landing Master Plan was independently reviewed by the County and EDAW, and is summarized Chapter 3, "Project Description."

Marin County Community Development Department. 2000 (September). *Initial Study Lawson's Landing Master Plan, Coastal Permit, and Tidelands Permit* — This report provides initial

environmental setting, impact analysis, and mitigation measures for the Lawson's Landing Master Plan. The report was reviewed by EDAW.

Western Ecological Services Company, Inc. (WESCO). 1991 (August). *Draft Lawson's Landing Environmental Assessment* — This report was prepared for the project applicant and provides information on the environmental resources at Lawson's Landing. The report was independently reviewed by the County and EDAW and is summarized in some sections of Chapter 4, "Environmental Setting, Environmental Impacts, Cumulative Impacts, and Mitigation Measure."

Questa Engineering Corporation. 1997. *Wastewater Facilities Master Plan for Lawson's Landing, Marin County, California* — This report was prepared for the project applicant and provides an analysis of the feasibility and potential impacts of several alternatives along with recommended wastewater facilities to replace the existing septic system. The report was independently reviewed by the County, EDAW, and Psomas and is summarized in Section 4.3, "Wastewater Treatment and Disposal."

J.H. Kleinfelder & Associates. 1978. *Fault Investigation, Lawson's Landing, Marin County, California* – This report investigates recently active traces of the San Andreas fault at Lawson's Landing in compliance with the requirements of the Alquist-Priolo Geologic Hazards Act. The report was reviewed by EDAW and William Lettis & Associates (WLA).

Crane Transportation Group. 1993 (September). *Lawson's Landing Master Plan Traffic Study* — This report was prepared for the project applicant and addresses existing traffic conditions (summer 1993 traffic counts) and project buildout traffic conditions in the Dillon Beach area. The report was independently reviewed by the County, EDAW, and Whitlock & Weinberger Transportation (W-Trans) and is summarized Section 4.8, "Transportation and Circulation."

Goodrich. 1991. *Traffic Analysis* – This report was prepared for the project applicant, and addresses existing traffic conditions (summer 1991 traffic counts) and project buildout traffic conditions in the Dillon Beach area. The report was independently reviewed by the County, EDAW, and W-Trans and is summarized Section 4.8, "Transportation and Circulation."

Monk & Associates LLC. 2002. *Biological Constraints Analysis, Lawson's Landing Recreation Area, Marin County, California* – This report provides a biological resources constraints analysis for the Lawson's Landing recreation area and proposed Vogler home site. This report was reviewed by EDAW and is summarized in Section 4.13, "Biological Resources."

Technical analyses and peer-reviews have been conducted to support the evaluation in the EIR. Reports were prepared by subconsultants to EDAW. The reports are summarized below.

Psomas. 2004. *Technical Memorandum, Wastewater Facilities Plan for Lawson's Landing* – This memorandum provides a response to the Addendum Wastewater Facilities Plan prepared by Questa Engineering dated June 2004. This memorandum has been reviewed by EDAW and is summarized in Section 4.4, "Wastewater Treatment and Disposal."

Questa Engineering Corporation. 2004. *Addendum Wastewater Facilities Plan for Lawson's Landing, Marin County, California* – This report is an addendum to the 1997 Wastewater Facilities Plan and presents information in response to peer review comments conducted by Psomas. This report was reviewed by EDAW and Psomas and is summarized in Section 4.4, "Wastewater Treatment and Disposal."

William Lettis & Associates, Inc. 2003. *Geologic Hazards Assessment for Lawson’s Landing Development* — This report presents information on the geologic conditions and geologic hazards associated with Lawson’s Landing. The report evaluates information regarding the location and style of deformation of the San Andreas fault, occurrence of historical liquefaction, tsunami effects in the Sand Point area, occurrence and location of seismicity, and soil types. This report was reviewed by EDAW and is summarized in Section 4.6, “Geology and Soils.”

Whitlock & Weinberger Transportation, Inc. 2004. *Lawson’s Landing Master Plan EIR Traffic Analysis* – This report reviews previous traffic analyses performed for the Lawson’s Landing Master Plan to determine the adequacy of the information provided in relation to existing conditions and the current project proposal. This report has been reviewed by EDAW and is summarized in Section 4.8, “Transportation and Circulation.”

HSI Hydrologic Systems. 2004. *Lawson’s Landing Master Plan Water Resources Evaluation Report* – This report provides surface water modeling, groundwater contours and surface modeling, leachfield mounding analysis, and water quality analysis for Lawson’s Landing. This report was reviewed by EDAW and is summarized in Section 4.5, “Hydrology and Water Quality.”

Pacific Watershed Associates. 2004. *Physical Processes and Geomorphology of the Coastal Sand Dunes at Lawson’s Landing, Dillon Beach, Marin County, California* – This report presents the results of an investigation, documentation, and analysis of the historic and current sand dune processes and movement at Lawson’s Landing. This report was reviewed by EDAW and is summarized in Section 4.5, “Hydrology and Water Quality” and in Section 4.13, “Biological Resources.”

1.3 ORGANIZATION OF THE DRAFT EIR

The Draft EIR is organized into eight chapters, preceded by the Table of Contents, List of Tables, and List of Figures. The eight chapters of the Draft EIR and a brief summary of their contents are presented below.

Chapter 1 – Introduction: The introduction describes the Marin County planning and project review process as it pertains to the project, presents the technical documents that are incorporated by reference into the EIR (in accordance with Section 15150 of the State CEQA Guidelines), and describes the organization of the EIR.

Chapter 2 – Summary: The Draft EIR summary, prepared in accordance with Section 15123 of the State CEQA Guidelines, contains an overview of key elements of the EIR. The summary includes a summary of the project description and characteristics. An overview of project objectives, with reference to the full text version, is provided pursuant to Section 15124 of the State CEQA Guidelines. A comprehensive overview of all environmental impacts and mitigation measures, along with the level of significance before and after mitigation, is presented in a table format for reader convenience. This chapter summarizes impacts of the project alternatives as they compare to the project. Summaries of growth-inducing impacts, irreversible environmental changes, and significant and unavoidable impacts are also provided in this chapter. Documentation of the major conclusions, areas of controversy, and issues to be resolved in the EIR is provided. Finally, a summary of project consistency with plans and policies is presented.

Chapter 3 – Project Description: The project description is prepared pursuant to Section 15124 of the State CEQA Guidelines and contains a discussion the project attributes through text, exhibits, and tables. Specifically, this chapter includes an overview of the Lawson’s Landing Master Plan, a description of the project site and location, a discussion of objectives for the project, and a discussion of project

characteristics. This chapter presents a description of lead, trustee, and responsible agency actions required for project approval. Lastly, this chapter explains the distinction between environmental issues, which should be addressed in the EIR, and project merits, which will be considered by Marin County in determining whether to approve the project or any of its alternatives.

Chapter 4 – Environmental Setting, Environmental Impacts, Cumulative Impacts, and Mitigation Measures: The majority of the environmental impact evaluation for the project is contained in this chapter. A description of the physical setting for each environmental issue is provided along with disclosure of the anticipated changes to physical conditions after project implementation. The "setting," for purposes of this EIR, contains the existing physical characteristics of the site. Mitigation measures are included for any significant impact that would result from the implementation of the proposed Lawson's Landing Master Plan. Cumulative impacts that would result from the project in combination with reasonably foreseeable projects are disclosed. The social and economic effects of the project are not evaluated as environmental issues in the EIR; such information is not required to be included in an EIR (State CEQA Guidelines Section 15131). Social and economic effects "shall not be treated as significant effects on the environment" (State CEQA Guidelines Section 15131[a]). Although the EIR may discuss economic or social information in the context of an environmental issue, the EIR must focus on the potential change to the physical environment that may result with the project.

Environmental impacts are numbered throughout this portion of the EIR, beginning with the chapter number, followed by sequentially numbered impacts. For example, the first impact in Section 4.2, "Land Use Plan Consistency," is impact number 4.2-1, and the second impact is 4.2-2. Mitigation measures are numbered to correspond with environmental impacts.

Chapter 5 – Other CEQA-Mandated Sections: The potential for the project to foster economic or population growth, or remove obstacles to growth is evaluated in Chapter 5. In addition, this chapter presents a discussion of the project's use of non-renewable resources and the potential for the project to facilitate uses that commit future generations to use non-renewable resources. Project and cumulative impacts that cannot be mitigated to a less-than-significant level are also documented in this chapter. A summary of Other CEQA-Mandated Sections is also provided in Chapter 2, "Summary," of this EIR.

Chapter 6 – Alternatives to the Project: In accordance with Section 15126.6 of the State CEQA Guidelines, Chapter 6 of the EIR presents a range of reasonable alternatives designed to feasibly attain most of the basic objectives of the project and avoid or substantially reduce significant project effects. The potential environmental impacts of the alternatives are discussed in comparison to the impacts that would result with the project. The advantages and disadvantages of each alternative are also presented.

Chapter 7 – List of Preparers: This chapter identifies the individuals who were involved in the preparation this EIR.

Chapter 8 – References: A list of the reports, technical documents, and other publications used in preparation of this EIR are contained in Chapter 8.

Appendix: The EIR contains an appendix of technical or procedural materials that are pertinent to the analysis contained in the body of the document. The appendices of this EIR include: Notice of Preparation (NOP); NOP comments and Disposition of NOP Responses; Mitigation Monitoring and Reporting Program; and the technical reports used to prepare this EIR.

1.4 LIST OF ACRONYMS

The following section is an assemblage of acronyms with special meaning in the Lawson's Landing Master Plan Draft EIR.

ug/m ³	micrograms per cubic meter
ac-ft	acre-feet
ac-ft/yr	acre-feet per year
ABAG	Association of Bay Area Governments
ADT	average daily traffic
AQMD	Air Quality Management District
ASTM	American Society for Testing and Materials
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
bgs	below ground surface
BMP	best management practices
BOD	biochemical oxygen demand
CAA	federal Clean Air Act
Cal-EPA	California Environmental Protection Agency
Cal-OSHA	California Occupational Safety and Health Agency
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCA	California Coastal Act
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDA	Community Development Agency
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHP	California Highway Patrol
CHWMP	County Hazardous Waste Management Plans
CIP	Capital Improvement Program
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	carbon monoxide
CSTI	California Specialized Training Institute
CWA	Clean Water Act
dB	decibel
dBA	decibel A-weighted

DHS	California Department of Health Services
DMG	California Division of Mines and Geology
DOT	United States Department of Transportation
DRB	Design Review Board
DTSC	California Department of Toxic Substances Control
DBCP	Dillon Beach Community Plan
edu	equivalent dwelling unit
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ERP	Emergency Response Plan
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
g	acceleration of gravity
gal	gallon
gpd	gallons per day
gpm	gallons per minute
H&SC	Health & Safety Code
HMSRP	Hazardous Materials Spill Response Plan
HUD	U.S. Department of Housing and Urban Development
HWMP	Hazardous Waste Management Plan
Hz	hertz
I-580	Interstate 580
IS	Initial Study
ITE	Institute of Transportation Engineers
L _{dn}	Day-Night Average Sound Levels
L _{eq}	Equivalent Noise Level
LCP	Local Coastal Plan
LOS	level of service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MCE	maximum credible earthquake
MCCDA	Marin County Community Development Agency
MCEHS	Marin County Environmental Health Services Division
MCFD	Marin County Fire Department
MCSO	Marin County Sheriff's Department
mgd	million gallons per day
MHHW	mean higher high water
MHW	mean high water
MLLW	mean lower low water
MLW	mean low water
mph	miles per hour
MPN	most probable number

MRZs	Mineral Resources Zones
MTC	Metropolitan Transportation Commission
MTD	Marin Transit District
MTL	mean tide level
NAAQS	National Ambient Air Quality Standards
NGVD	National Geodetic Vertical Datum
NIC	Northwest Information Center
NMWD	North Marin Water District
NOP	Notice of Preparation (of an EIR)
NO	nitric oxide
NO _x	oxides of nitrogen
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NTR	National Toxics Rule
NWP	Nationwide permit
O ₃	ozone
OCPs	organochloride pesticides
OEHHA	Office of Environmental Health Hazard Assessment
OES	California Office of Emergency Services
OHP	State of California Office of Historic Preservation
OPA	California Office of Permit Assistance
OSHA	U.S. Occupational Safety & Health Administration
PM ₁₀	particulate matter less than 10 microns in diameter
ppb	parts per billion
ppm	parts per million
ppt	parts per thousand
PRC	Public Resources Code
psi	pounds per square inch
ROG	reactive organic gases
RTIP	Regional Transportation Improvement Program
RWQCB	Regional Water Quality Control Board
SECP	State Energy Conservation Plan
SFB RWQCB	San Francisco Bay Regional Water Quality Control Board
SLC	State Lands Commission
SO ₂	sulfur dioxide
SOI	Sphere of Influence
SR 1	State Route 1
SR 37	State Route 37
SRA	State Responsibility Area
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TCM	transportation control measure
TOG	total organic gases

TSP	total suspended particulates
UBC	Uniform Building Code
UFC	Uniform Fire Code
US 101	U.S. Highway 101
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USDA	U.S. Department of Agriculture
V/C	volume-to-capacity
VIA	visual impact analysis
VMT	vehicle miles traveled
WDR	waste discharge requirements
WQO	water quality objectives

2 SUMMARY

2.1 INTRODUCTION

This summary section is provided in accordance with State CEQA Guidelines Section 15123. As stated in the State CEQA Guidelines Section 15123(a), “[a]n EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical.” State CEQA Guidelines Section 15123(b) states, “[t]he summary shall identify: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.” Accordingly, this summary includes a brief synopsis of the project and project alternatives, environmental impacts and mitigation, cumulative effects and mitigation, areas of known controversy, and issues to be resolved in the environmental impact report (EIR). Table 2-1, at the end of this chapter, presents the summary of potential environmental impacts, their level of significance before mitigation, mitigation measures, and levels of significance with mitigation.

2.2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Chapter 4 (Environmental Setting, Environmental Impacts, Cumulative Impacts, and Mitigation Measures) of this EIR describes in detail the environmental impacts that would result from implementation of the project. Impacts of a project may be classified as either: (1) beneficial (effects that improve existing environmental conditions; (2) less than significant (adverse effects that are not substantial according to CEQA); (3) significant (substantial or potentially substantial adverse changes in the environment, for which mitigation measures must be recommended, if feasible); or (4) significant and unavoidable (substantial or potentially substantial adverse changes in the environment that cannot be feasibly reduced with mitigation measures to a less-than-significant level). Cumulative impacts are also discussed in Chapter 4 of this EIR. Any significant unavoidable adverse impacts, growth-inducing impacts, and significant irreversible environmental changes that would occur with implementation of the project are discussed in Chapter 5 (Other CEQA-Mandated Sections) of this EIR.

A description of the environmental impacts (including cumulative impacts), the level of significance before mitigation, mitigation measures, and level of significance after mitigation is presented in Table 2-1 at the end of this chapter.

A summary of the [written comments and](#) public comments received at the public scoping session ~~and~~ on the Notice of Preparation (NOP) is contained in Appendix B, together with an indication of where in this EIR the issues raised in the comments are addressed.

2.3 SUMMARY OF PROJECT DESCRIPTION

2.3.1 PHYSICAL CHARACTERISTICS

The proposed Lawson’s Landing Master Plan involves continuation of existing recreation, agriculture, residential, and quarry uses at the project site. These facilities and uses are presented below:

- ▶ Recreational Use: 1,000 campsites, 233 trailers, 200 day use ~~r~~ [vehicles](#), boathouse, 35 anchored boat mooring buoys, 1 sewage disposal station, pier, and 20 full-time and 15 part-time staff
- ▶ Camping: Occurs in main meadow, 5 concrete block restrooms, 38 portable toilets

- ▶ Day Use: 200 vehicles per day
- ▶ Boating/Pier Facilities: fishing, clamming, 12 rental boats, private boat launching (2,200 per year), 2-acre boat storage yard
- ▶ Recreational Vehicle Lots: 233 trailers
- ▶ Livestock Grazing: Occurs on 849 acres of the project site, North Ranch pasture, North Ranch hayfield, Scale House pasture, Scale House hayfield, barn field, and South Ranch pasture
- ▶ Sand Quarrying: 23.3-acre extraction area, 60,000 tons per year
- ▶ Residential Use: 3 houses, 7 mobile homes
- ▶ Other Structures: 4-car garage, 5-car garage, wood storage shed, equipment shed, freezer room, and loader dock.

The project sponsor proposes the construction of facilities to upgrade recreation opportunities; the continuation of existing recreational uses; and the introduction of new, environmental monitoring programs; the merger of numerous parcels in the meadow area of the project site; and the implementation of passive and active education programs designed to inform the public of the unique environmental qualities of the project site.

Recreational Use. There are no changes proposed to the level of existing recreational activities offered at the project site. The existing number of trailer spaces (233), campsites (1,000), and day-use vehicles (200) allowed on the property would not be altered. New facilities proposed under the master plan (e.g. restrooms, water storage tanks, boathouse) would upgrade existing recreational facilities at the site.

Main Meadow Area. The master plan includes the construction of additional restroom facilities to accommodate visitor needs. Six concrete-block restroom facilities (approximately 240 square-feet each) would be located along Lawson's Landing Road. One new restroom and shower facility (approximately 670 square-feet) would be located in the southern portion of Sand Point on what is commonly called Seawall Road. One existing sewage disposal station would be reopened. This station is located in the central portion of the meadow area along Lawson's Landing Road.

Approximately nine new water faucets would be located throughout the main meadow area. In general, the water faucets would be located adjacent to restroom facilities. Two new 100,000-gallon water storage tanks would be constructed: one near the existing 35,000-gallon water storage tank in the northeastern area of the main meadow, and the second would be placed near the Scale House. These water storage tanks would provide additional water storage capacity and fire suppression capabilities. Three fire hydrants would be installed along Lawson's Landing Road. These fire hydrants would be connected to the water storage tanks.

The entrance gatehouse would be reconstructed and expanded to approximately 300 square-feet. The entrance to Lawson's Landing would be improved to provide three inbound and one outbound vehicle lanes.

A formal pedestrian trail system would be constructed throughout the foredunes. The trails would be sited so as to protect sensitive resources present on the project site. Informational signage would be located throughout the meadow and Sand Point areas to guide pedestrians and vehicles through Lawson's Landing.

Sand Point Area. The master plan includes the relocation and expansion of the existing boathouse facility. The new boathouse facility would be located in the location at the existing boat storage yard and would be approximately 4,800 square-feet in size with a 100 square-foot viewing platform.

One existing sewage disposal station would be reopened. This station is located in the eastern portion of the Sand Point area. A new wastewater treatment system would be installed in the active dune system northeast of Sand Point. This system would treat wastewater from the onsite travel trailers, boathouse, concrete-block restrooms, and other visitor services. The system would include septic tanks at individual buildings or clusters of buildings, conveyance pipeline, an effluent collection system, a sand filtration system, and a leachfield system. An undeveloped (i.e., unpaved) path would be constructed from Lawson's Landing Road to the sand filtration system.

Agricultural Areas. Three informal pull-outs along Dillon Beach Road would be improved with implementation of the master plan. These pull-outs would be slightly widened and paved, and would allow slower moving vehicles approaching or leaving Lawson's Landing to pull out of the way of faster moving traffic.

The master plan includes the installation of new lighting in the South Ranch area of the project site. The new lighting sources would include one pole-mounted light adjacent to each of the concrete-block restrooms or attached directly to the restroom facilities. These lights are intended to provide security during nighttime hours.

Livestock Grazing. The following new ranching facilities are included in the master plan:

- ▶ a new shop (approximately 1,000 square feet) attached to the existing barn in the barn field area;
- ▶ new water troughs and ~~eCrystal-lyx~~[RYSTALYX barrels](#) in the meadow area of South Ranch; and,
- ▶ reconstruction of an existing barrier fence along the interior margin of the sand dunes of South Ranch.

The project sponsor proposes to implement an agricultural management program. The program includes the placement of water troughs and [CRYSTALYX](#)~~rystalix~~ ~~barrels~~ ~~crystal-lyxs~~ in the meadow area of South Ranch to entice livestock to congregate away from wetland and archaeological sites present on the property. The location of the ~~crystal-lyxs~~[Crystalix](#)[RYSTALYX barrels](#) would be rotated based on the need for balancing agricultural and wetland management needs. The program also includes the continued monitoring of areas that contain sensitive resources. Finally, the program would minimize the application of pesticides, herbicides, and fertilizers to the degree feasible.

Sand Quarrying. No changes to the existing sand quarrying operation or facilities are proposed. The master plan includes a program for the continued monitoring of biological resources present in the sand quarry areas.

Residential Use. One new owner's residence (approximately 2,834 square feet plus an approximate 735 square foot basement/garage) and one new employee mobile home (approximately 1,504 square feet plus an approximate 400 square foot garage) would be constructed on the project site. The owner's residence would be located south of Dillon Beach Road in the upland area north of these sand dunes. The mobile home would be located along Lawson's Landing Road at Sand Point.

Public Access. A three-foot wide dirt path would be constructed on the west side of the entry road to separate pedestrians and bicycles from motorized vehicles entering the project site. Several pedestrian routes through the foredunes to the shoreline of the project site would be provided. These paths would be sited so as to avoid and protect sensitive coastal habitats and would rotate in location to avoid excessive erosion of the dunes.

Resource Management Plan. The proposed master plan includes a resource management plan, which is intended to avoid or mitigate the environmental effects of existing activities and the new proposed facilities and programs. The resource management plan includes a statement of environmental objectives and a list of specific mitigation measures intended to enhance and protect the project site's existing biologic, geologic, hydrologic, cultural, and visual, and aesthetic resources.

Merger of Lots. The project sponsor proposes the merger of numerous parcels in the main meadow area of the project site into one large parcel. This would enhance the likelihood that this area would continue to be used for recreational purposes into the foreseeable future.

Educational Program. The project sponsor proposes to develop an educational program that would provide informational brochures and displays that discuss the unique resources at Lawson's Landing.

2.3.2 LAND USE APPROVALS

The application submitted to the County of Marin for this project includes requests for Lawson's Landing Master Plan approval, Coastal Permit, and Tidelands Permit, as discussed below.

LAWSON'S LANDING MASTER PLAN

The Lawson's Landing Master Plan is proposed to allow the improvement of existing facilities and protection of sensitive environmental resources. The master plan proposes construction and reconstruction of facilities to better serve visitors to Lawson's Landing and to improve the environmental quality. The master plan would also be used to receive County recognition and typical approval of the existing facilities and continuing uses of the property for recreation, agriculture, and resource extraction.

COASTAL PERMIT

The California Coastal Act (CCA) of 1976 established a statewide coastal management program and mandated preparation of Local Coastal Programs (LCP's) to guide future development and to ensure that coastal resources are properly utilized and fully protected. The LCP's supersede local plans and take precedence over all local policies and zoning regulations. The Coastal Zone generally extends 1000 yards inland from the mean high tide line of the sea. All parcels within a coastal zone are zoned as "C" districts (i.e., C-RSP, C-ARP, C-VCR, etc.). All projects not exempted by section 22.56.050 of the Marin County Code require approval of a Coastal Permit. Examples of projects that may be exempt from a coastal permit include repair and maintenance activities, replacement of a structure destroyed by natural disaster, improvements and additions to existing facilities, and landscaping.

As part of the master plan, the project would involve development in the coastal zone and the project sponsor has applied for a coastal development permit from the County of Marin.

TIDELANDS PERMIT

A tidelands permit is required for all grading and construction on land and water areas within the unincorporated area of Marin County which are below, or were, at any time within a preceding twelve-month period, below an elevation of seven and one-half feet mean lower low-water datum and to contiguous land between that elevation line, and either a point one hundred feet inland or the nearest publicly maintained road, whichever is closer.

As part of the Lawson's Landing Master Plan, the project would involve development in a tidelands area and the project sponsor has applied for a tidelands development permit from the County of Marin.

2.4 SUMMARY OF ALTERNATIVES ANALYSIS

State CEQA Guidelines Section 15126.6 requires an EIR to evaluate a range of reasonable alternatives to the project or project location that would feasibly attain most of the project objectives but would avoid or substantially lessen any of the significant effects of the project. Chapter 6 (Alternatives to the Project) of this EIR provides an analysis of the impacts anticipated from seven alternatives to the project and a discussion about why an alternative project location is not feasible. The EIR alternatives include: (1) No Project Alternative - Continued Existing Conditions, and (2) Modified No Project Alternative, (3) Reduced Project Alternative, (4) Reconfigured Uses Project Alternative, (5) Mitigated Project Alternative, (6) Mixed Use Project Alternative, and (7) Offsite Project Alternative. This section provides a summary of each alternative and the EIR conclusions pertaining to it. [Table 6-1 provides a summary of the project alternatives analyzed and their environmental advantages and disadvantages \(see Chapter 6, “Alternatives”\).](#)

In accordance with State CEQA Guidelines Section 15126(d)(3), the alternatives contain sufficient information about each alternative to allow “... meaningful evaluation, analysis, and comparison with the project.” The No Project alternatives and the Reduced Density Alternative are conceptual and are analyzed at a more qualitative level compared to the project analysis. The environmental analysis of the alternative options include environmental impact conclusions and mitigation measures, which facilitate Marin County’s review of alternative options, if it chooses to approve a similar project some time in the future.

2.4.1 NO PROJECT ALTERNATIVE - CONTINUED EXISTING CONDITIONS

DESCRIPTION

This No Project Alternative – Continued Existing Conditions assumes that existing conditions at the project site are continued for the foreseeable future. Thus, under this alternative, existing onsite recreational, agricultural, and sand quarrying activities at the project site would continue at existing operational levels: 233 recreational trailers, 1,000 campsites, 200 day users. The improvements associated with the project, such as the wastewater treatment facility, restrooms, roadway improvements, and new boat house would not be implemented. Growth in the area projected in the Marin Countywide Plan would continue with this alternative, but this alternative would not contribute to such cumulative development. This alternative would not foreclose any site development at a later date but assumes maintenance of the *status quo* for the foreseeable future. Because the County would not approve of the master plan for the project, the County would not formally authorize currently unauthorized or non-conforming land uses at the site (e.g., travel trailers). Because this alternative assumes maintenance of the status quo, no enforcement actions by the County would be undertaken by the County.

CONCLUSIONS

The No Project Alternative-Continued Existing Conditions would not be environmentally superior to the project. While this alternative would avoid the project’s less-than-significant (with mitigation) impacts related to fill of coastal wetlands and construction within onsite sand dune habitats, it would result in continued adverse impacts than the project associated with seismic hazards, stormwater quality from boathouse operations, and traffic congestion and emergency access. This alternative also would not meet some of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite. This alternative would not result in the approval of a master plan for the project site; therefore, existing unauthorized and non-conforming land uses would continue without formal recognition by the County. Further, this alternative would not improve existing water quality in underlying groundwater at the project

site or provide beneficial health improvements associated with new wastewater treatment facilities, because a wastewater treatment system would not be constructed and existing septic tanks at Sand Point would continue to be used.

2.4.2 MODIFIED NO PROJECT ALTERNATIVE

DESCRIPTION

Similar to the No Project Alternative-Continued Existing Conditions Alternative, the Modified No Project Alternative assumes that no changes to existing conditions at the project would occur. Thus, under this alternative, existing onsite recreational, agricultural, and sand quarrying activities would continue under current operational conditions. The improvements associated with the project, such as the wastewater treatment facility, restrooms, roadway improvements, and new boat house would not be implemented. Growth in the area projected in the Marin Countywide Plan would continue with this alternative, but this alternative would not contribute to such cumulative development. This alternative would not foreclose any site development at a later date, but assumes maintenance of the *status quo* for the foreseeable future.

Because some existing operations at the project site are not authorized (e.g., travel trailers) and some uses could be considered inconsistent with adopted County policies (e.g., camping in wetlands), this alternative assumes that enforcement actions would be taken by Marin County and other regulatory agencies to rectify any non-conforming activities. These enforcement actions would include sending notification to the project applicant of any and all non-conforming activities to request that the project applicant cease and desist such activities or rectify any non-conforming uses. Over time, non-conforming activities such as the recreational trailers and camping activities would be reduced and eliminated from the project site. Further, because of existing water quality concerns at the project site associated with use of septic tanks at Sand Point, replacement of non-conforming septic tanks or construction of an onsite wastewater treatment system for authorized land uses may be a requirement of enforcement actions. Existing sand quarry extraction operations would be reduced to comply with existing permitted extraction limitations.

At this time it is uncertain whether the project applicant could comply with County enforcement actions. While compliance with County enforcement actions would rectify any inconsistencies with County policies, it is too speculative to conclude whether and how that compliance would occur. Therefore, for purposes of this analysis, the environmental impacts of this alternative would be essentially the same as the environmental impacts of the No Project Alternative-Continued Existing Conditions.

CONCLUSIONS

The Modified No Project Alternative (with or without compliance with County enforcement actions) would not be environmentally superior to the project. While this alternative would avoid the project's potentially significant (unless mitigated) impacts to coastal wetlands and sand dune habitats, it would result in new potentially significant impacts associated with seismic hazards, stormwater quality from the boathouse, and traffic congestion and emergency access impacts. This alternative could correct and reduce existing adverse baseline tsunami, wetland, sand dune, and fault hazard impacts. However, it is uncertain whether enforcement actions would be adhered to. This alternative would not meet some of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite. If the project applicant complies with County enforcement actions, then existing issues associated with unauthorized and non-conforming uses would be resolved and the County would formally recognize all existing land uses at the project site. However, if compliance with County enforcement actions is not achieved, existing unauthorized and non-conforming land uses would continue without formal recognition by the County.

2.4.3 REDUCED PROJECT ALTERNATIVE

DESCRIPTION

The Reduced Project Alternative assumes that a reduced number of facilities would be constructed onsite and recreational activities at the site would also be reduced by one-third. This alternative would include the construction of a new wastewater treatment system in a non-sensitive location as identified in Exhibit 4.6-10, improvements to the existing gatehouse at the entrance and pullouts along Dillon Beach Road, relocation of the existing boathouse, and development of an environmental protection program. However, to avoid some of the project's significant and potentially significant environmental impacts or cumulative impacts associated with adverse baseline conditions; it would not include the construction of facilities (e.g. restrooms, water spigots) in the main meadow area of the project site, construction of a formal pedestrian trail system in the onsite foredunes, or construction of new residences. This alternative would also reduce by one-third the number of campsites allowed at the project site on a daily basis to 667 (two-thirds of existing campsites), the number of trailers to 155, and the allowable number of day users to 133. The majority of existing land uses at the project site would continue (e.g., recreational, agricultural), but recreational activities would occur at a reduced level (two-thirds of existing use levels), and existing sand quarry operations would be reduced to comply with existing extraction limitations. Implementation of this alternative would result in the approval of a master plan and authorization of existing and proposed land uses at the project site.

CONCLUSIONS

The Reduced Project Alternative would be environmentally superior to the project and to all other alternatives. It would have many of the same environmental impacts as the project, but it would reduce the project's less-than-significant and potentially significant (unless mitigated) sand dune, biological resources, water supply, air quality, and flood hazard impacts. It would also reduce the existing significant cumulative baseline wetland, tsunami, sand dune and fault hazard impacts. This alternative would also meet most but not all of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite.

2.4.4 RECONFIGURED USES ALTERNATIVE

DESCRIPTION

The Reconfigured Uses Alternative assumes that all proposed components of the Lawson's Landing Master Plan would be implemented; however, some facilities and structures would be relocated onsite to avoid the potentially significant and cumulative impacts of the project. This alternative assumes that the proposed wastewater treatment system would be relocated to a non-sand dune area as shown in Exhibit 4.6-10. In addition, the proposed boathouse would be relocated further to the east outside the zone of secondary deformation of the San Andreas Fault and outside onsite wetlands. Existing facilities (e.g., boathouse, laundry), trailers, and campsites would be relocated and clustered in the least constrained areas of the site. Proposed facilities (e.g., restrooms, water spigots) would be clustered in non-wetland areas in the northern portion of the main meadow. Cattle grazing currently occurring in the southernmost portion of the project site would be restricted to areas east and north of active sand dunes. This alternative would also result in relocation of sand extraction activities outside of the least stable sand dunes to dunes that are intermediately stable or stable (Exhibit 3-7). Sand Haul Road would also be improved to provide a secondary emergency access/evacuation route from the project site. All other project components would be implemented as described in the master plan. Implementation of this alternative would result in the approval of a master plan and authorization of existing and proposed land uses at the project site.

CONCLUSIONS

The Reconfigured Uses Alternative would present environmental tradeoffs compared to the project. While this alternative would reduce seismic hazard and baseline sand dune impacts, it would create the potential for grading, biology, and cultural resource effects at the proposed treatment plant site and for the improved emergency road similar to the project. This alternative would meet the majority of project objectives including implementing an environmental protection program, installing a wastewater treatment system, continuing low-cost public access to coastal areas, and providing improvements to recreational facilities onsite, similar to the project.

2.4.5 MITIGATED PROJECT ALTERNATIVE

DESCRIPTION

During the initial stages of the environmental review for the project (i.e., NOP, public scoping meeting, and preparation of this Draft EIR), Marin County and the project sponsor were alerted to important issues concerning the project design. These issues mainly focus on the proposed location of the wastewater treatment system in onsite sand dunes and fill of coastal wetlands. The project includes the stabilization of an active portion of the sand dunes for the operation of a leachfield, which could adversely affect the natural movement and replenishment of sands at the site. Further, proposed facilities (e.g., restrooms, trails) could result in the fill of wetlands that are subject to Coastal Act jurisdiction. However, mitigation for the project's potentially significant impacts on sand dune morphology and coastal wetlands requires the relocation of the wastewater treatment facility to a non-sand dune location and relocation of other proposed facilities including foredune trails, restrooms, and water spigots outside of coastal wetlands. This alternative includes all mitigation recommended for the project as described below. With implementation of all project mitigation all significant impacts except cumulative impacts would be avoided.

The wastewater treatment system would be relocated to the northern portion of the project site as identified in Exhibit 4.6-10. Further, facilities proposed for the main meadow (e.g., trails, restrooms, water spigots) would be relocated a minimum of 100 feet outside of onsite wetlands. Site constraints would require that proposed facilities (e.g., restrooms, trails) be concentrated near the northern portion of the main meadow area near the gatehouse and on or adjacent to existing roadways onsite, or within the existing developed areas of Sand Point. No new restroom facilities would be constructed in the meadow area east of Sand Point. Because of site constraints, this alternative may result in the reduction in the number of restroom facilities constructed at the project site.

This alternative would include all other features, elements, and mitigation measures recommended for the proposed master plan including continuation of recreational activities (233 trailers and 200 day users), continuation of agricultural activities, construction of new residences, relocation of the boathouse, connection of onsite travel trailers and facilities to a new wastewater treatment system, construction of two new water storage tanks, and implementation of an environmental education program at the site. Implementation of this alternative would also result in the approval of a master plan and authorization of existing and proposed land uses at the project site, which is consistent with the concept of reducing the number of authorized campsites for this alternative.

In addition to the above, this alternative would reduce by one-quarter the baseline level of camping activities currently allowed in the main meadow area to further reduce baseline project and cumulative impacts to onsite wetlands. Also, a reduced number of campsites would be consistent with the need to decrease the number of restrooms, as described previously. The number of allowable campsites would be reduced to 750 for the mitigated project alternative.

CONCLUSIONS

The Mitigated Design Alternative would be environmentally superior to the project but would not fully avoid cumulative impacts with existing adverse baseline conditions. It would not result in any significant environmental impacts and would reduce baseline impacts to onsite wetlands and traffic congestion along Cliff Street. In addition, this alternative would meet ~~all~~ most of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, continuing low-cost public access to coastal areas, and providing improvements to recreational facilities onsite. However, this alternative would not support the current levels of recreational uses because of the reduced number of allowable campsites to 750.

2.4.6 MIXED USE PROJECT ALTERNATIVE

DESCRIPTION

Under this alternative, the existing recreational activities at the project site would be changed. Day use activities would be increased to allow 400 day users (2 times the project) and the number of allowable campsites would be reduced to 500 (1/2 of the project). This alternative would also result in the removal of one-half of the travel trailers (117 travel trailers) from Sand Point (116 travel trailers would remain). The existing boathouse and pier facilities would also be eliminated. Cattle and sheep grazing would be restricted to less environmentally sensitive areas in the northern and eastern portion of the project site and would be intensified to the maximum carrying capacity of the grazing lands. One new residence would be constructed near the ranch complex in the northern portion of the project site and would support agricultural operations. Sand quarrying operations would be relocated to a more stable sand dune location and quarry operations would increase consistent with levels approved by the County. A market/gas station/restaurant would be constructed near the gatehouse entrance in an area located outside of onsite wetland and sand dune habitats (Exhibit 6-1). A small 100-room/100-conference seat hotel/motel would be constructed in the northeastern portion of the project site (Exhibit 6-1).

CONCLUSIONS

The Mixed Use Alternative would not be environmentally superior to the project or other alternatives. It would result in new potentially significant water supply, wastewater treatment and disposal, geology and soils, hydrology and water quality, air quality, and biological resources impacts from new and increased facilities and uses onsite. Although this alternative would reduce baseline impacts to onsite wetlands, these impacts would be less-than-significant under the project. This alternative would not meet most of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite.

2.4.7 OFFSITE PROJECT ALTERNATIVE

DESCRIPTION

In determining whether alternative locations for the project need to be considered in an EIR, State CEQA Guidelines Section 15126.6(2) (A) provides:

The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

Most of the significant environmental effects of the project would be expected to occur regardless of the project's location. Exceptions include potentially significant impacts to known onsite archaeological resources. For this significant impact, however, mitigation is available to reduce this impact to a less-than-significant level, and an alternative location would not substantially lessen the level of significance after implementation of the mitigation measures.

In determining whether alternative locations for the project need to be considered in the EIR, State CEQA Guidelines Section 15126.6(2) (B) also states, "if the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR." With respect to assessing feasibility of alternatives, State CEQA Guidelines Section 15126.6(1) provides:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site.

To attain the basic objectives of the project, the project would need to be at Lawson's Landing (construction of wastewater treatment facility, improvements to recreational opportunities, continuation of agricultural activities including sand quarrying, and protection of sensitive wildlife species and sand dunes). These basic objectives would be difficult to achieve at a location outside of Lawson's Landing. Further, there are no sites within the region that are of sufficient size or location (i.e., on the coast) to accommodate a project that would not result in most, if not more, of the significant impacts that could occur with the project.

The Lawson's Landing site represents the only major land area in the Dillon Beach area that is capable of supporting the mix of uses that would meet the project objectives. Because the California coast incorporates very few private recreational facilities that provide similar types of recreational opportunities as those available at Lawson's Landing, the project site itself is unique and relocating the project to an offsite location would remove the unique recreational opportunities that currently exist.

Given the lack of properties available to meet project objectives, the use of an alternative site for implementation of the project would not be feasible. Accordingly, no further analysis of alternative sites is provided in this EIR in compliance with the State CEQA Guidelines.

2.4.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Reduced Project Alternative would be environmentally superior to the project and to all other alternatives and would meet most, but not all, project objectives. This alternative would not result in any significant environmental impacts and would reduce but not to a less-than-significant level existing baseline cumulative impacts to onsite wetlands, fault hazards, tsunami hazards, and traffic congestion along Cliff Street through a reduction in the number of campsites. All other elements of the master plan would be implemented under this alternative.

2.5 PLANS AND POLICY CONSISTENCY

An evaluation of the project's consistency with the Marin Countywide Plan and various other planning and policy documents is contained in Section 4.2 (Land Use Plan and Policy Consistency) of this EIR.

The determination of policy consistency represents the EIR author's best judgment based on strict interpretation of policies and consultation with County staff and is presented to help policies that warrant consideration during the County's review of the project. Policy consistency will ultimately be determined by the Marin County Planning Commission and Board of Supervisors and is not set by this EIR. The Board of Supervisors may reach a different policy conclusion than the EIR as a result of its review of the entire record.

2.5.1 PLANS AND POLICIES WITH WHICH THE PROJECT APPEARS TO BE INCONSISTENT

Through the environmental review process, the project was found to be inconsistent with several relevant policies of the Dillon Beach Community Plan, Marin Countywide Plan, Local Coastal Plan Unit II (LCP), and the Marin County Zoning Code. These policy inconsistencies were primarily related to physical changes that would result in a significant or potentially significant impact under CEQA. However, mitigation was recommended for the project that would reduce significant and potentially significant impacts to a less-than-significant level under CEQA and these mitigation measures would also bring the project into consistency with all relevant policies. Therefore, with mitigation the project would be consistent with all relevant plans and policies and would result in less-than-significant CEQA impacts. Table 2-2 presents the project's policy impacts that would be inconsistent before recommended mitigation and the mitigation recommended to eliminate consistency impacts. The following codes are used to identify consistency determinations.

Policy: IBM The project is inconsistent before mitigation (IBM) with a policy because the project, as submitted in the application to the County, may not conform to this policy. This conclusion may be reached because consistency cannot be confirmed without specific detailed design or the project does not appear to meet the policy requirements based on plans provided in the application.

Policy: MC The project is mitigated to consistency (MC) because measures are proposed by the applicant or EIR, or are required by regulation that would mitigate the project to the point of consistency with a policy. The project would also be mitigated to a less-than-significant level under CEQA.

2.6 SUMMARY OF SIGNIFICANT UNAVOIDABLE, GROWTH-INDUCING, AND SIGNIFICANT IRREVERSIBLE IMPACTS

This section contains a summary of significant unavoidable adverse impacts, growth-inducing impacts, and significant irreversible effects of the project, which are discussed in further detail in Chapter 5 (Other CEQA-Mandated Sections) of the EIR.

2.6.1 SUMMARY OF SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

CEQA Section 21100(b)(2) states that an EIR shall include a detailed statement setting forth "[i]n a separate section ... [a]ny significant effect on the environment that cannot be avoided if the project is implemented." Accordingly, this section provides a summary of significant environmental impacts of the project that cannot be mitigated to less-than-significant levels.

The project would contribute in 3 significant unavoidable cumulative baseline environmental impacts. Impact summaries are presented below.

Impact 4.6-11: Cumulative Geologic Impacts. The project's geologic impacts would be site-specific. Because of the physical separation of the cumulative projects and the low likelihood of geologic

instability, the project would neither be affected by, nor would it affect, other planned or proposed development in the project vicinity. However, the project would increase the number of facilities (e.g., restrooms) that would support and would continue camping activities at the site. These activities would be located in tsunami and fault hazard areas within the project site. This would be a *significant* cumulative geologic and hazard impact. Because these activities are part of the baseline, no feasible mitigation is available to reduce this impact to a less-than-significant level. This would be a cumulatively significant and unavoidable impact.

Impact 4.6-12: Cumulative Dune Impacts. The project in combination with cumulative projects would result in cumulative development of Tomales Bay shoreline areas, which could result in significant cumulative impacts related to dune systems as a whole in the region. Further, the project would result in the continuation of recreational activities at the site which would contribute to the degradation of onsite sand dunes. These activities create an existing adverse baseline condition to which the project contribution would result in a *significant* cumulative dune impact. Implementation of Mitigation Measure 4.6-1 would relocate the proposed wastewater treatment system to a non-sand dune location. However, existing recreational activities in onsite sand dunes are part of the baseline, and as a result no feasible mitigation is available to reduce this impact to a less-than-significant level. This would be a cumulatively significant and unavoidable impact.

Impact 4.13-5: Cumulative Impacts to Sensitive Habitats, Including Coastal Wetlands. The proposed project could contribute to cumulatively significant impacts on sensitive habitats and wetlands in the coastal zone. Northern coastal dune systems are locally and regionally rare and development in sensitive habitats within these systems presents a significant cumulative contribution to impacts on sensitive habitats. The project could also result in the direct fill of seasonal wetlands. Further, the project would increase the number of facilities at the site, which would support and continue baseline camping activities that occur in onsite wetlands. Therefore, the project would contribute to cumulatively considerable and significant wetland impacts. Because these activities are part of the baseline, no feasible mitigation is available to reduce this impact to a less-than-significant level. This would be a cumulatively significant and unavoidable impact.

2.6.2 SUMMARY OF GROWTH-INDUCING IMPACTS

As discussed in Section 5.2 (Growth-Inducing Impacts) of this Draft EIR, the project would not substantially foster growth. Although the project would improve existing services and infrastructure at the project site, the proposed improvements would not change the land uses associated with the project site and would not increase intensity of use at the site.

The project would generate short-term employment opportunities associated with construction of the proposed site improvements. However, these employment opportunities would be small in number and temporary during the construction phase of the project.

The project would not substantially foster population growth in the surrounding area because it would not induce growth or remove barriers to population growth in the project vicinity. All site improvements would be used for on-site uses only. The project would not increase the number of visitors allowed on-site above the current limits. Because the project would neither substantially foster growth nor remove obstacles to substantial growth, significant growth-inducing impacts are not be anticipated.

2.6.3 SUMMARY OF SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

As discussed in Section 5.3 (Significant Irreversible Environmental Changes) of this Draft EIR, the project would increase the demand for non-renewable natural resources (e.g., petroleum, natural gas); however, the proposed new housing units are not of sufficient size to consume resources at a substantially increased rate. Given that less-than-significant project level impacts related to the consumption of natural resources are anticipated, these potentially irreversible changes would not be considered significant.

2.7 AREAS OF CONTROVERSY

The project raises issues and some areas of controversy that will be considered by County decision-makers. Controversial issues are known through expressions of public opinions that are documented in the record or obtained through public meetings. Prior to circulating the Draft EIR, the County circulated an expanded NOP to agencies and interested parties and conducted a public scoping session in the community. Comments on the NOP and scoping session are provided in Appendix B.

Some areas of controversy are not within the purview of CEQA because that statute focuses on evaluation of significant effects to the *physical environment*. Those areas of controversy that relate to a physical impact issue are noted in the list below. The non-environmental issues are also identified and are included below to help provide information to County decision-makers.

The areas of controversy expressed in the environmental review process to date are as follows:

1. Some commenters expressed concerns with construction of wastewater treatment facility in the sand dune area.
2. Some commenters expressed concerns regarding the potential for increased traffic congestion along Cliff Street.
3. Some commenters expressed concern regarding existing geologic hazards at the project site.
4. Some commenters expressed concern with construction of new facilities (e.g., restrooms, wastewater treatment facility) in wetland areas and the potential impacts to sensitive species and habitats.
5. Some commenters expressed concerns with potential adverse groundwater quality impacts resulting from operation of proposed wastewater treatment facility.
6. Some commenters expressed concerns with the protection of cultural resources on the project site.
7. Some commenters expressed interest in being able to use the sand dunes for hang-gliding.
8. Some commenters requested that impacts of existing uses be evaluated.
9. Some commenters requested that the crime impacts of the project be evaluated.

2.8 MAJOR CONCLUSIONS AND ISSUES TO BE RESOLVED

The following major conclusions and issues to be resolved can be derived from the analysis in this EIR. The major conclusions of the EIR are presented first, followed by the issues to be resolved. The issues are presented to highlight the topics for which the decision-makers may want to focus special attention.

2.8.1 MAJOR CONCLUSIONS

1. The EIR evaluated a total of 66 project-based environmental impacts, and 22 adverse cumulative impacts (i.e., project-plus-reasonably foreseeable projects). Of these, 29 were identified as significant or potentially significant impacts (including five cumulative). Feasible mitigation is available to reduce all impacts to a less-than-significant level, except cumulative project impacts in conjunction with adverse baseline conditions.
2. The proposed master plan does not increase the current number of travel trailers (233), campsites (1,000), or vehicles allowed for day use (200). As a result, the level of recreation use and number of visitors would not change significantly because of implementation of the master plan. Direct environmental impacts related to the level of recreation use including traffic trips, water and wastewater demands, camping in wetlands, and noise would be mitigated to less than significant. In some cases (i.e., cumulative traffic, wetlands, tsunami, faults, dune migration) the project would contribute cumulative impacts to an adverse baseline condition.
3. The existing septic systems would be abandoned and replaced with a centralized wastewater treatment and disposal system proposed to be located in the sand dune area of the project site. Although there is no evidence that the existing septic systems have failed, the county has concerns regarding the close proximity of the septic tanks to underlying groundwater and the potential for impacts to water quality. Primary treatment and collection of sewage would be by means of a septic tank effluent pump (STEP) system. Disposal of the treated wastewater would be accomplished through a combination of subsurface leachfield beds and drip irrigation-dispersal field located in the sand dune and would cover approximately 1.5 acres. The sand dunes would be stabilized with “snow fencing” and vegetative plantings to protect against dune erosion and exposure of the leachfield piping. The design proposed system complies with Regional Water Quality Control Board (RWQCB) standards for facility sizing and groundwater separation. Abandoning separate septic systems in favor of a central treatment and disposal facility would be a substantial improvement in the handling of the project’s wastewater. The site provided for the facility, however, would be problematic. Stabilizing the sand dunes would result in significant impacts to the natural migration of the sand dunes in the surrounding system. Also, the feasibility of adequately protecting the treatment facilities from failure as a result of moving sand is not known. One similar system in another project failed with it was placed in active sand dunes that were attempted to be stabilized by native vegetation. Therefore, construction of the wastewater system as proposed would be infeasible. Mitigation measures presented in this Draft EIR would require the treatment facility to be constructed in a non-sand dune location to eliminate impacts to the natural migration of the sand dune system. Construction of the wastewater system in a non-sand dune location would be feasible from a siting, design, and environmental standpoint and would not result in any new significant environmental impacts. This impact would be reduced to a less-than-significant level.
4. The CCA prohibits the fill of coastal wetlands for non-water dependent recreational purposes and the LCP requires projects to maintain a 100-foot wetland buffer to the maximum extent possible. Construction of new restroom facilities and trails could result in the fill of coastal wetlands on the project site. Mitigation recommended for the project would require that these facilities be relocated a minimum of 100-feet outside onsite wetlands. Therefore, the project impacts to onsite wetlands would be reduced to a less-than-significant level.
5. The project could result in the disturbance or removal of special-status species and their associated habitat. Sensitive habitats on the project site consist of coastal dunes, coastal salt marsh, central dune scrub, riparian habitat, meadows and seeps, and wetlands. These habitats receive protection under the California Fish and Game Code. Development in these sensitive habitats is also discouraged by local

and regional policies and ordinances including the LCP and the Dillon Beach Community Plan. Mitigation recommended in Section 4.13, “Biological Resources,” would reduce this impact to a less-than-significant level.

6. Dillon Beach Road is the primary road leading into and out of the Dillon Beach area including Lawson’s Landing. Because Dillon Beach Road incorporates a curving alignment with moderate grades, opportunities for faster moving vehicles to pass slower moving vehicles (e.g., motor homes, trucks pulling trailers) is limited. The project would improve (widen and pave) three informal pull-outs along Dillon Beach Road to allow for easier and safer passing. Therefore, existing traffic safety hazards are reduced by the project.
7. Cliff Street provides access to the project site from Dillon Beach. Cliff Street has been determined to incorporate a substandard design with a narrow width and curved alignment that limits visibility around corners and restricts available space for vehicles passing in opposite directions. Although the project would not significantly increase traffic volumes along Cliff Street resulting in the need to improve its design, the project’s minor contribution of daily trips would contribute to a significant traffic hazard because of the existing substandard design of Cliff Street. As a result, Mitigation Measure 4.8-2 is provided in this Draft EIR which requires widening of Cliff Street. This mitigation would reduce the project’s contribution to this traffic hazard impact to a less-than-significant level and adverse baseline traffic congestion conditions would be improved by the project.
8. Construction activities at the project site including site grading and excavation, paving, demolition, motor vehicle exhaust, material transport, and other construction operations would result in temporary air emissions. Implementation of basic, enhanced, and optional air control measures recommended by the Bay Area Air Quality Management District would reduce construction generated air emissions to a less-than-significant level.
9. Noise from construction activities such as demolition, site preparation, truck hauling, paving, and building construction would increase temporarily. Depending on the activity, the location, and the equipment used, average daily noise levels at nearby noise-sensitive receptors (i.e., residences) could exceed the County’s land use compatibility noise thresholds for ambient noise levels. Through the implementation of Mitigation Measure 4.9-1, temporary noise impacts resulting from construction activities would be kept to a minimum and the project’s noise impacts would be reduced to a less-than-significant level.
10. Construction of site improvements associated with the project could disturb known prehistoric archaeological sites in the Sand Point area. In addition, construction activities could disturb previously undiscovered important prehistoric or historic cultural resources or human remains at the project site. Mitigation measures provided in Section 4.12, “Cultural Resources,” would require monitoring of ground-disturbing activities in the vicinity of known artifacts, halting ground-disturbing activities if discovery of cultural resource made, and stopping work if human remains are uncovered during construction. This mitigation would reduce this impact to a less-than-significant level.
11. The project would construct formal pedestrian pathways oriented in a southeast-northwest direction in the foredunes area. This would align the pathways with the prevailing wind direction ~~and provide a conduit for sand to be transported between the beach and the deflated surface to the east.~~ As a result, blowouts of the foredune could develop. Mitigation Measure 4.6-2 would require the pedestrian paths to be proactively planned and designed in coordination with a coastal geomorphologist and approved by Marin County to prevent the development of dune blowouts. This mitigation would reduce this impact to a less-than-significant level.

12. The San Andreas Fault crosses the project site through the southwest portion of Sand Point area. The relocated boathouse would avoid the main fault zone but would be located in the zone of secondary deformation. Reconstruction of the boathouse in this area could subject Lawson's Landing staff and visitors to risk of hazards in the case of a surface fault rupture. Mitigation Measure 4.6-3 requires the project facilities to be designed according to seismic design criteria recommended by a California-certified engineering geologist and civil engineer. This mitigation would reduce this impact to a less-than-significant level.
13. Based on the texture and density of shallow surficial deposits, the presence of high groundwater, and the occurrence of historical liquefaction, portions of the project site have a high susceptibility to liquefaction and lateral spreading. The proposed boathouse would be located in a lowland area that is susceptible to liquefaction. The project sponsor would be required submit for review and approval by the County a design-level geotechnical investigation engineer before grading or construction permits are issued. In addition, the construction contractor would be required to consult with a foundation engineer to develop an appropriate foundation design for the reconstructed boathouse. The project's liquefaction impacts would be less than significant.

2.8.2 ISSUES TO BE RESOLVED

1. Concerning the significant impacts for which mitigation measures are provided to reduce impacts to a less-than-significant level, the Marin County Planning Commission and Board of Supervisors need to review and consider the Draft EIR evaluations and the mitigation measures themselves for the project. Mitigation measures for significant effects can be adopted as conditions of approval by the Board of Supervisors.
2. Several of the Draft EIR's mitigation measures require the project to modify the design of certain project components to reduce potentially significant impacts to a less-than-significant level. Based on the information supplied by the project sponsor and peer reviewed by the EIR team, these mitigation measures appear to be feasible. The project sponsor should carefully review these mitigation measures with their project team, however, to ensure their feasibility from technical and site planning perspectives. If the project sponsor determines a mitigation measure is not feasible, they should provide conclusive documentation to the Marin County CDA during the Draft EIR's public review and comment period describing why the mitigation measure may not be feasible and include for review and consideration by the Marin County CDA alternative mitigation measures that would reduce the corresponding significant impact to a less-than-significant level.
3. Review the choice among the mitigated project and alternatives and determine whether to encourage some level of redesign as conceptually described in the project alternatives or accept the unavoidable cumulative impacts associated with the mitigated project alternative and make findings of overriding considerations to approve the project.

2.9 EFFECTS FOUND NOT TO BE SIGNIFICANT

This section contains a discussion of the environmental Effects Found Not to be Significant pursuant to the State CEQA Guidelines Section 15128 that states "[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." The following effects were found not to be significant and are not included in the analysis of potential project impacts: population and housing, water supply, energy and natural resources, public services, utilities and service systems, and aesthetics/visual resources. A summary of the reasons for excluding these issues from further consideration is provided below.

2.9.1 POPULATION AND HOUSING

The current population of the Dillon Beach Community Plan Area, which includes Lawson's Landing, is approximately 319 permanent persons based on 2000 U.S. Census Bureau data for the Dillon Beach census designated place (CDP). The project would potentially add to existing population of the local area through the construction of two new residences. According to the 2000 Census data, Dillon Beach has an average household size of 2.06 persons. Based on this number, the project would result in an adding four persons to the total Dillon Beach population and this increase would not be substantial and would result in less-than-significant impacts. Physical effects on the environment associated with this increase in population are analyzed in Chapter 4 of this Draft EIR.

2.9.2 PARKS

Marin County offers a multitude of recreational opportunities for residents and visitors. Many federal, state, and county parks operate within Marin County such as the Golden Gate National recreation Area, Point Reyes National Seashore, and North Marin watershed lands. Some of the recreational opportunities available at these parks include swimming, hiking, fishing, clamming, horseback riding, and overnight camping. In addition, the project site itself provides similar recreational opportunities to visitors. Further, the project offers substantial recreation opportunities and would result in beneficial impacts associated with coastal access and recreation. Future residents at Lawson's Landing (e.g., employees) would incrementally increase the use of these recreational resources, but are not anticipated to result in the use of these facilities to the extent that substantial physical deterioration of the facilities would occur. This would be a less-than-significant impact.

2.9.3 SOLID WASTE DISPOSAL

Solid waste from the project site is disposed at Marin County's Redwood Landfill located north of Novato. The Redwood Landfill is currently permitted to receive 1,270 tons of solid waste per day. The landfill has a remaining capacity of approximately 19.1 million cubic yards under their current permit which lasts until 2039 (Bernard, pers. comm., 2005).

The project would generate approximately 2.5 additional tons of solid waste per year based on an annual residential solid waste generation rate of 0.62 tons per person per year (rate developed by the *1990 Multi-jurisdictional Waste Generation Study for Marin County*) and assuming the project would generate 4 new residents. This increase is not expected to exceed or substantially reduce the remaining capacity or life span of the Redwood Landfill.

There is not any direct calculation for converting tons to cubic yards because the number of pounds depends on the type of material and how the material is packed. However, loads brought to the landfill typically fall between 500–800 pounds per cubic yard (Bernard, pers. comm., 2005).

2.9.4 COMMUNICATIONS

Telephone service is currently provided to the project site by SBC Communications and cable service is provided by Horizon Cable. Telephone and cable lines are located along Lawson's Landing Road and Dillon Beach Road. Extension of these networks to provide service to the new owner's residence and employee mobile home would not require any major expansions. No additional impacts are anticipated relating to the provision of telephone service.

2.9.5 RISK OF UPSET

Project construction would require the transport, storage, use, handling, and disposal of small amounts of hazardous substances commonly used for construction activities. Such substances include fuel, oil, lubricants, and solvents. Inherent in the use of these materials is the risk of leakage, accidental spillage, or release into the environment. Transport, storage, use, handling, and disposal of such substances would be in accordance with manufacturers' instructions and applicable federal, state, and local regulations including the California Occupational Health and Safety Administration (Cal-OSHA) requirements. Facilities and activities proposed in the Master Plan would not alter use of hazardous substances for operation of Lawson's Landing. Impacts associated with the use of hazardous substances would be less than significant.

2.10 OTHER SOCIAL AND ECONOMIC IMPACTS FOUND NOT TO BE SIGNIFICANT

As discussed previously, State CEQA Guidelines Section 15382 states that "[a]n economic or social change by itself shall not be considered a significant effect on the environment." However, physical impacts resulting from social or economic changes may be considered significant. Pursuant to State CEQA Guidelines Section 15382, purely economic or social impacts would not be considered significant impacts of the project and are not addressed in this EIR. This EIR evaluates all physical impacts that would result from the project and has not identified any physical impacts associated with social or economic changes. In some areas, mitigation has been recommended to reduce the project's significant impact and this mitigation may require the construction or relocation of new facilities. While these new facilities could result in additional costs to the project applicant, there is no evidence that recommended mitigation would be economically infeasible. As such, all implemented and recommended mitigation can and should be implemented and recommended mitigation could become conditions of project approval.

Concerns about potential changes to the character of Lawson's Landing have been expressed by the community. The project's physical environmental impacts contributing to community character, such as noise, visual impacts, traffic, and historic architectural resources, have been analyzed and discussed in the applicable sections of this EIR. Mitigation measures have been identified that would reduce all significant physical impacts related to community character to a less-than-significant level.

Table 2-1 Summary of Project Impacts and Mitigation Measures			
Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.2 Land Use Plans and Policy Consistency			
4.2-1: Marin Countywide Plan Land Use Consistency. The central and southernmost portion of the project site is designated for coastal recreation commercial (C-RC) and coastal agricultural (C-AG1) land uses. A western portion of the site is designated specifically for coastal recreation commercial (C-RC) uses. Lastly, the northern and eastern portions of the site are designated for coastal agricultural (C-AG1) with pockets of coastal agricultural (C-AG3) in the northernmost area. The project would not require any land use designation amendments, nor would it change any land uses on the project site. Existing land uses are consistent with Marin Countywide Plan Land Use Designations. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.2-2: Consistency with Policies of the Marin Countywide Plan. The project would be consistent with all relevant Countywide Plan policies. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.2-3: Consistency with Policies of the Marin County Local Coastal Program Unit II. The project would be consistent with all relevant policies in the Marin County Local Coastal Plan Unit II. Therefore, this would be considered a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.2-4: Conflicts with Habitat Conservation Plans or Natural Community Conservation Plans. The project would not conflict with any habitat conservation plans or natural community conservation plans. Neither the project site nor any of the adjacent properties are included in any such plans. Therefore, the project would have no impact related to habitat conservation plan or natural community conservation plan.	NI	No mitigation is required.	NI

B = Beneficial NI = No Impact LTS = Less than Significant PS = Potentially Significant S = Significant SU = Significant and Unavoidable

<p align="center">Table 2-1 Summary of Project Impacts and Mitigation Measures</p>			
Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p>4.2-5: Consistency with Policies of the Dillon Beach Community Plan. The project would be consistent with all relevant DBCP land use policies and programs. Therefore, this would be considered a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>4.2-6: Consistency with Standards of the Marin County Zoning Code. The project would be consistent with all Marin County Zoning Ordinance provisions. Therefore, this would be considered a less-than-significant impact under CEQA.</p>	LTS	No mitigation is required.	LTS
<p>4.3 Water Supply</p>			
<p>4.3-1: Increased Project Demand for Water Supply. While recreational use levels would not change substantially, two new residences and a new restroom would increase demand for water supply from onsite wells. This demand would not exceed the capacity of the groundwater wells and the wells would be able to adequately serve the proposed project facilities. Therefore, this would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>4.3-2: Water Use for Fire Flow. The project would be required to conform with the Marin County Fire Department's (MCFD) fire flow requirements. The project includes construction of new water facilities that would deliver the required fire flow set by MCFD. This would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>4.3-3: Cumulative Water Supply Impacts. Cumulative development would result in increased demand for NMWD water supply services. The project's demand for water would not contribute to the cumulative demand, because its water supply is only from onsite wells not connected to NMWD facilities. This would be a less-than-significant cumulative impact.</p>	LTS	No mitigation is required.	LTS

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**Table 2-1
Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.3-4: Cumulative Fire Flow Impacts. Because fire flow for the project would be provided by onsite wells that are not connected to other fire flow water facilities, the project would not contribute to cumulative fire flow impacts in the project area. This impact would be less-than-significant cumulative impact.	LTS	No mitigation is required.	LTS
4.4 Wastewater Treatment and Disposal			
4.4-1: Impacts to Offsite Wastewater Treatment Systems. Because the project includes an onsite wastewater treatment system, it would not contribute to any offsite wastewater collection or treatment facilities. The project would have no impact on offsite wastewater treatment systems.	NI	No mitigation is required.	NI
4.4-2: Compliance with RWQCB Standards. The proposed wastewater treatment system would meet all applicable requirements of the RWQCB. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.4-3: Feasibility of Long-Term Operation. The project would stabilize the existing onsite sand dune with vegetation and fencing. Based on available data from similar facilities in sand dunes in Manila, California it is uncertain if the proposed stabilization methods could feasibly stabilize the onsite sand dunes to prevent the sand dune from shifting and causing the leachfield to fail. Therefore, the impacts of providing a reliable wastewater treatment system at the project site are uncertain and could result in potentially significant health hazard impacts associated with public exposure to untreated effluent if the system fails.	PS	Implement Mitigation Measures 4.6-1 and 4.13-1.	LTS
4.4-4: Cumulative Development Wastewater Impacts. The wastewater treatment systems for cumulative projects would be required to comply with RWQCB standards and are not anticipated to adversely affect public health or water	LTS	No mitigation is required.	LTS

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quality. This would be a less-than-significant cumulative impact.			
4.5 Hydrology and Water Quality			
4.5-1: Potential On and Offsite Flooding Risk from Increased Stormwater. Because the project would not result in a substantial increase in the existing volume and rate of runoff from the site such that it would result in a substantial increase in on or offsite flooding above existing conditions, this would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.5-2: Exposure of People or Property to Water-Related Hazards. The project would construct new facilities within areas designated by FEMA as subject to minimal flooding. Although none of these facilities would be occupied on a long-term basis (e.g., housing), these facilities are associated with onsite recreational activities and could result in the potential exposure of people or structures to hazards associated with flood events. This would be a potentially significant impact.	PS	Flood Hazards. All construction within the delineated floodplain shall adhere to Marin County's Flood Plain Management Ordinance which requires that the first lowest finished floor level of new and substantial improvements be at or above the Base Flood Elevation (BFE) for non V designated areas. Structures constructed in the flood zone shall be constructed of flood proof materials and be anchored. It may be possible to <u>have the lowest floor below the BFE</u> lower the first finished floor level of a non-habitable residential structure if the building is flood proofed. All proposed plans would be subject to review and approval by the Marin County Department of Public Works <u>and Building Inspection</u> .	LTS
4.5-3: Groundwater Impacts Associated with Onsite Pumping. Because the project would not increase recreational use levels at the project site, water demand and corresponding water pumping rates from onsite wells would not substantially change from existing conditions. Further, under worst-case (high-demand) pumping conditions, groundwater levels near the existing wells would not be substantially affected and would be within the normal range of groundwater level fluctuations experienced at the site.	LTS	No mitigation is required.	LTS

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This would be a less-than-significant impact.			
<p>4.5-4: Construction-related Water Quality Degradation. Temporary construction-related ground disturbances within the project site could result in the discharge of stormwater and non-stormwater discharges containing pollutants to drainage systems and ultimately to Tomales Bay. The discharge of pollutants to local waterways would be a potentially significant construction-related water quality impact.</p>	PS	<p>Construction Best Management Practices for Water Quality. In accordance with Marin County Code Chapter 23.08, the project sponsor shall implement erosion and sedimentation Best Management Practices to control stormwater and protect surface water quality including Dillon Creek and Tomales Bay. Best Management Practices (BMPs), designed to protect stormwater quality, are summarized in the <i>California Storm Water Best Management Practice Handbooks</i> (Stormwater Quality Task Force 1993) and can be recommended by the Association of Bay Area Governments <i>Manual Standards for Erosion and Sediment Control Measures</i>. BMPs are subject to review and approval by Marin County Department of Public Works and shall be implemented during project construction. According to Marin County Code Section 24.04.625, grading shall not be conducted during the rainy season (October 15 through April 15) without prior approval by Marin County Department of Public Works.</p> <p>The following measures shall be implemented in accordance with the LCP:</p> <ul style="list-style-type: none"> ▶ Sediment basins (including debris basin, desilting basins, or silt traps) shall be installed on the project site in conjunction with initial grading operations and maintained through the development process to remove sediment from runoff waters. All sediment shall be retained onsite unless removed to an appropriate dumping location. ▶ Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils exposed during grading. Cut and fill slopes shall be stabilized immediately with approved landscape 	LTS

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		vegetation. ▶ All topsoil removed by grading operations shall be stockpiled for reuse onsite and shall be protected from compaction, wind, and erosion during stockpiling.	
4.5-5: Increased Offsite Surface Runoff. Although project improvements are not expected to substantially increase the rate or volume of runoff from the site, runoff from isolated areas of the project site could carry contaminants to local waterways. If runoff from these areas is uncontrolled and not treated, the discharge could adversely affect the water quality of these waterways. This would be a potentially significant impact.	PS	Reduction of Offsite Stormwater Pollutants. The applicant shall modify the project's drainage system by installing devices that treat stormwater runoff to pre-project conditions. Such devices may include, but not be limited to, biofilter strips, vegetated channels, or wet ponds. These features shall be subject to review and approval by the Marin County Environmental Health Services Department.	LTS
4.5-6: Impacts of Groundwater Discharge Volumes and Rates from the Onsite Wastewater Treatment System. Although the project would increase groundwater flow gradients within 100 feet of the proposed leachfield, the leachfield is located greater than 300 feet from nearest ponded water source and would not cause or substantially increase the volume of ponded waters in this area. Groundwater discharges to the Pacific Ocean and Tomales Bay would increase from 2 to 11 percent depending on the season, which would not represent a substantial increase in local groundwater discharge. Therefore, this would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.5-7: Groundwater Quality Impacts Associated with the Onsite Wastewater Treatment System. Because the project would result in an approximate 50% reduction in the total nitrogen loading to Tomales Bay by improved wastewater treatment and closure of septic systems, compared to existing conditions, and the project would not result in adverse water quality impacts associated with the discharge of pathogens to Tomales Bay, the project's water quality impacts associated	LTS	No mitigation is required.	LTS

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with operation of the onsite wastewater treatment system would be less-than-significant.			
4.5-8: Accidental Explosion or Release of Hazardous Substances. The project would involve the use, storage, and transport of hazardous materials at the project site during construction and operation. However, use of hazardous materials at the site would be in compliance with local, state, and federal regulations. Therefore, adverse water quality impacts as a result the routine transport, storage, and use of hazardous material would be less than significant.	LTS	No mitigation is required.	LTS
4.5-9: Cumulative On and Offsite Flooding Risk from Increased Stormwater. Because the project site is not located in close proximity to any cumulative projects and the project would not result in a substantial increase in the existing volume and rate of runoff from the site such that it would result in a substantial increase in on or offsite flooding above existing conditions, the project would result in a less-than-significant contribution to this cumulative stormwater flooding impact.	LTS	No mitigation is required.	LTS
4.5-10: Cumulative Exposure of People or Property to Water-Related Hazards. The project in combination with cumulative development would construct new facilities within areas designated by FEMA as subject to minimal flooding, which could result in the potential exposure of people or structures to hazards associated with flood events. Implementation of mitigation recommended for the project would reduce the project's potential flood hazard impact to a less-than-significant level. Therefore, the project's contribution to cumulative water-related hazard impacts would be less-than-significant.	LTS	No mitigation is required.	LTS
4.5-11: Cumulative Groundwater Pumping Impacts. Although the cumulative development would increase water demands and groundwater pumping, the project's	LTS	No mitigation is required.	LTS

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contribution to this impact would be less-than-significant because it would not change existing use levels or groundwater pumping above existing conditions. This would be a less-than-significant cumulative groundwater pumping impact.			
4.5-12: Cumulative Construction-Related Water Quality Degradation. Construction of the cumulative projects would expose onsite soils to wind and water erosion that could result in sediment or other contaminants being carried to Dillon Creek, Tomales Bay, and the Pacific Ocean. Construction-related degradation of surface water or groundwater would be a significant cumulative impact and the project's contribution this cumulative impact would be significant.	S	Implement Mitigation Measure 4.5-4 (Construction Best Management Practices for Water Quality).	LTS
4.5-13: Cumulative Groundwater Impacts Associated with the Onsite Wastewater Treatment System. The project's wastewater treatment system is expected to effectively treat wastewater at the site. Further, the project would not substantially degrade groundwater quality or substantially increase groundwater discharge rates to Tomales Bay or the Pacific Ocean. Therefore the project's cumulative groundwater impact would be less than significant.	LTS	No mitigation is required.	LTS
4.6 Geology and Soils			
4.6-1: Impacts of Stabilizing Dunes on Dune Processes. The proposed leachfield site and the proposed access road to the recirculating sand filter system lie within areas of actively moving sand dunes of high instability. Implementation of the project would require the dunes on the western edge of the dune field to be unnaturally stabilized. Stabilizing the western portion of the dune field could lead to	PS	Relocate Proposed Leachfields and Access Road. The project sponsor shall relocate the proposed leachfield and access road to the recirculating sand filter system to a non-sand dune location, such as in the northern portion of the project site. Three potential alternate locations for the leachfield and sand filter system were identified during the EIR preparation and are presented in Exhibit 4.6-10.	LTS

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<p>unnatural fragmentation of the active dune areas, which could in turn influence the short- and long-term development of the dune system at Lawson's Landing. Further, the success of implementing a leachfield in an active dune system is unproven and best described as uncertain at this time. This would be a potentially significant impact.</p>		<p>Preliminary evaluation of these locations indicates that from a dune stability and viability standpoint these locations would eliminate the impacts of the proposed leachfield on the dune system, because they would be located outside even the most stable sand dune areas. A preliminary engineering review of the potential alternate locations indicates that based on the soil types, slopes, and erosion hazards present in these areas, construction of a septic tank and leachfield system would be feasible as long as the leachfield were located in areas with less than 15% slope (Appendix H). Construction of a leachfield in this location would require the installation of force main piping and a pump station to pump wastewater from Sand Point to the alternate location.</p> <p>Based on preliminary environmental review of these alternate locations, no new sensitive habitat or species would be adversely affected. Further, because of the existing roadways near these locations, it is likely that construction of a new access road to the leachfield would not be required. Construction of a leachfield in any of the three proposed alternate locations would be consistent with the policies of the Marin Countywide Plan and LCP and would avoid potential inconsistencies associated with construction in onsite wetlands, coastal wetlands, and sand dune habitats. As identified in Exhibit 4.6-1, some areas of the alternate location sites are designated as prime or other important farmland. Construction of a leachfield within these lands would not result in a significant loss of farmland resources and would be consistent with County policies regarding allowable facilities on important farmlands. Prior to construction of the septic tank, pipelines, pump station, and leach field, the project sponsor shall have a qualified engineer prepare additional</p>	

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		<p>detailed design investigations for the siting and operation of the leachfield and these studies shall be submitted to the County and RWQCB for review and approval.</p> <p>As an option to a septic tank and leachfield system, staff of the RWQCB has indicated that an alternative wastewater treatment system or other treatment technologies, such as a pond treatment system, would be acceptable at the project site. Through the specific design and siting process for the alternate location for the wastewater treatment system, the project sponsor shall determine whether an alternate treatment system should be constructed. Final review and approval of the system will be made by the RWQCB.</p>	
<p>4.6-2: Impacts of Proposed Pathways on Foredune System. The proposed formal pedestrian pathways, depending on their orientation, could result in the development of dune blowouts. This would be a potentially significant impact.</p>	<p>PS</p>	<p>Implement Protective Measures in the Foredune System. The project sponsor shall plan and design the trails in the foredune system to reduce the potential for the development of dune blowouts onsite. Specific actions include the following:</p> <p>(a) All pedestrian paths crossing the primary foredune for the entire length of the planning area shall be planned and designated in coordination with a coastal geomorphologist and approved by the County of Marin. At each designated site, pathways shall be planned for naturally low elevation “passes” through the ridge, or other locations where erosion potential is lowest.</p> <p>(b) In consultation with a coastal geomorphologist, pedestrian pathways through the primary foredune shall be oriented in a southwesterly direction, so that strong summer winds do not create sand blowouts in the dune face. Paths shall be planned to follow topographically low routes, minimize sharp turns and avoid steep</p>	<p>LTS</p>

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		<p>pitches. The design of the paths should include consideration of a meandering zig-zag design to minimize the linear surface area that would be exposed to the northeast winds.</p> <p>(c) In consultation with a coastal geomorphologist, all entry paths through the primary foredune shall be monitored for geomorphic or vegetative changes or signs of deterioration. Monitoring techniques could include, but not be limited to, ground photo points, aerial photographs, and physical measurement. Other forms of monitoring may be required, as determined by the coastal geomorphologist and approved by the County of Marin.</p> <p>(d) Paths that cannot be stabilized or that do not remain stable during their use shall be closed and the area restored in consultation with a coastal geomorphologist and as approved by the County of Marin.</p> <p>(e) Designated pathways shall be fenced to prevent off-trail pedestrian activities and bovine traffic. Fencing can be used to cordon off foredunes in high-use areas where recreational activities are not permitted. Fencing with signs indicating dune protection or other similar language shall be used.</p> <p>(f) Provide public education on sand dune processes and reasons for protection through signs, displays at key access points, brochures for beach and dune users, and/or presentations to organized user groups.</p>	
<p>4.6-3: Increased Risks as a Result of Surface Fault Rupture. The San Andreas fault crosses through the project site, and portions of the Sand Point area are located within an Alquist-Priolo Earthquake Hazards Zone. As currently planned, the relocated boathouse would avoid the main fault</p>	<p>PS</p>	<p>Implement Seismic Design Measures. The project sponsor shall secure a California-certified engineering geologist and civil engineer to provide the project structural engineer with seismic design criteria and recommendations based on state and county regulations</p>	<p>LTS</p>

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<p>zone, but would be located within the zone of secondary deformation (secondary fault zone), where additional displacement could occur. This would be a potentially significant impact.</p>		<p>for development in areas exposed to moderate to severe earthquakes. The site-specific recommendations made by this geologist and civil engineer shall be approved by the County Building Inspection Division before being implemented at the site.</p> <p>(a) As an overall performance criterion, seismic design features shall be adequate to ensure that the proposed relocated boathouse withstands the maximum credible earthquake for the San Andreas and Hayward faults. Examples of the seismic design criteria to be provided to the project structural engineer include:</p> <ul style="list-style-type: none"> ▶ identification of the controlling fault for seismic engineering design; ▶ design earthquake magnitude; ▶ distance to energy source (earthquake); ▶ likely duration of strong groundshaking and qualitative discussion of its intensity and frequency (e.g., high vs. low); and ▶ discussion of the potential for amplified groundshaking and other impacts as a result of local geologic conditions. <p>The specific structural features appropriate for the project would be determined based on the seismic engineering design process.</p> <p>(b) The project sponsor shall use appropriate grading and design, in accordance with the UBC and County Code requirements, to reduce the secondary effects of groundshaking on human-made improvements.</p> <p>(c) Fill used during the construction of the project shall be properly designed with subsurface drainage and adequately compacted (i.e., minimum of 90% relative compaction as defined by the American Society for</p>	

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		Testing and Materials [ASTM D1557]) to significantly reduce fill settlement. (d) Before any grading or construction permits are issued, the project sponsor shall submit for review and approval by the County a design-level geotechnical investigation. Plan review and construction observation/testing is required by the project geotechnical engineer. Final design of the proposed improvements shall incorporate the results of the geotechnical investigation approved by the County. (e) The construction contractor shall consult with a foundation engineer to develop an appropriate foundation design for the proposed boathouse. The structure shall be designed to accommodate up to 2.3 feet of secondary deformation without collapse. A possible design involves using a thickened reinforced concrete slab over a layer of cohesionless granular backfill. This approach may allow the foundation to accommodate permanent ground deformation without brittle failure; it could also reduce the risk to the structure from the effects of soil liquefaction by helping to support the temporary loss of bearing capacity that could occur in the event of liquefaction. A pile supported foundation should not be employed, because of the possibility of surface fault rupture through the site.	
4.6-4: Increased Risks as a Result of Earthquake Groundshaking. The project site is located on the San Andreas Fault and within UBC Seismic Zone 4, and would be affected by groundshaking by one or more moderate earthquakes. However, implementation of the project would not increase the risk of an earthquake; moreover, new buildings would be designed and constructed/installed to	LTS	No mitigation measures are required.	LTS

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meet seismic design requirements for UBC Zone 4, and the number of travel trailers, RVs, and day users at the site would not increase above existing conditions. Therefore, this would be a less-than-significant impact.			
Impact 4.6-5: Potential for Seismic-Related Ground Failure, Including Liquefaction and Lateral Spreading. Seismic-related ground failure is considered a hazard in the project area. The project, in and of itself, would not increase the risk of liquefaction at the site and would not result in a significant adverse environmental change. Therefore, this would be a less-than-significant impact.	LTS	No mitigation measures are required.	LTS
Impact 4.6-6: Potential for Slope Instability and Landslides. The potential for slope instability at the site is very low. The new buildings that would be constructed onsite would not be subject to landslides. The proposed septic and leachfield system would be designed in such a way to mitigate strain from minor slope movements. This impact would be less than significant.	LTS	No mitigation measures are required.	LTS
Impact 4.6-7: Potential for Expansive Soils. Soils at the project area are not prone to shrink/swell phenomenon. This would be a less-than-significant impact.	LTS	No mitigation measures are required.	LTS
Impact 4.6-8: Potential for Unstable Soil Conditions during Construction. The areas in which construction would occur under the project are relatively level; therefore, grading should be minimal and is not expected to destabilize soil conditions. This would be a less-than-significant impact.	LTS	No mitigation measures are required.	LTS
Impact 4.6-9: Potential Disturbance of Mineral Resources. The project area is not classified on the CDMG (now CGS) comprehensive mineral land classification for aggregate materials. Other than sand deposits, no mineral resources have been identified or are under development in the project area, and project construction would not occur at	LTS	No mitigation measures are required.	LTS

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either of the sand quarries. This would be a less-than-significant impact.			
Impact 4.6-10: Potential for Damage Caused by a Tsunami. Because there would be substantial warning, allowing for evacuation from the site, a tsunami would not be expected to result in substantial risk to Lawson's Landing residents and visitors; in addition, implementation of the project would not exacerbate the tsunami hazard and would not result in a significant adverse environmental change. This would be a less-than-significant impact.	LTS	No mitigation measures are required.	LTS
Impact 4.6-11: Cumulative Geologic Impacts. The project's geologic impacts would be site-specific. Because of the physical separation of the cumulative projects and the low likelihood of geologic instability, the project would neither be affected by, nor would it affect, other planned or proposed development in the project vicinity. However, the project would increase the number of facilities (e.g., restrooms) that would support and would continue camping activities at the site. These activities would be located in tsunami and fault hazard areas within the project site. This would be a significant cumulative geologic and hazard impact.	S	Because existing camping activities in areas subject to tsunami and fault hazards are part of the baseline conditions, against which project impacts are measured, no feasible mitigation is available to reduce this impact to a less-than-significant level. Therefore, the project's contribution to cumulative tsunami and fault hazard impacts would be cumulatively significant and unavoidable.	SU
Impact 4.6-12: Cumulative Dune Impacts. The project in combination with cumulative projects would result in cumulative development of Tomales Bay shoreline areas, which could result in significant cumulative impacts related to dune systems as a whole in the region. Further, the project would result in the continuation of recreational activities at the site which would contribute to the degradation of on-site sand dunes. These activities create an existing adverse baseline condition to which the project contribution would result in a significant cumulative dune impact.	S	Cumulative Dune Impacts. Implement Mitigation Measure 4.6-1. Because existing camping and recreational activities are part of the baseline condition against which project impacts are measured, no feasible mitigation is available to reduce cumulative sand dune impacts to a less-than-significant level. Therefore, the project's contribution to cumulative sand dune impacts would be cumulatively significant and unavoidable.	SU

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4.7 Visual Resources and Nighttime Lighting			
4.7-1: Potential Adverse Effects on Scenic Vistas and Damage to Scenic Resources. Although the project would add minor new elements to the visual landscape at Lawson's Landing, the overall visual quality would not be substantially altered. Further, proposed facilities would be consistent with existing land uses and facilities at the site such that the overall visual quality and integrity, or intactness of the project site would not be affected. Therefore, impacts related to scenic vistas and resources of the project area would be less than significant.	LTS	No mitigation is required.	LTS
4.7-2: Damage to Scenic Resources within a State Scenic Highway. No state designated scenic highways are located within the vicinity of the project site. Therefore, implementation of the project would not result in damages to scenic resources along a state scenic highway. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.7-3: Alteration of Visual Character of the Project Site. Implementation of the project would result in the conversion of small areas of the project site with new facilities that would support onsite land uses. In general, these facilities would be consistent with existing onsite facilities and would better serve existing onsite land uses. The overall visual quality of the site would not be substantially changed. Because no facilities are proposed that would obstruct or substantially alter views of the project site from on and offsite locations, and the project would not substantially change the visual character of the project site, this would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.7-4: Alteration of Nighttime Views. The project would introduce minor new sources of nighttime lighting in the project area, which would not cause a substantial visual	LTS	No mitigation is required.	LTS

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change because these lighting sources would be limited, would not be concentrated in any one area of the project site, and would not combine with existing lighting sources to intensify nighttime glow at the site. As with existing conditions, the individual light sources would be discernible more than an overall glow or atmospheric illumination, including in overcast conditions. Therefore, nighttime lighting impacts would be less than significant.			
4.7-5: Cumulative Visual Impacts. Implementation of cumulative projects would result in a minor decrease in undeveloped open space and a minor increase in night lighting in the West Marin area. Because of their distance from the project site and their relatively small scale, none of the cumulative projects have the potential for combined visual effects with the project. Further, because the project would not substantially change day or nighttime views of the project site from surrounding viewpoints, the project would not result in a substantial incremental contribution to this cumulative visual impact. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.8 Transportation and Circulation			
4.8-1: Increased Roadway Congestion from Construction Traffic. It is estimated that approximately 25–50 construction workers could access the project site on a daily basis during peak construction periods. This could result in adverse effects on the operation of area roadways during the peak commute periods. In addition, construction traffic, particularly truck traffic, could degrade pavement conditions along roadways used for access. This would be a significant impact.	S	Construction Traffic. Before project <u>Prior to start of</u> construction activities begin , the project applicant shall prepare a construction traffic control plan that shall be applied to all construction activities associated with the project. The plan shall include, at a minimum, the following conditions: <ul style="list-style-type: none"> ▶ No construction-related traffic shall be allowed on the local roadway network on Sundays or any holiday. ▶ No construction delivery truck traffic shall be allowed on the local roadway network before 8:00 a.m. or after 	LTS

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		4:30 p.m. <ul style="list-style-type: none"> ▶ No construction worker traffic shall be allowed on the local roadway network between 7:00 and 8:00 a.m. and between 4:30 and 6:00 p.m. ▶ Local roadways will be jointly monitored by the County and project applicant every six months to determine whether project related construction traffic is degrading roadway conditions. Roadways with potential to be damaged by construction traffic shall be so designated and included in the monitoring effort shall be agreed to by the County and the project applicant. All degradation of pavement conditions because of project construction traffic will be fully repaired by the project applicant to the satisfaction of Marin County. ▶ The project applicant shall prepare detailed analysis of roadway structural cross-section for Cliff Street to determine whether the roadway can withstand the vehicle loading for construction and normal operations. 	
4.8-2: Degradation of Operation of Unsignalized Intersections. The project would result in a minor increase of traffic volumes at unsignalized intersections in the project vicinity, but would not substantially increase delay. The operation of all project area intersections would be unchanged and would be acceptable according to Marin County standards during the peak hours. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
4.8-3: Increase Traffic Hazards Because of a Design Feature. Access to the project site is provided by Cliff Street. Cliff Street currently does not meet recommended roadway width standards of the American Association of State Highway Transportation Officials. Although project-	S	Widening of Cliff Street. Cliff Street shall be widened to the extent of the existing right-of-way at the three sharp curves, as shown on Exhibit 4.8-3, to soften the curves and improve sight distance to the satisfaction of Marin County Department of Public Works Traffic Division. This may	LTS

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**Table 2-1
 Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p>related traffic trips would not result in any significant change in congestion associated with local roadways, for purposes of this analysis, the project's minor contribution of daily trips would result in a significant traffic hazard impact because of the existing substandard design of Cliff Street. This would be a significant impact.</p>		<p>require construction of a retaining wall to enlarge the sharp turn where Beach Avenue becomes Cliff Street, and widening the roadway to soften the curves and to improve sight distance at the two curves on Cliff Street closest to the entry gatehouse. Based on visual observations of the areas of proposed improvements, these proposed improvements would be feasible within the existing roadway alignment (W-Trans 2004). Implementation of Mitigation Measures 4.13-2, 4.13-3, and 4.13-4 (see Section 4.13, "Biological Resources") would reduce all potential construction-related impacts to nearby sensitive biological resources resulting from widening of Cliff Street to less-than-significant levels.</p>	
<p>4.8-4: Emergency Vehicle Access. The entrance to Lawson's Landing would be expanded to alleviate existing congestion that occurs during peak recreation periods. However, the project would continue to provide inadequate emergency access routes to the project site because a secondary public emergency access point for public evacuation from the site would not be provided. This would be a significant impact.</p>	S	<p>Emergency Access Improvements to Sand Haul Road. Sand Haul Road shall be designated and improved (i.e., grade/paved) within its existing alignment as an alternative public emergency access route. Improvements to Sand Haul Road shall include grading, graveling, or paving of certain sections of the alignment to provide a smooth traveling surface for passenger cars to travel easily. Signs and placards showing the emergency route along Sand Haul Road shall be installed by the applicant and posted in appropriate locations. Implementation of Mitigation Measures 4.13-2, 4.13-3, and 4.13-4 (see Section 4.13, "Biological Resources") would reduce all potential construction-related impacts to nearby sensitive biological resources resulting from improving Sand Haul Road to less-than-significant levels.</p>	LTS
<p>4.8-5: Consistency with Marin County Congestion Management Plan. The project would not be subject to CMA review because it would generate less than 100 additional p.m. peak hour vehicle trips. Therefore, this would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS

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<p align="center">Table 2-1 Summary of Project Impacts and Mitigation Measures</p>			
Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p>4.8-6: Pedestrian and Bicycle Circulation. The project includes dedication of a 3-foot wide dirt path along the west side of the entry road. This dirt path would improve pedestrian and bicycle circulation throughout the project site. This would be a beneficial impact of the project.</p>	B	No mitigation is required.	B
<p>4.8-7: Degradation of LOS at Unsignalized Intersections (Cumulative Plus Project Condition). Although, local roadways in the vicinity of the project site are operating acceptably and the project would not have a considerable contribution to the degradation of these roadways, the project would contribute vehicle trips to an existing adverse traffic condition along Cliff Street. Therefore, this would be a significant cumulative traffic impact.</p>	S	Cliff Street currently operates acceptably, but experiences periodic congestion during peak recreation periods. Implementation of proposed gate house improvements (i.e., providing additional lanes) and Mitigation Measure 4.8-3, Widening of Cliff Street, would reduce existing traffic congestion that occurs along Cliff Street and would further improve the operation of this roadway. Further, Mitigation Measure 4.8-4 would improve Sand Haul Road for emergency access by the public and emergency vehicles thereby improving emergency access to and from the project site. Although periods of congestion may still occur, the project has reduced its contribution to cumulative congestion impacts along Cliff Street to a less-than-significant level.	LTS
<p>4.9 Air Quality</p>			
<p>4.9-1: Generation of Short-Term Emissions from Construction Activities. The project would result in the short-term generation of fugitive dust, equipment exhaust, temporary employee trip emissions, and other construction-related emissions. Because the applicable BAAQMD air quality control measures are not currently incorporated into the project, the projects short-term construction-related emissions could resort in or contribute to a violation of applicable air quality standards. This would be a potentially significant impact.</p>	PS	<p>Reduction Measures for the Generation of Short-Term Construction Emissions. In accordance with BAAQMD CEQA Guidelines (BAAQMD 1999), the following mitigation, which includes BAAQMD-recommended Basic, Enhanced, and Optional Control Measures, shall be implemented to reduce construction generated emissions.</p> <ul style="list-style-type: none"> ▶ water all active construction areas at least twice daily. ▶ cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. 	LTS

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**Table 2-1
Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<ul style="list-style-type: none"> ▶ pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. ▶ sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. ▶ sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ▶ hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). ▶ enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.). ▶ limit traffic speeds on unpaved roads to 15 mph in construction areas. ▶ install sandbags or other erosion control measures to prevent silt runoff to public roadways. ▶ replant vegetation in disturbed areas as quickly as possible. ▶ install wheel washers for all exiting trucks, or wash off the tire or tracks of all trucks and equipment before leaving the site. ▶ install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas. ▶ suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. ▶ limit the area subject to excavation, grading, and other construction activity at any one time. ▶ minimize idling time. ▶ maintain properly tuned equipment. 	

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**Table 2-1
Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<ul style="list-style-type: none"> ▶ limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. <p>In addition to the measures identified above, construction activities are also required to comply with all applicable BAAQMD rules and regulations, specifically Rule 8-3 regarding architectural coatings, Rule 8-15 regarding asphalt paving, Rule 11-2 regarding demolition, and Regulation 6 regarding particulate matter and visible emissions.</p>	
<p>4.9-2: Consistency with Air Quality Attainment Plans. The project would not result in an increase in regional population or employment growth that would conflict with forecasted growth projections used by the BAAQMD for the development of the CAP. Therefore, this would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>4.9-3: Generation of Long-Term Regional (Operational) Emissions of ROG, NO_x, and PM₁₀. With implementation of the project, there would be no increase in recreational usage of the project's facilities above existing conditions and the project would not result in the generation of a substantial number of vehicle trips such that they would result in the substantial generation of regional air emissions. Therefore, this would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>4.9-4: Generation of Local Mobile-Source CO Emissions. Implementation of the project would not result in the generation of new vehicle trips and consequently would not result in or further degrade unacceptable LOS at nearby intersections, and would not be anticipated to result in or contribute to local CO concentrations that exceed the California 1 or 8 hour ambient air quality standards of 20 parts per million (ppm) and 9 ppm, respectively. This impact would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS

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**Table 2-1
Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.9-5: Risk of Exposure of Sensitive Receptors to Odorous Emissions. The project would not include the long-term operation of a major odorous emission source and construction-generated odors would be temporary and would dissipate rapidly from the source. The project would operate a new onsite wastewater treatment system in accordance with RWQCB standards. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.9-6: Exposure of Sensitive Receptors to Toxic Air Emissions. Because of the temporary nature of diesel exhaust emissions from construction equipment and the fact that project would not include the operation of any toxic air emissions sources nor locate sensitive uses near existing sources of such emissions that are not subject to the permit process, this impact would be less-than-significant.	LTS	No mitigation is required.	LTS
4.9-7: Cumulative Air Quality Impacts. Development of the project would not result in an individually significant air quality impact of conflict with any applicable air quality plans. As a result, this impact is considered less-than-significant.	LTS	No mitigation is required.	LTS
4.10 Noise			
4.10-1: Construction-Generated Noise. Depending on the specific construction activities being performed, the location of these activities, and the equipment used, increases in average daily noise levels from construction activity could potentially exceed the County's land use compatibility noise thresholds at nearby noise-sensitive receptors (i.e., residences) and result in an increase of average daily noise levels of 3 dBA or greater. Construction of the project could result in temporary, potentially significant noise impacts.	PS	<p>Construction-Related Noise Impacts.</p> <ul style="list-style-type: none"> ▸ Construction activities shall adhere to the Dillon Beach Community Plan requirements with respect to hours of operation: Heavy or otherwise "noisy" construction equipment (e.g. bulldozers, backhoes, scrapers/graders, heavy trucks, compactors, pavers, and pneumatic tools) should be operated during the hours of 8 a.m.-5 p.m. only, Monday through Saturday. Construction activities shall be prohibited on Sundays and holidays. 	LTS

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Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<ul style="list-style-type: none"> ▶ Equipment engine doors on motorized equipment shall be closed during equipment operation. ▶ All construction equipment shall be equipped with mufflers. ▶ When not in use, motorized construction equipment shall not be left idling. ▶ Stationary noise-generating construction equipment (e.g., generators and compressors) shall be located the greatest distance possible from nearby noise-sensitive land uses. 	
<p>4.10-2: Operational Noise Impacts. Implementation of the project would not be anticipated to result in a noticeable increase in average daily ambient noise levels at nearby noise-sensitive land uses that would exceed the County's land use compatibility noise exposure thresholds. Further, the project would not result in the generation of new vehicle trips that would result in a noticeable increase in traffic noise levels along local roadways. This would be a less-than-significant impact.</p>	LTS	No mitigation is required.	LTS
<p>4.10-3: Cumulative Noise Impacts. Implementation of the project would not result in the substantial generation of new vehicle trips and consequently would not result in an increase in traffic noise levels along local roadways. Further, the project's stationary noise sources would not combine cumulatively with noise sources of other cumulative development because of the remote nature of the site and the distance of the site from cumulative development. The project would not contribute to cumulative noise impacts. Therefore, this would be a less-than-significant cumulative noise impact.</p>	LTS	No mitigation is required.	LTS

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Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.11 Land Use, Agriculture, and Recreation			
4.11-1: Alteration of Onsite Land Uses. The project would result in the upgrading of existing recreation facilities, the enhancement of agricultural facilities, construction of new wastewater treatment facilities, and the construction of one new owners' residence and one new employee residence. These physical changes are in support of and consistent with continuing the existing agricultural, recreational, residential, and sand quarrying activities. There would be no change in the capacity of recreation facilities, recreational use levels, and the overall uses of the project site. Consequently, this would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.11-2: Conversion of Agricultural Land or Williamson Act Contract Land. The project site is not designated as Prime Farmland, nor would the project involve the conversion of existing farmland to a non-agricultural use. Proposed changes in the agricultural portions of the property involve improvements for farming operations and would not adversely affect the productivity of this farmland. The agricultural activities would remain essentially the same and would be consistent with existing land conservation agreements. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.11-3: Capacity of Recreational Facilities. The project would upgrade the existing recreational facilities at the site but would not increase the capacity of facilities nor the recreational use levels. The proposed improvements to onsite recreational facilities would enhance the operation of existing facilities but would not result in the need for additional recreational facilities onsite or offsite. Recreational activities at the site would remain essentially the same with implementation of the project. Therefore, the project would have a less-than-significant impact on recreational facilities.	LTS	No mitigation is required.	LTS

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<p>4.11-4: Land Use Compatibility. The project would not change the type, level, or location of existing onsite land uses including recreation, agriculture, residential, and sand mining operations. Existing uses are compatible with each other and surrounding land uses. Therefore, the project would result in less-than-significant land use compatibility impacts.</p>	LTS	No mitigation is required.	LTS
<p>4.11-5: Change in Community Character. Dillon Beach and Lawson's Landing would retain their character as a coastal community and recreational area. The project would have a less-than-significant impact on community character.</p>	LTS	No mitigation is required.	LTS
<p>4.11-6: Cumulative Impacts Related to Land Use, Agriculture, and Recreation. The project would not result in the conversion of any farmland resources and it would not contribute to any cumulative farmland impacts. Given the physical separation of the project from other cumulative development, land use impacts would not be cumulative. The project would not increase demand for recreational facilities and, therefore, would not contribute to cumulative recreation impacts. This would be a less-than-significant cumulative impact.</p>	LTS	No mitigation is required.	LTS
<p>4.12 Cultural Resources</p>			
<p>4.12-1: Potential Destruction of or Damage to Known Cultural Resources. Implementation of the project could result in the disturbance of known prehistoric archaeological sites in the area of the proposed mobile home and leach field. Disturbance or damage to these resources would be a potentially significant impact.</p>	PS	<p>Monitor Ground-Disturbing Activities in the Vicinity of Shell Scatter EDAW 1 and CA-MRN-523. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activities within 100 feet of the proposed mobile home and garage site (EDAW 1) and leach field (CA-MRN-523). If subsurface concentrations of artifacts or other cultural materials such as stone, bone, or shell are uncovered during excavation operations, all construction activities in the area shall halt until the finds</p>	LTS

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		can be assessed. The archaeologist shall evaluate the find, and additional mitigation measures may be required depending on the potential significance of the finds. The archaeologist shall recommend additional actions deemed necessary for the protection of these resources. Such actions may include subsurface testing, data recovery, mapping, capping, or avoidance of the resource. The project proponent shall ensure that additional protection actions (if needed) are implemented before construction continues at this site.	
4.12-2: Potential Destruction of or Damage to Previously Undiscovered Cultural Resources. Subsurface disturbances could potentially destroy or damage previously undiscovered important prehistoric and historic cultural resources at the project site. This would be a potentially significant impact.	PS	Prepare and Implement Monitoring Plan and Halt Ground-Disturbing Activities in the Event of Accidental Discovery of a Cultural Resource. A qualified archaeologist approved by Marin County shall monitor all ground disturbing activities during construction. If cultural resources are discovered during construction, construction activities shall halt and the property owner will be notified regarding the discovery. The archaeologist shall evaluate the resource in accordance with state and federal guidelines and shall determine whether the resource is significant. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Section 21083-2 of CEQA. Mitigation in accordance with a plan approved by the Marin County Community Development Agency shall be implemented prior to commencement of work within the area of the resource find.	LTS
4.12-3: Potential to Uncover Human Remains. Implementation of the project could result in subsurface disturbances that could uncover previously undiscovered prehistoric burials. This would be a potentially significant impact.	PS	Stop Potentially Damaging Work if Human Remains Are Uncovered During Construction, Assess the Significance of the Find, and Pursue Appropriate Management. California law recognizes the need to protect Native American human burials, skeletal remains,	LTS

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		and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097.	
<p>4.12-4: Cumulative Impacts on Prehistoric Resources. Implementation of the proposed development could potentially uncover previously unknown prehistoric resources on the cumulative project sites. This would be a potentially significant cumulative impact.</p>	PS	Implementation of Mitigation Measure 4.12.2 and Mitigation Measure 4.12-3 on a project-by-project basis would reduce significant cumulative impacts to archaeological resources to a less-than-significant level.	LTS
<p>4.13 Biological Resources</p>			
<p>4.13-1: Impacts on Sensitive Habitats. Implementation of the project could result in the removal, disturbance, or degradation of sensitive habitats on the project site. Sensitive habitats on the project site consist of coastal dunes, coastal salt marsh, central dune scrub, riparian habitat, meadows and seeps, and wetlands. These habitats are considered sensitive habitats by DFG and receive protection under the California Fish and Game Code. Development in these sensitive habitats is also discouraged by local and regional policies and ordinances including the LCP and the Dillon Beach Community Plan. This would be a significant impact.</p>	S	<p>Impacts on Sensitive Habitats. <u>Since release of the Draft EIR for public review, the applicants further evaluated the feasibility of constructing the wastewater treatment system in the northern portion of the project site. As a result of the feasibility analysis, the applicant has agreed to relocate the wastewater treatment facility to the northern portion of the project site outside of on-site sand dunes.</u> Lawson's Landing shall implement the following measures to reduce potential impacts on sensitive habitats:</p> <ul style="list-style-type: none"> ▶The proposed wastewater treatment system shall be relocated to an alternate site where potential impacts to sensitive habitats and special status species would be avoided or reduced. ▶Implement Mitigation Measure 4.6 1, which requires construction of an alternate treatment system or relocation of the wastewater treatment system to non-sand dune areas. –If vegetation is required to stabilize the area proposed for the leachfield, species next to the project site and 	LTS

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Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		surrounding area shall be used. Approval of the species used shall be obtained from the county before installation.	
<p>4.13-2: Impacts on Special-Status Plants. The project could result in the disturbance or removal of special-status plant species and their associated habitat, and could substantially reduce the number or restrict the range of endangered, rare, or threatened species. This would be a potentially significant impact.</p>	PS	<p>Impacts on Special-Status Plants. Lawson's Landing shall implement the following measures to reduce potential impacts on special-status plant species:</p> <ul style="list-style-type: none"> (a) Before the initiation of any ground-disturbing or vegetation-clearing activities, the project applicant shall retain a qualified botanist to conduct pre-construction, focused surveys to confirm the location of potentially suitable habitats in the area of construction disturbance that would be indirectly or directly affected by project implementation for the special-status plants listed in Table 4.13-1, with special attention given to the four species that are presently or historically known to occur on the project site. For plants that require active dunes, this would include the entire dune system. The botanist shall conduct surveys for these special-status plant species at the appropriate time of year when the target species would be in flower and therefore clearly identifiable (i.e., blooming periods). Surveys shall be conducted following the DFG-approved protocol for surveying for special-status plant species. (b) If no special-status plants are found during pre-construction, focused surveys, the botanist shall document the findings in a letter report to the project applicant and the appropriate regulatory agencies, and no further mitigation will be required. (c) If special-status plants are found during pre-construction, focused surveys, and the populations can be avoided, they shall be clearly marked in the 	LTS

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		field by a qualified botanist for avoidance during construction activities. If the populations cannot be avoided, consultations with DFG and/or USFWS shall be required depending on the listing status of the plant. Through consultations, appropriate mitigation measures will be developed and implemented. Appropriate measures may include the creation of off-site populations through seed collection or transplanting, preservation and enhancement of existing populations, or restoration or creation of suitable habitat in sufficient quantities to compensate for the impact. The project applicant shall implement all mitigation measures determined necessary during this consultation.	
<p>4.13-3: Impacts to Wetlands. Impacts, including disturbance or fill, to waters of the United States, including wetlands, as defined by Section 404 of the CWA, and coastal wetlands as defined by the CCA, could result from site grading or other activities during the construction of proposed improvements. Facilities that would require fill of wetlands include restrooms, trails, and conveyance pipelines. Because of the potential for the project to result in filling of or disturbance to wetlands protected by USACE, DFG, Coastal Act, and local and regional plans, this would be a significant impact.</p>	S	<p>Impacts to Coastal and Section 404 Jurisdictional Wetlands. The following measures are designed to avoid impacts on coastal and Section 404 wetlands and other waters of the United States:</p> <p>(a) Before the project design is finalized, a qualified biologist shall conduct a Section 404 jurisdictional delineation of waters of the United States, <u>(if one is not already prepared and verified)</u>, including wetlands, for any areas of project impact outside of the survey area for the existing verified wetland delineation from March 5, 2003. In addition, the project applicant or a qualified biologist shall conduct a delineation of wetlands, as defined by the California Coastal Act of 1976.</p> <p>(b) The project applicant or a qualified biologist shall contact DFG to determine whether streambed alterations would occur to drainage features as defined under Section 1602 of the California Fish and Game Code. If this is the case, the project applicant</p>	LTS

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		<p>shall obtain a streambed alteration agreement from DFG for any proposed modifications of the features.</p> <p>(c) Based on the verified delineation, the project applicant shall avoid disturbance or fill of the protected coastal wetlands, which would also lead to avoidance of Section 404 wetlands and other waters of the United States, for any uses not authorized by the CCA for wetland fill. This will likely require relocation of some proposed facilities (e.g., trails, restrooms) outside a 100-foot buffer area from onsite wetlands with less environmentally constrained areas as shown in Exhibit 6-1.</p> <p><u>(d) All jurisdiction wetlands shall be protected from impacts associated with implementation of the proposed project by a minimum 100-foot buffer. In some cases, such as when a special-status species requires habitat adjacent to a wetland for part of its life cycle, buffers greater than 100 feet may be necessary. Precise buffer width will be based upon consultation between the project applicant and the California Coastal Commission (CCC). Prior to beginning implementation of the proposed project, the project applicant shall submit a wetland avoidance plan to CCC for approval. The avoidance plan shall include a map that clearly demarcates jurisdiction waters and the buffer area. Based on CCC guidance for establishing buffer, it is likely that relocation of some proposed facilities (e.g., trails, restrooms) will be required outside the buffer areas.</u></p> <p>(d) For those wetlands and other waters of the United States that cannot be avoided during construction, authorization for fill of wetlands and alteration of waters of the United States for uses authorized for fill</p>	

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		<p>under the CCA, shall be secured from USACE via the Section 404 permitting process before project construction. Compensatory mitigation required for the Section 404 permit shall be implemented.</p> <p>(e) For Wetlands <u>and other waters of the United States</u> filled for uses that are authorized under the CCA, the project applicant shall <u>be replaced, restored, or enhanced so that there is the acreage of jurisdictional habitat to be removed on a</u> “no net loss” basis in accordance with USACE, DFG, and the LCP <u>requirements. The project applicant shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before beginning implementation of the proposed project:</u></p> <p><u>1. Authorization for fill of jurisdictional waters of the United States shall be secured the CWA Section 404 permitting process. Timing for compliance with the specific conditions of the 404 permit shall be per condition specified by the USACE in a mitigation monitoring plan that must be included with the Section 404 permit application. USACE typically require that mitigation monitoring plans included proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands functions and values in the project vicinity. The wetland creation section of the habitat mitigation and monitoring plan shall include the following: target areas for creation; a complete biological assessment of the existing resources on the target areas; performance standards for success that will</u></p>	

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		<p><u>illustrate that the compensation ratios are met; and a monitoring plan including schedule and annual report format. Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the CCC may be immitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.</u></p> <p><u>2. Prior to construction in any areas containing wetland features, the project applicant shall obtain water quality certification pursuant to Section 401 of the Clean Water Act for the project. Any measures required as part of the issuance of water quality certification shall be implemented.</u></p> <p><u>3. The project applicant shall obtain a Streambed Alteration Agreement under Section 1600 et seq. of the California Fish and Game Code for impacts to Waters of the State as defined under Section 1602 of the California Fish and Game Code.</u></p> <p><u>4. The project applicant shall file a report of waste discharge with the Regional Water Quality Control Board for activities affecting waters of the state.</u></p> <p>Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the California Coastal Commission (CCC) may be immitigable; the project applicant shall therefore</p>	

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Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.	
<p>4.13-4: Impacts to Special-Status Wildlife. Implementation of the project could result in disturbance or removal of coastal dunes, coastal scrub, and wet meadow habitats that could provide habitat for California red-legged frog, Myrtle's silverspot butterfly, Ricksecker's water scavenger beetle, Pacific sand bear scarab beetle, globose dune beetle, sandy beach tiger beetle, Marin elfin butterfly, and Point Reyes blue butterfly. This would be a potentially significant impact.</p>	PS	<p>Impacts to Special-Status Wildlife. The following measures are designed to minimize and mitigate impacts on special-status wildlife:</p> <p><u>California Red-legged Frog</u></p> <p>The following measures would avoid impacts to or reduce impacts to California red-legged frogs to a less-than-significant level:</p> <ul style="list-style-type: none"> (a) (a) Red-legged frogs are known and have been documented to occur on the project site (Monk and Associates 2002). Before construction of any project facilities, and as a follow-up to the habitat assessment conducted in May 2002 by Monk and Associates, a qualified biologist shall conduct a pre-construction, habitat survey in accordance with the methods outlined in <i>Guidance on Site Assessment and Field Surveys for California Red-legged Frogs</i> (USFWS 1997). (b) (b) The results of the red-legged frog pre-construction habitat survey shall be summarized in a report to be provided to the USFWS Ecological Services Division, Sacramento Field Office. This report shall also include additional information related to survey as described under USFWS protocol (USFWS 1997). Construction disturbance to red-legged frog habitat shall be avoided to the extent feasible. If all habitat area cannot be avoided, disturbance shall be minimized. (c) If USFWS determines that implementation of the proposed project could result in take, the project 	LTS

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NI = No Impact

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S = Significant

SU = Significant and Unavoidable

**Table 2-1
 Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<p>proponent shall consult with USFWS under Section 7 or Section 10 to determine a future course of action, including whether incidental take authorization is needed. Through consultation and negotiations with USFWS, appropriate mitigation and avoidance measures shall be determined and required to be implemented for the take authorizations. <u>These mitigation measures would typically include, but not be limited to, preservation or replacement of upland and aquatic habitat at a minimum 1:1 ratio, as well as avoidance and minimization measures (e.g., preconstruction surveys, seasonal construction restrictions, etc.) to reduce the potential for take of California red-legged frog.</u></p> <p><u>Special-status invertebrates</u></p> <p>The following measures would reduce impacts to special-status invertebrates to a less-than-significant level:</p> <p>(a) Before the project design is finalized, the project applicant shall hire a qualified biologist to conduct focused surveys for special-status invertebrates on the project site.</p> <p>(b) If no special-status invertebrates are identified on the project site, no further mitigation for special-status invertebrates is required.</p> <p><u>(c) If special-status invertebrates are identified on the project site, the project applicant shall attempt to minimize disturbance to occupied habitat to the maximum extent feasible. If occupied habitat for Myrtle's silverspot butterfly cannot be avoided, consultations with USFWS under Section 7 or Section 10 to determine a future course of action, including whether incidental take authorization is needed, shall be required. Through consultation and</u></p>	

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**Table 2-1
Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
		<u>negotiations with USFWS, appropriate mitigation measures shall be determined and required to be implemented for the take authorizations. These mitigation measures would typically include, but not be limited to, preservation or replacement of suitable habitat at a minimum 1:1 ratio, as well as avoidance and minimization measures (e.g., preconstruction surveys, seasonal construction restrictions, etc.) to reduce the potential for take of Myrtle's silverspot butterfly.</u>	
<p>4.13-5: Cumulative Impacts to Sensitive Habitats, Including Coastal Wetlands. The proposed project could contribute to cumulatively significant impacts on sensitive habitats and wetlands in the coastal zone. Northern coastal dune systems are locally and regionally rare and development in sensitive habitats within these systems presents a significant cumulative contribution to impacts on sensitive habitats. The project could also result in the direct fill of seasonal wetlands. Further, the project would increase the number of facilities at the site, which would support and continue baseline camping activities that occur in onsite wetlands. Therefore, the project would contribute to cumulatively considerable and significant wetland impacts.</p>	S	<p>Reduction of Cumulatively Considerable Wetlands Impacts. Implementation of Mitigation Measures 4.13-3 would reduce project-related impacts special-status plants and wildlife to less-than-significant levels. However, adverse cumulative baseline conditions (e.g., camping in wetlands) would continue with the project. Because adverse camping activities warewere part of baseline, no other feasible mitigation is available to reduce this impact. Therefore, this impact would remain significant and unavoidable. These mitigation measures would eliminate the project's contribution to cumulative impacts related to these issues.</p>	SU
<p>4.13-6: Cumulative Impacts to Special-Status Species. The proposed project could contribute to cumulatively significant impacts on special-status plant and wildlife species. The project could reduce the number or restrict the range of endangered, rare, or threatened plant and invertebrate species and the federally threatened California red-legged frog. This would present a significant project and cumulative impact on special-status species.</p>	S	<p>Reduction of Cumulatively Considerable Sensitive Species Impacts. Implementation of Mitigation Measures 4.13-2 and 4.13-4 would reduce project-related impacts special-status plants and wildlife to less-than-significant levels. These mitigation measures would eliminate the project's contribution to cumulative impacts related to these issues.</p>	LTS

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Table 2-1 Summary of Project Impacts and Mitigation Measures			
Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.14 Schools			
4.14-1: Increased Demand for School Services. The project would result in a minor increase in demand for school services within the SUSD. Because the SUSD has available capacity within the district and would be able to accommodate students generated by the project, the project would result in less-than-significant impacts on school capacity and facilities.	LTS	No mitigation is required.	LTS
4.14-2: Cumulative Increase in Demand for School Services. Cumulative development, including the project, would result in increased demand for school services. This demand would not exceed the capabilities and capacity of SUSD to provide school services. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.15 Police, Fire, and Emergency Services			
4.15-1: Potential Increase in Demand for Police and Fire Services. With implementation the project, the number of people accessing the site for recreational purposes would be unchanged from existing conditions. Any increase in demand for services from either the County Sheriff's Department or the County Fire Department would be negligible and would not adversely affect the ability of these agencies to respond to an emergency call. This would be a less-than-significant impact.	LTS	No mitigation is required.	LTS
4.15-2: Improved Fire Flow. The addition of three fire hydrants connected to a new 100,000-gallon water storage tank would result in an increase in fire flow and fire suppression facilities onsite and would increase the ability of the County Fire Department to quickly extinguish any fires that might break out in the project site. This would be a beneficial impact of the project.	B	No mitigation is required.	B

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**Table 2-1
Summary of Project Impacts and Mitigation Measures**

Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<p>4.15-3: Change in Police, Fire, and Emergency Vehicle Accessibility. Because the expansion of the entrance to Lawson's Landing would improve access to the site, Sand Haul Road would provide sufficient emergency vehicle secondary access, and suitable access would be available for emergency helicopter landings, the project would result in overall improvements to emergency vehicle accessibility. This would be a beneficial impact.</p>	B	No mitigation is required.	B
<p>4.15-4: Cumulative Impacts on Police Services. Cumulative development, including the project, would result in increased demand for police protection services and over time could result in the need for additional staff and/or equipment. Cumulative projects on a project-by-project basis are required to mitigate any significant individual project impacts to police protection services. Furthermore, increased tax revenues from cumulative development would provide funding for the hiring of additional staff and purchasing of equipment necessary to accommodate other cumulative growth. This would be a less-than-significant impact.</p>	LTS	No mitigation measures are required.	LTS
<p>4.15-5: Cumulative Impacts on Fire and Emergency Services. Cumulative development, including the project, would result in increased demand for fire protection and emergency services and over time could result in the need for additional staff and/or equipment. Cumulative projects on a project-by-project basis are required to mitigate any significant individual project impacts to fire protection and emergency services. Furthermore, increased tax revenues from cumulative development would provide funding for the hiring of additional staff and purchasing of equipment necessary to accommodate other cumulative growth. This would be a less-than-significant impact.</p>	LTS	No mitigation measures are required.	LTS

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Table 2-1 Summary of Project Impacts and Mitigation Measures			
Impact	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
4.16 Energy Consumption			
4.16-1: Potential for Long-Term Increases in Energy Consumption. The project would not substantially increase the demand for energy resources at this site. This would be a less-than-significant impact.	LTS	No mitigation measures are required.	LTS
4.16-2: Temporary Increase in Energy Consumption Associated with Construction. Consumption of electricity and gasoline during construction activities is anticipated to be minimal and would not result in local energy demand exceeding the capacity of PG&E and gasoline/diesel fuel suppliers. For these reasons and because of the temporary nature of construction activities, this impact would be less than significant.	LTS	No mitigation measures are required.	LTS
4.16-3: Potential for Inconsistency with Marin County BEST Program. The project would be consistent with the Marin County BEST Program because project facilities (i.e., new owner's residence and new employee mobile home) would be designed to meet the provisions of the BEST Program's energy efficient building incentive. This impact would be less than significant.	LTS	No mitigation measures are required.	LTS
4.16-4: Cumulative Impacts Related to Energy Consumption. Cumulative development, including the project, would result in increased demand for energy resources. This demand would not exceed the capacity of PG&E's electricity system or substantially impair PG&E's ability to provide electricity. Nor would this demand exceed the capacity of gasoline and natural gas suppliers. This would be a less-than-significant impact.	LTS	No mitigation measures are required.	LTS

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Table 2-2

Summary Discussion of Potential Project Inconsistency before Mitigation with Marin County Land Use Plans and Policies

Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
4.2-2: Marin Countywide Plan				
<p><u>Policy EQ-2.43 Development and access limitations in bayfront conservation areas.</u> This policy prohibits the encroachment of development into sensitive wildlife habitats and requires the provision of buffer zones. The project would be inconsistent with this policy because it would involve filling of wetlands.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road. The project sponsor shall relocate the proposed leachfield and access road to the recirculating sand filter system to a non-sand dune location, such as in the northern portion of the project site. Three potential alternate locations for the leachfield and sand filter system were identified during the EIR preparation and are presented in Exhibit 4.6-10. Preliminary evaluation of these locations indicates that from a dune stability and viability standpoint these locations would eliminate the impacts of the proposed leachfield on the dune system, because they would be located outside even the most stable sand dune areas. A preliminary engineering review of the potential alternate locations indicates that based on the soil types, slopes, and erosion hazards present in these areas, construction of a septic tank and leachfield system would be feasible as long as the leachfield were located in areas with less than 15% slope (Appendix H). Construction of a leachfield in this location would require the installation of force main piping and a pump station to pump wastewater from Sand Point to the alternate location.</p> <p>Based on preliminary environmental review of these alternate locations, no new sensitive habitat or species would be adversely affected. Further, because of the existing roadways near these locations, it is likely that construction of a new access road to the leachfield would</p>	<p>REG EIR</p>	<p>Policy: MC</p>

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**Table 2-2
Summary Discussion of Potential Project Inconsistency before Mitigation with Marin County Land Use Plans and Policies**

Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>not be required. Construction of a leachfield in any of the three proposed alternate locations would be consistent with the policies of the Marin Countywide Plan and LCP and would avoid potential inconsistencies associated with construction in onsite wetlands, coastal wetlands, and sand dune habitats. As identified in Exhibit 4.6-1, some areas of the alternate location sites are designated as prime or other important farmland. Construction of a leachfield within these lands would not result in a significant loss of farmland resources and would be consistent with County policies regarding allowable facilities on important farmlands. Prior to construction of the septic tank, pipelines, pump station, and leach field, the project sponsor shall have a qualified engineer prepare additional detailed design investigations for the siting and operation of the leachfield and these studies shall be submitted to the County and RWQCB for review and approval.</p> <p>As an option to a septic tank and leachfield system, staff of the RWQCB has indicated that an alternative wastewater treatment system or other treatment technologies, such as a pond treatment system, would be acceptable at the project site. Through the specific design and siting process for the alternate location for the wastewater treatment system, the project sponsor shall determine whether an alternate treatment system should be constructed. Final review and approval of the system will be made by the RWQCB.</p> <p>Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands. The following measures are designed to avoid impacts on coastal</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>and Section 404 wetlands and other waters of the United States:</p> <p>(a) Before the project design is finalized, a qualified biologist shall conduct a Section 404 jurisdictional delineation of waters of the United States, <u>(if one is not already prepared and verified)</u>, including wetlands, for any areas of project impact outside of the survey area for the existing verified wetland delineation from March 5, 2003. In addition, the project applicant or a qualified biologist shall conduct a delineation of wetlands, as defined by the California Coastal Act of 1976.</p> <p>(b) The project applicant or a qualified biologist shall contact DFG to determine whether streambed alterations would occur to drainage features as defined under Section 1602 of the California Fish and Game Code. If this is the case, the project applicant shall obtain a streambed alteration agreement from DFG for any proposed modifications of the features.</p> <p>(c) Based on the verified delineation, the project applicant shall avoid disturbance or fill of the protected coastal wetlands, which would also lead to avoidance of Section 404 wetlands and other waters of the United States, for any uses not authorized by the CCA for wetland fill. This will likely require relocation of some proposed facilities (e.g., trails, restrooms) outside a 100-foot buffer area from onsite wetlands with less environmentally constrained areas as shown in</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>Exhibit 6-1.</p> <p><u>(d) All jurisdiction wetlands shall be protected from impacts associated with implementation of the proposed project by a minimum 100-foot buffer. In some cases, such as when a special-status species requires habitat adjacent to a wetland for part of its life cycle, buffers greater than 100 feet may be necessary. Precise buffer width will be based upon consultation between the project applicant and the California Coastal Commission (CCC). Prior to beginning implementation of the proposed project, the project applicant shall submit a wetland avoidance plan to CCC for approval. The avoidance plan shall include a map that clearly demarcates jurisdiction waters and the buffer area. Based on CCC guidance for establishing buffer, it is likely that relocation of some proposed facilities (e.g., trails, restrooms) will be required outside the buffer areas.</u></p> <p>(d) For those wetlands and other waters of the United States that cannot be avoided during construction, authorization for fill of wetlands and alteration of waters of the United States for uses authorized for fill under the CCA, shall be secured from USACE via the Section 404 permitting process before project construction. Compensatory mitigation required for the Section 404 permit shall be implemented.</p> <p>(e) For <u>Wetlands and other waters of the United States</u> filled for uses that are authorized under the</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>CCA, the project applicant shall <u>be replaced, restored, or enhanced so that there is the acreage of jurisdictional habitat to be removed on a</u> “no net loss” basis in accordance with USACE, DFG, and the LCP requirements. <u>The project applicant shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before beginning implementation of the proposed project:</u></p> <p><u>1. Authorization for fill of jurisdictional waters of the United States shall be secured the CWA Section 404 permitting process. Timing for compliance with the specific conditions of the 404 permit shall be per condition specified by the USACE in a mitigation monitoring plan that must be included with the Section 404 permit application. USACE typically require that mitigation monitoring plans included proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands functions and values in the project vicinity. The wetland creation section of the habitat mitigation and monitoring plan shall include the following: target areas for creation; a complete biological assessment of the existing resources on the target areas; performance standards for success that will illustrate that the compensation ratios are met; and a monitoring plan including</u></p>		

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Summary Discussion of Potential Project Inconsistency before Mitigation with Marin County Land Use Plans and Policies**

Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p><u>schedule and annual report format. Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the CCC may be immitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.</u></p> <p><u>2. Prior to construction in any areas containing wetland features, the project applicant shall obtain water quality certification pursuant to Section 401 of the Clean Water Act for the project. Any measures required as part of the issuance of water quality certification shall be implemented.</u></p> <p><u>3. The project applicant shall obtain a Streambed Alteration Agreement under Section 1600 et seq. of the California Fish and Game Code for impacts to Waters of the State as defined under Section 1602 of the California Fish and Game Code.</u></p> <p><u>4. The project applicant shall file a report of waste discharge with the Regional Water Quality Control Board for activities affecting waters of the state.</u></p> <p>Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the California Coastal Commission (CCC) may be inmitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.		
<p><u>Policy EQ-2.63 Sites with poor soil conditions or seismically active.</u> This policy requires that development within areas that have poor soil conditions for construction be designed to minimize earth disturbance, erosion, water pollution, and hazards to public safety. The project would be located on a site subject to seismic events, flooding, and liquefaction. Therefore, it would be inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.5-2: Flood Hazards. All construction within the delineated floodplain shall adhere to Marin County's Flood Plain Management Ordinance which requires that the first finished floor level of new and substantial improvements be at or above the Base Flood Elevation (BFE). Structures constructed in the flood zone shall be constructed of flood-proof materials and be anchored. It may be possible to lower the first finished floor level of a non-habitable structure if the building is flood proofed. All proposed plans would be subject to review and approval by the Marin County Department of Public Works.</p> <p>Mitigation Measure 4.5-4: Construction Best Management Practices for Water Quality. In accordance with Marin County Code Chapter 23.08, the project sponsor shall implement erosion and sedimentation Best Management Practices to control stormwater and protect surface water quality including Dillon Creek and Tomales Bay. Best Management Practices (BMPs), designed to protect stormwater quality, are summarized in the <i>California Storm Water Best Management Practice Handbooks</i></p>	<p>REG EIR</p>	<p>Policy: MC</p>

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>(Stormwater Quality Task Force 1993) and can be recommended by the Association of Bay Area Governments <i>Manual Standards for Erosion and Sediment Control Measures</i>. BMPs are subject to review and approval by Marin County Department of Public Works and shall be implemented during project construction. According to Marin County Code Section 24.04.625, grading shall not be conducted during the rainy season (October 15 through April 15) without prior approval by Marin County Department of Public Works.</p> <p>The following measures shall be implemented in accordance with the LCP:</p> <ul style="list-style-type: none"> ▶ Sediment basins (including debris basin, desilting basins, or silt traps) shall be installed on the project site in conjunction with initial grading operations and maintained through the development process to remove sediment from runoff waters. All sediment shall be retained onsite unless removed to an appropriate dumping location. ▶ Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils exposed during grading. Cut and fill slopes shall be stabilized immediately with approved landscape vegetation. <p>All topsoil removed by grading operations shall be stockpiled for reuse onsite and shall be protected from compaction, wind, and erosion during stockpiling.</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>Mitigation Measure 4.6-3: Implement Seismic Design Measures. The project sponsor shall secure a California-certified engineering geologist and civil engineer to provide the project structural engineer with seismic design criteria and recommendations based on state and county regulations for development in areas exposed to moderate to severe earthquakes. The site-specific recommendations made by this geologist and civil engineer shall be approved by the County Building Inspection Division before being implemented at the site.</p> <p>(a) As an overall performance criterion, seismic design features shall be adequate to ensure that the proposed relocated boathouse withstands the maximum credible earthquake for the San Andreas and Hayward faults. Examples of the seismic design criteria to be provided to the project structural engineer include:</p> <ul style="list-style-type: none"> ▶ identification of the controlling fault for seismic engineering design; ▶ design earthquake magnitude; ▶ distance to energy source (earthquake); ▶ likely duration of strong groundshaking and qualitative discussion of its intensity and frequency (e.g., high vs. low); and ▶ discussion of the potential for amplified groundshaking and other impacts as a result of local geologic conditions. <p>The specific structural features appropriate for the project would be determined based on the seismic</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>engineering design process.</p> <p>(b) The project sponsor shall use appropriate grading and design, in accordance with the UBC and County Code requirements, to reduce the secondary effects of groundshaking on human-made improvements.</p> <p>(c) Fill used during the construction of the project shall be properly designed with subsurface drainage and adequately compacted (i.e., minimum of 90% relative compaction as defined by the American Society for Testing and Materials [ASTM D1557]) to significantly reduce fill settlement.</p> <p>(d) Before any grading or construction permits are issued, the project sponsor shall submit for review and approval by the County a design-level geotechnical investigation. Plan review and construction observation/testing is required by the project geotechnical engineer. Final design of the proposed improvements shall incorporate the results of the geotechnical investigation approved by the County.</p> <p>(e) The construction contractor shall consult with a foundation engineer to develop an appropriate foundation design for the proposed boathouse. The structure shall be designed to accommodate up to 2.3 feet of secondary deformation without collapse. A possible design involves using a thickened reinforced concrete slab over a layer of cohesionless granular backfill. This approach may allow the foundation to accommodate permanent</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		ground deformation without brittle failure; it could also reduce the risk to the structure from the effects of soil liquefaction by helping to support the temporary loss of bearing capacity that could occur in the event of liquefaction. A pile supported foundation should not be employed, because of the possibility of surface fault rupture through the site.		
Policy EQ-2.88 Protection of Special Status Species. This policy requires the restriction or modification of development in areas that contain sensitive species and habitats, including wetlands. The project would be inconsistent with this policy because it would involve filling of wetlands.	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
Policy EQ-3.4 Changes to Hydrological and Biological Processes. This policy prohibits the irreversible damage to natural hydrological and biological processes. The project would result in the stabilization of an active sand dune onsite, which could adversely affect the natural migration of the sand dune system. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road. Mitigation Measure 4.13-1: Impacts on Sensitive Habitats. Since release of the Draft EIR for public review, the applicants further evaluated the feasibility of constructing the wastewater treatment system in the northern portion of the project site. As a result of the feasibility analysis, the applicant has agreed to relocate the wastewater treatment facility to the northern portion of the project site outside of on-site sand dunes. Lawson's Landing shall implement the following measures to reduce potential impacts on sensitive habitats: ▶The proposed wastewater treatment system shall be relocated to an alternate site where potential	REG EIR	Policy: MC

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Summary Discussion of Potential Project Inconsistency before Mitigation with Marin County Land Use Plans and Policies**

Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>impacts to sensitive habitats and special status species would be avoided or reduced.</p> <p>Implement Mitigation Measure 4.6-1, which requires construction of an alternate treatment system or relocation of the wastewater treatment system to non-san dune areas.</p> <p>(a) If vegetation is required to stabilize the area proposed for the leachfield, species next to the project site and surrounding area shall be used. Approval of the species used shall be obtained from the county before installation.</p> <p>Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.</p>		
<p>Policy EQ-3.7 Avoidance of Hazards from Earthquake, Erosion, Landslide, Floods, and Fires. This policy requires that development be designed to avoid impacts associated with earthquakes, erosion, landslides, floods, fires, and accidents. The project would be located on a site subject to seismic events, flooding, and liquefaction. Therefore, it would be potentially inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.5-2: Flood Hazards.</p> <p>Mitigation Measure 4.5-4: Construction Best Management Practices for Water Quality.</p> <p>Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.</p> <p>Mitigation Measure 4.6-3: Implement Seismic Design Measures.</p>	<p>REG EIR</p>	<p>Policy: MC</p>
<p>Policy EQ-3.31 Avoid Impact. This policy requires mitigation measures to protect archaeological resources. The project site has been surveyed and one resource was identified and one resource is known to be onsite. In addition, the possibility exists to uncover unknown subsurface archaeological resources during construction. The project has the potential to disturb onsite resources. Therefore, the project would be potentially inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.12-1: Monitor Ground-Disturbing Activities in the Vicinity of Shell Scatter EDAW 1 and CA-MRN-523. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activities within 100 feet of the proposed mobile home and garage site (EDAW 1) and leach field (CA-MRN-523). If subsurface concentrations of artifacts or other cultural materials such as stone, bone, or shell are uncovered during excavation operations, all</p>	<p>EIR</p>	<p>Policy: MC</p>

Significance before Mitigation

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Mitigation Measure From

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Residual Significance after Mitigation

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>construction activities in the area shall halt until the finds can be assessed. The archaeologist shall evaluate the find, and additional mitigation measures may be required depending on the potential significance of the finds. The archaeologist shall recommend additional actions deemed necessary for the protection of these resources. Such actions may include subsurface testing, data recovery, mapping, capping, or avoidance of the resource. The project proponent shall ensure that additional protection actions (if needed) are implemented before construction continues at this site.</p> <p>Mitigation Measure 4.12-2: Prepare and Implement Monitoring Plan and Halt Ground-Disturbing Activities in the Event of Accidental Discovery of a Cultural Resource. A qualified archaeologist approved by Marin County shall monitor all ground disturbing activities during construction. If cultural resources are discovered during construction, construction activities shall halt and the property owner will be notified regarding the discovery. The archaeologist shall evaluate the resource in accordance with state and federal guidelines and shall determine whether the resource is significant. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Section 21083-2 of CEQA. Mitigation in accordance with a plan approved by the Marin County Community Development Agency shall be implemented prior to commencement of work within</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		the area of the resource find. Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.		
<p><u>Policy EQ-3.32 Discovery of Resources.</u> This policy requires evaluation of any archaeological resources found during construction. The project site has been surveyed and one resource was identified and one resource is known to be onsite. In addition, the possibility exists to uncover unknown subsurface archaeological resources during construction.</p>	Policy: IBM	<p>Mitigation Measure 4.12-1: Monitor Ground-Disturbing Activities in the Vicinity of Shell Scatter EDAW 1 and CA-MRN-523. Mitigation Measure 4.12-2: Prepare and Implement Monitoring Plan and Halt Ground-Disturbing Activities in the Event of Accidental Discovery of a Cultural Resource. Mitigation Measure 4.12-3: Stop Potentially Damaging Work if Human Remains Are Uncovered During Construction, Assess the Significance of the Find, and Pursue Appropriate Management. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097.</p>	EIR	Policy: MC
<p><u>Policy EH-3.1 Location of Future Development.</u> This policy requires that development be sited to avoid or minimize the potential hazards from earthquake, erosion, landslides, floods, and fire. The project would be located on a site subject to seismic events, flooding, and liquefaction. Therefore, it would be potentially inconsistent with this policy.</p>	Policy: IBM	<p>Mitigation Measure 4.5-2: Flood Hazards. Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road. Mitigation Measure 4.6-2: Implement Protective Measures in the Fore dune System. The project sponsor shall plan and design the trails in the fore dune system to reduce the potential for the</p>	REG EIR	Policy: MC

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>development of dune blowouts onsite. Specific actions include the following:</p> <p>(a) All pedestrian paths crossing the primary foredune for the entire length of the planning area shall be planned and designated in coordination with a coastal geomorphologist and approved by the County of Marin. At each designated site, pathways shall be planned for naturally low elevation “passes” through the ridge, or other locations where erosion potential is lowest.</p> <p>(b) In consultation with a coastal geomorphologist, pedestrian pathways through the primary foredune shall be oriented in a southwesterly direction, so that strong summer winds do not create sand blowouts in the dune face. Paths shall be planned to follow topographically low routes, minimize sharp turns and avoid steep pitches. The design of the paths should include consideration of a meandering zig-zag design to minimize the linear surface area that would be exposed to the northeast winds.</p> <p>(c) In consultation with a coastal geomorphologist, all entry paths through the primary foredune shall be monitored for geomorphic or vegetative changes or signs of deterioration. Monitoring techniques could include, but not be limited to, ground photo points, aerial photographs, and physical measurement. Other forms of monitoring may be required, as determined by the coastal geomorphologist and approved by the County of</p>		

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
		<p>Marin.</p> <p>(d) Paths that cannot be stabilized or that do not remain stable during their use shall be closed and the area restored in consultation with a coastal geomorphologist and as approved by the County of Marin.</p> <p>(e) Designated pathways shall be fenced to prevent off-trail pedestrian activities and bovine traffic. Fencing can be used to cordon off foredunes in high-use areas where recreational activities are not permitted. Fencing with signs indicating dune protection or other similar language shall be used.</p> <p>(f) Provide public education on sand dune processes and reasons for protection through signs, displays at key access points, brochures for beach and dune users, and/or presentations to organized user groups.</p> <p>Mitigation Measure 4.6-3: Implement Seismic Design Measures.</p>		
<p>Policy EH-3.2 New Development Approval. This policy requires that new development can only be approved in identified geologic hazard areas if the hazards can be reduced to acceptable levels through mitigation measures which are appropriate to the site, and consistent with other policies in the Countywide Plan. The project would construct new facilities in areas subject to geologic hazards. Therefore, the project would be potentially inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.</p> <p>Mitigation Measure 4.6-2: Implement Protective Measures in the Foredune System.</p> <p>Mitigation Measure 4.6-3: Implement Seismic Design Measures.</p>	<p>REG EIR</p>	<p>Policy: MC</p>

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Impact and Consistency Discussion	Significance before Mitigation	Mitigation Measure	Mitigation Measure From	Residual Significance after Mitigation
Policy EH-8.2 Construction. This policy requires that structures be designed to withstand the impact from a tsunami. The project would be located on a site subject to flooding from a tsunami.	Policy: IBM	Mitigation Measure 4.5-2: Flood Hazards.	REG EIR	Policy: MC
4.2-3: Marin County Local Coastal Program Unit II				
Natural Resources (Policy 4c–Wetlands). This policy requires the preservation of wetlands in the coastal zone and that diking, filling, and dredging of wetlands shall only be permitted in conformance with LCP policies. Some project facilities (e.g., restrooms, roadways) could result in the fill of wetlands and are not permitted uses described in this policy or the LCP. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
Natural Resources (Policy 4d–Wetlands). This policy requires that a minimum 100-foot buffer strip be established along the periphery of all wetlands. The project would be inconsistent with this policy because it would result in the fill of wetlands.	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
Natural Resources (Policy 5a–Coastal Dunes and Other Sensitive Land Habitats: Coastal Dunes). This policy prohibits development within coastal dunes. Because the project includes construction of a wastewater treatment system in the sand dunes, it would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.	REG EIR	Policy: MC
Natural Resources (Policy 5b–Coastal Dunes and Other Sensitive Land Habitats: Other Environmentally Sensitive Habitats). This policy permits development in sensitive habitats only when it depends on the resources in the habitat area. The project would construct some project facilities (e.g., restrooms, trails) in sensitive habitat areas and these facilities	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC

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would not be dependent on the resources of the habitat area. Therefore, the project would be inconsistent with this policy.				
Agriculture (Policy 4d). Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made for existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
Diking, Filling and Dredging (Policy 1, 2, and 3). This policy prohibits the filling of wetlands except of limited purposes related to water-dependent activities. The project would be inconsistent with this policy because it would involve filling of wetlands.	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
Public Services (Policy 1). This policy requires that adequate public services are available to serve the project. While the design and construction of a new wastewater treatment facility would be feasible onsite, it is unknown whether this facility would be able to function within the onsite sand dunes. The long-term viability of the system is currently unknown. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road. Mitigation Measure 4.8-4: Emergency Access Improvements to Sand Haul Road. Sand Haul Road shall be designated and improved (i.e., grade/paved) <u>within its existing alignment</u> as an alternative public emergency access route. <u>Improvements to Sand Haul Road shall include grading, graveling, or paving of certain sections of the alignment to provide a smooth traveling surface for passenger cars to travel easily.</u> Signs and placards showing the emergency route along Sand Haul Road shall be installed by the applicant and posted in appropriate locations. <u>Implementation of Mitigation Measures 4.13-2, 4.13-3, and 4.13-4 (see Section</u>	REG EIR	Policy: MC

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		4.13. "Biological Resources") would reduce all potential construction-related impacts to nearby sensitive biological resources resulting from improving Sand Haul Road to less-than-significant levels.		
<p><u>New Development and Land Use (Policy 6– Watershed and water quality protection/ grading).</u> This policy requires that development limit the area of grading and soil exposure during the rainy season and requires the use of stormwater BMPs during construction. The project could construct facilities during the fall and winter seasons and does not include stormwater quality measures. Therefore, the project would be inconsistent with the policy.</p>	Policy: IBM	Mitigation Measure 4.5-4: Construction Best Management Practices for Water Quality.	REG EIR	Policy: MC
4.2-4: Dillon Beach Community Plan				
<p><u>Environmental Quality-Activities in wetlands (Policy 6.2).</u> This policy allows only resource-dependant activities to occur in wetlands. The project would be inconsistent with this policy because it would result in the fill of wetlands for recreational facilities.</p>	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
<p><u>Environmental Quality - Wetland buffers (Policy 6.4).</u> This policy requires the establishment if a minimum buffer strip of 100 feet along the periphery of all wetlands. The project would be inconsistent with this policy because it would result in the fill of wetlands.</p>	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section 404 Jurisdictional Wetlands.	REG EIR	Policy: MC
<p><u>Environmental Quality - Coastal dunes (Policy 7.1).</u> This policy prohibits development in the foredunes and rear dunes on the project site wherever possible to preserve dune formations, vegetation, and wildlife habitats. The project</p>	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.	EIR	Policy: MC

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<p>would construct a new wastewater treatment facility within the sand dunes located on the project site. Other onsite areas could feasibly support a wastewater treatment system and avoid location within onsite sand dunes. While this policy encourages that development in sand dunes be prohibited wherever possible. Because other onsite areas are available and the system is located in the sand dune, the project would be inconsistent with this policy.</p>				
<p><u>Environmental Quality - Coastal dunes (Policy 7.2).</u> This policy requires that future developments at Lawson’s Landing be sited out of the coastal sand dune area to the greatest extent possible and the project be designed to minimize impacts on adjacent dune vegetation and habitat. The only activities that would occur within the onsite sand dunes would be the construction of the proposed onsite wastewater treatment system. Other feasible locations on the project site could support the proposed wastewater treatment system because other onsite areas are available and the system is proposed to be located in the sand dune, then the project would be inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.</p>	<p>EIR</p>	<p>Policy: MC</p>
<p><u>Environmental Quality - Airborne dust (Policy 10.1).</u> This policy requires that the generation of airborne dust shall be kept to a minimum through construction site watering and covering exposed ground areas. The project could result in the excessive generation of airborne dust during project construction. The project would be potentially inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.89-1: <u>Reduction Measures for the Generation of Short-Term Construction Emissions</u> Construction Traffic. Before project construction activities begin the project applicant shall prepare a construction traffic control plan that shall be applied to all construction activities associated with the project. The plan shall include, at a minimum, the following conditions: → No construction related traffic shall be allowed on the local roadway network on Sundays or any holiday.</p>	<p>EIR</p>	<p>Policy: MC</p>

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		<p>▶ No construction delivery truck traffic shall be allowed on the local roadway network before 8:00 a.m. or after 4:30 p.m.</p> <p>▶ No construction worker traffic shall be allowed on the local roadway network between 7:00 and 8:00 a.m. and between 4:30 and 6:00 p.m.</p> <p>▶ Local roadways will be jointly monitored by the County and project applicant every six months to determine whether project related construction traffic is degrading roadway conditions. Roadways with potential to be damaged by construction traffic shall be so designated and included in the monitoring effort shall be agreed to by the County and the project applicant. All degradation of pavement conditions because of project construction traffic will be fully repaired by the project applicant to the satisfaction of Marin County.</p> <p>▶ The project applicant shall prepare detailed analysis of roadway structural cross section for Cliff Street to determine whether the roadway can withstand the vehicle loading for construction and normal operations.</p> <p><u>In accordance with BAAQMD CEQA Guidelines (BAAQMD 1999), the following mitigation, which includes BAAQMD-recommended Basic, Enhanced, and Optional Control Measures, shall be implemented to reduce construction generated emissions.</u></p> <p><u>▶ water all active construction areas at least twice daily.</u></p>		

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		<ul style="list-style-type: none"> ▶ cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. ▶ pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. ▶ sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. ▶ sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. ▶ hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). ▶ enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.). ▶ limit traffic speeds on unpaved roads to 15 mph in construction areas. ▶ install sandbags or other erosion control measures to prevent silt runoff to public roadways. ▶ replant vegetation in disturbed areas as quickly as possible. ▶ install wheel washers for all exiting trucks, or wash off the tire or tracks of all trucks and equipment before leaving the site. ▶ install wind breaks, or plant trees/vegetative wind 		

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		<p>breaks at windward side(s) of construction areas.</p> <ul style="list-style-type: none"> ▶ suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. ▶ limit the area subject to excavation, grading, and other construction activity at any one time. ▶ minimize idling time. ▶ maintain properly tuned equipment. ▶ limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. <p>In addition to the measures identified above, construction activities are also required to comply with all applicable BAAQMD rules and regulations, specifically Rule 8-3 regarding architectural coatings, Rule 8-15 regarding asphalt paving, Rule 11-2 regarding demolition, and Regulation 6 regarding particulate matter and visible emissions.</p>		
<p><u>Environmental Quality - Construction noise (Policy 11.1).</u> This policy requires that all new development minimize construction noise. Construction activities at the project site could result in noise levels that exceed the noise standards of the County's noise element. The project would be potentially inconsistent with this policy.</p>	<p>Policy: IBM</p>	<p>Mitigation Measure 4.10-1: Construction-Related Noise Impacts.</p> <ul style="list-style-type: none"> ▶ Construction activities shall adhere to the Dillon Beach Community Plan requirements with respect to hours of operation: Heavy or otherwise "noisy" construction equipment (e.g. bulldozers, backhoes, scrapers/ graders, heavy trucks, compactors, pavers, and pneumatic tools) should be operated during the hours of 8 a.m.-5 p.m. only, Monday through Saturday. Construction activities shall be prohibited on Sundays and holidays. ▶ Equipment engine doors on motorized equipment 	<p>EIR</p>	<p>Policy: MC</p>

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		shall be closed during equipment operation. <ul style="list-style-type: none"> ▶ All construction equipment shall be equipped with mufflers. ▶ When not in use, motorized construction equipment shall not be left idling. ▶ Stationary noise-generating construction equipment (e.g., generators and compressors) shall be located the greatest distance possible from nearby noise-sensitive land uses. 		
Environmental Hazards - Tsunami zones (Policy 1.4). This policy requires that new structures within the 20-foot tsunami run-up zone incorporate flood-proofing measures. Proposed project facilities within the tsunami run-up zone would not incorporate flood-proofing measures as currently proposed. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.5-2: Flood Hazards.	EIR	Policy: MC
Environmental Hazards - Dune erosion (Policy 1.10). This policy requires that development adjacent to dunes include a dune stabilization program. Although the project would include a dune stabilization plan for the western face of the sand dune where the proposed wastewater treatment facility would be located, this plan would not ensure the long-term success of the dune stabilization. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.	EIR	Policy: MC
Environmental Hazards - Flood zone (Policy 1.11). This policy requires that the first finished floor level of new construction be a minimum of eight feet above sea level in addition to being above the 100-year flood zone. Several proposed facilities would be constructed within areas subject to minimal flooding and are not designed to withstand the effects of a flood. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.5-2: Flood Hazards.	EIR	Policy: MC

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Vegetation (Policy CD-1.5). Non-native vegetation should be discouraged, except in contained areas immediately adjacent to residences and businesses. The project would require a dune stabilization plan for the proposed wastewater treatment plant. The project would be potentially inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.	EIR	Policy: MC
Community Facilities Policy - Dune sewage disposal (Policy 8.4). This policy requires conclusive evidence that a dune sewage disposal system would not pose a contamination threat to groundwater, surface water, or the beach. Because it is unknown whether proposed sand dune stabilization techniques would adequately stabilize the sand dune, risk of failure is not conclusively avoided and, therefore, the proposed wastewater treatment system could result in potential groundwater and surface water quality impacts at the site in the event of a failure. Therefore, the project would be inconsistent with this policy.	Policy: IBM	Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.	REG EIR	Policy: MC
4.2-6: Marin County Zoning Code				
Subchapter 22.56 (C District – Coastal District): Section 22.56.023 - Consistency with the California Coastal Act of 1976. Marin County Code 22.56.023 requires all projects within the C district to be generally consistent with the California Coastal Act of 1976. The Coastal Act has been codified as Section 330000 through Section 30900 of the California Public Resources Code. The project would be inconsistent with this policy because it would result in the fill of wetlands onsite.	Policy: IBM	Mitigation Measure 4.13-3: Impacts to Coastal and Section-404 Jurisdictional Wetlands.	REG EIR	Policy: MC

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3 PROJECT DESCRIPTION

Chapter 3 provides descriptions of the location, regional setting, history, objectives, and characteristics of the proposed Lawson's Landing Master Plan and its required approvals. It also defines the environmental baseline used in this EIR, recognizing that Lawson's Landing has been operating for many years. The project involves the acquisition of a Master Plan approval, Coastal Permit, and Tidelands Permit for the existing recreational uses at Lawson's Landing, including modification to existing operations, improvement of existing sewage facilities, remodeling of older facilities, construction of new housing facilities, and creation of an environmental enhancement and education program.

3.1 PROJECT SITE LOCATION AND DESCRIPTION

The project site is defined as the area in the Lawson's Landing property. This section of the Draft EIR describes the location and setting of the project site from both a regional and local perspective. Maps and aerial photographs are provided to depict the project site in relation to surrounding resources and land uses.

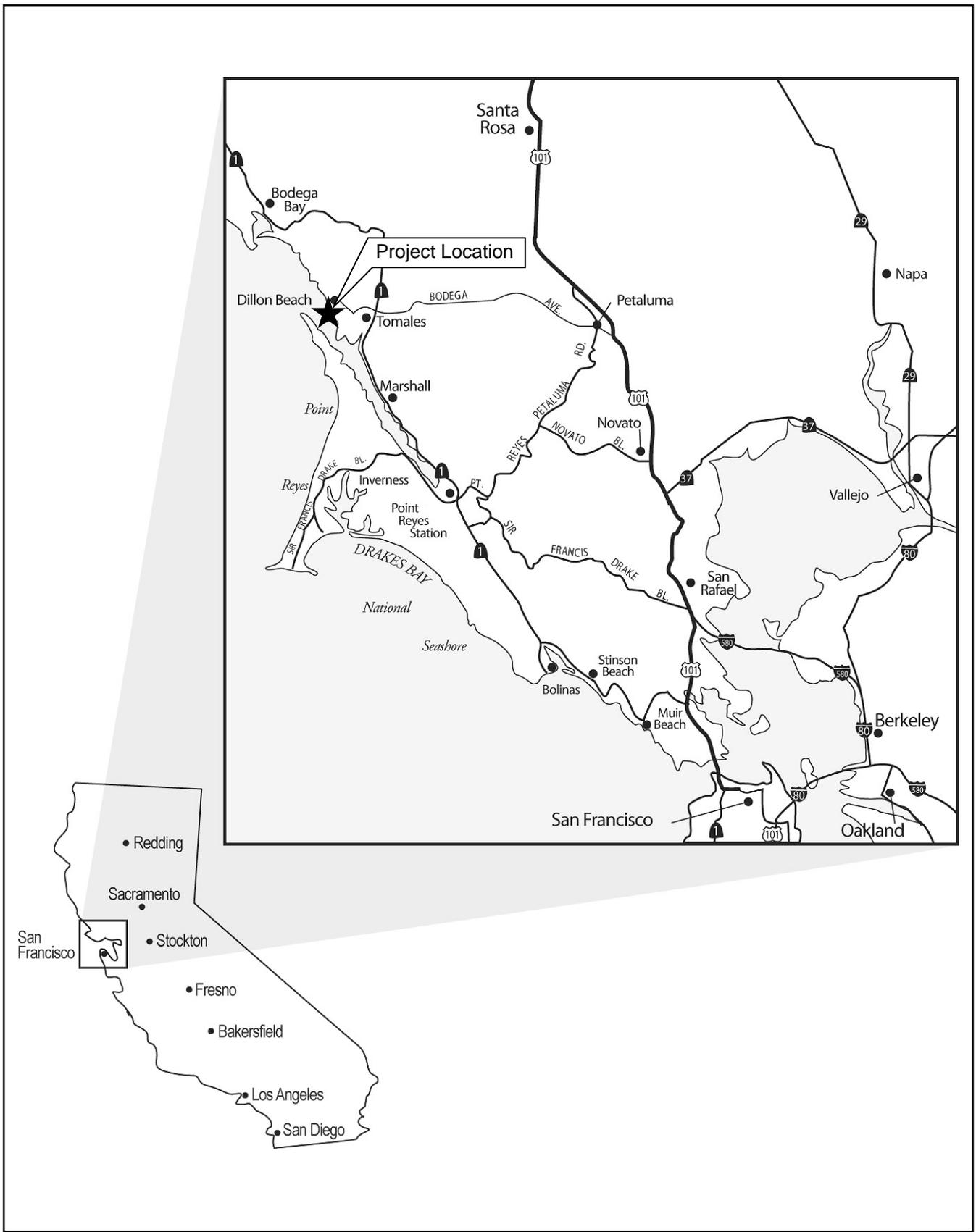
3.1.1 REGIONAL SETTING

Marin County is situated on a coastal peninsula in north-central California. The County is bordered by Sonoma County to the north, the City and County of San Francisco to the south, and Contra Costa County to the east (Exhibits 3-1 and 3-2). The Pacific Ocean forms the western border of Marin County. San Francisco Bay and San Pablo Bay are located east of the County. The Golden Gate separates Marin County from San Francisco.

The County consists of diverse physical and environmental features attributable largely to its geologic history and proximity to the ocean and inland bays. Marin County is in the Coast Ranges Province of California and is at the interface of the North American and Pacific crustal plates (Salem Howes Associates 1995). The County has a diversity of physiographic environments that experience varying amounts of rain, fog, and wind. The area is susceptible to a range of natural hazards, such as fire, erosion, landslides, rain-induced flooding, earthquakes, and tsunamis.

Regional access to Marin County is provided by U.S. Highway 101 (US 101), State Route 1 (SR 1), State Route 37 (SR 37), and Interstate 580 (I-580). US 101 and SR 1 cross San Francisco Bay on the Golden Gate Bridge and serve as the major connection between Marin County and San Francisco. US 101 extends north through Marin County to Sonoma County and beyond. SR 1 traverses west of its intersection with US 101 in Mill Valley to the Pacific Ocean, and then turns north, providing a highway route along most of California's north coast (also called Shoreline Highway in Marin County). SR 37 borders the northern end of San Pablo Bay and provides access to Napa County, Vallejo, and other areas east of Marin County. I-580 extends east from San Rafael, across San Francisco/San Pablo Bay on the Richmond/San Rafael Bridge, and connects to the City of Richmond and the East Bay.

West Marin County (West Marin), the setting of the Lawson's Landing project site, is characterized by mountains, rolling hills, beaches, rocky shoreline, bays (most notably Tomales Bay), lagoons, and tidal wetlands. West Marin is home to the Point Reyes National Seashore (approximately ½-mile west of the project site, across Tomales Bay). Because of its scenic quality, climate, rural character, recreational opportunities, and proximity to the San Francisco Bay area, West Marin is a popular tourist destination. SR 1 provides primary north-south access through West Marin.



Source: EDAW 2004

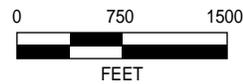
Regional Location





Source: Pacific Watershed Associates 2000

Project Site Location



3.1.2 LOCAL SETTING

Lawson's Landing is located in the northwest corner of Marin County, California near the community of Dillon Beach (Exhibit 3-3). The project site consists of approximately ~~940~~-960 acres of coastal dune, wetland, and hillside lands east and south of Dillon Beach. The property is bordered by the Pacific Ocean on the west, Tomales Bay on the south, and coastal ridges to the east and north. Surrounding land uses include agricultural and open space lands, coastal beaches, and residential areas (community of Dillon Beach). Access to Dillon Beach and the project area is provided by Dillon Beach Road, an east-west roadway just north of the project site. Beach Avenue and Cliff Street, north-south roadways, provide direct access to the project site from Dillon Beach.

3.2 HISTORY OF THE PROJECT

The Lawson's Landing property was acquired by the Merle and Walter Lawson families in the late 1920s. Ownership of the property has since passed to subsequent generations of the Lawson families. Currently, the families of Carl Vogler and Michael Lawson own and manage the facilities on the Lawson's Landing property.

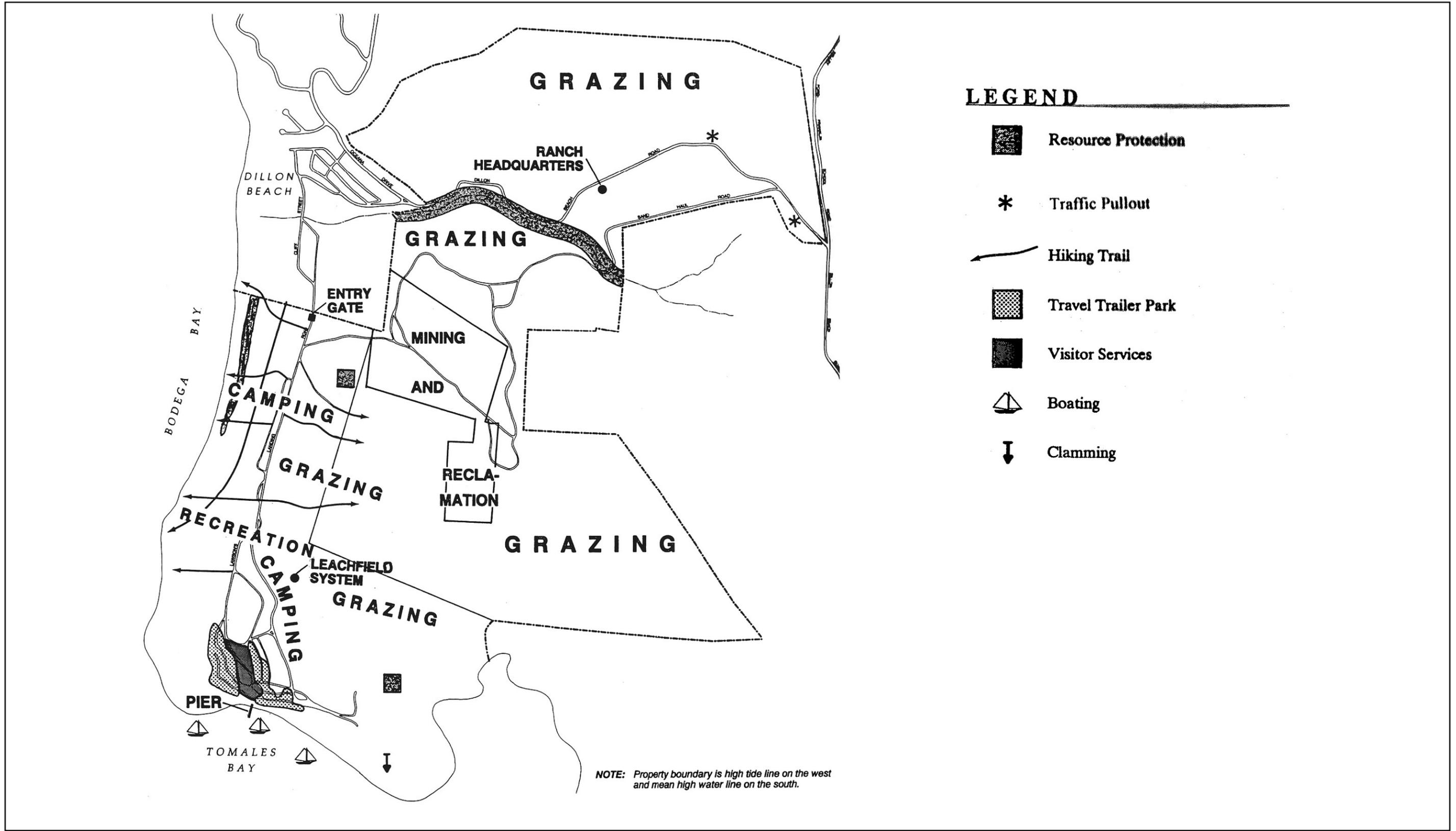
Historical land uses at the project site were primarily associated with agricultural operations. However, recreational activities have taken place on portions of the property to varying degrees for decades. In the early 1930s a program of sand dune reclamation was initiated by the U.S. Department of Agriculture, Soil Conservation Service, and authorized by Marin County in 1971. In the 1940s, public access to the property and recreational activities including fishing, camping, and boating increased in intensity. In the mid-1950s, approximately 15 travel trailers (motorized recreational vehicles [RVs], and towable RVs), were brought to the Sand Point area, the southern tip of the Lawson's Landing property. Additional trailers were brought to Sand Point in the early-1960s. Up to that point, trailer use was regulated by the California State Department of Housing and Community Development.

3.2.1 HISTORY OF MARIN COUNTY REVIEW OF LAWSON'S LANDING PLANS

In 1966, the County of Marin assumed jurisdiction over the trailers. The County inspected the trailers and informed the Lawson's Landing property owners that there were several zoning and permitting violations. The County directed the property owners to take measures to correct these deficiencies. In response, the property owners submitted a master plan and zoning amendment to the County in early 1968 to bring the trailers into compliance with local land use and zoning regulations. Review of the master plan and zoning amendment application was delayed because of needed revisions to the proposed sewage disposal plan and resolution of existing agricultural preserve contracts.

In 1970, revised plans for the master plan and zoning amendment application were submitted to the County. These revised plans responded to the County's previous concerns regarding the sewage disposal plan and agricultural contracts. After staff review of the revised plans, the County Planning Commission approved the zoning amendment change to a Resort and Commercial Recreation zoning designation, and conditionally approved the master plan. The property owners appealed the conditions of approval placed on the project to the County Board of Supervisors. The Board of Supervisors upheld the Planning Commission's conditions of approval, and further required that the project be redesigned to incorporate upgrades in project facilities. However, confusion about the meaning and extent of redesign occurred and the project was again delayed. Regardless, the zoning amendment took effect and became enforceable despite lack of progress in redesigning facilities.

In 1974, a new effort was pursued to develop a master plan that would meet the County's requirements. The project sponsor submitted a new master plan to the County along with an environmental



Source: Shannon & Associates, WESCO

Summary of Master Plan Facilities

reconnaissance report about the project site. Further, the sponsor agreed to prepare an Environmental Impact Report (EIR) on the master plan. The EIR on the 1974 master plan was prepared in September 1976. During the time the EIR was being prepared, the Alquist-Priolo Act was adopted, which required the project sponsor to conduct a fault investigation and seismic study before the approval of the master plan. The fault investigation and seismic study was completed in 1979. During this time, the County was evaluating the level of development that should be allowed at Lawson's Landing through their Local Coastal Plan (LCP) development process. In response to the County's development of the LCP, the property owners withdrew their master plan until the County's development direction at Lawson's Landing was understood. The LCP was adopted by the County in 1980. In early 1988, the County initiated the preparation of the Dillon Beach Community Plan, which included Lawson's Landing. In November 1988, the Dillon Beach Community Plan was adopted by the County Board of Supervisors.

With the County's overview of land development in Lawson's Landing outlined in the LCP and the Dillon Beach Community Plan, the project sponsor submitted a new master plan to the County in February 1991. This master plan application was determined to be incomplete by the County for various reasons including lack of detail in plan drawings, lack of biological review, no feasibility study for the proposed sewer system, and lack of traffic analysis. Several studies were prepared for the project and submitted to the County for its review. In December 1997, a revised Master Plan, Coastal Permit, and Tidelands Permit application was submitted to the County. The 1997 application is the subject of this EIR. This application proposed the authorization of the existing trailer park (233 spaces), day-use activities (200 day users), and campground (1,000 campsites), and upgrades to public services including fire protection, water storage, and sewage management. After response to County concerns, the application was deemed complete for purposes of initiating environmental review on May 27, 1998.

In October 2000, an Initial Study (IS) on the proposed master plan application was prepared. The IS was circulated to public agencies and the public for a 30-day comment period. Several public agencies and community members commented on the proposed master plan. The project sponsor, in consultation with the County, agreed to prepare an EIR on the master plan to appropriately respond to comments received on the project. EDAW, Inc. was brought under contract to the County to begin the EIR preparation in 2002. This document is the EIR prepared as a result of the agreement.

Since October 2000, studies prepared by Questa Engineering on behalf of the project sponsor for the design of the proposed onsite wastewater treatment system have undergone peer review to determine their adequacy in depicting project conditions and reflecting the feasibility of proposed facility designs to meet County and State standards for treating wastewater at the site. These studies were peer reviewed by Psomas Engineering, under contract to EDAW, Inc. During the peer review process, the project sponsor's engineering consultants were asked for additional information on the design of the proposed wastewater system, resulting in delays in the EIR process. In September 2004, the project sponsor's engineering consultant provided a final response to the peer review. In October 2004, Psomas determined that the information provided by the project sponsor was adequate from the design standpoint, and preparation of the Draft EIR was re-initiated.

This EIR evaluates the environmental impacts associated with implementation of the projects included in the Master Plan, Coastal Permit, and Tidelands Permit applications for Lawson's Landing submitted in December 1997.

3.2.2 HISTORY OF RECREATIONAL ACTIVITIES AND THE TRAILER PARK

Ranching and limited recreational activities were present on the project site when it was acquired by the Lawson family in the early 1920s. Lawson Landing recreation operations began in ~~1937~~ [the early 1900's](#) with the construction of a boathouse and wharf in the Sand Point area of the property. Fishing and

clamming were the primary recreational activities that occurred during this time. In the 1940s, informal campsites were established along the meadow area in the western portion of the property, and public uses of the property for recreational activities increased between the early 1940s and mid-1950s. In 1955 the Lawson's purchased a 35-passenger boat to transport visitors to clam beds located offshore in Tomales Bay. Additionally, the boathouse rented seven small dinghies for day use in Tomales Bay. In 1957, the Lawson's opened Lawson's Landing, a fisherman's retreat on the northern edge of Tomales Bay. The fishing retreat increased in popularity during the late 1950s and early 1960s.

In the 1950s, the public began to bring recreation trailers to Lawson's Landing, so that they could enjoy the comfort of a home setting while participating in recreational activities such as beachcombing, clam digging, camping, and fishing. Several of these trailers remained at the project site on a permanent basis. The Lawson family realized that there was demand for the development of a recreational trailer park where families could leave their trailers year-round. In response, the Lawson's established a trailer park in the Sand Point area of the property in the early-1960s. In 1962, the State Division of Housing inspected the project site and advised the property owners that they must secure a permit to operate a trailer park. In 1963, the property owners initiated development of an operating plan for the trailers to secure the necessary State permits. In 1965, the State Division of Housing transferred jurisdiction over the trailer park to Marin County. This transfer of jurisdiction triggered the County's master planning process (discussed above) for Lawson's Landing. In 1991, the State Department of Housing and Community Development (formerly the State Department of Housing) informed the County and the property owners that the Department had resumed responsibility over the trailer park as required by the Mobile Home Parks Act adopted in 1990. The State also informed the county and the property owners that a permit to operate was required for the trailer park. In December 1992, the State Department of Housing and Community Development issued a Permit to Operate for Lawson's Landing for a trailer park with a maximum of 233 spaces and 1,000 campsites.

In the mid-1960s a 50-person clam barge was used in conjunction with the 35-person passenger boat to transport visitors to clamming areas during low spring tides; however, operations of these vessels have since ceased. During the late-1960s to mid-1970s, activities at the boathouse and wharf expanded. Through the late-1970s to present day, visitor use at Lawson's Landing has substantially increased. Visitors today continue to enjoy the numerous recreational activities present at the project site, including boating, clamming, camping, hiking, and beachcombing.

3.3 ENVIRONMENTAL BASELINE

3.3.1 CEQA GUIDANCE ON DEFINING THE ENVIRONMENTAL BASELINE

Section 15125 of the State CEQA Guidelines states that an "EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." Existing land uses at Lawson's Landing need special consideration in defining the environmental baseline (against which environmental effects will be compared), because some of these uses have been authorized by the County (i.e., snack bar, sand quarry), some uses are legal non-conforming uses, and some uses are seeking County land use authorization under the master plan.

The project sponsor and the County have been involved in a long and complex process to develop a master plan and grant the necessary use permits for activities at Lawson's Landing. Some land uses (i.e., ranching and agricultural operations, sand quarrying, residential) are permitted uses under relevant zoning. However, other land uses, such as a trailer park (233 spaces) and recreational day-use (200 day users), are not uses that have been authorized by the County. The State Department of Housing and

Community Development issued a Permit to Operate a trailer park (233 spaces) for Lawson's Landing in December 1992 without objection by the County. The County, in its letter to the State, indicated that it did not object to the issuance of a permit to operate before resolution of all local land use issues and approval of all local permits (Powell 2002).

The proposed master plan for Lawson's Landing (the subject of this EIR) seeks to acquire County approval and regulation of the 233-space trailer park, 1,000 campsites, and recreational day-use activities (200 day users). Some portions of these uses have, however, existed before the County required any zoning or other land use permits, and, therefore, are treated as legal non-conforming uses under the County's zoning code. As a legal non-conforming use, they are allowed by the County to continue operation as a ministerial matter. Those land uses that are currently permitted under the existing zoning code (i.e., agricultural, residential, and sand quarrying) are referred to as legal uses. These uses would continue operation under separate entitlements in the absence of an approved master plan. One question at hand is what uses, and levels of those uses at Lawson's Landing qualify as a legal non-conforming based on historical operations. The County and project sponsor recognize that it would be very difficult and labor-intensive to try to determine which uses are legal non-conforming and which uses are illegal at this point in time. To do so would require detailed accountings of historical activities at the time the property was acquired, through its development history, and since the County assumed various levels of jurisdiction over land uses at Lawson's Landing from the 1960s onward. This information is difficult to acquire. Consequently, the goal of the current application is to resolve authorization of uses through a master plan approval and associated permits.

In 2000, Marin County prepared an Initial Study for the project. In determining the environmental impacts that would result from implementation of the Master Plan, the County made a determination of the land uses and activities that would be considered part of the environmental baseline and those proposed land uses and activities that would be considered "new" and additive to baseline conditions. Environmental impacts were then determined based on the change from baseline conditions. The Initial Study was circulated to public agencies and the public for a 30-day review period. During the public comment period on the IS, several commenters questioned the County's inclusion of the trailer park (233-spaces) in the baseline, because it was not authorized by the County (although it was authorized by the State) and had not undergone environmental review. The project applicants also questioned why day-use activities (200 day users) were not included within the environmental baseline because these activities have occurred at the site for many years (Appendix C). In preparing this EIR and evaluating whether it was appropriate to include the trailer park and day use activities in the existing setting, the County sought a legal opinion from Remy, Thomas, Moose, Manly, LLP (RTMM) regarding the appropriate definition of a project's environmental baseline. In a limited opinion, RTMM referred the County to relevant case law which gave guidance regarding determination of the appropriate baseline for EIRs (Appendix C). There are four relevant cases that address the determination of the appropriate baseline:

1. Lewis v. Seventeenth District Agricultural Association
2. Bloom v. McGurk
3. Riverwatch v. County of San Diego
4. Fat v. County of Sacramento

In *Lewis v Seventeenth District Agricultural Association* (1985), the court determined that "the conditions of the environment that preceded the project [were] the baseline against which to measure the adverse environmental change." (Lewis, supra, 165 Cal.App.3d at pp. 828-829.) In the case of this EIR, existing conditions at Lawson's Landing would include the 1,000 campsites, 233 spaces for trailers, and existing levels of day-use. Later decisions have cited Lewis regarding the proposition that "for purposes of the categorical exemptions, 'change' in the environment meant change after 1970, when CEQA was enacted." (*Bloom v. McGurk* (1994) 26 Cal.App.4th 1,307, 1,313; *Fat, supra*, 97 Cal.App.4th at p. 1,279)

However, in *Bloom v. McGurk* (1994) the court disagreed with Lewis and held that “[f]or purposes of the exception to the categorical exemptions, ‘significant effect on the environment’ would mean a change in the environment at the time of the agency’s determination, rather than a change in the environment that existed when CEQA was enacted.”

The above cases highlighted a trend in defining the baseline against which change in the environment is compared. A change caused by a project is compared to the environment that exists at the time of the agency’s determination to prepare an environmental document or grant an exemption. However, the baseline question remained for cases that involved prior misuse or illegal activities. As described above, the County and the project sponsor could not determine which levels of what uses at Lawson’s Landing were legal non-conforming or were not legal. As such, the project applicants and the County agreed to prepare the Lawson’s Landing Master Plan to resolve questions on authorized uses.

One case that addressed how prior unauthorized activities are considered in baseline definitions is *Riverwatch v County of San Diego* (1999). In this case, an EIR was challenged on the fact that it “did not account for the potential resource value of the area that would have existed if it were not for the unauthorized discing of the area by the applicant.” The courts determined that “an EIR is not the appropriate forum for determining the nature and consequences of prior conduct of a project applicant,” and that the County (in this case) was not required to develop a baseline that accounts for alleged prior misuse. The *Riverwatch* case, therefore, stands for the proposition that EIRs should not be used to enforce prior illegal activities, and that CEQA does not require any further accounting for prior activities. To do so would merely amplify an existing conflict and necessary enforcement action. In the case of Lawson’s Landing, the current levels of uses not currently authorized by the County (i.e., 1,000 campsites, 233 spaces for trailers, and existing day-use levels) and County-authorized uses (i.e., residential, agriculture, sand quarrying) would be considered the baseline condition against which the project’s impacts would be compared.

In *Fat v. County of Sacramento* (2001) the court found that an agency has discretion to include illegal nonconforming uses in the baseline, even if those uses have never received environmental review. This is further support that the environmental baseline for the Lawson’s Landing project should include all uses at levels that exist on the property at the time the NOP is published.

3.3.2 ENVIRONMENTAL BASELINE USED IN THE EIR

In review of relevant case law and available information on land uses at Lawson’s Landing, the County has determined that all uses on the project site with use levels at the time the Notice of Preparation (NOP) for the EIR was published (September 2002) shall be included in the definition of baseline conditions and, as such would be the starting point for environmental review. In evaluating the environmental changes that would result from the project and the significance of those changes, the project would be compared to baseline environmental conditions and the difference between baseline conditions with the project would be the resulting impact.

As discussed in Section 4, Environmental Setting, Impacts, Cumulative Impacts, and Mitigation, the existing facilities and uses onsite involve some existing adverse baseline conditions or impacts. While these conditions are considered part of the baseline environmental setting for this EIR and are not of themselves, evaluated as significant project impacts, they are considered in the context of existing or past projects for purposes of evaluating whether incremental onsite cumulative impacts of the project as proposed are cumulatively considerable. The proposed project impacts when considered in conjunction with existing project conditions, are in some cases found to result in cumulatively considerable impacts. The EIR has determined that the project, with mitigation proposed in the EIR, would not result in any significant direct project impacts, but would result in unavoidable incremental cumulative impacts in conjunction with existing baseline conditions.

Facilities, uses, and activities assumed to be part of baseline conditions include seven existing residences authorized by Marin County, existing agricultural activities authorized as a permitted use by the County, existing sand quarrying activities authorized through use permit, and some existing recreational facilities authorized in Lawson's Landing current Permit to Operate from the California Department of Housing and Community Development as described in greater detail below. The current Permit to Operate authorizes 233 recreational vehicle lots and 1,000 campsites.

Existing recreational activities at the project site include camping in the main meadow area, day-use activities (e.g., parking in meadow area, hiking), boating (e.g., boathouse, office, shops, boat storage, restrooms, laundry), and recreational vehicle activities (233 travel trailers/recreational vehicles). The focus of recreational activities is in the meadow area where informal camping occurs most of the year. Camping occurs on a first-come, first-serve basis and is currently limited to 1,000 vehicles (campsites) per day. Lawson's Landing also limits day-use vehicles to 200, which is not included in the camping vehicle limit. In addition, a recreational vehicle park that houses 233 travel trailers year round permitted by the California Department of Housing and Community Development is located at Sand Point.

Livestock grazing encompass the majority of Lawson's Landing site (889 acres) within several ranching pastures. Sheep grazing occurs in the northern pastures and cattle grazing occurs in all pastures but tend to congregate in the wetland/meadow area near Sand Point.

Sand quarrying has been occurring at Lawson's Landing since 1971. Sand quarrying activities currently occur in the interior dunes at two locations in the central portion of the project site. Sand quarrying involves scooping blown sand into transfer trucks and transfer trailers to be hauled offsite. Sand quarrying activities occur intermittently depending on demand. The approved reclamation plan for the quarry operation requires alternating quarry activities at the two approved sites to allow blown sand to replenish both sites.

Residential uses include existing three houses and seven mobile homes which are occupied by owners or staff of Lawson's Landing.

3.4 SITE CHARACTERISTICS

3.4.1 EXISTING PROJECT SITE USES INCLUDED IN THE BASELINE

The project site supports mixed agricultural, quarrying, residential, and recreational uses. The majority of the project site is used for agricultural purposes (grazing), with residential, recreational, and sand quarrying uses on limited portions of the property (Exhibit 3-4). The following provides additional detail of existing land uses and activities on the project site.

RECREATIONAL USE

The recreation use area consists of approximately 180 acres in the southwestern portion of the project site, locally known as Sand Point (Exhibit 3-4). The recreation use area is occupied by informal campsites; 233-space trailer park; a boathouse with snack bar and shop; a boat mooring area with 35 anchored buoys boat slips, and a trailer sewage disposal station; 10-stall restroom facility near the boathouse; boat yard with 18 boat slips; laundromat facility; and a 221-foot long pier that extends from the shoreline in Sand Point into Tomales Bay. A total of 20 full-time and 15 part-time staff are employed to support recreational uses at the project site.

Camping

Camping occurs along the main meadow area, which extends from the entry gate house along Lawson's Landing Road to the Sand Point area of the property. Lawson's Landing accepts reservations for camping, but limits camping onsite to 1,000 vehicles per day. Restroom facilities are provided in the main meadow area to accommodate campers and day-use visitors. A total of five concrete-block restrooms are located in the meadow and Sand Point area. Each restroom is connected to its own septic system. A total of 38 portable toilets supplement stationary restroom facilities. The restroom facilities are typically concentrated in areas of high recreational use. Camping areas are highlighted in Exhibit 3-3.

Visitors to Lawson's Landing campgrounds are issued a pass at the gate house on Lawson's Landing Road. All camping vehicles must have a pass displayed in their windshield during the duration of their stay. Staff at Lawson's Landing regularly patrol the property to confirm that vehicles have appropriate camping passes.

Day Use

The project sponsor currently limits the number of day-use vehicles on the project site to 200 vehicles per day. These vehicles are in addition to the 1,000 vehicles allowed onsite for overnight camping. The draft EIR assumes that 200 day users are part of baseline environmental conditions. The day-use vehicles typically park in the meadow area or in parking spaces in the Sand Point area. They typically carry passengers who would participate in recreational activities, such as beachcombing, clamming, boating, or hiking. The project sponsor charges \$5.00 per vehicle per day and collects this fee at the gate house on Lawson's Landing Road. The day-use visitors receive a parking pass, which is to be displayed in the vehicle windshield for the duration of their stay.

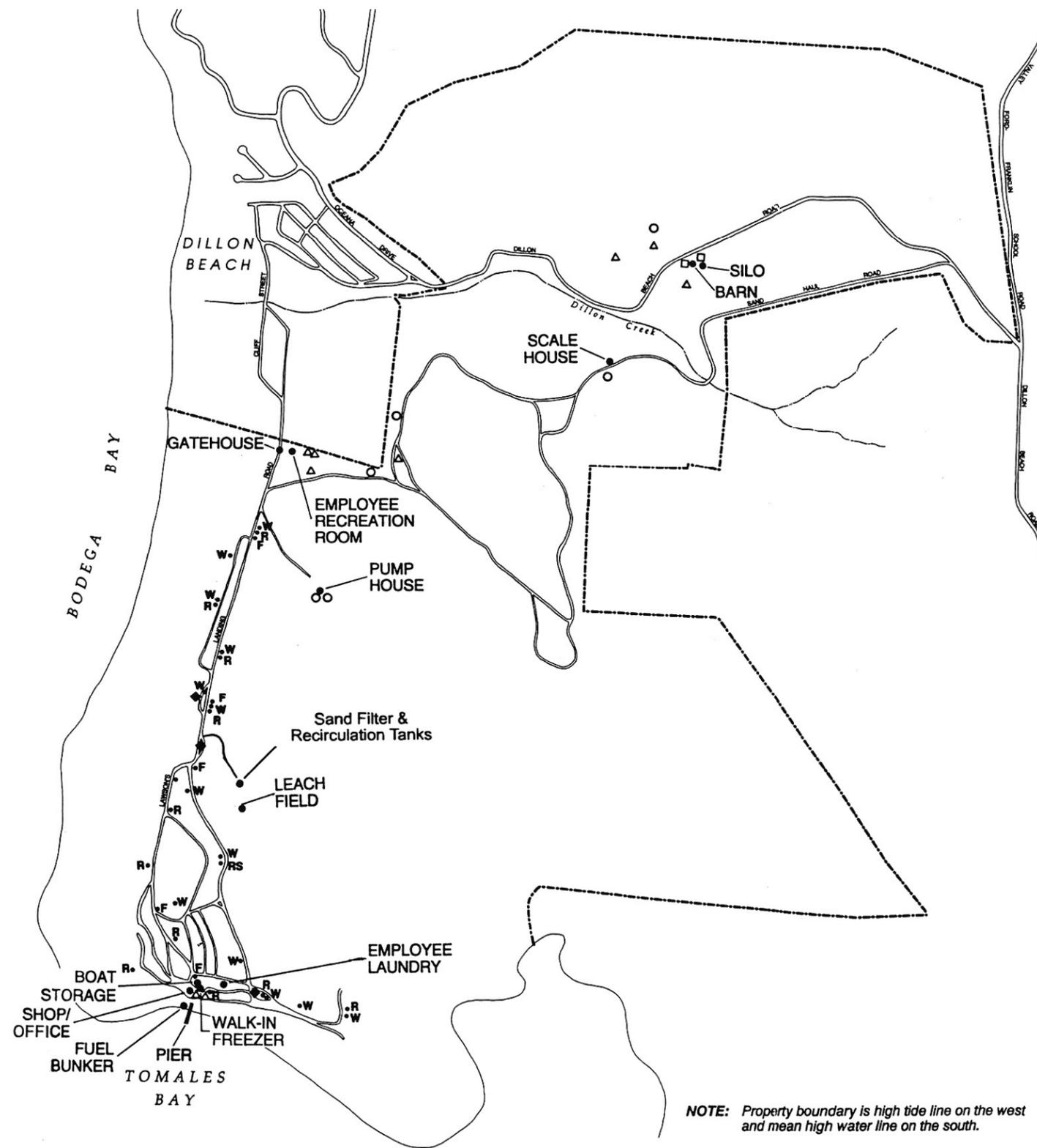
Residents of Dillon Beach and visitors who do not drive into Lawson's Landing can also access recreational opportunities at the project site by walking or bicycling onto the property. There are two access points for visitors to Lawson's Landing: along the beach and Lawson's Landing Road, which is open to pedestrians, bicyclists, and automobiles and located 600 feet east of the high tide line (Exhibit 3-5). Currently, pedestrians are not charged an access fee to the property. Data on the number of pedestrians or bicyclists accessing the site on daily basis is not available.

Boating/Pier Facilities

Fishing and clamming are the primary water-dependent recreation attractions at the project site. Boat rentals and a launching area into Tomales Bay are available from the beach in the southwestern portion of the site (Exhibit 3-4). The project sponsor has a maximum 12 boats available for rental to the public and averages rental of one to two boats per day.

Day-use visitors can also haul their private boat to the project site and launch their vessel into Tomales Bay from the launching ramp on the beach near the pier in Sand Point. Boats are launched at the site by tractor trailer for a nominal fee. Private boats are launched from the project site approximately 2,200 times each year (Shannon and Associates 1997).

Boat mooring in Tomales Bay, east of the pier, is provided as weather conditions permit. Currently, 35 anchored buoys are provided to moor boats from June through September. On average, 16 boats are moored on a monthly basis.



LEGEND

- Facility/Service
- △ Equipment/Maintenance Shed
- Work Shop
- Water Tank
- ◆ Dump Station
- R Restroom
- RS Restroom/Shower
- W Water Faucet
- F Fire Hydrant

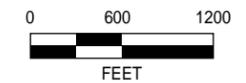
NOTE: Property boundary is high tide line on the west and mean high water line on the south.

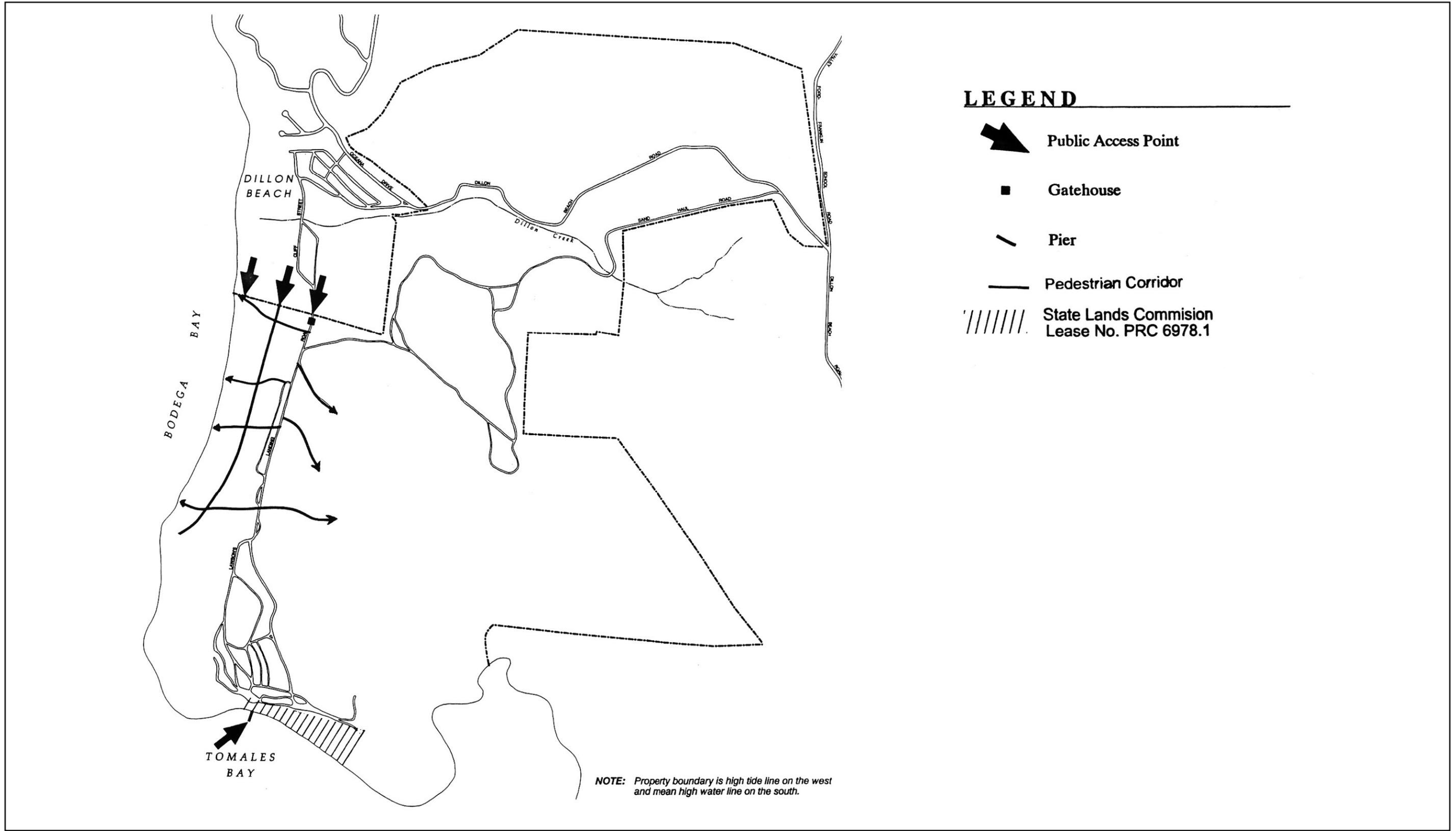
Source: Shannon & Associates, WESCO

Project Site Facilities and Services in the Master Plan

EXHIBIT 3-4

Lawson's Landing Master Plan Draft EIR
P 02110069.01 10/04





Source: Shannon & Associates, WESCO

Public Access Features of the Master Plan

The existing boathouse sells fishing licenses, tackle, weights, bait, gas, oil, ice, and firewood. Boat and engine repair and sales occur in the garage east of the boathouse. These businesses are currently permitted by the County.

There is an approximately 2-acre boat storage yard north of the boathouse and garage. The boat storage yard can accommodate 21 boats, but typically, no more than 18 boats are stored in the yard on a monthly basis.

Recreational Vehicle Lots

Currently, the State permit authorizes 233 travel trailers/recreational vehicles to remain year-round at the site (i.e., the trailers are not removed from the spaces for use elsewhere). These trailers/recreational vehicles are privately owned and rent spaces from Lawson's Landing. The project sponsor estimated that on average 10% (approximately 24 trailers) of the trailers are used for weekend rentals over the course of a year. On high-occupancy weekends (i.e., holiday weekends), up to 50% (117 trailers) of the facilities are occupied. For most of the year, a majority of the trailers/recreational vehicles are unoccupied. Approximately 19 trailers are occupied by permanent residents. Vehicles of residents who occupy onsite travel trailers/recreational vehicles are in addition to the 1,000 camping vehicles and 200 day-use vehicles.

LIVESTOCK GRAZING

Lawson's Livestock is a ranching operation that operates out of the barn complex located on the south side of Dillon Beach Road just east of the Dillon Beach Community (Exhibit 3-6). The project site is subdivided into several ranching pastures (North Ranch Pasture, North Ranch Hayfield, Scale House Field Pasture, Scale House Hayfield, Barn Field, and South Ranch Pasture). The North Ranch Pasture consists of 163 acres, which is subdivided into three smaller pastures (Sugarloaf, Middle, and Schoolhouse), located in the northern portion of the project site. The North Ranch Hayfield is approximately 20-acres and is located in between the Middle pasture and Schoolhouse Pasture. Dillon Beach Road forms the southern boundary of the North Ranch pastures.

South of Dillon Beach Road is the Scale House Field Pasture and Hayfield. The Scale House Pasture is approximately 349-acres and is subdivided into three smaller pastures (West, Middle, and East). The Scale House Hayfield is approximately 20-acres and is located at the southern edge of the Scale House Field West Pasture.

The Barn Field is located adjacent and south of Dillon Beach Road, immediately adjacent and east of the existing residences. The barn field is used as a holding area for critical animals and for grazing when critical animals are not in the field.

The South Ranch is approximately 221 acres and is located in the southern portion of the project site east of the meadow areas and Sand Point.

Cattle and sheep are grazed on approximately 849 acres of the project site. The project site typically supports 100 cattle and ~~680~~ 350 sheep. Sheep grazing is limited to the Northern and Scale House pastures, while cattle grazing occurs in all pastures. Cattle tend to congregate in the south corner of the South Ranch near Sand Point, which is a large wetland/meadow area. This area is also where most of the calving occurs during the calving season (end of August to the first of February). In general, the cattle and sheep are rotated among the pastures. The rotation schedule depends on the time of season, amount of rainfall, growth and health of the grass, nutritional value of the grass, number of head in the cattle and sheep herds, and the period of gestation and lactation of the brood animals. In general, individual pastures are grazed for approximately 6 to 8 months of the year.

There are several existing structures associated with agricultural operations including: the ranch residence at 4000 Dillon Beach Road, one 5,400 square-foot barn, one 1,200 square-foot farm equipment shed, one

360 square-foot ranch garage, one 150 square-foot farm shed, ~~35,000-gallon water tank~~, 400 square-foot stall shed, two 25,380-gallon empty silos that were used to store silage, and an 840 square-foot ranch shop. Several water troughs and ~~Crystalyx~~RYSTALYX barrels ~~crystal lyxs~~ (supplemental feed) are located throughout the pasture areas. In addition, there are six water storage tanks located on the project site with a total capacity of 35,000-gallons (see Exhibit 3-4).

SAND QUARRYING

Varying levels of sand quarrying have occurred in the interior dunes of the project site since the 1930s. At present there are two active sand quarry locations on the site. A 23.3-acre area of the project site is quarried just north of Little Sargarloaf Peak in the central portion of the project site. An additional 15.7-acre portion of the project site is quarried just south of the 23.3-acre area (Exhibit 3-7).

The County-approved reclamation plan for the quarry operations includes alternate quarrying at the two approved sites. Sand is naturally transported inland to the quarry sites from the shoreline via the prevailing northwesterly winds. The leeward (side facing the wind) sides of the sand dunes are quarried, as this is where windblown sands are re-deposited. These sand dunes are considered a migrating dune system as little or no vegetation has established itself in the dune system to stabilize the sands.

A private unpaved road, Sand Haul Road, provides access to the quarry sites from Dillon Beach Road just south of Franklin School Road (Exhibit 3-8). Wheel loaders scoop blown sand into transfer trucks and transfer trailers. The sand is then hauled to offsite locations. Quarrying operations are intermittent, depending on demand. Sand is hauled on a per-job basis with the truck and trailers able to haul 25 tons per load. Approximately 60,000 tons (2,400 truck trips) of sand are hauled offsite annually. The current County use permit conditions limit the quarry to a maximum of 60,000 tons per year. The loaders are stored in a tractor shed near the agricultural mobile home, and the trucks and trailers are stored in a truck shed near the gate house on Lawson's Landing Road.

RESIDENTIAL USE

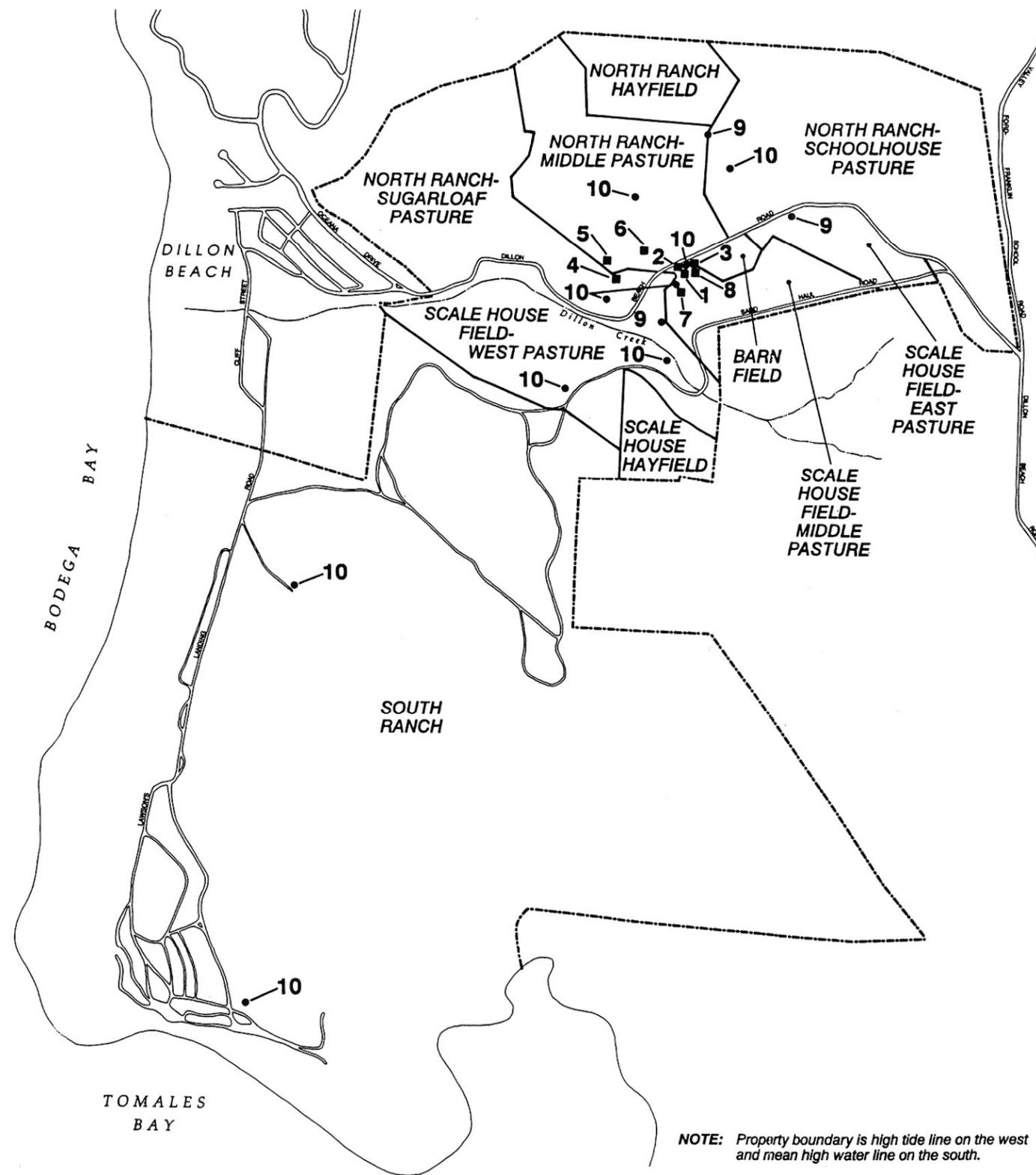
There are currently three houses and seven mobile homes located on the project site (in addition to the 233-space trailer park). These residences are occupied by owners or staff of Lawson's Landing. Three of the mobile homes are located in the Sand Point area of the project site. Two mobile homes and a house are located near the gate house, one mobile home is located on Sand Haul Road, and two houses (one being the agricultural residence discussed above) and a mobile home are located along Dillon Beach Road.

OTHER STRUCTURES

The project site also supports several other structures. A four-car garage and wood storage shed are located at the entry gate. This garage is used for employee vehicles. An equipment shed is located on Sand Haul Road and a freezer room and loader garage is located at the dock. A five-car garage is located near the mobile homes at Sand Point.

3.5 PROJECT OBJECTIVES

A statement of the project objectives is required by State CEQA Guidelines Section 15124. The objectives of the project sponsor reflect the aspirations of the applicant to continue existing onsite residential and recreational facilities at Lawson's Landing. The project sponsor has identified objectives for individual categories of uses at Lawson's Landing. Specifically the sponsor's objectives are as follows:



LEGEND

- 1** Barn
- 2** Ranch Garage
- 3** Ranch Shop
- 4** Ranch Residence
- 5** Farm Equipment Shed
- 6** Farm Shed
- 7** Stall Shed
- 8** Silo (2)
- 9** Crystal Lyxs
- 10** Water Trough

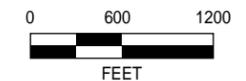
NOTE: Property boundary is high tide line on the west and mean high water line on the south.

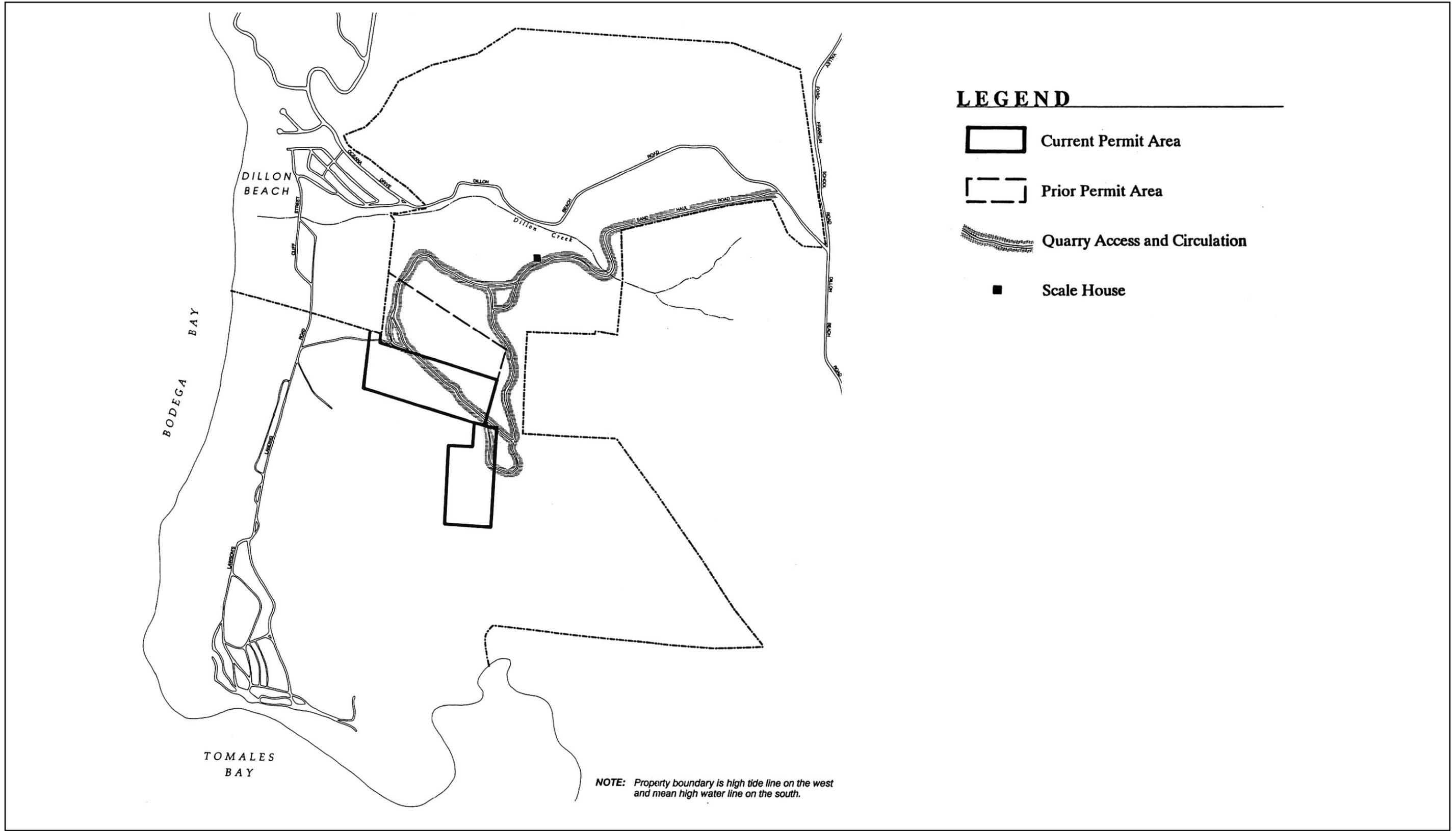
Source: Shannon & Associates, WESCO

Existing Ranching Operations

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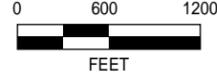
EXHIBIT 3-6

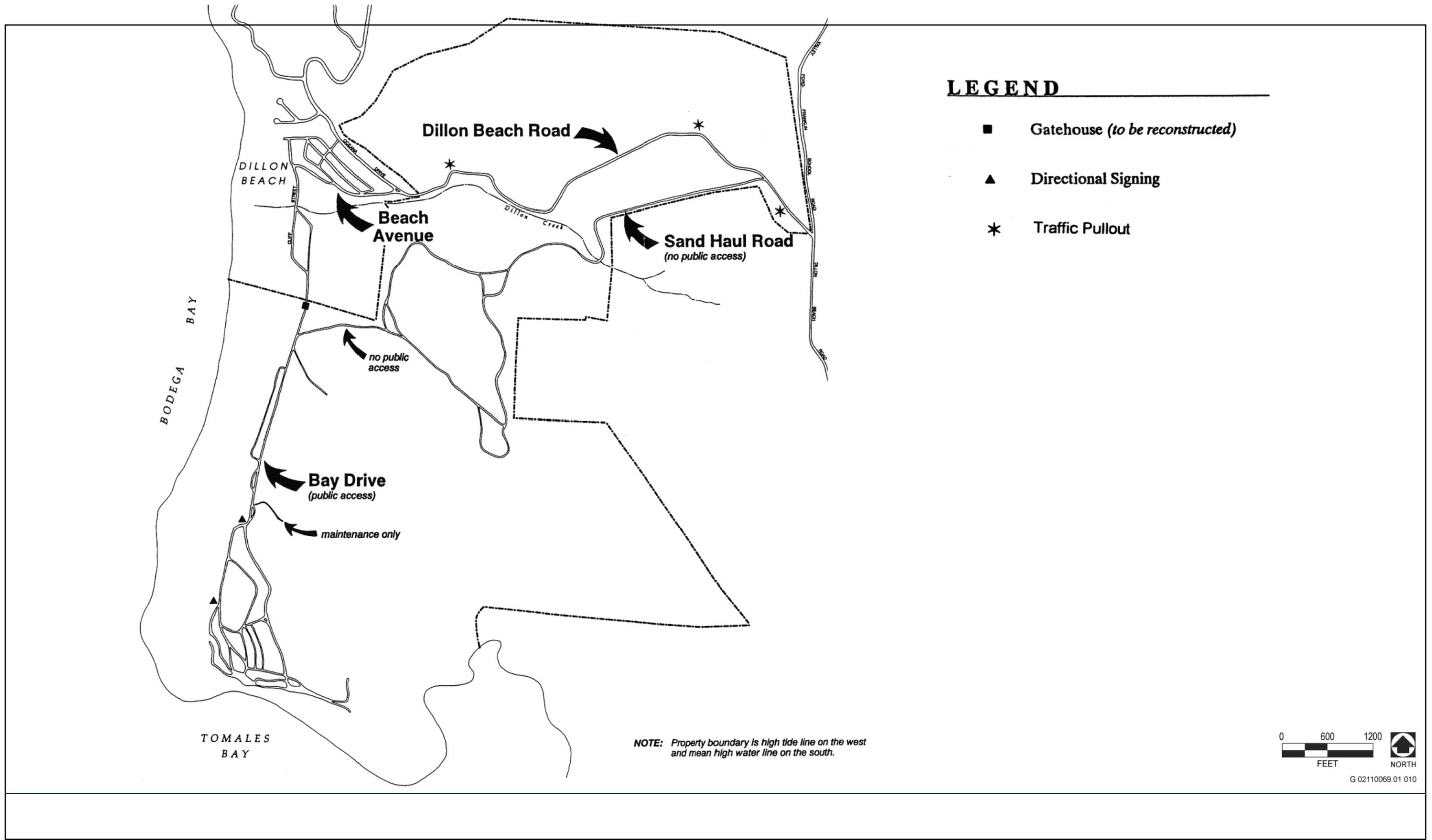




Source: Shannon & Associates, WESCO

Existing Sand Quarrying Operations





Source: Shannon & Associates, WESCO

Onsite Traffic Circulation in the Master Plan

Environmental Protection

- ▶ Implement an environmental education program to foster land stewardship ethic in visitors to Lawson's Landing.
- ▶ Protect the natural environment of the property while continuing the existing agricultural, mining/quarrying, and recreational uses.

Recreational Land Use

- ▶ Provide a high quality recreational experience in this unique coastal environment near the mouth of Tomales Bay.
- ▶ Continue to offer active and passive recreational activities such as boating, hiking, camping, beach combing, clamming, hang gliding, fishing and bird watching.
- ▶ Make various improvements to the recreational facilities to improve the coastal experience for all visitors.
- ▶ Install a waste treatment system that will accommodate the existing level of use including high volume stormy periods.
- ▶ Continue to provide low-cost coastal access to the public for day-use or overnight.
- ▶ Continue to operate Lawson's Landing as a family-owned and operated business on family-owned land.

Financial Feasibility

- ▶ Continue to operate an economically viable coastal resort without significantly increasing day-use or overnight camping fees.

Employment

- ▶ Continue to employ the owner/operators and their families as well as local residents.

Housing

- ▶ Continue to provide housing for the owner/operators of Lawson's Landing.
- ▶ Continue to provide affordable housing for some Lawson's Landing employees.

Agricultural and Sand Quarrying Activities

- ▶ Continue existing agricultural activities authorized under existing, separate permits and entitlements.
- ▶ Continue sand quarrying activities authorized under existing separate permits and entitlements.

3.6 PROJECT CHARACTERISTICS

Bill and Nancy Vogler, the project sponsors, have submitted an application to the County of Marin for the land use approvals necessary to implement the Lawson's Landing Master Plan project. The application provides a detailed description of the project. The characteristics of the project are summarized below.

3.6.1 PHYSICAL CHARACTERISTICS

The project involves continuation of existing recreation, agriculture, residential, and quarry uses at the project site. The project sponsor proposes the construction of new recreation and wastewater treatment facilities; the continuation of existing, and the introduction of new, environmental monitoring programs; the merger of numerous parcels in the meadow area of the project site; and the implementation of passive and active education programs designed to inform the public of the unique environmental qualities of the project site (Exhibit 3-9).

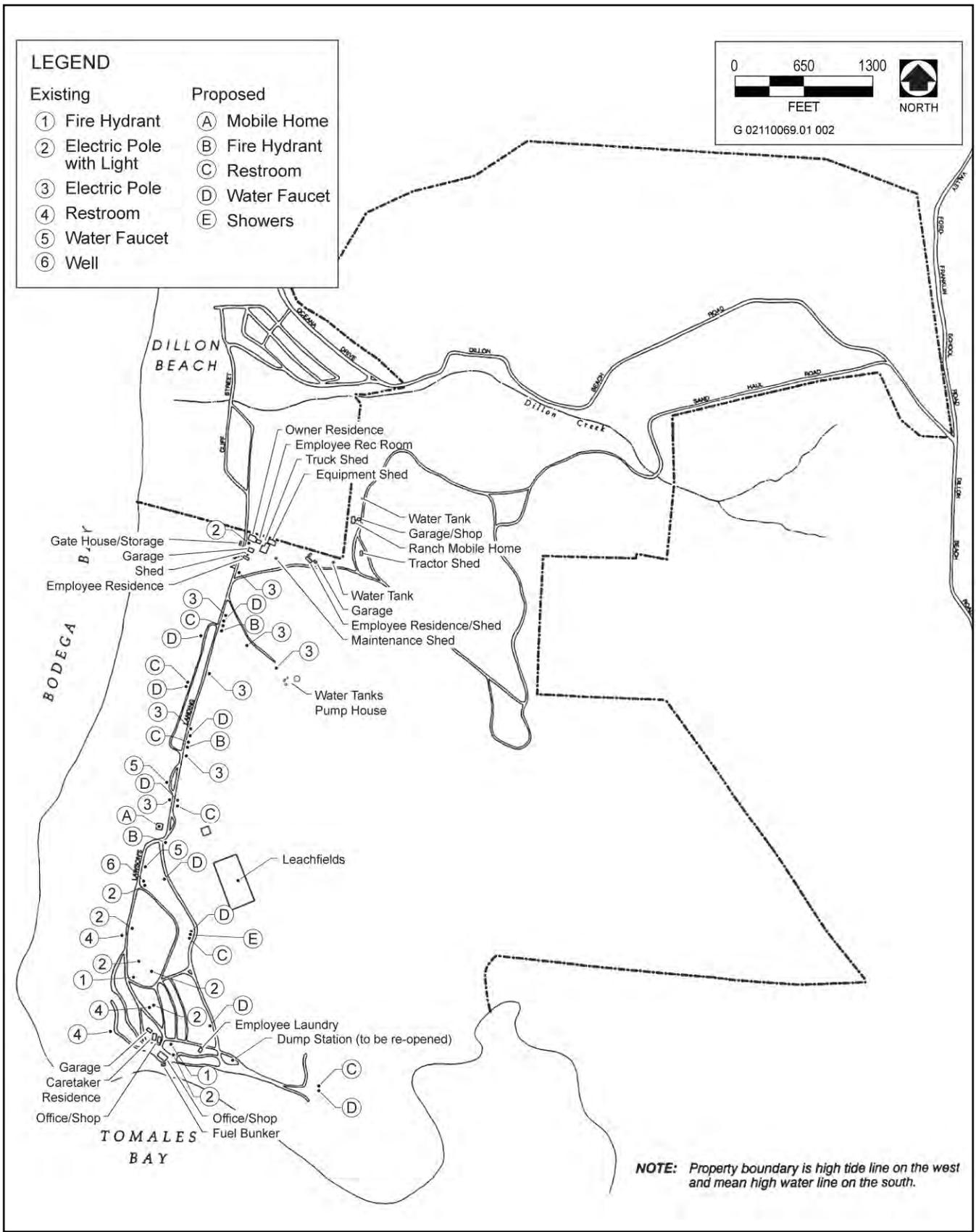
RECREATIONAL USE

There are no changes proposed to the level of existing recreational activities offered at the project site, because the existing number of trailer spaces, campsites, and day-use vehicles allowed on the property would not be altered. New facilities proposed to serve visitors and customers would provide more comfort to visitors and are intended to improve environmental conditions at the project site. Proposed new recreation facilities are listed in Table 3-1 and shown in Exhibit 3-9.

MAIN MEADOW AREA

The master plan includes the construction of additional restroom facilities to better accommodate existing visitor needs. Six concrete-block restroom facilities (approximately 240 square-feet each) would be located along Lawson’s Landing Road. One new restroom and shower facility (approximately 670 square-feet) would be located in the southern portion of the meadow area on what is commonly called Seawall Road. One existing sewage disposal station would be reopened. This station is located in the central portion of the meadow area along Lawson’s Landing Road.

Table 3-1 Proposed Recreation Facilities		
Facility	Location	Time of Implementation
Six Concrete Block Restrooms (240 square feet each)	Main Meadow and Sand Point	1-7 years
Water Faucets	Main Meadow	1-7 years
Restroom and Shower Facility	Main Meadow	1-7 years
Relocation and Expansion of Existing Boat House	Sand Point	5-10 years
Centralized Boat Storage	Sand Point	5-10 years
Sewage Treatment System and Lines, and Access Road	Sand Point and Dunes	1-5years
Fire Hydrants	Main Meadow	1-5 years
Water Storage Tanks (2)	Main Meadow	1-5 years
Reopening of Sewage Disposal Stations	Main Meadow and Sand Point	[1 year?]
Entrance Gate House	Main Meadow	1-5 years
Site Access Improvements	Main Meadow	1-5 years
Lighting	South Ranch	1-5 years
Signage	Main Meadow and Sand Point	
Road “pullouts”	Dillon Beach Road	
Pedestrian Trail System	Main Meadow	1-2 years
Educational Program	Main Meadow	1 year



Source: Shannon & Associates, WESCO

Proposed Facilities in the Main Meadow

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Approximately nine new water faucets would be located throughout the main meadow area. In general, the water faucets would be located adjacent to restroom facilities. Two new 100,000-gallon water storage tanks would be constructed: one near the existing 35,000-gallon water storage tank in the northeastern area of the main meadow, and the second would be placed near the Scale House. These water storage tanks would provide additional water storage capacity and fire suppression capabilities. Three fire hydrants would be installed along Lawson's Landing Road. These fire hydrants would be connected to the water storage tanks.

The entrance gatehouse would be reconstructed and expanded to approximately 300 square-feet. The entrance to Lawson's Landing would be improved to provide three inbound and one outbound vehicle lanes.

A formal pedestrian trail system would be constructed throughout the foredunes. The trails would be sited so as to protect sensitive resources present on the project site. Informational signage would be located throughout the meadow and Sand Point areas to guide pedestrians and vehicles through Lawson's Landing.

SAND POINT AREA

The master plan includes the relocation and expansion of the existing boathouse facility. The new boathouse facility would be located in the location of the existing boat storage yard and would be approximately 4,800 square-feet with a 100 square-foot viewing platform.

One existing sewage disposal station would be reopened. This station is located in the eastern portion of the Sand Point area. A new septic and leachfield system would be installed in the active dune system northeast of Sand Point to treat wastewater from the trailers, boathouse, concrete-block restrooms, and other visitor services. The system would include septic tanks at individual buildings or clusters of buildings, an effluent collection system, a central treatment plant, and a leachfield system. Primary wastewater treatment would be provided by septic tanks, which would convey treated effluent from the septic tanks to the central treatment plant. The central treatment plant would include a recirculating sand filter. Once filtered (secondary treatment), the secondary effluent would be conveyed to a dual summer-winter leachfield system located in the high dune area in the south-central portion of the site. An unpaved path would be constructed from Lawson's Landing Road to the central treatment plant.

AGRICULTURAL AREAS

Three informal pull-outs along Dillon Beach Road would be improved with implementation of the master plan. These pull-outs would be slightly widened and paved, to allow slower moving vehicles to pull out of the way of faster moving traffic.

The master includes the installation of new lighting in the South Ranch area of the project site. The new lighting sources would include one pole-mounted light adjacent to each of the concrete-block restrooms or attached directly to the restroom facilities. These lights are intended to provide security during nighttime hours.

LIVESTOCK GRAZING

The following new ranching facilities are included in the Master Plan (Exhibit 3-9):

- ▶ a new shop (approximately 1,000 square feet) attached to the existing barn in the Barn Field area;
- ▶ new water troughs and ~~Crystalyx~~RYSTALYX barrels ~~crystal lyxs~~ in the meadow area of South Ranch; and
- ▶ reconstruction of an existing barrier fence along the interior margin of the sand dunes of South Ranch.

The project sponsor proposes to implement an agricultural management program. The program includes the placement of water troughs and ~~CrystalxRYSTALYX barrels~~ ~~crystal lyxs~~ in the meadow area of South Ranch to entice livestock to congregate away from wetland and archaeological sites present on the property. The location of the ~~CrystalxRYSTALYX barrels~~ ~~crystal lyxs~~ would be rotated based on the need for balancing agricultural and wetland management needs. The program also includes the continued monitoring of areas that contain sensitive resources. These areas are fenced to prevent livestock from accessing these resources. Finally, the program would minimize the application of pesticides, herbicides, and fertilizers to the degree feasible.

SAND QUARRYING

No changes to the existing sand quarrying operation or facilities are proposed. The master plan includes a program for the continued monitoring of biological resources present in the sand quarry areas.

RESIDENTIAL USE

One new owner's residence (approximately 2,834 square feet plus an approximate 735 square foot basement/garage) and one new employee mobile home (approximately 1,504 square feet plus an approximate 400 square foot garage) would be constructed on the project site. The owner's residence would be located south of Dillon Beach road in the center of the project site. The mobile home would be located along Lawson's Landing Road (Exhibit 3-10).

PUBLIC ACCESS

A three-foot-wide dirt path would be constructed on the west side of the entry road to separate pedestrians and bicycles from motorized vehicles entering the project site. Several pedestrian routes through the foredunes to the shoreline of the project site would be provided. These paths would be sited so as to avoid and protect sensitive coastal habitats and would rotate in location to avoid excessive erosion of the dunes.

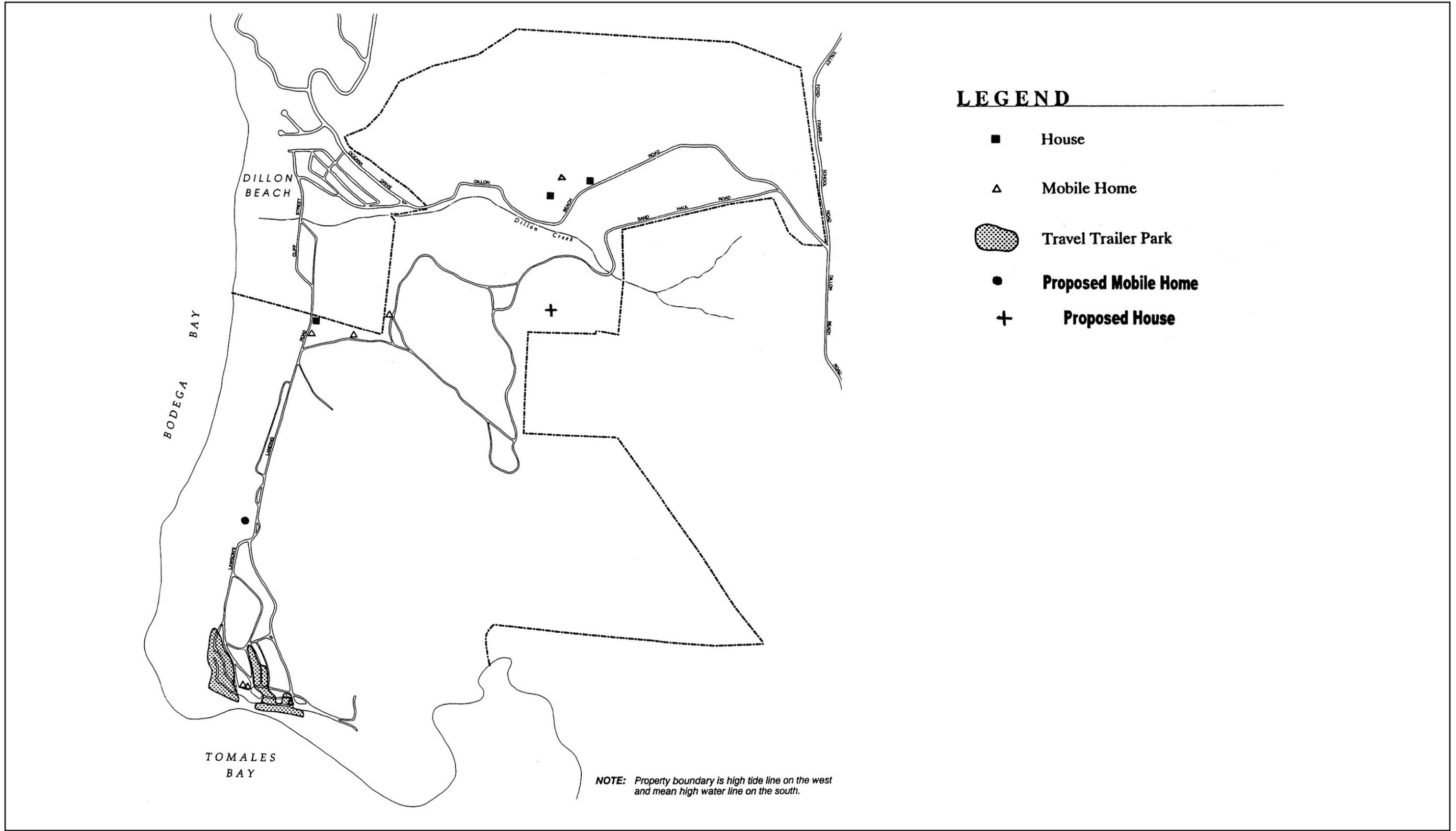
FACILITIES AND SERVICES

Under the master plan, 233 trailers, boathouse, and other visitor services (i.e., the restrooms and shower facilities) would be connected to the new wastewater treatment system and leach field. This septic system would be located in the interior dune field in the middle portion of the project site. The old leach lines in the Sand Point Area would be capped and abandoned in accordance with local and State requirements. New sewer lines would be installed beneath roadways in Lawson's Landing.

Although no new facilities would be constructed for emergency helicopter landings, agencies providing emergency helicopter response would be notified of appropriate areas on the project site for landings. In general, helicopters would be directed to unoccupied meadow areas of the project site.

RESOURCE MANAGEMENT PLAN

The proposed Master Plan includes a resource management plan, which is intended to avoid or mitigate the environmental effects of existing activities and the new proposed facilities and programs. The resource management plan includes a statement of environmental objectives and a list of specific mitigation measures intended to enhance and protect the project site's existing biologic, geologic, hydrologic, cultural, and visual, and aesthetic resources. A copy of the Resource Management Plan is available for review at the Marin County Community Development Department, 3501 Civic Center Drive, Room 308, San Rafael, California.



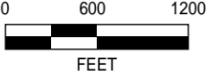
LEGEND

- House
- △ Mobile Home
- ▨ Travel Trailer Park
- Proposed Mobile Home
- + Proposed House

Source: Shannon & Associates, WESCO

Existing and Proposed Residential Development

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MERGER OF PARCELS

The project sponsor proposes the merger of numerous parcels in the main meadow area of the project site into one large parcel. This would enhance the likelihood that this area would continue to be used for recreational purposes into the foreseeable future.

EDUCATIONAL PROGRAM

The project sponsor proposes to develop an educational program that would provide informational brochures and displays that discuss the unique resources at Lawson's Landing.

3.6.2 SITE ACCESS

Two entrance roads provide access to the project site (Exhibit 3-5). Lawson's Landing Road provides public access to the project site from Dillon Beach Road. This road provides primary access to the camping, trailer, and boating facilities. Sand Haul road is a private road that provides access to the sand quarry activities. This road is unpaved and is only accessible by owners or employees of the project site.

3.6.3 LAND USE APPROVALS

The application submitted to the County of Marin for this project includes requests for Master Plan approval, Coastal Permit, and Tidelands Permit. The project sponsors would be required to obtain approval of the Lawson's Landing Master Plan from the County Board of Supervisors to authorize existing and proposed land uses on the project site. A coastal development permit would be required from the California Coastal Commission (CCC) for all development that occurs within a designated coastal zone. The authority for issuing coastal development permits has been delegated from CCC to Marin County. A tidelands permit from the County is required for all grading and construction on land and water areas within the unincorporated area of Marin County that are below, or were, at any time within a preceding 12-month period, below the 7.5-foot mean water line. Some project facilities proposed under the master plan would be in tideland areas and would, therefore, require a tidelands permit.

3.7 ADMINISTRATIVE ACTIONS AND NEXT STEPS IN THE PROJECT REVIEW PROCESS

Project approval requires the Lead Agency (and Responsible Agencies) to approve the project or project components, issue required permits, or affirm compliance with agency requirements. The County of Marin is the Lead Agency for the Lawson's Landing Master Plan 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." Described below are the discretionary actions being sought by the project sponsor for the Lawson's Landing Master Plan that the County will consider during its review.

The County of Marin project planning and approval process involves two main steps and, at key times during this process, the public may comment on various aspects of the project. The two main steps in the County's review process are: (1) certification of the EIR; and (2) approval, conditional approval (requiring that certain changes be made or conditions be met), or denial of the Master Plan, Coastal Permit, and Tidelands Permit. The following procedures and actions must be taken before development of proposed facilities can begin. The procedures are listed in sequential order:

- ▶ The Draft EIR will be circulated for public review and comment, as described in Chapter 1.
- ▶ The Marin County Planning Commission will hold a public hearing at which time individuals may comment on the adequacy of the Draft EIR.
- ▶ The Final EIR, consisting of all comments received on the Draft EIR together with responses to those comments and necessary changes to the EIR text will be circulated for two weeks, as described in Chapter 1.
- ▶ The Planning Commission will hold a public meeting at which it will consider the adequacy of the Final EIR, including review of written comments on the adequacy of the Final EIR's response to comments on the Draft EIR.
- ▶ When the Planning Commission is satisfied that the Final EIR is complete, it will recommend that the Board of Supervisors certify the Final EIR as being adequate according to CEQA requirements.
- ▶ Following the Planning Commission recommendation to the Board of Supervisors, the Planning Commission will then consider the merits of the project at a separate, later hearing. The Commission will hold a public hearing at which individuals can comment on the merits of the project, after which the Commission will recommend approval, conditional approval, or denial of the project applications.
- ▶ The Marin County Board of Supervisors will hold a public meeting at which it will decide whether to certify the Final EIR.
- ▶ After certification of the Final EIR, the Board of Supervisors will then consider the merits of the Master Plan and project applications and the recommendations of the Planning Commission in a public hearing(s), at which time the public can comment on the merits of the project and applications for project approval. The Board will approve, give conditional approval, or deny the Master Plan, Coastal Permit, and Tidelands Permit. (Any modifications to the Master Plan following the Board's decision must be referred to the Planning Commission for its decision.)

Improvement plans (e.g., construction plans, final grading and paving plans) will be filed with the County when the project sponsor is prepared to construct improvements. Approvals of the plans are administrative actions by County staff members. At this stage, the following approvals will be made:

- ▶ Grading Permit: The Marin County Public Works Department has the authority to issue a grading permit for projects that artificially move over 250 cubic yards of earth in Marin County
- ▶ Encroachment Permit: The Marin County Public Works Department has discretionary authority to issue an encroachment permit that would be required by the project sponsor to allow the connection of private access improvements (e.g., pedestrian path) within a County maintained public right of way.
- ▶ Fire Protection and Preparedness Plan: The Marin County Fire Marshal has discretionary authority to approve a fire protection and preparedness plan.
- ▶ Construction Permits: The Marin County Building Division has the authority to issue Building, Electrical, Mechanical, and Plumbing Permits for improvements that involve those types of construction activities.

After approval of improvement plans, County staff can administratively issue grading and building permits. When applications are received by the County for necessary permits, staff members review the applications for conformance with provisions (or conditions) of approved plans and specific County Code requirements. Building permit applications are checked by the Community Development Agency and grading permits by the Department of Public Works before issuance of the permit. During construction, specific inspections are required throughout the development process until a final inspection, whereupon the building can be occupied.

Approvals for the Master Plan expire after a period of two years. An extension for a maximum period of four years from the date of initial expiration may be granted by the Director of the Marin County Community Development Agency.

3.8 CEQA RESPONSIBLE AGENCY ACTIONS, FEDERAL AGENCY ACTIONS, AND TRUSTEE AGENCIES

In addition to the Lead Agency, a number of other agencies will have discretionary approvals related to the project. A responsible agency includes “all (local and state) public agencies other than the lead agency that have discretionary approval power over the project (State CEQA Guidelines Section 15381). In addition, certain Federal agencies have permit authority over project activities. A trustee agency is a “state agency having jurisdiction by law over resources affected by the project which are held in trust for the people of the State of California” (State CEQA Guidelines Section 15386). Responsible, Federal, and State trustee agencies for the Lawson’s Landing project and their related areas of review/discretionary authority are described below.

3.8.1 FEDERAL AGENCIES

U.S. Army Corps of Engineers (USACE): Under Section 404 of the Clean Water Act, the USACE regulates discharges of dredged or fill material in waters of the United States, and adjacent wetlands. Lawson’s Landing has secured a valid jurisdictional determination from USACE for wetlands onsite. If the project would fill any of these jurisdictional wetlands, the project would require a Section 404 authorization from the USACE.

U.S. Fish and Wildlife Service (USFWS): If the project may affect federally-protected wildlife species and/or associated protected habitats (e.g. nesting or roosting areas, migration corridors) which fall under USFWS jurisdiction and could require a federal Endangered Species Act Permit. The USFWS would comment on the USACE permits to recommend actions that avoid or mitigate such disturbance.

3.8.2 STATE RESPONSIBLE AND TRUSTEE AGENCIES

California Department of Fish and Game (CDFG): The project may affect fish and wildlife under the jurisdiction of CDFG as a trustee agency and may require a California Endangered Species Act Permit. CDFG would comment on the EIR and on the USACE permits to seek actions that avoid or mitigate impacts to resources under its jurisdiction.

California Coastal Commission (CCC): The Coastal Commission is a trustee agency. The project would require a Coastal Development Permit for all activities in the designated coastal zone. Pursuant to the California Coastal Act, the Coastal Commission maintains primary authority to manage the conservation and development of resources in California’s Coastal Zone. The Coastal Act requires coastal counties and cities to prepare local coastal plans (LCPs), which supercede local land use plans and take precedent over all local policies and zoning. After an LCP and its implementing ordinances are adopted

by the local government, they must be certified by the Coastal Commission to be consistent with the Coastal Act. Following certification, the local government agency assumes authority for issuing coastal development permits. The Coastal Commission maintains authority to review and approve LCP amendments. Marin County has been delegated coastal permit authority pursuant to its approved LCP, with the exception of limited areas adjacent to shore for which the Coastal Commission retains Coastal Permit authority.

North Marin Water District: The Marin Municipal Water District has discretionary authority and responsibility for provision of potable water service, and service connections to new uses. Proposed use and connection to service facilities would require approval from the District.

State Lands Commission (SLC): The SLC is a trustee agency. The SLC was created by the California Legislature in 1938 and given the authority and responsibility to manage and protect important natural and cultural resources on certain public lands in the state and the public's right to access these lands. The SLC has jurisdiction over sovereign lands, which include navigable rivers, lakes and streams, and tide and submerged lands along the coastline of California extending from the shoreline to three miles offshore.

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.

[San Francisco Bay Regional Water Quality Control Board \(RWQCB\): The RWQCB has jurisdiction over approval and permitting of wastewater treatment system. The proposed wastewater treatment system would require approval from the RWQCB.](#)

3.9 DISTINCTION BETWEEN REVIEW OF ENVIRONMENTAL ISSUES AND PROJECT MERITS

Often during review of an EIR, the public raises issues that relate to the project itself or the project's community benefits or consequences (referred to here as "project merits"), rather than the environmental analyses or impacts raised in the EIR. Lead Agency review of environmental issues and project merits are both important in the decision of what action to take on a project, and both are considered in the decision-making process for a project. However, a Lead Agency is only required to respond in its CEQA review to environmental issues that are raised. Certifying an EIR (i.e., finding that it was completed in compliance with CEQA) and taking action on the project rely on, and are, procedurally distinct processes and result in separate decisions made by the Lead Agency.

Generally, an EIR is a "...statement prepared under CEQA describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid the effects" (State CEQA Guidelines Section 15362). An EIR is intended to identify significant effects on the environment defined in State CEQA Guidelines Section 15382 as "...substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project..." An EIR is intended to be used by the public, decision-makers, interested individuals, and other agencies and organizations that may have responsibility for a project or project components. State CEQA Guidelines Section 15091 points out that "[n]o public agency shall approve ... a project for which an EIR has been completed that identifies one or more significant effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding." When significant environmental effects cannot be reduced to a less-than-significant level, the Lead Agency must prepare a Statement of Overriding Considerations, in addition to findings, that documents what project benefits outweigh the unavoidable impacts. Further, State CEQA Guidelines Section 15092 states that "[a]fter considering the final EIR and in conjunction with making findings...the Lead Agency

may decide whether or how to approve or carry out the project,” this is a separate action from EIR certification and considers the full range of reasons for approving a project based on its merits. Therefore, “project merits” are separately identified from, but viewed along with, environmental effects of the project in the Lead Agency’s consideration of a project and subsequent denial, approval, or conditional approval.

Examples of “project merits” issues that are important, but different from environmental issues, are economic or social considerations. With respect to the Lawson’s Landing project, some environmental impacts that would otherwise be considered under CEQA (such as traffic volumes or current occupancy of the wetlands/meadows area) will not be considered as significant impacts in this EIR. Existing impacts for which no change is anticipated cannot be reduced under CEQA. When the Lawson’s Landing project comes before the Planning Commission and the Board of Supervisors, the merits of the project will be discussed at designated hearings. The County of Marin Planning Commission and the Board of Supervisors would hold public meetings or hearings to review project merits that are separate from those directed at reviewing the EIR and environmental issues. Publicly-noticed review meetings/hearings for the review of project merits will be held after certification of the EIR.

4 ENVIRONMENTAL SETTING, ENVIRONMENTAL IMPACTS, CUMULATIVE IMPACTS AND MITIGATION MEASURES

4.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

4.1.1 INTRODUCTION TO PROJECT IMPACT ANALYSIS

CONTENTS OF ENVIRONMENTAL ANALYSIS SECTIONS

Sections 4.2 through 4.14 contain a discussion of the environmental setting; thresholds of significance; project and cumulative environmental impacts that would result with approval and implementation of the proposed Lawson's Landing Master Plan, coastal permit, and tidelands permit; mitigation measures; and level of significance after mitigation.

Issues evaluated in these sections consist of a full range of potential environmental topics originally identified for review in the Notice of Preparation (NOP). Appendix A contains a copy of the NOP. Sections 4.2 through 4.14 of this Draft EIR are organized into the following major components:

Environmental Setting: This subsection presents the existing regional and local environmental conditions, in accordance with the State CEQA Guidelines Section 15125. The discussions of environmental setting focus on information relevant to the issue under evaluation. The applicable regulatory framework and regional plan context, if any, under which the project would be implemented is also discussed in the environmental setting component of each section. One of the elements of Section 15125 requirements, the consistency with the local general plan (i.e., the Marin Countywide Plan), is discussed in Section 4.2, "Land Use Plan Consistency."

Environmental Impacts: This subsection presents thresholds of significance used in the Draft EIR and discusses potential significant effects of the project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15143. The thresholds of significance are presented at the beginning of each section. Project impacts are numbered sequentially throughout this section. Therefore, impacts in Section 4.3 are numbered 4.3-1, 4.3-2, 4.3-3, etc. Impacts identified in Section 4.4 are numbered 4.4-1, 4.4-2, and so on. An impact statement in a bold font precedes the discussion of each impact and provides a summary of each impact and its level of significance. The discussion that follows the impact statement includes the substantial evidence upon which a conclusion is made as to whether the impact would be significant or less than significant. Each section includes both project and cumulative impacts.

Mitigation Measures: This subsection provides mitigation measures to reduce potentially significant effects of the proposed project to the extent feasible, in accordance with State CEQA Guidelines Section 15002(a)(3), Section 15021(a)(2), and Section 15091(a)(1). The mitigation measures are registered numerically to the corresponding impact being reduced. For example, impact 4.3-1 would be mitigated with measure 4.3-1. Unless noted otherwise, the mitigation measures presented are recommended by the Draft EIR for the consideration of the County of Marin to adopt as conditions of approval.

Level of Significance after Mitigation: This subsection describes whether mitigation measures would or would not reduce impacts to a less-than-significant level. This section is presented in accordance with State CEQA Guidelines Section 15126.2(b), which requires identification of significant unavoidable impacts.

4.1.2 INTRODUCTION TO THE CUMULATIVE IMPACT ANALYSIS

CEQA REQUIREMENTS FOR CUMULATIVE IMPACT ANALYSIS

This EIR provides an analysis of cumulative impacts of the project, as required by State CEQA Guidelines Section 15130, to determine if the project's incremental effect is "cumulatively considerable." The definition of cumulatively considerable is provided in Section 15065(a)(3):

"Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Consistent with State CEQA Guidelines Section 15130(a), the discussion of cumulative impacts in this EIR focuses on significant or potentially significant cumulative impacts. State CEQA Guidelines Section 15130(b) provides, in pertinent part:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects that do not contribute to the cumulative impact.

The cumulative impact analysis in this EIR is based on an understanding of projected growth and development in the vicinity of the project and "(a) list of past, present, and probable future projects producing related or cumulative impacts" (State CEQA Guidelines Section 15130[b][1][A]). The related projects that are considered for the purposes of cumulative analysis in this EIR are hereinafter referred to as the "cumulative projects." Projected growth and cumulative projects are described below.

PROJECTED GROWTH AND DEVELOPMENT

The *Semi-Annual Proposed Development Survey* (PROPDEV-38) for Marin County provides a summary of development projects, compiled from planning departments in Marin cities and towns through a survey report form circulated in May 2004 (Marin County 2004). According to PROPDEV-38, approximately 1,033,190 square feet of office space is currently under review in local planning departments. Over 977,064 square feet of office space has recently been approved, 302,888 square feet are under construction, and 71,000 square feet of office space has been developed. In the category of retail space, 32,467 square feet are under review, while 14,000 square feet have been approved, and 39,969 square feet are under construction. For industrial development, 72,891 square feet are currently under review, 49,400 square feet have been approved, and 175,765 square feet are under construction. In terms of residential development, there are permit applications for 2,923 dwelling units in projects of five or more units, including 1,075 below market rate units. Projects under review account for 330 units. Applications for 164 units have been approved and 977 units are under construction.

The majority of recent office, retail, and industrial development in the County (i.e., development since PROPDEV-37) has occurred in the City of San Rafael while the majority of recent residential development has been occurred in the City of Novato. According to PROPDEV-38, no development is anticipated to occur in the immediate project vicinity. However, four projects located within 10 miles of the project site are anticipated. These specific projects are discussed below.

MARIN COUNTYWIDE PLAN

Recently, land use designations of the Marin Countywide Plan have been revised near the project site at Dillon Beach. The main changes in the Dillon Beach area are a result of a change in land use designation from Residential Commercial to Neighborhood Commercial (C-RS to C-NC). The parcels that have been changed are in the coastal zone. The land use density, however, has not changed and remains a 1/20 units per acre (Drumm, pers. comm., 2004).

ONSITE CUMULATIVE CONDITIONS

Existing adverse baseline conditions or impacts have been identified on the project site. These include existing facilities and activities in coastal wetlands, tsunami and fault hazard areas, and active dune migration areas. Continuation of these uses would be allowed under the proposed Master Plan and supported by proposed project facilities; including wastewater treatment, restrooms, improved road access, boathouse, dune access trails, and other project features. The proposed project actions, when considered in conjunction with existing adverse conditions or impacts will incrementally add potentially significant impacts to those existing conditions that are considered cumulatively considerable.

CUMULATIVE PROJECTS IN THE VICINITY

These projects consist of projects that have been proposed within the vicinity of the project site. These projects were compiled through discussions with County planning staff and from PROPDEV-38. One proposed PROPDEV-38 project and two other projects were considered as cumulative projects in this EIR and are described below. (Exhibit 4.1-1) depicts the approximate locations of the cumulative projects.

Strauss Creamery Commercial Development Application

The closest cumulative project identified in the PROPDEV-38 report is the approved Strauss Creamery project located at 22188 State Route 1 in Marshall, California, approximately 8 miles south of the project site. The Strauss Creamery project is located on approximately 493 acres, includes development of 2,900 square feet of office space and 25,100 square feet of industrial space. Construction of this project has not begun. Based on information provided by staff of the county's Community Development Agency, the following two projects should also be considered in the cumulative analysis (Berto, pers. comm., 2004).

Three Sons, LLC (Nick's Cove) Master Plan Amendment, Master Plan Waiver Request, Coastal Permit, Precise Development Plan, and Tidelands Permit

The project site is located approximately 4 miles south of the project site and consists of a 5.72-acre bayside parcel located west of State Highway 1 on Tomales Bay, zoned C-C-P (Coastal, Commercial, Planned District), and a 4.11-acre upland parcel located east of State Highway 1, zoned C-RMPC (Coastal, Residential, Multiple, Planned Commercial District).

The applicant Three Sons, LLC, has received approval for a Master Plan Amendment to the Nick's Cove Master Plan approved by the Board of Supervisors in 1973 (Ordinance No. 1979) and a Master Plan Waiver, Coastal Permit, Precise Development Plan, and Tidelands Permit for the restoration and construction of various site improvements that allow continued operation of the existing restaurant and provide overnight accommodations and related facilities (i.e., managers residence, public access, parking, water storage tanks, stream habitat restoration, and landscaping) on site. The project also includes construction of an off-site sewage disposal system and water supply well on a 280-acre upland parcel



Source: USGS Napa/San Francisco (1983/1978) – Contour Interval 50 Meters

Cumulative Project Locations

located north of the parcel, zoned C-APZ-60 (Coastal, Agriculture Production Zone, Planned District, one primary dwelling unit per 60 acres maximum density).

Robert Giacomini Coastal Permit, Use Permit, and Design Review Clearance

This cumulative project includes the authorization for the as-built construction of an existing 1,660 square foot, 18-foot tall attached storage and refrigeration unit; construction of a new 7,000 square foot, 22-foot tall storage building; and authorization of an existing farmstead cheese processing operation. The project site is located at the existing 700-acre Giacomini Dairy in Point Reyes, California approximately 16 miles south of the project site. The project site is currently zoned is C-APZ-60 (Coastal, Agricultural Production Zone, one unit per 60 acres maximum density) and the current Countywide Plan designation is C-AGI (Coastal Agriculture, 1 unit per 31 to 60 acres).

Marin County recently approved the project, which involves construction of an accessory structure and authorization of existing as-built improvements on an agriculturally developed property. The project is located in an area of the property that has been historically disturbed by agricultural activities, maintains a distance of over 1,000 feet to creeks in the vicinity and would not be located in environmentally sensitive areas. No substantial grading or tree removal is required (Marin County 2004).

Point Reyes Affordable Housing Project

The Point Reyes Affordable Housing cumulative project is also identified in the PROPDEV-38 report and is located at 857 Mesa Road in the unincorporated village of Point Reyes Station, California, approximately 16 miles south of the project site. Marin County recently approved the project sponsor's requests for a Marin Countywide General Plan amendment, Local Coastal Program amendment, Point Reyes Station Community Plan amendment, rezone, master plan approval, precise development plan approval, subdivision tentative map, and a coastal permit.

The Point Reyes Affordable Housing project would convert approximately 19 acres of corral and grazing land for the development of affordable rental and for-sale housing, market-rate housing and farm (3.78-acre lot with three-bedroom main house, one-bedroom guesthouse, and barn), future-visitor serving commercial uses, community parking with restrooms, community open space, wastewater treatment system, stormwater drainage system, and required infrastructure. Specifically, the cumulative project would construct 27 affordable rental housing units, seven for-sale ~~affordable~~-housing units, and 2.13 acres of commercial uses.

4.2 LAND USE PLANS AND POLICY CONSISTENCY

This section evaluates the project's consistency with relevant regulatory and policy objectives of the following:

- ▶ Marin Countywide Plan,
- ▶ Dillon Beach Community Plan,
- ▶ Marin County Local Coastal Program Unit II, and
- ▶ Marin County Zoning Code.

Because this section examines many policies, its format varies from other sections of this chapter. Each impact statement is followed by a policy-by-policy analysis with individual conclusions about consistency.

The determinations of policy consistency as discussed in this Draft EIR section represent the authors' best judgment in consultation with County staff and based on their interpretation of policies. However, this Draft EIR does not determine policy consistency. The formal policy consistency determinations are made by the County decision-makers.

The consistency analysis is presented to assist decision-makers in their formal determinations of the project's consistency. When the possibility of inconsistency is identified in the Draft EIR, it is described as inconsistent to focus attention on that policy issue. It is the responsibility of the Marin County Planning Commission and Board of Supervisors to make the definitive decisions about policy consistency when the merits of the project are considered. The decision-makers retain the sole authority to determine whether and how relevant policies apply to a specific project and whether the project is or is not consistent with County policies.

Policy inconsistencies may not necessarily indicate significant environmental effects they could be related to design standards or other non-environmental elements of the project. Section 15358(b) of the CEQA Guidelines states that "effects analyzed under CEQA must be related to a physical change." Therefore, only those policy inconsistencies that would lead to a significant effect on the physical environment are considered significant impacts. Nonetheless, where relevant this Draft EIR identifies those policy inconsistencies that are not related to physical environmental changes. Determining the projects consistency with relevant policies often times requires balancing competing policies and objectives. As such, the project would be consistent with the overall plan if it meets the objectives of one or more policies and does not obstruct implementation of other policies.

4.2.1 EXISTING CONDITIONS

LOCAL PLANS, POLICIES, AND REGULATIONS

Marin Countywide Plan

The project site is located within unincorporated Marin County. Land uses on the project site are guided by the Marin Countywide Plan (Countywide Plan), adopted January 1994. The Countywide Plan is a comprehensive, long-range plan for the physical development of unincorporated land in the County. The Countywide Plan contains seven statutorily-mandated elements (Government Code Section 65302) and four optional elements. The Community Development Element (generally corresponding to a Land Use Element) identifies the proposed general distribution and intensity of future (and existing) land uses in the unincorporated areas of the County (Marin County 1994). The designations for onsite and surrounding land uses are described in following text.

Additionally, the Countywide Plan provides a range of policies to guide decision-making for land use in the County. The policies indicate a commitment to action by the County government and elected decision-makers. The policies that are relevant to the project site are presented in Section 4.2.2, "Environmental Impacts," later in this text, along with an analysis of the consistency of the project with those policies.

The County is currently in the process of updating its Countywide Plan. The County has released the notice of preparation of an EIR for the proposed 2004 Countywide Plan and has conducted several workshops regarding the elements of the Countywide Plan. It is anticipated that the County would release the Draft EIR on the 2004 Countywide Plan in summer 2005.

Onsite Land Use Designations

The project site is located within the West Marin Planning Area (PA #7), which includes the [940-960](#) acres of unincorporated land known as Lawson's Landing, the community of Dillon Beach, and all unincorporated lands in western and northern Marin County. Exhibit 4.2-1 shows the land use designations for the project site and surrounding vicinity. The central and southernmost portion of the project site is designated for coastal recreation commercial (C-RC) and coastal agricultural (C-AG1) land uses. The western portion of the site along the coastline is designated specifically for coastal recreation commercial (C-RC) uses. The northern and eastern portions (which constitute the majority of land within the project site) are designated for coastal agricultural (C-AG1) with pockets of coastal agricultural (C-AG3) in the northernmost area.

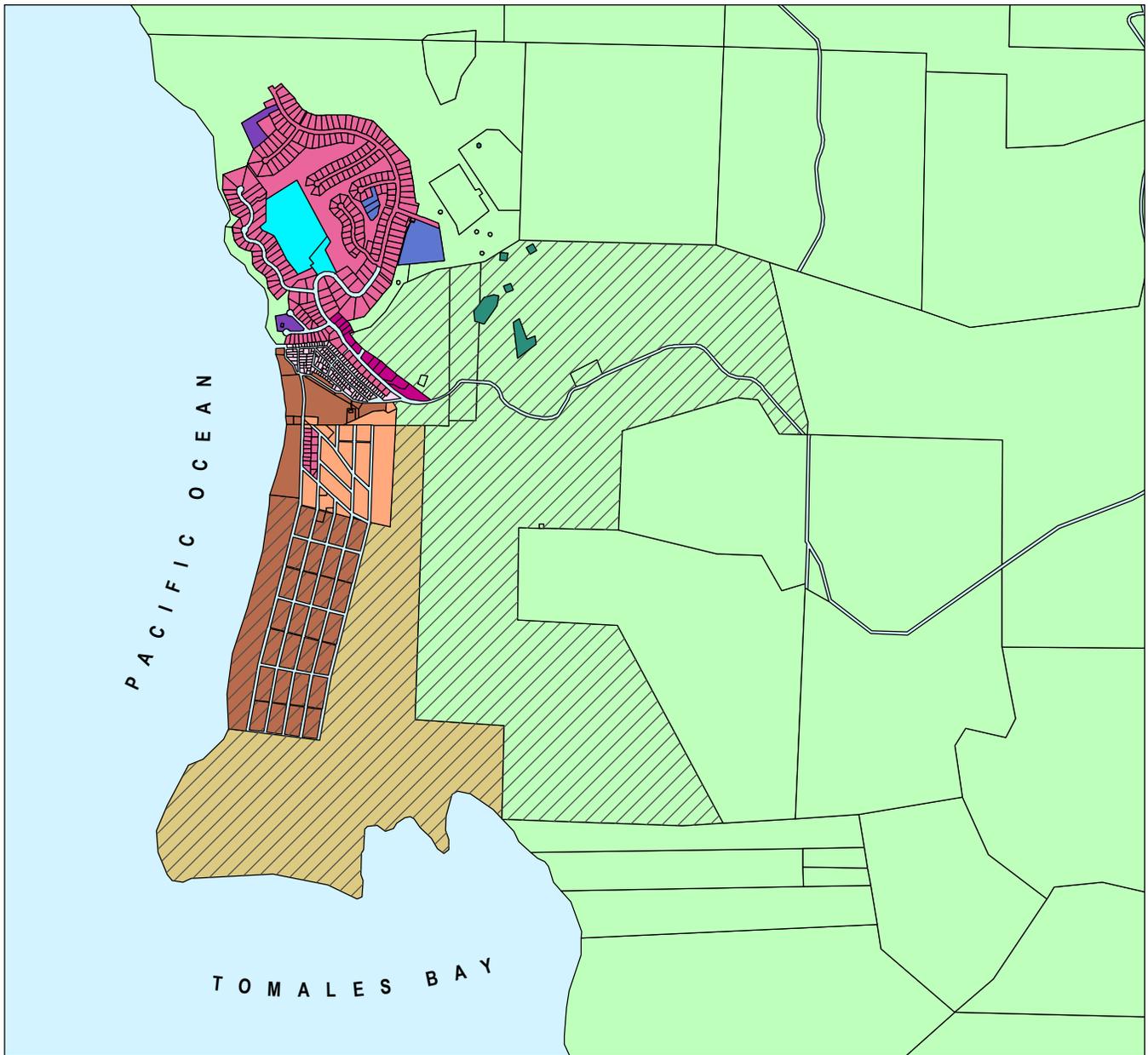
The C-RC designation allows a mix of retail, office, and industrial uses in a manner compatible with adjacent residential development, public facilities, natural resource protection, environmental quality, and high standards of urban design. Examples of uses considered consistent with the C-RC land use designation include resorts and privately-owned recreational facilities; such as golf courses and recreational boat marinas.

The agricultural land use category was established to preserve and protect agricultural uses. A 60-acre minimum parcel size was established as the basic density for agriculture. Consistent uses for agricultural designations may include dairying, grazing and breeding of cattle and sheep; raising poultry, rabbits, and goats; fish hatcheries, oyster farms; crop, vine, and tree farms; greenhouses; farm and ranch buildings; single family dwellings; horse stables; fishing and hunting clubs; gas, electric, water, communication, and flood control facilities; animal hospitals; and institutional uses for educational, scientific, recreational, or religious purposes.

The Countywide Plan also indicates that the project site is located within the Coastal Zone by giving it a "C" designation (i.e., C-AG3, C-AG1, C-RC). The Countywide Plan specifically provides that land given a coastal designation shall be consistent with the LCP-II and that activities be consistent with policies and densities established in the DBCP (Policies CD-15.2 and CD-15.22). Policies applicable to development in the Coastal Zone and the Dillon Beach area are presented and evaluated for consistency in Section 4.2.2, "Environmental Impacts."

Surrounding Land Use Designations

As depicted in Exhibit 4.2-1, land uses surrounding the project site are designated for agriculture (C-AG1) to the east and a portion north. Coastal resort/commercial recreation planned district (C-RC) and residential commercial (C-RS) designated areas are located between the Lawson's Landing entrance gate and Dillon Beach. Urban land use designations associated with Dillon Beach are located to the north of the project site, which include single family, low density residential (C-SF5, C-SF6) and medium density residential (C-SF4). The Oceana Marin residential development is located to the northwest of the project



LEGEND

////// Lawsons Landing Parcels

General Plan Land Use

- C-AG1: Agricultural
- C-AG3: Agricultural
- C-MF2: Planned Unit Development
- C-PR: Planned Unit Development

- C-RC: Coastal Resort / Commercial Recreation Planned District
- C-RC,C-AG1: Coastal Resort / Commercial Recreation Planned District, Agricultural
- C-RS: Residential Commercial Planned District
- C-SF3: Residential Agricultural
- C-SF4: Single Family, Medium Density Residential
- C-SF5: Single Family, Low Density Residential
- C-SF6: Single Family, Low Density Residential

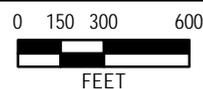
Source: Marin County 2003

Lawson's Landing General Plan Land Use Map

EXHIBIT 4.2-1

Lawson's Landing Master Plan Draft EIR

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site and includes planned unit development (C-MF2 and C-PR) and single family residential low density (C-SF6) designated areas.

The residential commercial land use category (C-RS) is intended to allow a mix of retail, office, and industrial uses in a manner compatible with adjacent residential development, public facilities, natural resource protection, environmental quality, and urban design. Land uses considered consistent with the residential commercial land use category include crop and tree farming, nurseries, greenhouses, stores, shops, offices, banks, restaurants, hospital, meeting halls, community centers, schools, libraries, churches, museums, child care centers, educational, philanthropic and charitable institutions, and residential dwellings.

The single family residential land use categories (C-SF4, C-SF5, and C-SF6) are intended to allow for single-family residential development at a lower range of densities recognizing physical hazards and development constraints, the necessity to protect natural resources, and the availability of public services and utilities. Land uses consistent with the single family residential land use category include parks, playgrounds, crop and tree farming, nurseries and greenhouses, home occupations, schools, libraries, museums, community centers, churches, hospitals, retreats, educational, philanthropic and charitable institutions, cemeteries, golf courses, country clubs, stables and riding academies, and day care centers for six or more children.

Countywide Plan Policies

The Countywide Plan (Marin County 1994a) contains numerous policies to direct development in the unincorporated portions of Marin County. Policies applicable to the project relate to the following elements of the Countywide Plan: Environmental Quality; Community Development; Transportation; Noise; Environmental Hazards; Agriculture; and Community Facilities. The specific policies are presented in Section 4.2.2, “Environmental Impacts,” along with the project consistency analysis.

Dillon Beach Community Plan

The California Government Code requires each local planning agency, such as the County of Marin, to adopt a comprehensive, long-term general plan for the physical development of the area over which it has jurisdiction. Local planning agencies may elect to prepare community plans, based on public participation and specific local conditions and goals, for individual communities within the general plan boundaries. Future decisions can then be based on both the general plan and the community-specific plan.

The project site is located within the Dillon Beach Community Plan (DBCP) area. Land uses on the project site are guided by the DBCP which was adopted by the Marin County Board of Supervisors in November of 1988. The DBCP is a guide for future planning decisions in the Dillon Beach area and was prepared based on the conditions, issues, and values prevailing locally and as determined by the Dillon Beach community. The DBCP was adopted in accordance with the Countywide Plan and provides community goals, objectives, and policies and programs relative to the current and foreseeable future planning and land use issues facing the community.

The DBCP policies that are relevant to the Lawson’s Landing Master Plan are presented in Section 4.2.2, “Environmental Impacts,” later in this text, along with an analysis of the consistency of the project with those policies.

Marin County Local Coastal Program Unit II

Under the California Coastal Act of 1976, each of the 68 local governments along the California coast must prepare a local coastal plan to bring its local land use plans into conformance with the policies of the Coastal Act. Local coastal plans supercede other local land use plans and take precedence over all other local policies and zoning.

The Marin County Local Coastal Program Unit II (LCP-II) is the County's coastal land use plan intended to guide its future development and to assure the coastal resources are properly utilized and protected (Marin County 1980). The LCP-II was adopted by the Marin County Board of Supervisors on December 9, 1980 and was certified by the California Coastal Commission on April 1, 1981. The LCP-II contains maps and policies pertaining to the use and protection of Marin County's coastal zone. The LCP-II contains policies on the subjects of public access, recreation and visitor serving commercial facilities, federal parklands, natural resources, agriculture, mariculture, commercial fishing and recreational boating, public trust lands, shoreline structures, diking, filling, and dredging, public services, and new development and land use.

The LCP-II policies that are relevant to the Lawson's Landing Master Plan are presented in Section 4.2.2, "Environmental Impacts," later in this text, along with an analysis of the consistency of the project with those policies.

Marin County Zoning Ordinance

The Marin County Zoning Ordinance (Zoning Code), as contained in Title 22 of the Marin County Municipal Code, consists of the zoning map which provides zoning designations for unincorporated land in the County and the zoning code provisions which provide development standards and permitted land uses applicable to each zoning designation. Zoning designations for the project site and vicinity are depicted on Exhibit 4.2-2.

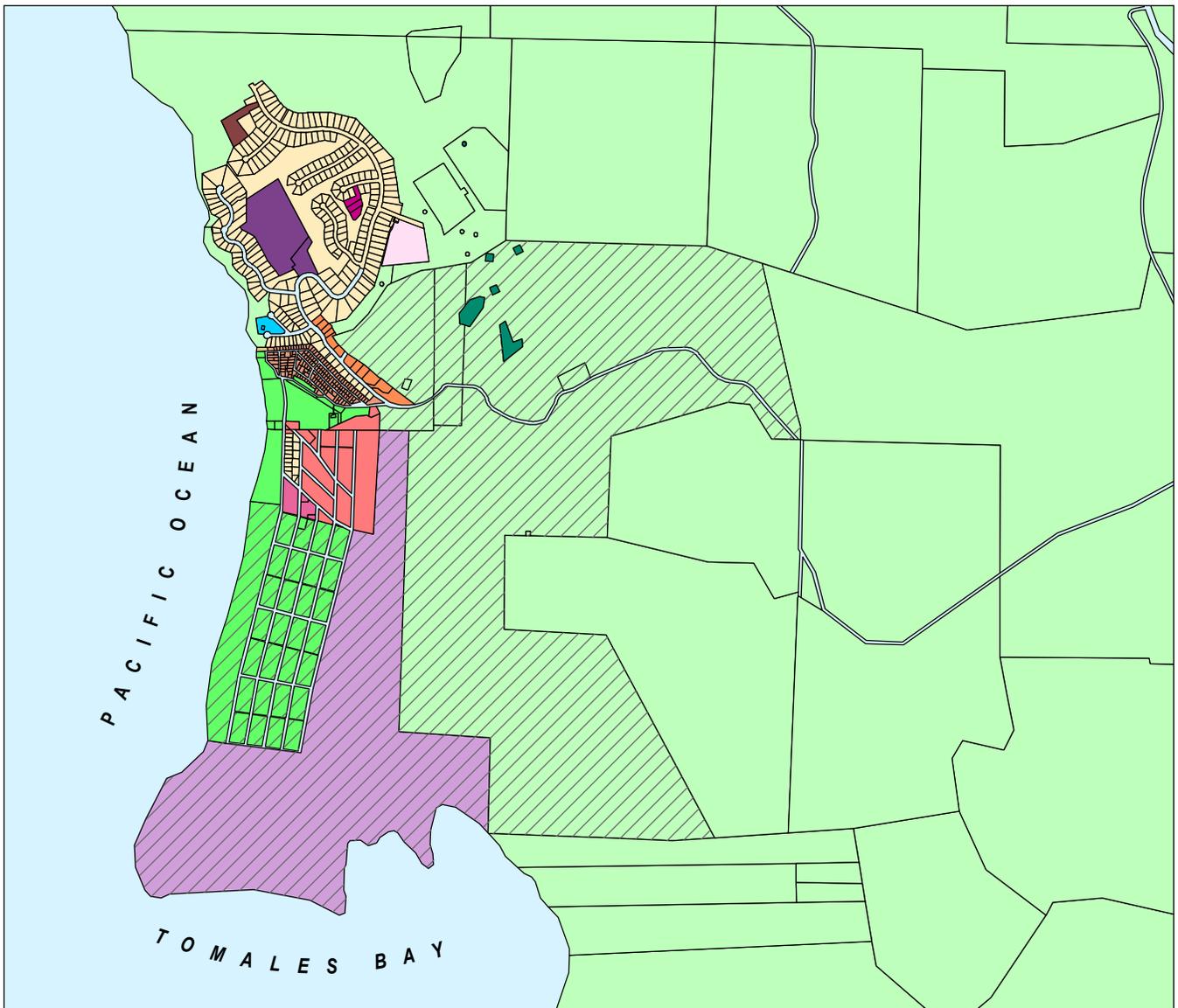
Onsite Zoning

The western portion of the project site is zoned for coastal resort and commercial recreation (C-RCR). The central and southernmost portions of the project site are zoned for coastal agricultural production (C-APZ-60) and coastal resort and commercial recreation (C-RCR). The eastern and northern portions of the project site are zoned for coastal agricultural production (C-APZ-60) with pockets of coastal agricultural residential planned district (C-ARP-2) in the northernmost area.

The purpose of the C-RCR zoning district is to create and protect areas within the coastal zone for resort and visitor-serving facilities. Emphasis is placed on public access to recreation areas within and adjacent to proposed development. All uses deemed appropriate for a resort area by the Planning Commission are permitted. However, new residential development is not permitted unless the Planning Commission deems it an appropriate use.

The purpose of the C-APZ zoning district is to preserve land within the district for agricultural use. The principal use of lands in the district is agriculture although mineral resource production (e.g., sand quarrying) can be authorized with a use permit.

The purpose of the C-ARP zoning district is to provide flexibility in lot size and building locations and thereby promote the concentration of residential and accessory uses to maintain the maximum amount of land available for agricultural use and to maintain visual and natural resources and wildlife habitat values of the property and surrounding areas.



LEGEND

//// Lawson's Landing Parcels

Marin County Zoning

C-APZ-60: Coastal agricultural production zone

C-ARP-2: Coastal agricultural residential planned district

C-R1: Coastal one-family residence

C-R1-B2: Coastal one-family residence

C-R1-BD: Coastal one-family residence

C-RA-B5: Coastal residential agricultural

C-RA-B5,C-R1-BD

C-RCR: Coastal resort commercial recreation

C-RCR,C-APZ-60: Coastal resort commercial recreation, Coastal agricultural production zone

C-RMP-0.85: Coastal residential multiple planned district

C-RMP-1.23: Coastal residential multiple planned district

C-RMP-2.2: Coastal residential multiple planned district

C-RMPC-0.7: Coastal residential multiple planned commercial

C-RMPC-1.2: Coastal residential multiple planned commercial

C-RSP-0.4: Coastal residential one-family planned district

Source: Marin County 2003

Lawson's Landing Zoning Map

Lawson's Landing Master Plan Draft EIR

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NORTH



The zoning code also indicates that the project site is located within the Coastal Zone by giving it a “C” designation (i.e., C-RCR, C-APZ-60, C-ARP-2). The zoning code specifically provides that land given a coastal designation shall be consistent with the LCP-II and that activities be consistent with policies and densities established in the LCP-II. Policies applicable to development in the Coastal Zone and the Dillon Beach area are presented and evaluated for consistency in Section 4.2.2, “Environmental Impacts.”

Surrounding Zoning

As shown in Exhibit 4.2-2, properties surrounding the project site are zoned coastal agricultural production (C-APZ-60) to the north, east, and south. Properties between the Lawson’s Landing entrance gate and Dillon Beach are zoned for coastal residential multiple planned commercial (C-RMPC-1.2 and C-RMPC-0.7), coastal one-family residence (C-R1), and coastal resort commercial recreation (C-RCR). Urban land uses associated with Dillon Beach to the west are zoned for coastal one-family residence (C-R1-B2, C-R1-BD and C-R1). The Oceana Marin residential development to the northwest of the project site is zoned for coastal one-family residence (C-R1) and coastal residential multiple planned (C-RMP-1.23 and C-RMP-0.85).

The purpose of the coastal residential multiple planned commercial district (C-RMPC) is to create and protect areas within the coastal zone suitable for a mixture of residential and commercial uses and to control the density of development of such uses by thereby assuring compatibility with the goals and policies of the local coastal plan.

The purpose of the coastal one-family residence district (C-R1) is to allow development of single-family detached units subject to specific development requirements.

The purpose of the coastal residential multiple planned district (C-RMP) is to allow varied types of residential development designed according to the policies set forth in the local coastal plan but without the confines of specific yard requirements.

4.2.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project might cause significant impacts if it:

- ▶ conflicts with any applicable land use plan, policy, or regulations 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, or
- ▶ conflicts with any applicable habitat conservation plan or natural community conservation plan.

Appendix N of the Marin County Environmental Review Guidelines, adopted May 1994, provides guidelines for analyzing the significance of project impacts (Marin County 1994b). According to the Guidelines, the project would cause significant policy consistency impacts if it would:

- ▶ conflict with County land use goals or policies as they relate to physical environmental changes,
- ▶ result in land uses that would conflict with existing or proposed uses at the periphery of the project area or with other local land use plans, or
- ▶ conflict with local zoning.

4.2.3 PROJECT IMPACTS

The following discussion analyzes the consistency of the project with relevant policies of the Marin Countywide Plan, Dillon Beach Community Plan, Marin County Local Coastal Program Unit II, and the Marin County Zoning Code. All policies associated with these plans were reviewed by EDAW staff and in consultation with planning staff of the Marin County Community Development Agency. Planning staff and the EIR consultant together identified the policies pertaining to potential physical changes that are relevant to the project. Policies considered non-applicable (i.e., related solely to the merits of the project) are excluded from this consistency analysis.

Two types of consistency statements are made in the analysis below: "Consistent" or "Inconsistent". Project consistency would occur when the project, or the project plus mitigation measures, would be in agreement with the policy to which it is being compared. A determination of "Inconsistent" is made to alert decision-makers where an interpretation of the policy must be made and a final determination of consistency or inconsistency should be declared. The County decision-makers retain the sole authority to decide whether and how County land use policies apply to the project and whether the project is or is not consistent with County policies.

Impact 4.2-1: Marin Countywide Plan Land Use Consistency. The central and southernmost portion of the project site is designated for coastal recreation commercial (C-RC) and coastal agricultural (C-AG1) land uses. A western portion of the site is designated specifically for coastal recreation commercial (C-RC) uses. Lastly, the northern and eastern portions of the site are designated for coastal agricultural (C-AG1) with pockets of coastal agricultural (C-AG3) in the northernmost area. The project would not require any land use designation amendments, nor would it change any land uses on the project site. Existing land uses are consistent with Marin Countywide Plan Land Use Designations. This would be a *less-than-significant* impact.

Consistent. Existing uses occurring on land designated coastal agricultural (C-AG1) include grazing and breeding of cattle and sheep; farm and ranch buildings; single family residential dwellings; and gas, electric, water, communication, and flood control facilities. These land uses are allowed under the coastal agricultural designation. Improvements to the ranching operation include a shop attachment to an existing barn, installation of water troughs and fencing, and construction of a new owner's residence. These improvements would support existing agricultural operations and would be consistent with the coastal agricultural designation.

Existing uses occurring on land designated coastal recreational commercial (C-RC) include operation of a privately-owned camping resort and recreational boat marina. These land uses are consistent with the coastal recreation commercial land use designation. The project would construct new structures and facilities that support and enhance the existing recreational commercial activities onsite including a new wastewater treatment facility, new boathouse, new restroom facilities, two new large water storage tanks, and a new employee residence. All of these uses would be allowable under the coastal recreation commercial designation. Because the project would be consistent with existing land use designations at the site, this would be a less-than-significant impact.

Impact 4.2-2: Consistency with Policies of the Marin Countywide Plan. The project would be consistent with all relevant Countywide Plan policies. Therefore, this would be a *less-than-significant* impact.

Policy EQ-1.3 Land Use of the Coastal Recreation Corridor. Open space, recreational, and agricultural land uses will be emphasized in the Coastal Recreation Corridor along with the preservation of existing coastal communities.

Consistent. The project would continue existing open space, recreational, and agricultural activities at the project site.

Policy EQ-2.1 Value of Riparian Systems. Riparian systems, streams and their riparian and woodland habitat are irreplaceable and should be officially recognized and protected as essential environmental resources, because of their values for erosion control, water quality, fish and wildlife, aesthetics, recreation, and the health of human communities.

Consistent. No portion of the project would be located within Dillon Creek. As discussed in Section 4.5, “Hydrology and Water Quality,” Mitigation Measures 4.5-2 and 4.5-4 would reduce all project related water quality impacts to a less-than-significant level.

Policy EQ-2.2 Streams Defined as Blue Lines on USGS Quad Maps. All perennial and intermittent streams, which are defined as natural watercourses shown as solid or dashed blue lines on the most recent appropriate USGS quad sheet, should be subject to these stream and creekside protection policies. A perennial stream is further defined as:

a watercourse that flows throughout the year (except for infrequent or extended periods of drought), although surface water flow may be temporarily discontinuous in some reaches of the channel such as between pools.

Consistent. Dillon Creek, which crosses the northern portion of the project site, is a perennial stream and is subject to all stream and creekside protection policies. The project would not result in any adverse impacts to Dillon Creek and would be consistent with policy.

Policy EQ-2.12 Protection of Riparian Vegetation. At the time of a site specific development application, the County shall evaluate impacts on riparian vegetation, when the riparian vegetation extends beyond the Streamside Conservation Zone, and incorporate measures to protect the riparian vegetation into the project design.

Consistent. As discussed in Section 4.13, “Biological Resources,” the project would not adversely any riparian vegetation, including vegetation supported by Dillon Creek.

Policy EQ-2.19 Surface Runoff. Surface runoff rates in excess of pre-development levels should not be allowed where a new problem will be created or where the runoff will exacerbate an existing problem.

Consistent. As discussed in Section 4.5, “Hydrology and Water Quality,” the project would not result in a substantial increase stormwater runoff rates above existing levels. Existing stormwater facilities at the project site would be able to adequately accommodate project-related stormwater volumes.

Policy EQ-2.20 Retention of Sediment. Onsite facilities for the retention of sediments or contribution toward regional sediment control measures produced by development should be provided during construction and, if necessary, upon project completion. Continued maintenance of these facilities should be required.

Consistent. As discussed in Section 4.5, “Hydrology and Water Quality,” the project includes mitigation that would require the project sponsor to use best management practices to control sediment and erosion to protect on and offsite areas.

Policy EQ-2.23 Seasonal Development Factors. Development work adjacent to and affecting SCAs should be done during the dry season only, except for emergency repairs. Disturbed surfaces should be stabilized and replanted, and areas where woody vegetation has been removed should be replanted with suitable species before the beginning of the rainy season.

Consistent. Stream Conservation Areas (SCA’s) are generally defined as a 100-foot buffer on the upland side of ~~a~~each stream’s banks. Project facilities would not be located adjacent to an SCA, nor would it affect an SCA.

Policy EQ-2.27 Water Resource Management. Water resources should be managed in a systematic manner that is sensitive to natural capacities, ecological impacts, and equitable consideration of the many water-related needs of the County.

Consistent. As discussed in Section 4.3, “Water Supply,” the project would be served by existing onsite water wells. The project would not substantially increase water demands at the project site. The project sponsor would be responsible for water resource management in the project vicinity.

Policy EQ-2.28 Protection of Watersheds, Aquifer Recharge Areas, and Natural Drainage Systems. High priority should be given to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.

Consistent. As discussed in Section 4.5, “Hydrology and Water Quality,” the project would have no significant impacts on any aquifer recharge areas or onsite water wells. Mitigation measures 4.5-2 and 4.5-4 would reduce all project-related water quality impacts to less-than-significant levels.

Policy EQ-2.29 Upstream Development Impacts. The effect of upstream development on downstream land uses should be examined during project review. The following issues should be considered:

- ▶ Increase in surface runoff,
- ▶ potential for erosion,
- ▶ corresponding increase in downstream sedimentation, and
- ▶ decrease in water quality.

Consistent. As discussed in Section 4.5, “Hydrology and Water Quality,” the project would not result in a substantial increase in existing stormwater volumes on the project site. Existing storm drainage facilities would be able to adequately accommodate project-related stormwater volumes. Mitigation Measures 4.5-2 and 4.5-4 would reduce all project-related water quality impacts to less-than-significant levels.

Policy EQ-2.41 Conservation of Coastal Resources. The conservation of coastal resources shall be maintained following detailed policies in the Local Coastal Plans I and II adopted by the County and the Coastal Commission.

Consistent. The project would be consistent with policies contained in the Local Coastal Plan II (Impact 4.2-3 of this section) as they relate to the conservation of coastal resources.

Policy EQ-2.43 Development and Access Limitations in Bayfront Conservation Areas. (Applies to non Bayfront Conservation Zone wetlands per EQ-3.27). Development shall not encroach into sensitive wildlife habitats, limit normal range areas, create barriers which cut off access to food, water, or shelter, or cause damage to fisheries or fish habitats. Buffer zones between development and identified or potential wetland areas shall be provided. On residential and industrial parcels which are already filled and at least 50% developed, minor redevelopment involving less than 25% of the structure may be excluded from policies which apply to the Bayfront Conservation Zone. No additional fill will be allowed. Access to environmentally sensitive marshland and adjacent habitat shall be restricted, especially during spawning and nesting seasons.

Consistent. The project would not encroach into areas of the project site where sensitive wildlife habitats thrive. However, some project facilities (e.g., restroom, trail system) could result in the disturbance or fill of onsite wetlands and the proposed wastewater treatment facility would be located in an active portion of on onsite sand dune. Because some non-authorized (e.g., restrooms, water spigots) facilities are proposed to be constructed within coastal wetlands, Mitigation Measure 4.13-3 requires that these facilities be setback a minimum of 100 feet from onsite coastal wetlands. In addition, Mitigation Measure 4.6-1 requires that the wastewater treatment system be relocated outside of sand dunes in one of three alternate locations identified in Exhibit 4.10-6, which are generally located in the northern portion of the project site. Based on preliminary review of these locations, these areas could feasibly support a wastewater treatment system and would not result in any new significant environmental impacts. Implementation of the project with recommended mitigation would be consistent with this policy.

Policy EQ-2.44 Tidelands Subzone. The purpose of this subzone is to define those areas which should be left in their natural state because of their biological importance to the estuarine ecosystem. The County shall prohibit diking, filling, or dredging in areas subject to tidal action (Tidelands subzone) unless the area is already developed and currently being dredged. Current dredging operations for maintenance purposes may continue subject to environmental review, if necessary. In some cases, exceptions may be made for areas which are isolated or limited in productivity. In tidal areas, only land uses which are water-dependent shall be permitted, as consistent with federal, state, and regional policy. These include, but are not limited to:

- ▶ ports,
- ▶ water-related industry and utilities,
- ▶ essential water conveyance,
- ▶ wildlife refuge, and
- ▶ water-oriented recreation.

Exemptions may be granted for emergency or precautionary measures taken in the public interest, e.g., protection from flood or other natural hazard. Removal of vegetation shall be discouraged. Alteration of hydrology should only be allowed when it can be demonstrated that the impact will be beneficial or non-existent.

Consistent. Although the project site is located in a tidelands subzone, the project would not involve dredging, diking, or filling in areas subject to tidal action. Further, no facilities would be constructed in areas subject to tidal action.

Policy EQ-2.59 Natural Vegetation. Agricultural activities should minimize removal of natural vegetation and avoid the removal of wetland vegetation, where possible.

Consistent. Agricultural activities occurring on the project site would not change with implementation of the project. Consistent with the elements of the proposed master plan, proposed agricultural facility improvements (e.g., water troughs, ~~Crystalix~~RYSTALYX barrels~~crystal-lyxs~~) would be sited to avoid onsite wetlands.

Policy EQ-2.63 Sites with Poor Soil Conditions or Seismically Active. Any development (within the watershed areas) proposed for sites that have poor soil conditions for construction or that are seismically active should be designed to minimize:

- ▶ earth disturbance
- ▶ erosion
- ▶ water pollution, and
- ▶ hazards to public safety.

Consistent. As described in Section 4.5, “Hydrology and Water Quality,” Mitigation Measures 4.5-2 and 4.5-4 would reduce the project’s water quality impacts to less-than-significant levels. As described in Section 4.6, “Geology and Soils,” Mitigation Measure 4.6-3 requires that the project be designed to withstand the effects of seismic-related hazards. This mitigation would reduce the project’s geology and soils impacts to less-than-significant levels.

Policy EQ-2.66 Use of Shoreline Areas. Public use of the shoreline areas is desirable and should be encouraged consistent with ecological and safety considerations.

Consistent. The project would continue to allow public access to the shoreline areas of the project site.

Policy EQ-2.70 Siting and Design of Public Access. Public access should be sited and designed to facilitate public use and enjoyment of the bayfront lands, along with protection of wildlife habitat. Where possible, buffers and upland habitat should remain, or be constructed, between wetland habitats and public use areas. Public areas should be clearly marked, and continuous ten-foot walkways from the nearest roads to the shoreline and along the shoreline should be provided. Public access areas should be designed to minimize possible conflicts between public and private uses on the properties. In general, walkways should be set back at least ten feet from any proposed structure. Public access shall be designed to avoid disturbance of wetlands and sensitive wildlife habitat areas.

Consistent. The project would continue to provide public access to coastal areas of the project site. As described in Section 4.8, “Traffic and Circulation,” a new pedestrian and bicycle pathway would be constructed at the existing gatehouse to separate pedestrian and bicycle traffic from vehicular traffic accessing the site. Further, a formal pedestrian trail system would be established in the foredunes. The trail system would be rotated depending on site conditions to minimize adverse impacts to the foredunes and would be sited to avoid encroachment upon existing wetlands onsite.

Policy EQ-2.75 County Air Quality Standards. The County shall adhere to the Federal or State air quality standards, (Table EQ-5) whichever are more stringent, for management of locally generated pollutants.

Pollutant	Averaging Time	National	California
Carbon Monoxide (CO)	8-hour	9.30 ppm	9.00 ppm
Ozone (O ₃)	1-hour	0.12 ppm	0.09 ppm
Nitrogen Dioxide (NO)	annual	0.05 ppm	---
	1-hour	---	0.25 ppm
Sulfur Dioxide (SO ₂)	annual	0.03 ppm	---
	24-hour	0.14 ppm	0.05 ppm
Total Suspended Particulate (PM ₁₀)	Annual Geometric Mean	---	30 µg/m ³
	24-hour	---	50 µg/m ³
ppm = parts per million µg/m ³ = micrograms per cubic meter PM ₁₀ = Particulate matter less than 10 microns in diameter Source: U.S. Environmental Protection Agency; California Air Resources Board			

Consistent. As discussed in Section 4.9, “Air Quality,” the project would not generate any long-term, operational air emissions and would not cause air quality standards in the County to be exceeded. The project would cause short-term increases in construction-related emissions. However, Mitigation Measure 4.9-1 requires implementation of Bay area Air Quality Management District (BAAQMD) emission control measures which would reduce construction-related impacts to less-than-significant levels. Because the project-generated, operational air emissions would not exceed State or Federal standards, the project would be consistent with this policy.

Policy EQ-2.78 Air Quality Impacts of Projects. As part of its Environmental Review Process, the County shall review projects for their potential impact on air quality conditions.

Consistent. Through the preparation of this Draft EIR, the County is reviewing the potential effects of the project on air quality. The inclusion of air quality factors in this Draft EIR (see Section 4.9, “Air Quality”) provides consistency with this policy.

Policy EQ-2.82 Buffer Between Potential Mineral Extraction Areas and Incompatible Land Uses. The County shall further protect designated mineral resource sites by creating a buffer of land uses between potential mineral extraction areas and areas with land uses incompatible with mining.

Consistent. The project would continue to quarry sand from the interior sand dunes, which is considered a mineral resource. Activities associated with quarrying operations are located in the central portion of the project site. Access to these portions of the project site is prohibited and is enforced through fencing and regular patrols. The project would not increase recreational use levels at the project site and would continue to prevent access to active mining areas of the project site. The project would be consistent with this policy.

Policy EQ-2.87 Species Preservation in the Environmental Review Process. Environmental review of development applications shall consider the impact of the proposed development on species and habitat diversity environmental review documents should propose mitigation measures for ensuring the protection of the habitat and species therein.

Consistent. Section 4.13, “Biological Resources,” analyzes the potential effects of the project on existing sensitive species and habitats. The project would implement a proactive environmental education program for environmental resources onsite.

Mitigation measures are also provided to protect sensitive wildlife species and their habitats to the greatest extent possible.

Policy EQ-2.88 Protection of Special Status Species. Development shall be restricted or modified in areas which contain special status species and migratory species of the Pacific Flyway and/or significant natural areas, wetlands, riparian habitats, and freshwater habitats, to ensure the continued health and survival of these species and areas.

Consistent. As discussed in Section 4.13, “Biological Resources,” the project would have less-than-significant impacts on all special-status species and communities. The project, however, could result in the filling of wetlands on the project site. Mitigation Measure 4.13-3 requires all non-authorized (e.g., restrooms, water faucets) project facilities be constructed a minimum of 100 feet outside of coastal wetlands. The project would be consistent with this policy.

Policy EQ-3.2 Air, Water, and Noise Pollution. Air, water, and noise pollution shall be prevented or minimized.

Consistent. The project would contribute minimally to air, water, and noise pollution to the extent analyzed in this Draft EIR. No significant effects (with mitigation) related to air, water, or noise pollution are identified in this Draft EIR. Therefore, the project would be consistent with this policy.

Policy EQ-3.4 Changes to Hydrological and Biological Processes. No operation shall cause irreversible damage or more than minimum reversible change to natural hydrological and biological processes.

Consistent. As discussed in Section 4.5, “Hydrology and Water Quality,” the project would not result in any significant impacts to the natural hydrologic processes on the site. As discussed in Section 4.13, “Biological Resources,” Mitigation Measures 4.13-1, 4.13-2, 4.13-3, and 4.13-4 would reduce all project-related impacts to sensitive wildlife species and habitats to less-than-significant levels. As discussed in Section 4.6, “Geology and Soils,” Mitigation Measure 4.6-1 would eliminate the project’s impacts to the natural migration of the onsite sand system. No irreversible damage would occur to onsite sand dunes. Therefore, the project would be consistent with this policy.

Policy EQ-3.5 Protection of Unique Geologic, Ecologic, Archaeologic, and Historic Sites. Unique geological, ecological, archaeological, and historic sites shall be protected. Significant natural features shall be included for preservation in their natural state and in an appropriate setting in any design or plan.

Consistent. No unique geological, archaeological, or historic sites are located within the areas of proposed development. As discussed in Section 4.6, “Geology and Soils,” and Section 4.12, “Cultural Resources,” no such features would be affected by the project. As discussed in Section 4.13, “Biological Resources,” the project would construct a leachfield in the sensitive sand dune habitat present onsite. Mitigation has been incorporated into the project to minimize, to the greatest extent feasible, impacts to sand dune habitats and processes on-site and have been protected in the context of this policy. Therefore, the project would be consistent with this policy.

Policy EQ-3.6 Wildlife, Vegetation and Habitats. A diversity and abundance of wildlife and marine life shall be maintained. Vegetation and animal habitats shall be preserved wherever possible.

Consistent. As discussed in Section 4.13, “Biological Resources,” the project with mitigation measures would not result in significant impacts to fish, wildlife, vegetation, or animal habitats.

Policy EQ-3.7 Avoidance of Hazards from Earthquake, Erosion, Landslide, Floods, and Fires. Construction and operations shall be located and designed to avoid or minimize the hazards from earthquake, erosion, landslides, floods, fire, and accidents consistent with policies and programs in the Environmental Hazards Element.

Consistent. As discussed in Section 4.6, “Geology and Soils,” potential impacts associated with earthquakes, erosion, and/or landslides would be reduced to less-than-significant levels with implementation of Mitigation Measures 4.6-1, 4.6-3 and 4.6-5. As concluded in Section 4.5, “Hydrology and Water Quality,” Mitigation Measures 4.5-2 would reduce the project’s flood hazard impacts to less-than-significant levels. Section 4.15, “Police and Fire,” analyzes fire and other safety issues and concludes that less-than-significant impacts would result from the project. Based on conclusions in this Draft EIR concerning environmental hazards, the project would be consistent with this policy.

Policy EQ-3.9 Adverse Impacts on Services, Circulation, Economic, and Social Environment. Projects shall not cause significant adverse impacts on water supply, fire protection, waste disposal, schools, traffic and circulation, or other services and facilities, or on the financial or social environment of the community.

Consistent. The analysis of public services and utilities in this Draft EIR concludes that the project would result in less-than-significant impacts with mitigation measures regarding Section 4.3, “Water Supply”; Section 4.15, “Police and Fire Protection”; Section 4.4, “Waste Disposal and Other Services”; Section 2.9, “Effects Found Not Significant”; Section 4.14, “Schools”; and Section 4.8, “Traffic.” The analysis of economic and social effects was not considered in this Draft EIR because these are not a required component of environmental analysis but are strictly a policy consideration. Social and economic effects of a project shall not be treated as significant effects on the environment (State CEQA Guidelines §151319[a]).

Policy EQ-3.11 Visual Qualities and Views. Visual qualities and the view potential of the natural and built environment shall be considered in any project or operation review. Tree-cutting and damage shall be avoided wherever possible.

Consistent. The project would not change the existing visual qualities and view potential of the onsite natural environment or the surrounding environment including views of the ocean.

Policy EQ-3.12 Minimal Resource Use and Recycling. Resource use shall be the minimum necessary. Recyclable and biodegradable materials shall be utilized, and used materials shall be recycled or reused whenever possible. Use of reclaimed water should occur whenever possible.

Consistent. The project would use standard building materials, which are generally less expensive than alternative building materials. While it may be possible to use recycled building materials on-site, because this is programmatic master plan it is too speculative to determine at this time whether use of these material would be feasible. ~~Because it would not be possible to use recycled, reused, or biodegradable building materials~~Therefore, the project would be consistent with this policy.

Policy EQ-3.13 Aggressive Exotic Plants. The planting of aggressive exotic plants such as broom and pampas grass should be avoided in any development over which the County has review authority.

Consistent. As described in Section 4.13, “Biological Resources,” portions of the project site would be landscaped with native plant species. No aggressive non-native exotic species, such as broom and pampas grass, would be planted onsite. The project would be consistent with this policy.

Policy E-3.14 Protection of Trees. The County shall strive to protect large trees, trees with historical importance, and oak woodland habitat, and prevent the untimely removal of trees through implementation of a tree preservation ordinance.

Consistent. The project would not result in the removal of any onsite trees.

Policy EQ-3.16 Minimize Excavating, Grading, and Filling. New development in the County shall adhere to the standards of the Department of Public Works to minimize excavating, grading, and filling, while allowing for adequate access.

Consistent. The project has been designed to minimize the amount of grading needed to construct the project. The project only includes limited grading for the wastewater treatment facility, boathouse, water storage facilities, and limited areas within the main meadow. All excavated material would be used onsite. Grading standards applied by the Department of Public Works would be required through review of grading and/or improvement plans. The project would be consistent with this policy.

Policy EQ-3.22 Mudflats and Tidal Areas. On low-lying mudflats or tidal fill areas, protection of plant and wildlife habitat is of primary importance. The provision of public access to creeks, streams, and the shoreline should also be encouraged (see Figure EQ-13).

Consistent. The project would not construct any new facilities on low-lying mudflats or tidal fill areas. Public access to coastal areas of the project site would continue to be provided with implementation of the project.

Policy EQ-3.25 Scale of Development. The development of residential structures should be in scale with environmental constraints such as steep slopes and the design character of the existing neighborhood.

Consistent. The project would construct a new residence in the northern portion of the site. This area incorporates existing structures that support existing agricultural and ranching activities. The new residence would be of comparable size and scale as existing onsite facilities and would be sited in an area suitable for residential development avoiding sensitive habitats. A new mobile home would be constructed at Sand Point adjacent to existing mobile homes and travel trailers. The mobile home would be of

similar size, scale, and design as existing onsite structures in this area. No steep terrain or sensitive resources are located in this area. Therefore, the project would be consistent with this policy.

Policy EQ-3.26 Rural Character and Lighting. Development in rural portions of the County (particularly in West Mann communities) should be consistent with the rural character of the area and should provide lighting which is subtle and harmonious with the rural environment.

Consistent. The project would implement facilities that would support and be consistent with existing recreational and agricultural activities present at the site. As discussed in Section 4.7 (Visual Resources), lighting associated with proposed facilities would be consistent with the existing rural character of the project site.

Policy EQ-3.27 Identification of Wetlands Outside the BFC Zone. At the time of a site specific development application, the County shall require the applicant to identify seasonal and year-round wetlands which may be located outside the BFC zone. Development shall be situated so that wetlands are protected and preserved to the maximum extent feasible. Policy EQ-2.43 shall apply to wetlands outside the BFC zone.

Consistent. As discussed in Section 4.13, “Biological Resources,” Mitigation Measure 4.13-3 would require the project sponsor to restore and/or replace lost wetlands onsite. Implementation of this mitigation would reduce the project’s impacts to onsite wetlands to a less-than-significant level under CEQA. Therefore, the project would be consistent with this policy.

Policy EQ-3.29 Review Sensitivity Maps. The Community Development Agency shall review the archeological sensitivity map for all development applications to determine potential impacts.

Consistent. Section 4.12, “Archaeological and Historic Resources,” is based on a cultural resources report prepared by a professional archaeologist. The methodology for this EIR included review of many available documents describing the archaeology and history of the site and site vicinity. In addition, a field survey of the project site was conducted to search for visible evidence of cultural resources. Consequently, consistency with this policy has been achieved.

Policy EQ-3.30 Evaluate Presence of Site. Development sites identified as having a potential for the presence of archeological resources (through review of the sensitivity map or other available sources) shall be evaluated to ascertain if an archeological site is actually present. This evaluation shall be the responsibility of the applicant and may be undertaken by conducting a record search at the Northwest Information Center of the California Archaeological Inventory to determine if the project area has been previously surveyed and if resources have been identified. If the record search reveals that no survey has been undertaken, the applicant may be required to undertake a survey of the site, depending upon the sensitivity of the site.

Consistent. Please refer to the Policy EQ-3.29 discussion regarding cultural resource in addition to the following text. In preparation of the archaeological investigation prepared for this Draft EIR, an extensive literature review, including review of available resources at the Northwest Information Center at Sonoma State University, to assess the potential

for cultural resources to exist at the project site. A field survey was also conducted in areas of proposed construction to detect evidence of prehistoric and historic cultural resources. One previously unidentified archaeological site was discovered during the most recent survey. This resource is not located in an area proposed for construction. Further, based on visual observations, this resource does not appear to be unique and does not appear to contain sufficient information to qualify for listing to the California Register of Historical Resources. However, the possibility exists to uncover unknown subsurface archaeological resources. Mitigation is provided to protect any unknown archaeological resources that may be discovered during construction. With the extent of evaluation conducted for the Draft EIR, the project would be consistent with this policy.

Policy EQ-3.31 Avoid Impact. When a site has been identified as an archeological resource, development shall be situated or designed to avoid impacts on the archeological resources. This may be accomplished through one or more of the following methods:

- ▶ siting buildings to completely avoid the archeological site;
- ▶ providing parks, or some type of open space to incorporated archeological sites;
- ▶ “capping” (covering the site with a layer of soil);
- ▶ deeding the site as a permanent conservation easement.

Consistent. As discussed in Policy EQ-3.29 and EQ-3.30, one previously unidentified archaeological site was discovered during the most recent survey. However, this resource does not appear to be unique and does not appear to contain sufficient information to qualify for listing to the California Register of Historical Resources. Mitigation provided in Section 4.12, “Cultural Resources,” would protect any unknown archaeological resources that may be discovered during construction. The methods identified in Policy EQ-3.31 for protection of archaeological resources are among the alternatives for mitigation in the event that resources are uncovered during construction. Consequently, the project would be consistent with this policy.

Policy EQ-3.32 Discovery of Resources. In the event archeological resources are uncovered during construction, all work must halt and an evaluation must be undertaken by a qualified archaeologist.

Consistent. As stated in the discussion for Policy 3.31, cessation of construction, in the event of uncovering unknown archaeological resource, is a requirement of mitigation recommended in Section 4.12, “Cultural Resources.” With this mitigation, the project would be consistent with this policy.

Policy EQ-4.1 Provision of Facilities. Adequate parks, recreation facilities, and open space shall be provided. Appropriate public access shall be established.

Consistent. The project site currently provides recreational and open space opportunities and the project would provide improved recreational facilities through construction of a new restroom facilities and boathouse. Existing open spaces and public access would be unchanged with implementation of the project. The project would be consistent with this policy.

Policy CD-1.3 Land Use in the Coastal Recreation Corridor. Open space, recreational, and agricultural land uses will be emphasized in the Coastal Recreation Corridor along with the preservation of existing coastal communities.

Consistent. The project site currently provides open space, recreational, and agricultural facilities and uses at the project site, and these uses would continue with implementation of the project. In addition, the project would improve the recreational facilities through construction of new restroom facilities and boathouse. Therefore, the project would be consistent with this policy.

Policy CD-2.2 Location of Housing and Jobs. To discourage long commutes and lessen traffic congestion, housing should be located near jobs, whenever feasible. Economic development which provides jobs for Marin County at all income levels should be encouraged, especially in areas of the county with the lowest ratio of jobs to housing, if feasible. Businesses and industries which provide benefits to the county as identified in Policy CD-3.2 should be encouraged to locate, relocate, or expand in these areas. Housing should be located near job centers with changes in local zoning and densities where appropriate.

Consistent. The project would construct two new residences onsite. One residence would be occupied by the property owner and the second residence would be occupied by employee(s). Therefore, the project would be consistent with this policy.

Policy CD-2.7 Discouraging Development in Natural Resource or Hazard Areas. Development should be discouraged in areas which have high natural resource value or which pose a significant hazard to life or property. Where development is permitted in such areas, the development density should be low and structures should be sited to minimize adverse impacts. This policy is consistent with the policies in the Environmental Quality and Environmental Hazards Elements. Transfer of development rights (TDR's) from high resource areas to appropriate receiver sites could be used to protect resource values.

Consistent. As discussed in Section 4.6, "Geology and Soils," all project facilities would be set back at least 50 feet from the active fault trace and would minimize site-specific hazards to life or property. Further, the project's seismic impacts would be mitigated through implementation of Mitigation Measure 4.6-3, which requires structures located in the secondary zone of deformation to incorporate site specific engineering and design measures. The project is not the development of a subdivision or changed land use plan, rather it is a program of facilities that would be implemented at the site to enhance and improve existing recreational facilities. The facilities proposed for the project are isolated and serve a defined purpose for existing land uses. In general, construction would be minimal and occur in discreet and isolated areas and through implementation of recommended mitigation measures (Mitigation Measure 4.6-1, 4.6-3, 4.13-1, 4.13-2, 4.13-3, and 4.13-4), impacts to sensitive environmental resources at the site (e.g., sand dunes, wetlands, sensitive species). Because the project mitigated impacts to environmental resources to a less-than-significant level, and it has minimized the level and density of development at the site, it would, therefore, be consistent with this policy.

Policy CD-4.6 Water Conservation. Water should be conserved, both to decrease use of a scarce resource and to reduce the consumption of energy for water distribution.

Consistent. The project would continue to employ existing water conservation practices at the site (e.g., limiting irrigation). Therefore, the project would be consistent with this policy.

Policy T-1.3 Fair Share For Transportation System Improvements. New development should pay a fair share of the costs for providing local and regional transportation system improvements necessary to serve new development.

Consistent. The project includes improvements along Dillon Beach Road and Cliff Street. The costs associated with these improvements are the responsibility of the project sponsor. Therefore, the project would be consistent with this policy.

Policy N-1.1 Use Noise Level Guidelines-New Development. The County shall use noise level guidelines contained in this [Noise] element to direct the siting, design, and insulation of new commercial and residential development.

Consistent. Section 4.10, “Noise,” evaluates noise impacts of the project in accordance with the Marin Countywide Plan Noise Element guidelines. The noise analysis evaluates the effects of noise on the two new residences in relation to the 60 dba L_{dn} “normally acceptable” exterior noise standard for those uses. Therefore, the project would be consistent with this policy.

Policy N-2.1 Use Noise Level Guidelines-Existing Development. The County shall use noise level guidelines contained in this (Noise) element to protect existing land uses from noise generated by new development.

Consistent. Section 4.10, “Noise,” evaluates noise impacts of the project in accordance with the Marin Countywide Plan Noise Element guidelines. The project would not result in a substantial increase in onsite noise levels such that it would adversely affect existing uses on the project site. The project would be consistent with this policy.

Policy N-2.4 Minimize Impacts From Excessive Noise Levels Because of Construction Activity. During all phases of construction, measures should be taken to minimize the exposure of neighboring properties to excessive noise levels from construction-related activity.

Consistent. Construction activities associated with the project would generate noise in excess of County exterior noise thresholds related to existing nearby residents. The project would limit construction to specific times of particular days, and to certain days, which are measures consistent with Marin Countywide Plan programs. While these mitigation measures cannot avoid or completely mitigate the noise levels to the 60 dBA L_{dn} exterior noise standard, the project does incorporate timing limitations to minimize the effects of construction noise to the extent feasible and would, therefore, be considered consistent with this policy.

Policy EH-3.1 Location of Future Development. New development shall be sited in a manner which avoids or minimizes the potential of hazards from earthquake, erosion, landslides, floods and fire. Development should be endangered by nor contribute to hazardous conditions on the site or on adjoining properties.

Consistent. As discussed in Section 4.6, “Geology and Soils,” potential impacts associated with earthquakes, erosion, and/or landslides would be reduced to less-than-significant levels with implementation of Mitigation Measures 4.6-1, 4.6-2, 4.6-3, 4.6-5, and 4.6-10. As concluded in Section 4.5, “Hydrology and Water Quality,” Mitigation Measure 4.5-2 would reduce flood hazard impacts to less-than-significant levels. Section 4.15, “Police and Fire,” analyzes fire and other safety issues and concludes that less-than-

significant impacts would result from the project. Based on conclusions in this Draft EIR concerning environmental hazards, the project would be consistent with this policy.

Policy EH-3.2 New Development Approval. New development will be approved in identified geologic hazard areas only if the hazards can be reduced to acceptable levels through mitigation measures which are appropriate to the site, and consistent with other policies in the Countywide Plan.

Consistent. As discussed in Section 4.6, “Geology and Soils,” potential impacts associated with earthquakes, erosion, and/or landslides would be reduced to less-than-significant levels with implementation of Mitigation Measures 4.6-1, 4.6-2, 4.6-3, 4.6-5, and 4.6-10. The project would be consistent with this policy.

Policy EH-4.2 Location of Structures. No public or private structure built for human occupancy, or with the potential to imperil structures built for human occupancy, shall be permitted to be placed across the trace of a confined active fault. This policy shall not be interpreted as being more restrictive of single-family residential construction than the Alquist-Priolo Act. It is assumed that the area within fifty (50) feet of an active fault is underlain by active branches of that fault unless and until proven otherwise by an appropriate geologic investigation.

Consistent. As discussed in Section 4.6, “Geology and Soils,” the proposed boathouse would be relocated onsite and would setback at least 50 feet from the active San Andreas Fault trace. And at a minimum, would be designed and constructed to the seismic design requirements for ground shaking specified in the UBC for Seismic Zone 4 and the secondary deformation zone and as required through implementation of Mitigation Measure 4.6-3. The project would be consistent with this policy.

Policy EH-5.1 Mitigation of Risk. Construction of all new habitable structures, including those for residential, commercial, industrial use, shall employ engineering measures which mitigate against life safety risks from ground shaking. At minimum, new structures shall meet standards specified in Title 19, Marin County Code.

Consistent. Site-specific mitigation measures are provided in Section 4.6, “Geology and Soils,” to mitigate the effects of groundshaking. These measures include the use of seismic design criteria, construction techniques to resist lateral forces, and use of UBC and Marin County Procedures and engineering techniques. The project would be consistent with this policy.

Policy EH-6.1 Evaluate Projects in Stability Zones 3 or 4. Before consideration of site design or use, the Department of Public Works shall evaluate projects proposed in zones 3 or 4 (see EH.II.B.1) in stability and landslide potential according to the California Division of Mines and Geology Classification 9. Project proposals shall be accompanied by a report prepared by a civil engineer with soils engineering expertise or a soils certified engineering geologist. The soils evaluation should address the structural foundation engineering of the actual site, the impact of the project on adjacent lands, and impacts of offsite conditions on the site. Project applicants may need to consult with a soils engineer to determine whether their parcel falls within Stability Zones 3 or 4.

Consistent. As discussed in Section 4.6, “Geology and Soils,” the potential for slope instability on the project site is very low and restricted to shallow failures of steep slopes

of the sand dunes. The reconstructed boathouse, new owner's residence, and new employee mobile home would not be subject to landslides. Minor slope failures could place strains on the proposed septic and leachfield system (wastewater treatment facility). However, the system would be designed with flexible components and at sufficient depth to mitigate strain induced from these minor slope movements. The geotechnical report prepared for the project would be submitted to the County Department of Public Works for review and approval.

Policy EH-8.2 Construction. Improvements should be designed to withstand impact from a tsunami and the debris it will carry. Structural features which could become dislodged or detached (docks, decking, floats, vessels) should be situated where they do not have the potential of becoming potential implements of destruction.

Consistent. As discussed in Section 4.5, "Hydrology and Water Quality," Mitigation Measure 4.5-2 would require that all facilities constructed in areas subject to minimal flooding be designed and constructed to withstand the effects of floods. Therefore, the project would be consistent with this policy.

Policy A-1.1 Preservation of Agricultural Lands. Agricultural lands shall be preserved by maintaining agricultural parcels in sizes large enough to sustain agricultural production, avoiding conversion of agricultural land to non-agricultural uses, discouraging uses which are not compatible with long term agricultural productivity, and encouraging programs that assist agricultural productivity of their land and marketing their products.

Consistent. The project would continue existing agricultural activities on the site including ranching and grazing. The project would also consolidate numerous parcels in the main meadow area of the project site into one parcel to reduce the potential for these parcels being developed in the future. Therefore, the project would be consistent with this policy.

Policy A-1.4 Development in Agricultural Areas. Any subdivision and/or nonagricultural development allowed on agricultural lands shall be consistent with objectives and criteria which promote the long term agricultural uses and productivity of the specific parcel being proposed for subdivision and/or development of agricultural lands occurs. If subdivision and/or development of agricultural lands occurs, the County shall require clustering or grouping together of allowable dwelling units on relatively small parcels comprising not more than 5% of the total area of the parcel(s) being subdivided. Conversely, 95% of the total area of the parcel(s) being subdivided shall be preserved for agriculture and open space. These clustering provisions may be modified if the County can make findings that the long term agricultural use and productivity of a specific parcel can be enhanced through an alternative form of subdivision or development.

Consistent. The project would construct a new residence that would be occupied by the property owner. The residence would be located near the existing agricultural compound in the northern portion of the project site and would serve existing agricultural activities. Therefore, the project would be consistent with this policy.

Policy A-1.10 Non-Agricultural Land Uses. Non-agricultural land uses on agricultural lands should be compatible with agricultural land uses and with the rural character of the Inland Rural and Coastal Recreation corridors and enhance the economic viability of agricultural operations.

Consistent. The project would construct a new residence to be occupied by the property owner. The residence would be located near the existing agricultural compound in the northern portion of the project site and would serve existing agricultural activities. Further, no changes to existing agricultural operations on the project site would occur. Therefore, the project would be consistent with this policy.

Policy CF-2.1 Rural Land. The County will maintain the rural character of lands located in the Coastal Recreation Corridor and the Inland Rural Corridor, consistent with the applicable objectives, policies, and programs in the Environmental Quality Element, the Community Development Element, and the Agricultural Element.

Consistent. The project would continue agricultural and recreational activities on the site and would not adversely affect the existing rural character of the project site.

Policy CF-5.2 Cost of Facilities. New development shall pay the cost of the infrastructure it requires and the public services it receives.

Consistent. The project would not require expansion of existing public facilities, services, or infrastructure. As discussed in Section 4.8, "Transportation and Circulation," proposed roadway improvements would be financed by the project sponsor. Therefore, the project would be consistent with this policy.

Policy TR-3.1 Trails Location. Locate trails away from sensitive habitat areas such as wetlands and areas where endangered species may be adversely affected.

Consistent. The project would formalize pedestrian pathways in the western foredunes. These pathways would be sited and staged to avoid sensitive environmental resources. Therefore, the project would be consistent with this policy.

Impact 4.2-3: Consistency with Policies of the Marin County Local Coastal Program Unit II. The project would be consistent with all relevant policies in the Marin County Local Coastal Plan Unit II. Therefore, this would be considered a less-than-significant impact.

Public Access

1. General policy. The County of Marin supports and encourages the enhancement of public access opportunities to the coast, in conformance with Sections 30210 through 30214 of the Coastal Act. There are three methods by which the policies of these sections will be implemented in the County's Public Access Component:
 - a. Existing accessways. The LCP recognizes existing public accessways in Unit II, both public and private, as an integral part of the County's overall access program. These accessways, identified in Table 1 on page 6, should be maintained open to the public.
 - b. Offered easements. A total of nine offers of public access easements in Unit II have been required as a condition of past permit approvals by the County or the North Central Coast Regional Commission. The LCP recommends that certain of these easements, as specified in Policy #3 below, be accepted by the County or other agency and incorporated into the County's access program.

- c. New accessways. The County views public access easements, gained through offers of dedication as a condition of coastal permit approval, as the primary means available to increase public access opportunities in Unit II. Potential areas where such easements could be required have been evaluated based on their desirability and physical suitability, evidence of prescriptive rights, and proximity to other access points and existing uses. Based on these criteria, specific recommendations for new accessways have been developed (Policy #3). In addition to the easements recommended, the County may require additional access easements in the future as the need arises.

If funds become available for acquisition of public accessways, they should be allocated according to the priority recommendations in Policy #4.

Consistent. Existing public access to the project site would be preserved and improved under the project. Existing public access opportunities at Lawson's Landing are identified in Table 1 on page 6 and in text on page 8 of the LCP-II. The project would continue to allow public access to the beach areas for both pedestrian and vehicular traffic. In addition, the project would construct a 3-foot wide path along the west side of Lawson's Landing Road to provide a separation for pedestrians and bicyclists from motorized vehicles entering Lawson's Landing. Pedestrian pathways would also be constructed in the foredunes and these paths would be rotated to maintain environmental features of the project site and reduce existing pedestrian impacts to the foredunes. Therefore, the project would be consistent with this policy.

Recreation and Visitor-Serving Facilities

1. General policy. The County of Marin supports and encourages the enhancement of public recreational opportunities and the development of visitor-serving facilities in its coastal zone. Such development must, however, be undertaken in a manner which preserves the unique qualities of Marin's coast and which is consistent with the protection of natural resources and agriculture. Generally, recreational uses shall be low-intensity, such as hiking, camping, and fishing, in keeping with the character of existing uses in the coastal zone. New visitor-serving commercial development shall be compatible in style, scale, and character with that of the community in which it is located and shall be sited and designed to minimize impacts on the environment and on other uses in the area. The County encourages that a diversity of recreational opportunities and facilities be provided, especially those of moderate cost. Facilities for water-oriented recreational uses, such as clamming and boating, are preferred to those which do not require a coastal location.

Consistent. Existing recreational activities at the project site are consistent with the recreational and visitor-serving uses identified in this policy. The project would improve existing onsite facilities including public restrooms and wastewater treatment system. All proposed facilities would be sited to avoid sensitive environmental resources. The proposed facilities would enhance public recreational opportunities at the project site and would continue to provide a variety of recreational opportunities including camping, fishing, clamming, hiking, and boating at a moderate cost. Therefore, the project would be consistent with this policy.

- 3.a. General standards and zoning. To preserve the integrity and special qualities of coastal villages in Unit II, visitor-serving and commercial development shall be compatible in architectural style, scale, and function with the character of the community in which it is located. Such development shall also be evaluated for its conformance with LCP policies on natural resources and agriculture, visual quality, public access, and public services, among others. Existing commercial zoning shall be modified in accordance with policy 3(g) below.

Consistent. Facilities proposed under the project would be designed to be compatible with the architectural style of existing onsite buildings and would compliment existing recreational facilities at the project site. The siting and location of proposed facilities would avoid sensitive environmental features at the site and would not be located in areas that would obstruct views to or from coastal areas. The analysis presented in this section evaluates the project's consistency with relevant policies of the LCP-II. Therefore, the project would be consistent with this policy.

3.g. Dillon Beach. Lawson's Dillon Beach Resort, located immediately south of Dillon Beach, and Lawson's Landing, located on Sand Point, shall be retained as public recreational areas. Both facilities have the potential for expanded visitor-serving development, although providing for adequate water supply and sewage disposal may be problematic.

(2) Lawson's Landing. Lawson's Landing is an appropriate site for limited expansion of boating facilities and overnight accommodations. Any such expansion shall be based on thorough planning studies which identify the environmental resources and constraints of the site, including wildlife, vegetation, and archeological resources, geologic and wave hazards, and public service constraints. Measures to protect the site's resources, particularly sand dunes and dune tansy vegetation, shall be included in any development plan. Any such plan shall also include improvements in sewage disposal facilities, in accordance with the recommendations of the Regional Water Quality Control Board. Existing A-60 zoning on A.P. #100-100-48 shall be changed to RCR in the Sand Point area and to a resource protection and/or agricultural zone on the remainder of the parcel. A.P. #100-100-49, the beach front recreational parcel, as well as all parcels presently zoned A-2 which constitute the campground sites, shall be rezoned to RCR to reflect historic and present land use.

Consistent. The project would not result in the expansion of existing recreational uses, rather it would implement facilities that would support and enhance existing recreational facilities at the project site. This Draft EIR and the supporting studies provide a comprehensive evaluation of the environmental impacts of the project. The project includes the construction of a new wastewater treatment system in onsite sand dunes which could result in significant impacts related to the natural migration of the dune system. Mitigation Measure 4.6-1 requires that the wastewater treatment facility be relocated outside of onsite sand dunes in the northern portion of the project site as identified on Exhibit 4.6-10. Implementation of the project with this mitigation would eliminate the project's impacts to onsite sand dunes. With regard to zoning designations on the project site, the Sand Point area and areas along the shoreline are currently designated C-RCR. Therefore, the project would be consistent with this policy.

Natural Resources

3. Streams and riparian habitats. The policies contained in this section shall apply to all streams in the Unit II coastal zone, perennial or intermittent, which are mapped by the United States Geological Survey (U.S.G.S.) on the 7.5 minute quadrangle series.

c. Stream Buffers. Buffers to protect streams from the impacts of adjacent uses shall be established for each stream in Unit II. The stream buffer shall include the area covered by riparian vegetation on both sides of the stream and the area 50 feet landward from the edge of the riparian vegetation. In no case shall the stream buffer be less than 100 feet in width, on either side of the stream, as measured from the top of the stream banks.

Consistent. The project would not develop any facilities that would encroach upon any buffers protecting Dillon Creek. Therefore, the project would be consistent with this policy.

- d. Development in Stream Buffers. No construction, alteration of land forms or vegetation removal shall be permitted within such riparian protection area. Additionally, such project applications shall identify a stream buffer area which shall extend a minimum of 50 feet from the banks of a stream. Development shall not be located within this stream buffer area.

Consistent. The project would not construct any facilities within any identified buffers protecting Dillon Creek. Therefore, the project would be consistent with this policy.

4. Wetlands. Wetlands in the Unit II coastal zone shall be preserved and maintained, consistent with the policies in this section, as productive wildlife habitats, recreational open space, and water filtering and storage areas. Land uses in and adjacent to wetlands shall be evaluated as follows:

- ▶ Diking, filling, and dredging of wetlands shall be permitted only in conformance with the policies contained in the LCP on this subject, presented on page 136. In conformance with these policies, filling of wetlands for the purposes of single-family residential development shall not be permitted.

Acceptable purposes allowed by the LCP as they relate to the project include:

- c. Incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

Consistent. The proposed residence and mobile home would not be constructed in an area supporting coastal wetlands or Section 404 wetlands or other waters of the United States. The construction of some project facilities (i.e., restrooms, boathouse, roadways) could result in the fill or removal of onsite wetlands. As described in the LCP, fill of coastal wetlands could be permitted for public service purposes including the burying of pipes. The project includes the construction of a community wastewater treatment system, which would require the installation of conveyance pipeline the construction of which would result in fill of onsite wetlands. Further, the construction of water lines to serve new restroom facilities could also result in fill of onsite wetlands. Although the wastewater system is privately owned and operated, it would serve a community purpose for residences and travel trailers at the project site, and it would be subject to the regulations of the RWQCB. As a result, this system would be considered a public facility. Therefore, the fill of wetlands associated with construction of conveyance pipeline would be permitted under this policy and the LCP. Similarly, the water lines would serve restroom facilities that would be used by the public and residents of Lawson's Landing and would, therefore be considered a public facility and the fill of wetlands associated with construction of the water lines would be permitted under this policy and the LCP. However, other project facilities (e.g., restrooms, boathouse, roadways) could result in the fill of wetlands and are not permitted uses described in this policy or the LCP. Mitigation Measure 4.13-3 requires that these facilities be constructed a minimum of 100 feet outside of all wetlands to avoid impacts to wetlands. Therefore, with implementation of recommended mitigation measures, the project would be consistent with this policy.

- b. Allowable resource-dependent activities in wetlands shall include fishing, recreational clamming, hiking, hunting, nature study, bird-watching, and boating.

Consistent. Existing activities at the project site include the parking of camping vehicles in the main meadow area where wetlands are located. With implementation of the project, these camping activities would continue at current use levels. Although camping is not listed as an allowable resource-dependent activity, camping activities currently occur onsite. Therefore, these activities would be included within the existing baseline condition from which the project's physical environmental effects are determined. The project would not change existing recreational use activities at the site. Consequently, the project would not increase the level of camping activity that occurs in onsite wetland areas and would not result in a significant adverse environmental effect. This would be a less-than-significant impact under CEQA. If the County approves the proposed master plan would authorize continuation of existing land uses and activities (i.e., camping in wetlands) and would not authorize new or increased use levels at the site. Therefore, the project would be consistent with policy.

- c. No grazing or other agricultural uses shall be permitted in wetlands except in those reclaimed areas presently used for such activities.

Consistent. Although the project would not increase grazing activities at the project site, existing grazing and ranching activities at the project site would continue and could occur in areas where wetlands are present. Therefore, the project would be consistent with this policy.

- d. A buffer strip 100 feet in width, minimum, as measured landward from the edge of the wetland, shall be established along the periphery of all wetlands. Where appropriate, the required buffer strip may be wider based upon the findings of the supplemental report required in (e).

Consistent. Construction of project facilities (e.g., conveyance pipeline, restrooms, roadway construction and pavement, foredune trails) could result in the disturbance or fill of wetlands onsite. As discussed in Section 4.13, "Biological Resources," Mitigation Measure 4.13-3 requires the project to mitigate its impacts to onsite wetlands primarily through avoidance. With implementation of Mitigation Measure 4.13-3, project facilities would be setback a minimum of 100 feet outside of onsite wetlands. Therefore, project approval, with mitigation, would be consistent with this policy.

- e. As part of the application for a coastal development permit on any parcel adjacent to Tomales Bay, except where there is no evidence of wetlands pursuant to the Coastal Commission's guidelines, the applicant shall be required to submit supplemental biological information prepared by a qualified ecologist at a scale sufficient to identify the extent of the existing wetlands, based on Section 30121 of the Coastal Act and the area of the proposed buffer areas.

Section 30121 of the Coastal Act states "Wetland means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.

Consistent. A biological constraints analysis for the project has been prepared by Monk & Associates Environmental Consultants and peer reviewed by EDAW and is included in Appendix J. This analysis will be used by the County as the designated LCP agency in its review of the project application. Therefore, the project would be consistent with this policy.

5. Coastal Dunes and Other Sensitive Land Habitats. Development in or adjacent to sensitive habitats shall be subject to the following standards:

a. Coastal Dunes. No development shall be permitted in coastal dunes to preserve dune formations, vegetation, and wildlife habitats. If additional development is proposed at Lawson's Landing, it shall be sited out of the dunes and designed to minimize impacts on adjacent dune vegetation and habitat. Overuse in the dune area shall be prevented by such mechanisms as restricting parking, directing pedestrian traffic to areas capable of sustaining increased use, and fencing. No motor vehicles shall be permitted in beach or dune areas except for emergency purposes.

Consistent. The majority of project construction would be located in the meadow, at Sand Point, or near existing agricultural operations. The only activities proposed to occur within sand dunes involve the construction of an onsite wastewater treatment system and trail system. Construction of the wastewater treatment system in the onsite sand dunes would require planting vegetation to stabilize the dune and prevent further erosion and shifting during the operational lifetime of the system. As described in Section 4.6, "Geology and Soils," and 4.13, "Biological Resources," stabilization of the sand dune would result in significant impacts related to the natural migration of the dune system. Mitigation Measure 4.6-1 requires that the wastewater treatment system be relocated outside of sand dunes in one of three alternate locations identified in Exhibit 4.10-6, which are generally located in the northern portion of the project site. Based on preliminary review of these locations, these areas could feasibly support a wastewater treatment system and would not result in any new significant environmental impacts. Implementation of the project with recommended mitigation would be consistent with this policy.

b. Other Environmentally Sensitive Habitats. Other sensitive habitats include habitats of rare or endangered species and unique plant communities. Development in such areas may only be permitted when it depends upon the resources of the habitat area. Development adjacent to such areas shall be set back a sufficient distance to minimize impacts on the habitat area. Public access to sensitive habitat areas, including the timing, intensity, and location of such access, shall be controlled to minimize disturbance to wildlife. Fences, roads, and structures which significantly inhibit wildlife movement, especially access to water, shall be avoided.

Consistent. Some proposed facilities (e.g., new residences and boathouse) would not be located in areas where sensitive biological species or habitats would be located. Other proposed facilities (e.g., restrooms, conveyance pipeline, water storage tanks, and wastewater treatment system) are proposed to be sited to avoid sensitive biological species and set back sufficient distance from any nearby biological habitat areas to the degree feasible. Where proposed project facilities and construction activities would potentially affect sensitive habitats or species, mitigation recommended for the project (Mitigation Measures 4.13-1, 4.13-2, 4.13-3, and 4.13-4) would reduce the project's impacts to these resources to a less-than-significant level. Along with this, Mitigation Measure 4.6-1 requires construction of the wastewater treatment system outside of onsite sand dunes to avoid impacts to the natural migration of the sand dune system. No facilities would be constructed that would impair or inhibit wildlife movement.

Agriculture

1. General Policy. Marin County intends to protect the existing and future viability of agricultural lands in its coastal zone, in accordance with Sections 30241 and 30242 of the Coastal Act. The County's LCP policies are intended to permanently preserve productive agriculture and lands with

the potential for agricultural use, foster agricultural development, and assure that non-agricultural development does not conflict with agricultural uses or is incompatible with the rural character of the County's coastal zone. These policies are also intended to concentrate development in suitable locations, ensure that adequate public services are available to serve new development, and protect coastal wildlife, habitat, and scenic resources, in accordance with Sections 30240, 30250, and 30251 of the Coastal Act.

Consistent. As discussed in Section 4.11, "Land Use, Agriculture, and Recreation," the project would not result in the conversion of any agricultural lands on the project site. Existing agricultural operations at the site would continue with implementation of the project. Therefore, the project would be consistent with this policy.

3. Intent of the Agricultural Production Zone. The intent of the Agricultural Production Zone is to preserve lands within the zone for agricultural use. The principal use of lands within the zone shall be agricultural. Development shall be accessory, incidental, or in support of agricultural land uses, and shall conform to the policies and standards in #4 and #5 below.

Consistent. As discussed in Section 4.11, "Land Use, Agriculture, and Recreation," the project would continue agricultural uses in the areas of the project site that are zoned APZ including ranching and grazing activities. A new residence would be constructed in the area zoned APZ. This residence would be for the property owners who manage the agricultural activities at the site and would support onsite agricultural activities. Further, the single-family residence is considered a permitted use under the APZ designation. Therefore, the project would be consistent with this policy.

4. All land divisions and developments in the APZ shall require an approved master plan showing how the proposed division or development would affect the subject property. In reviewing the proposed master plan and determining the density of permitted units, the County shall make all of the following findings:

- a. The development would protect and enhance continued agricultural use and contribute to agricultural viability.

Consistent. The project is a master plan that outlines a program of facilities that would be constructed at the project site. The proposed facilities would support existing onsite recreational and agricultural activities and would continue agricultural uses in areas designated as APZ by the LCP-II.

- d. Adequate water supply, sewage disposal, road access and capacity and other public services are available to service the proposed development after provision has been made for existing and continued agricultural operations. Water diversions or use for a proposed development shall not adversely impact stream habitats or significantly reduce freshwater inflows to Tomales Bay, either individually or cumulatively.

Consistent. As discussed in Section 4.8, "Traffic and Circulation," the project would improve access to the project site by reconstructing the gatehouse and increasing the number of access lanes. The project would not increase existing recreational use levels at the site and therefore would not result in a substantial increase in existing traffic levels or water demands. As discussed in Section 4.3, "Water Supply," existing water wells on the project site would be able to adequately serve the project. No diversions from nearby surface water resources would be required. As discussed in Section 4.4, "Wastewater Treatment," the project would include the

construction of a new wastewater treatment facility. This facility would be able to adequately accommodate onsite wastewater treatment demands. Therefore, the project would be consistent with this policy.

- e. Appropriate public agencies are able to provide necessary services (fire protection, police protection, schools, etc.) to serve the proposed development.

Consistent. The project would not adversely affect the ability of local public agencies (e.g., police, fire) to serve the project or surrounding community (see Section 4.15, Police and Fire Services). In addition, as discussed in Section 4.8, “Transportation and Circulation,” the project would be required through Mitigation Measure 4.8-4 to improve Sand Haul Road to provide a secondary emergency access point to the project site. Therefore, the project would be consistent with this policy.

- f. The proposed land division and/or development will have no significant adverse impacts on environmental quality or natural habitats, including stream or riparian habitats and scenic resources. In all cases, LCP policies on streams and natural resources shall be met.

Consistent. The project would not result in the construction of any facilities that would adversely affect scenic resources at the project site. However, the project would construct a wastewater treatment system in the sand dunes which would result in significant impacts associated with onsite sand dune habitats. Mitigation Measure 4.6-1 requires all new project facilities be relocated outside of sand dune habitats. Further, Mitigation Measure 4.13-3 requires all project facilities to be setback at least 100 feet from coastal wetland habitats. Therefore, the project would be consistent with this policy.

- g. Development consists of permitted and conditional uses as authorized in the APZ.

Consistent. As discussed in Section 4.11, “Land Use, Agriculture, and Recreation,” the project would not change existing recreational and agricultural land uses at the site. These land uses would be consistent with land uses allowed under the APZ designation. Therefore, the project would be consistent with this policy.

5. Conditions. As part of a master plan, the following conditions shall be required:

- a. All development shall be clustered to retain the maximum amount of land in agricultural production or available for agricultural use. Development, including all land converted from agricultural use such as roads and residential support facilities, shall be clustered on no more than five percent of the gross acreage, to the extent feasible, with the remaining acreage to be left in agricultural production and/or open space. Development shall be located close to existing roads and shall be sited to minimize impacts on scenic resources, wildlife habitat and streams, and adjacent agricultural operations.

Consistent. As discussed in Section 4.11, “Land Use, Agriculture, and Recreation,” the project includes the construction of facilities that would support existing recreational and agricultural activities at the site. The project would not result in the conversion of any agricultural areas to non-agricultural uses. One new residence would be constructed near the northern farm complex. Other facilities would be clustered in the main meadow of the project site. Therefore, the project would be consistent with this policy.

- b. Permanent conservation easements over that portion of the property not used for physical development or services shall be required to promote the long-term preservation of these lands. Only agricultural uses shall be allowed under the easements. In addition, the County shall require the execution of a covenant not to divide for the parcels created under this division so that they are retained as a single unit and are not further subdivided.

Consistent. As discussed in Section 4.11, “Land Use, Agriculture, and Recreation,” the project includes the construction of facilities that would support existing recreational and agricultural activities at the site. The project would not result in the conversion of any agricultural areas to non-agricultural uses. One element of the project would be to merge the smaller parcels of land in the meadow area into one large parcel. An intent of this merger is to promote the long-term preservation of agricultural lands on the project site. The feasibility of requiring a permanent conservation easement will be considered by the county in the context of the merits of the project and applicable case law. Therefore, the project would be consistent with this policy.

Commercial Fishing and Recreational Boating

1. General Policy. The use of Tomales Bay for commercial fishing and recreational boating shall be supported and protected. Facilities on the shoreline of the Bay which support such uses shall be protected and, where feasible, upgraded. The County particularly encourages continued commercial fishing in Tomales Bay.

Consistent. The project would reconstruct the existing boathouse at Sand Point. This facility would continue to serve existing recreational activities in Tomales Bay. Therefore, the project would be consistent with this policy.

Diking, Filling and Dredging

1. General Policy. Diking, filling, and dredging of coastal areas can have significant adverse impacts on water quality, marine habitats and organisms, and scenic features. The County of Marin intends to strictly limit the purposes for which these potentially damaging activities can occur in the coastal zone, in accordance with Section 30233 of the Coastal Act. For purposes of the LCP, open coastal waters, wetlands, and other water bodies to which these policies apply shall be defined according to the criteria established by the U.S. Fish and Wildlife Service for marine and estuarine systems. “Fill” shall be defined as “...earth or any other substance or material, including pilings placed for the purpose of erecting structures thereon, placed in a submerged area,” as given in Section 30108.2 of the Coastal Act.

Section 30233 of the CCA provides in relevant part that:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(5) Incidental public service purposes, including but not limited to, burying cables, and pipes or inspection and maintenance of existing intake and outfall lines.

(c) In addition to other provisions of this section, diking, filling, or dredging in existing estuaries or wetlands shall maintain or enhance the functional capacity of the wetland or estuary. An alteration of coastal wetlands identified by Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California," shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

2. Acceptable purposes. The diking, filling, and dredging of open coastal waters, wetlands, and estuaries shall be limited to the following purposes:

- ▶ New or expanded commercial fishing facilities.
- ▶ Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- ▶ Incidental public service purposes, including, but not limited to/burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- ▶ Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- ▶ Restoration purposes.
- ▶ Nature study, aquaculture, or similar resource-dependant activities.
- ▶ Excluding wetlands, new or expanded boating facilities may be permitted. Only entrance channels or connecting walkways for new or expanded boating facilities shall be permitted in wetlands.
- ▶ In the Esteros Americano and de San Antonio, and any alterations shall be limited to those for the purposes of nature study, restoration, or very minor incidental public facilities.

3. Conditions and Standards. Diking, filling, or dredging may be permitted for the purposes specified above, provided that the following conditions and standards are met:

- ▶ There is no feasible less environmentally damaging alternative.
- ▶ Where feasible, mitigation measures have been provided to minimize adverse environmental effects.
- ▶ The activities are planned, scheduled, and carried out to avoid significant disruption to marine and wildlife habitats, fish and bird breeding and migrations, and water circulation.
- ▶ The need for both initial and maintenance dredging shall be minimized by careful design and location of facilities with respect to existing water depth, water circulation, siltation patterns, and by efforts to reduce controllable sedimentation.
- ▶ In estuaries and wetlands, the diking, filling, or dredging shall maintain or enhance the functional capacity of the wetland or estuary.

- ▶ Dike and fill projects in wetlands shall include mitigation measures specified in Section 30607.1 of the Coastal Act.

Consistent. The proposed residence and mobile home would not be constructed in an area supporting coastal wetlands, Section 404 wetlands, or other waters of the U.S. The construction of some project facilities (i.e., restrooms, roadways) could result in the fill or removal of onsite wetlands. Mitigation Measure 4.13-3 requires that these facilities be setback a minimum of 100 feet outside of all coastal wetlands. Therefore, with implementation of recommended mitigation measures, the project would be consistent with this policy.

Public Services

1. General policy. Before the issuance of a coastal development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public services and resources (i.e., water supply, sewage disposal, and road access and capacity) are available to serve the proposed development. Lack of available services or resources shall be grounds for denial of the project or for a reduction in the density otherwise indicated in the land use plan.

Consistent. The Draft EIR analysis of public services and utilities concludes that implementation of the project and associated mitigation measures would result in less-than-significant impacts with regard to the following: Section 4.3, “Water Supply”; Section 4.16, “Police and Fire Services”; and Section 4.15, “Schools.” However, as discussed in Section 4.8, “Traffic and Circulation,” only one emergency vehicle access point to the project site through the Lawson’s Landing entrance gate is provided. Mitigation Measure 4.8-4 requires Sand Haul Road to be improved to allow its use as a secondary emergency access point. As discussed in Section 4.4 (Wastewater Treatment), the project would construct a new wastewater treatment facility in onsite sand dunes. As described in Section 4.6, “Geology and Soils,” and 4.13, “Biological Resources,” stabilization of the sand dune would result in significant impacts related to the natural migration of the dune system. Mitigation Measure 4.6-1 requires that the wastewater treatment system be relocated outside of sand dunes in one of three alternate locations identified in Exhibit 4.10-6, which are generally located in the northern portion of the project site. Based on preliminary review of these locations, these areas could feasibly support a wastewater treatment system. Implementation of the project with recommended mitigation would be consistent with this policy.

2. Water Supply.

- f. Fire protection. All proposed building permits and land divisions shall be reviewed by the County Fire Chief or other appropriate fire protection agency before the issuance of a coastal development permit so that additional requirements for fire protection, including water storage facilities, sprinkler systems, or fire hydrants, may be added as necessary.

Consistent. The project’s building permits would be reviewed by the County Fire Chief before issuance of a coastal permit. The Marin County Fire Department has been consulted in preparation of this Draft EIR. As discussed in Section 4.3, “Water Supply,” the project would construct two new water storage tanks and three new fire hydrants within the meadow area. These improvements would improve fire protection capabilities at the project site. Therefore, the project would be consistent with this policy.

3. Sewage Disposal.

a. Onsite sewage disposal. All onsite sewage disposal systems in the coastal zone shall be evaluated as follows:

- (1) Septic systems. All septic systems shall meet the standards contained in either the “Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal System” adopted by RWQCB on April 17, 1979 or the County’s revised septic system code, when approved by RWQCB. No waivers shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by RWQCB, or such waivers have otherwise been reviewed and approved by RWQCB.

Consistent. Section 4.4, “Wastewater Facilities,” evaluates the environmental impacts associated with construction and operation of the proposed wastewater treatment system. As described therein, the proposed design of the wastewater treatment system would meet the RWQCB’s design standards. Further, RWQCB would maintain enforcement authority over the inspection, monitoring, and maintenance of the system in accordance with criteria adopted by the RWQCB. Therefore, the project would be consistent with this policy.

e. Dillon Beach/Oceana Marin/Lawson’s Landing. The methods of sewage disposal at Lawson’s Landing have caused problems in the past. As part of any expansion or redevelopment plan for the area, improvements in sewage disposal facilities shall be required, in accordance with the recommendations of RWQCB.

Consistent. As discussed in Section 4.4, “Wastewater Facilities,” the project would construct a new wastewater treatment facility to improve existing wastewater disposal capabilities at the site. The design of the proposed facility must meet the standards of the RWQCB. Therefore, the project would be consistent with this policy.

4. Transportation and Road Capacity.

c. Alternative methods of transportation. The County discourages the excessive use of private automobiles and strongly supports the development of expanded public transit and other alternative methods of transportation in the coastal zone, such as bicycles. Bicycle and pedestrian paths, separated from roads where possible, are especially encouraged. The development of new transit service routes and associated loading and turning areas is also encouraged, consistent with the goal of utilizing public transit to meet current and increased use of coastal access and recreational areas.

Consistent. As described in Section 4.8, “Traffic and Circulation,” the project would construct a 3-foot wide dirt path for bicycle and pedestrian use on the project site parallel to Bay Drive. This path would provide some separation for pedestrian and bicycle traffic from vehicle traffic entering the site.

New Development and Land Use

2. Archaeological Resources.

b. Before the approval of any development proposed within an area of known or suspected archaeological or paleontological significance, a field survey by a qualified professional shall be required at the applicant’s expense to determine the extent of archaeological or

paleontological resources on the site. Where development would adversely impact identified resources, reasonable mitigation measures shall be required, as recommended in the field study.

Consistent. As discussed in Section 4.12, “Cultural Resources,” of this Draft EIR, an extensive literature review and field survey of the project site was conducted in an effort to detect evidence of prehistoric and historic cultural resources. One potential resource site was identified. Further, the possibility exists to uncover previously undiscovered subsurface archaeological resources during construction. Mitigation Measure 4.12-2 and 4.12-3 has been included to protect any unknown archaeological resources during construction. The project would be consistent with this policy.

3. Visual Resources.

- a. The height, scale, and design of new structures shall be compatible with the character of the surrounding natural or built environment. Structures shall be designed to follow the natural contours of the landscape and sited so as not to obstruct significant views as seen from public viewing places.

Consistent. Structures and facilities proposed under the master plan would generally be located in the low-lying, coastal area of the project site. As discussed in Section 4.7, “Visual Resources,” these facilities would be compatible with recreational uses at the project site and would be lower in height than the surrounding topography such that they would not block views of coastal areas. The proposed wastewater treatment system would include a leachfield constructed in an onsite sand dune. The leachfield would be located underground and would not substantially change the natural form or shape of the sand dune.

- b. Development shall be screened with appropriate landscaping; however such landscaping shall not, when mature, interfere with public views to and along the coast. The use of native plant material is encouraged.

Consistent. The project does not include the planting of a substantial amount of vegetation and would not plant any trees. Low-lying vegetation would be planted to stabilize the portion of the onsite sand dune where the proposed wastewater treatment facility would be located. This vegetation would be similar to other low-lying vegetation at the site and would not interfere with views of coastal areas.

5. Hazards.

- a. An applicant for development in an area potentially subject to geologic or other hazards as mapped by the County, including Alquist Priolo earthquake hazard zones, areas subject to tsunami run-up, landslides, liquefaction, beach or bluff erosion, steep slopes averaging greater than 35%, of flood hazard areas, shall be required to demonstrate that the area of construction is stable for development, the development will not create a hazard or diminish the stability of the area, and the development will not require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. The applicant may be required to file a report by a qualified professional evaluating the geologic conditions of the site and the effect of the development. In addition, as a condition of coastal permit approval, the applicant shall be required to sign a waiver of liability exempting the County from liability for any personal or property damage caused by natural hazards on such properties.

Consistent. As discussed in Section 4.6, “Geology and Soils,” the project with mitigation would result in less-than-significant impacts related to geologic and seismic hazards including liquefaction, tsunami run-up, landslides, and seismic events. A detailed study of the geologic and seismic conditions of the project site was prepared for the project and is included in Appendix F. With implementation of recommended mitigation, the project would be consistent with this policy.

6. Watershed and Water Quality Protection/Grading. To ensure the long-term preservation of water quality, protection of visual resources, and the prevention of hazards to life and property, the following policies shall apply to all construction and development, including grading and major vegetation removal, which involve the movement of earth in excess of 150 cubic yards.
- a. Development shall be designed to fit a site’s topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading, cut and fill operations, and other site preparation are kept to an absolute minimum. Natural features, landforms, and native vegetation shall be preserved to the maximum extent feasible. Areas of a site which are not suited to development because of known soil, geologic, flood, erosion or other hazards shall be kept in open space.

Consistent. The project has been designed to incorporate or preserve the site’s natural features, and would avoid, where feasible, wetlands and other environmental resources at the project site. The project would only require minimal grading only in the areas of proposed facility construction.

- b. For necessary grading operations, the smallest practicable area of land shall be exposed at any one time during development and the length of exposure shall be kept to the shortest practicable time. The clearing of land shall be avoided during the winter rainy season and all measures for removing sediments and stabilizing slopes shall be in place before the beginning of the rainy season.
- c. Sediment basins (including debris basins, desilting basins, or silt traps) shall be installed on the project site in conjunction with initial grading operations and maintained through the development process to remove sediment from runoff waters. All sediment shall be retained on site unless removed to an appropriate dumping location.
- d. Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils which have been exposed during grading or development. Cut and fill slopes shall be stabilized immediately with plantings of native species, appropriate non-native plants, or with accepted landscaping practices.
- e. Where topsoil is removed by grading operations, it shall be stockpiled for reuse and shall be protected from compaction and wind or erosion during stockpiling.

Consistent. The project could construct facilities during the fall and winter seasons. As discussed in Section 4.5, “Hydrology and Water Quality,” erosion and sediment control mitigation measures would reduce any potentially significant construction-related water quality impacts to a less-than-significant level. Specifically, Mitigation Measure 4.5-4 requires the project to install erosion and sedimentation control measures and slope stability measures before the beginning of the rainy season. This mitigation measure also requires sediment basins to be installed on the project site in conjunction with initial grading operations and maintained through the development process to remove sediment from runoff waters. Because this mitigation would

reduce construction-related water quality impacts to a less-than-significant level, the project would be consistent with this policy.

- f. The extent of impervious surfaces shall be minimized to the greatest degree possible. Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accommodate increased runoff resulting from modified soil and surface conditions as a result of development. Grassed waterways are preferred to concrete storm drains, where feasible, for runoff conveyance. Water runoff beyond natural levels shall be retained on site whenever possible to facilitate groundwater recharge.

Consistent. Impervious surfaces have been minimized to the maximum extent possible. As discussed in Section 4.5, “Hydrology and Water Quality,” the project would only increase impervious surfaces onsite by 0.02%. Existing stormwater facilities, which include grassy swales and drainages, would be able to adequately accommodate project related stormwater. The project would, therefore, be consistent with this policy.

8. Location and Density of New Development.

- f. Standards for development in all zoning districts on the shoreline of Tomales Bay.

- (2) New residential construction shall be limited in height to 15 feet, as measured from natural grade on the highest side of the improvement to the highest point of the roof or any projection therefrom. Exceptions to this height limit may be permitted where the topography, vegetation, or character of existing development is such that a higher structure would not create additional interference with coastal views either to, along, or from the water.

Consistent. The project would construct a new mobile home near the coastline of the project site. The mobile home would not exceed 15 feet in overall height and would be located east of existing facilities along the coastline. Therefore, the mobile home would not interfere with coastal views to or from the coastline, and the project would be consistent with this policy.

Impact 4.2-4: Conflicts with Habitat Conservation Plans or Natural Community Conservation Plans. The project would not conflict with any habitat conservation plans or natural community conservation plans. Neither the project site nor any of the adjacent properties are included in any such plans. Therefore, the project would have *no impact* related to habitat conservation plan or natural community conservation plan.

The project would not conflict with any habitat conservation plans (HCPs) or natural community conservation plans (NCCPs). The County has not adopted any HCP or NCCP that covers the project site or any of the adjacent properties. Further, no such plans are proposed to be prepared at this time. Therefore, the project would have no impact on HCPs or NCCPs.

Impact 4.2-5: Consistency with Policies of the Dillon Beach Community Plan. The project would be consistent with all relevant DBCP land use policies and programs. Therefore, this would be considered a *less-than-significant* impact.

Policy EQ-1.1 Agricultural zoning. The County shall maintain C-APZ-60 zoning on agricultural lands in the Dillon Beach planning area. In addition, the County shall discourage uses on surrounding lands that would jeopardize the long-term agricultural viability of these

lands. Uses that shall be encouraged include raising livestock and poultry; growing field, fruit, nut, and vegetable crops; and cultivating nursery products. Uses that shall be discouraged include uses that divide agricultural areas, such as road networks; uses that disturb grazing animals and wildlife; and uses that adversely affect soil, air, and water quality, such as grading without erosion control, extensive pesticide applications, and noise.

Consistent. The project would continue existing land uses onsite and would not require an amendment to the Marin Countywide Plan or Zoning Ordinance for a land use designation or zoning change. The project site supports agricultural operations or lands designated C-APZ-60, which is consistent with designated land uses. Further, land uses and zoning designations on adjacent properties would not change with implementation of the project. The project would continue existing ranching activities including efforts to reduce possible environmental effects from these activities. Although, agricultural operations have the potential to increase soil erosion and water quality impacts associated with the use of fertilizers, pesticides, and herbicides, the project sponsors would continue rotating livestock between pastures based on soil conditions and available forage and would minimize the applications of pesticides, herbicide, and fertilizers. No substantial change to the type or intensity of agricultural activities is proposed.

Policy EQ-1.4 Grazing. The Community Plan recognizes the classifications of the Marin County “Draft Important Farmlands Map” and supports the protection of “lands on which the existing vegetation is suited to the grazing of livestock” located to the east and south of Dillon Beach in the community’s planning area.

Consistent. The project would continue grazing and farming on all areas of the project site designated as farmland on all relevant farmland maps.

Policy EQ-3.1 Stream alterations. Stream impoundments, diversions, channelizations, or other substantial alterations shall be limited to:

- ▶ necessary water supply projects;
- ▶ flood control projects; or
- ▶ development where the primary function is the improvement of fish and wildlife habitat.

Before any such activities are permitted, minimum flows necessary to maintain fish habitat and water quality, and to protect downstream resources (e.g., riparian vegetation, groundwater recharge areas, receiving waters, spawning habitats, etc.) and downstream users shall be determined by the Department of Fish and Game and the Division of Water Rights of the State Water Resources Control Board. New impoundments which, individually or cumulatively, would decrease streamflows below the minimum shall not be permitted.

The alteration of streams allowed for the purposes above shall be held at a minimum to protect streamwater quality and the volume and rate of streamflow. Development near streams shall incorporate the best mitigation measures feasible, including erosion and runoff control measures, and revegetation of disturbed areas with native species. Disturbance of riparian vegetation shall be held to a minimum.

Consistent. The project would not alter an existing stream or any riparian vegetation within any stream buffers or lands within 100 feet from top of bank of any creek or stream or associated riparian vegetation.

Policy EQ 4.1 Stream buffers. Buffers to protect streams from the impacts of adjacent uses shall be established for each stream in the planning area. Buffers shall include the area covered by riparian vegetation on both sides of the stream and the area 50 feet landward from the edge of the riparian vegetation. In no case shall a stream buffer be less than 100 feet in width, on either side of the stream, as measured from the top of the stream banks.

No construction, alteration of land forms or vegetation removal shall be permitted within such riparian protection area. Additionally, such project applications shall identify a stream buffer area which shall extend a minimum of 50 feet from the outer edge of the riparian vegetation, but in no case less than 100 feet from the banks of a stream. Development shall not be located in this buffer area. When a parcel is located entirely within a stream buffer area, design review shall be required to identify and implement the mitigation measures necessary to protect water quality, riparian vegetation and rate and volume of stream flows. The design process shall also address the impacts of erosion and runoff, and provide for restoration of disturbed areas by replacement landscaping with plant species naturally found on the site. Where a finding is made that development outside a riparian protection or stream buffer area would be more environmentally damaging to the riparian habitat than development within the riparian protection or stream buffer area, or the property owner will be denied all reasonable use of the property, development of principal permitted uses may occur within such area subject to design review and appropriate mitigation measures.

Consistent. The project would not alter an existing stream or any riparian vegetation within any stream buffers or lands within 100 feet from top of bank of any creek or stream or 50 feet from the outer edge of riparian vegetation.

Policy EQ 5.2 Dillon Creek. Existing riparian vegetation along Dillon Creek shall be preserved and areas of bank erosion shall be stabilized and revegetated. A 100-foot setback of development from the top of the creek bank shall be observed, in accordance with the LCP Unit II's stream buffer policies and in accordance with Policy EQ-4.1.

Consistent. The project would not alter an existing stream or any riparian vegetation within any stream buffers or lands within 100 feet from top of bank of Dillon Creek.

Policy EQ-6.2 Activities in wetlands. Allowable resource-dependent activities in wetlands shall include fishing, recreational clamming, hiking, hunting, nature study, bird-watching, and boating.

Consistent. Existing activities at the project site include the parking of camping vehicles in the main meadow area where wetlands are located. With implementation of the project, these camping activities would continue at current use levels. Because camping activities currently occur onsite, these activities would be included within the existing baseline condition from which the project's physical environmental effects are determined. The project would not change existing recreational use activities at the site. Consequently, the project would not increase the level of camping activity that occurs in onsite wetland areas and, thus measured against the existing environmental baseline, would not result in a significant adverse environmental effect. This would be a less-than-significant impact under CEQA. Should the County approve of the proposed master

plan, continuation of existing land uses and activities (i.e., camping in wetlands) would be authorized. No new uses or activities are proposed.

Construction of some project facilities (e.g., restrooms, roadway construction or pavement, foredune trails) could result in the disturbance or fill of wetlands onsite. Although these facilities are not allowable resource-dependent activities as defined by the policy, Mitigation Measure 4.13-3 (Section 4.13, “Biological Resources”) requires that these facilities be re-located and constructed a minimum of 100 feet outside of coastal and other wetlands to avoid impacts to wetlands. Therefore, implementation of the project with this mitigation measure would mitigate the project impacts to onsite wetlands and would be consistent with this policy.

The project would also institute educational programs to educate visitors in the value of preserving onsite environmental features including wetlands. This educational program would include informational signage and protective fencing near sensitive habitats and resources. Existing fencing and monitoring of sensitive plant species in wetland areas (e.g., Point Reyes bird’s beak and Tidestrom’s lupine) would continue with implementation of the project.

Policy EQ-6.3 Agricultural activities in wetlands. No grazing or other agricultural uses shall be permitted in wetlands except in those reclaimed areas presently used for such activities.

Consistent. The project would not increase grazing in wetlands beyond those areas presently used for such activities. Although not required as mitigation, the project would attempt to decrease current grazing effects on wetlands by installing new water troughs and ~~Crystalux~~RYSTALYX barrels ~~crystal-lyxs~~ outside of wetland areas to lure grazing cattle and sheep away from sensitive wetland areas.

Policy EQ-6.4 Wetland buffers. A minimum buffer strip of 100 feet shall be established along the periphery of all wetlands. A wider buffer may be required on parcels adjacent to Tomales Bay, as specified in the wetlands policies of the LCP Unit-II.

Consistent. Construction of project facilities (e.g., restrooms, roadway construction or pavement, foredune trails) could result in the disturbance or fill of wetlands onsite. As discussed in Section 4.13, “Biological Resources,” Mitigation Measure 4.13-3 requires that these facilities be re-located and constructed a minimum of 100 feet outside of coastal wetlands to avoid impacts to onsite wetlands. Therefore, implementation of the project with recommended mitigation (Mitigation Measure 4.13-3) would result in consistency with the requirements of this policy.

Policy EQ-7.1 Coastal dunes. In conformance with the Local Coastal Program, development in the foredunes and rear dunes located south of the Dillon Beach community expansion boundary shall be prohibited wherever possible to preserve dune formations, vegetation, and wildlife habitats.

Consistent. The project includes the construction of a new wastewater treatment facility and trail system within onsite sand dunes. While the project would formalize pedestrian trails within the foredunes, including in the installation of fencing, the project (with mitigation) would not adversely affect dune formations, vegetation, or wildlife habitat in the foredunes. Further, no stabilization plantings would occur. Therefore, this element of the Master Plan would be consistent with this policy. The proposed location for the

wastewater treatment system was selected because other lower elevation locations near recreational areas (i.e., Sand Point, meadow) would not provide the required separation distance between groundwater and the bottom of the leachfield. Because of its proposed location, native vegetation would need to be planted on the western face of the dune to stabilize the dune and prevent it from eroding or shifting during the operational life of the wastewater treatment system. As described in Sections 4.6, “Geology and Soils,” and 4.13, “Biological Resources,” stabilization of the sand dune would result in significant impacts related to the natural migration of the dune system. As described in Section 4.6, “Geology and Soils,” Mitigation Measure 4.6-1 requires the wastewater treatment facility be re-located and constructed outside of onsite sand dunes in one of three feasible locations identified in Exhibit 4.10-6. The proposed locations are generally located in the northern portion of the project site. Based on preliminary review of these locations, these areas could feasibly support a wastewater treatment system and would not result in new significant environmental impacts. Implementation of the project with recommended mitigation would be consistent with this policy.

Policy EQ-7.2 Coastal dunes. Future development or improvements proposed for Lawson’s Dillon Beach Resort or Lawson’s Landing shall to the greatest extent possible be sited out of the coastal sand dune areas and designed to minimize impacts on adjacent dune vegetation and habitat. Overuse in the dune areas shall be prevented by such mechanisms as restricting parking, directing pedestrian traffic to areas capable of sustaining increased use, and fencing. No motor vehicles shall be permitted in beach or dune areas except for emergency and/or maintenance purposes.

Consistent. The majority of project construction would be located in the main meadow, at Sand Point, or near existing agricultural operations. The use of motor vehicles within the sand dunes is not currently allowed and would not be allowed with the project. The only activities proposed to occur within the onsite sand dunes would be the construction of an onsite wastewater treatment system and trail system in the foredunes. As described in Sections 4.6, “Geology and Soils,” and 4.13, “Biological Resources,” stabilization of the sand dune would result in significant impacts related to the natural migration of the dune system. Mitigation Measure 4.6-1 requires the wastewater treatment facility be re-located and constructed outside of sand dunes in one of three alternate locations identified in Exhibit 4.10-6. The alternate locations are generally located in the northern portion of the project site. Based on preliminary review of these locations, these areas could feasibly support a wastewater treatment system and would not result in any new significant environmental impacts. Implementation of the project with recommended mitigation would be consistent with this policy.

Policy EQ-8.1 Rare and endangered species. Development in habitats of rare or endangered species and unique plant communities may only be permitted when it depends upon the resources of the habitat area. Development adjacent to such areas shall be set back a sufficient distance to minimize impacts on the habitat area. Public access to sensitive habitat areas, including the timing, intensity, and location of such access, shall be controlled to minimize disturbance to wildlife. Fences, roads and structures which significantly inhibit wildlife movement, especially access to water, shall be avoided.

Consistent. Some proposed facilities (e.g., new residences and boathouse) would not be located in areas where sensitive biological species or habitats are located. Other proposed facilities (e.g., restrooms, conveyance pipeline, water storage tanks, and wastewater treatment system) are proposed to be sited to avoid sensitive biological

species and set back sufficient distance from nearby biological habitat areas to the degree feasible. Where proposed project facilities and construction activities would potentially affect sensitive habitats or species, mitigation recommended for the project (Mitigation Measures 4.13-1, 4.13-2, 4.13-3, and 4.13-4) would reduce the project's impacts to these resources to a less-than-significant level. No facilities would be constructed that would impair or inhibit wildlife movement.

Policy EQ-8.2 Seasonal surveys. Master Plans shall be subject to environmental review under the California Environmental Quality Act. Environmental review should include appropriate seasonal surveys by biologists and updated records searches to determine the presence of species and communities of concern. Proposed development plans shall endeavor to follow the recommendations of these biological assessments to minimize impacts on these resources.

Consistent. As a part of this Draft EIR, seasonal surveys and records searches were performed and reviewed for sensitive species and habitats as referenced in Section 4.13, "Biological Resources." As a result of the surveys, mitigation measures are included in this Draft EIR to avoid and reduce the project's impacts to these species and habitats. If the project is approved, these mitigation measures would become conditions of project approval and would be implemented before or during construction activities. Therefore, the project would be consistent with this policy.

Policy EQ-9.2 Coastal development. Proposals for coastal development at Lawson's Dillon Beach Resort, Lawson's Landing, or a dunes sewage disposal system should be reviewed by the Gulf of the Farallones National Marine Sanctuary.

Consistent. The master plan and this Draft EIR will be provided to the Gulf of the Farallones National Marine Sanctuary for review and comment during the public review period of this Draft EIR.

Policy EQ-9.3 Tomales Bay resources. Tomales Bay's fishing grounds, clam beds, and abalone stands shall be protected from over harvesting.

Consistent. The project would not change existing recreation use levels at or originating from the project site, and would not be anticipated to increase fishing activities including the harvesting of fish, clam, or abalone in Tomales Bay.

Policy EQ-12 Archaeological and cultural resources. Before the approval of any development proposed within an area of known or suspected archaeological or cultural significance, a field survey by a qualified professional shall be required at the applicant's expense to determine the extent of archaeological and other cultural resources on the site. Because of the suspected presence of archaeological resources throughout the planning area, all Master Plan proposals shall be accompanied by archaeological and cultural resource reports and field surveys. Development shall be sited and designed to avoid archaeological and cultural resources. Where development would adversely impact identified resources either directly or indirectly, mitigation measures and/or special construction techniques shall be required.

Consistent. As a part of this Draft EIR, cultural and archaeological surveys were performed and recommendations made as identified in Section 4.12, "Cultural Resources," of this Draft EIR. New development would be sited to avoid known

archaeological and cultural resources. For unknown archaeological and cultural resources, Mitigation Measures 4.12-2 and 4.12-3 would ensure their preservation and would be consistent with the provisions of this policy.

Policy EQ-10.1 Airborne dust. During construction of all new development, generation of airborne dust shall be kept to a minimum through construction site watering and covering exposed ground areas.

Consistent. Mitigation Measure 4.89-1 would require the project sponsor's to implement air quality best management practices consistent with the Bay Area Air Quality Management District's (BAAQMD) CEQA Guideline that would be used during construction to minimize environmental disturbances including airborne dust. These measures would include site watering, covering exposed ground areas, and phasing development appropriately. Therefore, the project would be consistent with this policy.

Policy EQ-10.2 Phasing development. Where feasible, phasing of development shall proceed in the direction of primary windflow (i.e., from the west-northwest).

Consistent. Individual developments and improvements (e.g., residences, wastewater treatment facility) would be constructed on an as-needed basis and would generally occur as individual construction projects throughout the life of the master plan. None of the master plan projects are large enough or in close proximity to one another to warrant the substantial phasing of development. However, where feasible the project sponsors would phase development to proceed in the direction of primary windflow.

Policy EQ-11.1 Construction noise. All new development shall minimize construction noise. Heavy equipment shall be operated only during daytime working hours (8:00 a.m. to 5:00 p.m., Monday through Friday). Stationery noise sources shall be located as far away from adjacent residences as possible. Noise control features, such as silencers, ducts, and mufflers, shall be used on loud equipment.

Consistent. Mitigation Measure 4.10-1 requires that construction activities associated with the project would be limited to the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday and that noise-reducing measures (e.g. mufflers) would be implemented in onsite construction equipment.

Policy EH-1.1 Slope stability. Known landslides and landslide-prone deposits on steep slopes shall not be used for development except where engineering, geologic site investigations indicate such sites are stable or can be made stable providing appropriate mitigating measures are taken and such measures are consistent with the environmental quality and visual quality objectives and policies of this Plan.

Consistent. As discussed in Section 4.6, "Geology and Soils," development associated with the project would not be constructed in landslide-prone areas.

Policy EH 1.2 Slope stability and seismic safety. Development proposals for areas denoted "3" and "4" on the slope stability map or underlain by dune land, sand, alluvium or loams above 15% slope, as shown on the soils map shall be accompanied by site-specific geological and geotechnical investigations to demonstrate feasibility of construction. Such investigations shall evaluate site conditions and set forth construction techniques and foundation recommendations to ensure the stability of development. Investigations shall

include analysis of performance under a 1906-strength earthquake emanating from the San Andreas Fault.

Consistent. As discussed in Section 4.6, “Geology and Soils,” development associated with the project would not be constructed in areas with slopes greater than 15%.

Policy EH-1.3 Seismic safety standards. New structures shall be built to the seismic safety standards of the Uniform Building Code.

Consistent. As discussed in Section 4.6, “Geology and Soils,” all new structures associated with the project would be built to the seismic safety standards of the Uniform Building Code.

Policy EH-1.4 Tsunami zones. New structures within the 20-foot tsunami run-up zone, which is shown in the Seismic Hazards map, shall incorporate flood-proofing measures, including raising the elevation of the first habitable floor above anticipated flood level, protecting against high water velocities, and appropriately storing hazardous materials.

Consistent. Mitigation Measure 4.5-2, “Hydrology and Water Quality,” would require that facilities constructed within areas subject to minimal flooding be constructed to withstand the effects of a flood and consistent with the County’s Floodplain Management Ordinance. Habitable structures (i.e., employee residence, boathouse) would be designed with flood-proofing measures consistent with county policies.

Policy EH-1.5 Alquist-Priolo zones. As required by State law, all new structures proposed for human habitation within the Alquist-Priolo Special Studies Zone, which is shown on the Seismic Hazards map, (i.e., portions of Lawson’s Landing) shall be required to have fault investigations and shall be set back at least 50 feet from fault traces.

Consistent. As discussed in Section 4.6, “Geology and Soils,” the proposed new boathouse would be constructed within the zone of secondary deformation of the Alquist-Priolo Earthquakes Hazards Zone. A fault investigation was conducted for the project site, as referenced in Section 4.6, “Geology and Soils,” all structures constructed as part of the project would be required through Mitigation Measure 4.6-3 to comply with standard seismic design measures as determined by a qualified engineer through subsequent detailed design. In addition, the proposed boathouse would be located greater than 50 feet from the delineated San Andreas Fault Trace. With implementation of seismic design features and because the boathouse would be located greater than 50 feet from a fault trace, the project would be consistent with this policy.

Policy EH-1.10 Dune erosion. Proposals for development adjacent to dunes shall include a dune stabilization program, including specific planting, maintenance, and erosion control measures. Such dune stabilization programs may be onsite or offsite.

Consistent. The project would construct a new wastewater treatment facility within the sand dunes onsite and would plant native vegetation and install snow fencing to trap sand and stabilize the dune to prevent it from eroding or shifting during operational life of the system. As described in Section 4.6, “Geology and Soils,” the proposed stabilization of the sand dunes would result in significant and unavoidable impacts to the natural migration of the local sand dune system. Mitigation Measure 4.6-1 requires that the wastewater treatment system be relocated outside the onsite sand dunes in the northern

portion of the project site. Because the project with mitigation would not construct any facilities within or adjacent to onsite sand dunes, stabilization of the sand dunes would not be necessary and the project would be consistent with this policy.

Policy EH-1.11 Flood zone. In accordance with the Federal Flood Insurance Program and the County Flood Plain Management Ordinance, the first finished floor level of new construction shall be a minimum of eight feet above sea level in addition to being above the 100-year flood zone. Structures in the flood zone, which is shown on the Hydrology map, are recommended to be constructed of flood-proof materials and should be anchored.

Consistent. Some proposed facilities, including habitable structures (e.g., boathouse, mobile home), would be constructed within areas subject to minimal flooding. Mitigation Measure 4.5-2, “Hydrology and Water Quality,” would require that facilities constructed within areas subject to minimal flooding be constructed to withstand the effects of a flood and consistent with the County’s Floodplain Management Ordinance.

Policy EH-1.12 Impervious Services. Development shall minimize areas of impervious surfaces.

Consistent. The project has minimized, to the degree feasible, new areas of impervious surfaces. The project would only result in a 0.02% increase in the areas of impervious surfaces at the project site.

Policy EH-1.13 Storm Drainage. All new development shall provide storm drainage systems sufficient to accommodate storm flows from the development, and shall direct outflow away from erosive and unstable areas.

Consistent. As discussed in Section 4.5, “Hydrology and Water Quality,” the project would only result in a minor increase in the volume of stormwater runoff from the project site. All project-related stormwater runoff could be adequately accommodated in existing onsite storm drainage facilities.

Policy CD-1.1 Agricultural land and buildings. The large expanses of agricultural land surrounding Dillon Beach shall be preserved for agricultural uses. New agricultural buildings should be incorporated into existing agricultural compounds, and, where possible, should:

- ▶ be set back from the road;
- ▶ preserve major views;
- ▶ not exceed the height and bulk of traditional agricultural structures in the area; and
- ▶ use existing contours and vegetation for shelter, or introduce new cypress hedgerows for wind shelter and visual screening.

Consistent. The project would retain and continue existing agricultural activities at the project site. Proposed agricultural facilities (i.e., storage shed, water troughs, ~~Crystalyx~~RYSTALYX barrels~~crystal-lyxs~~) would be concentrated in the agricultural areas of the project site and would not substantially change views of the project site from on or offsite locations.

Policy CD-1.3 Character of surrounding areas. The height, scale, and design of all new structures shall be compatible with the character of the surrounding natural and built environment. Structures shall be designed and sited to follow the natural contours of the landscape, and not block or significantly infringe on coastal views as seen from neighboring houses and public viewing places.

Consistent. As discussed in Section 4.7, “Visual Resources,” structures and facilities proposed under the master plan would generally be located in the low-lying, coastal areas of the project site. These facilities would be compatible with recreational uses at the project site and would be lower in height than the surrounding sand dunes and foredunes such that they would not block views of coastal areas. A new residence would be constructed near the northern agricultural compound. Because of the intervening terrain and vegetation, this residence would not block views of coastal areas. A new mobile home would be constructed near Sand Point. The mobile home would be single-story and would be consistent with the size and design of existing trailer and mobile home facilities at the site. Further, the mobile home would be located to the east of existing onsite facilities and would not block views of coastal areas. Two new water storage tanks would be constructed adjacent to the existing onsite water wells near the entrance to the facility. Views of these tanks from offsite areas would be limited because of the presence of intervening topography and distance from offsite land uses.

Policy CD-1.4 Visitor-serving facilities. Visitor-serving businesses and facilities that are in keeping with the coastal setting and small-scale, village character of the community shall be encouraged.

Consistent. The facilities proposed under the project would support the existing coastal, visitor-serving business at the project site.

Policy CD-1.5 Vegetation. Non-native vegetation should be discouraged, except in contained areas immediately adjacent to residences and businesses.

Consistent. As described in Section 4.4, “Wastewater Treatment and Disposal,” the project would implement a sand dune stabilization program that would plant native vegetation along the western face of the sand dune to stabilize it from erosion or shifting. Non-native vegetation could be used in the stabilization program. As described in Section 4.13, “Biological Resources,” Mitigation Measure 4.13-1 requires that native vegetation be used if sand dune stabilization is required. Therefore, the project with mitigation would be consistent with this policy. Further, as described in Section 4.6, “Geology and Soils,” Mitigation Measure 4.6-1 requires the relocation of the proposed wastewater treatment system outside onsite sand dunes, which would eliminate the need to stabilize onsite sand dunes with native vegetation. Therefore, the project with mitigation would be consistent with this policy.

Policy CD-1.6 Natural landforms. New development shall respect natural landforms to the greatest degree possible.

Consistent. In, general, new development associated with the project would be located in previously disturbed areas, or in low-lying, flat areas (i.e., meadow) on the project site. The proposed wastewater treatment system would include a leachfield constructed in an onsite sand dune. However, Mitigation Measure 4.6-1 would relocate this facility to the northern portion of the project site outside onsite sand dunes. The leachfield would be

located underground and would not substantially change the natural form or shape of the project site.

Policy CD-2.1 New construction. New construction shall not block or significantly infringe on views from existing homes or scenic overlooks of the shoreline, Tomales Bay, Bodega Bay, or ocean.

Consistent. The project would not construct any new facilities along the coastline. Proposed facilities would either replace existing facilities at the site (i.e., boathouse), would be located underground (i.e. wastewater treatment system), or would not be located near any existing homes or scenic viewing areas such that they would block views of the shoreline. In general, proposed facilities would be located in low-lying areas of the project site or in areas that are surrounded by elevated topography (e.g. proposed residence, water storage tanks). None of the proposed facilities would block or infringe upon coastal views from neighboring areas.

Policy CD-2.2 Landscaping. Development may be screened with appropriate landscaping, however such landscaping shall not, when mature, interfere with public views to and along the coast.

Consistent. The project does not include the planting of a substantial amount of vegetation and would not plant any trees. Low-lying vegetation would be planted to stabilize the portion of the onsite sand dune where the proposed wastewater treatment facility would be located. This vegetation would be similar to other low-lying vegetation at the site and would not interfere with views of coastal areas.

Policy CD-2.3 Hedgerows. Existing hedgerows should be preserved. New hedgerows should not obstruct views of the shoreline, Tomales Bay, Bodega Bay, or ocean.

Consistent. The project does not include planting or removal of any hedgerows.

Policy CD-3.1 Pre-1930 structures. Alterations to, additions to, and demolitions of pre-1930 structures are to comply with County requirements regarding coastal zone Historic Research Preservation as specified in Title 22 of the Marin County Code Chapter 22.56.130. Alterations and additions shall retain the scale and original architectural features of the structure, especially of the front facade. The Historic Review Checklist in the Marin County Local Coastal Program Historic Study of November 1981 is to be used as a design guideline.

Consistent. The project would not alter or remove any structures built before 1930.

Policy T-1.1 Pullouts on Dillon Beach Road. Pullout zones should be provided wherever possible along Dillon Beach Road to allow passing opportunities for traffic platoons, which form behind slow-moving vehicles.

Consistent. The project would improve the design of three pull-outs along Dillon Beach Road (Exhibit 4.8-2). These improvements would improve passing opportunities along Dillon Beach Road.

Policy T-2.6 Beach Avenue Realignment. Realignment and widening of Beach Avenue to improve through movement onto Cliff Street would facilitate a separation of day-visitor and

(Dillon Beach) Village traffic flow through the (Dillon Beach) Village center ... As the realignment may require cul-de-sacs at the south end of Summer and Cliff Streets, a feasibility study would be necessary to determine access impacts for the (Dillon Beach) Village, especially for fire trucks and to fire hydrants. If feasible, such realignment could mitigate traffic impacts resulting from redevelopment or new development at Lawson's Dillon Beach Resort or Lawson's Landing and may be accompanied by formation of a community service district or assessment district.

Consistent. Section 4.8, "Transportation and Circulation," analyzes the traffic hazards associated with the substandard design of Cliff Street. Mitigation Measure 4.8-2 requires the project sponsors to widen Cliff Street at three sharp curves along the alignment to improve through access to and from the project site.

Policy T-5.1 Entry gate. The entry gate to Lawson's Landing should be relocated to the south to allow sufficient area north of the gate for vehicles to stack during peak visitor periods. The precise new location should consider the circulation plan for the Lawson's Dillon Beach Resort area. Alternatively, a holding area should be provided associated with the entry gate to prevent waiting vehicles from backing up into the Beach Resort area.

Consistent. The project would reconstruct the entry gate and realign the entry/exit lanes to accommodate additional vehicles and prevent the queuing of vehicles along Cliff Street during peak recreational periods. The new gatehouse would be in the same location; however, three vehicle lanes would be constructed for arriving guests and one lane would be provided for departing guests (Exhibit 4.8-4). The additional entry lanes would provide additional vehicle queuing space to prevent and/or reduce vehicles from queuing along Cliff Street.

Policy T-5.2 Road improvements. Extensive road improvements in the Lawson's Landing area should be avoided in consideration of the environmental sensitivity of the area.

Consistent. With the exception of the proposed gatehouse improvements, the project would not construct any new roadways onsite. Some roadways onsite may be improved (i.e., re-paved) to maintain adequate safety conditions onsite; however, consistent with the elements of the proposed master plan proposed improvements would be sited to avoid impacts to sensitive resources at the site.

Policy T-5.3 Informal parking. Informal parking in Lawson's Landing should be maintained.

Consistent. The project would continue to provide informal (i.e., non-paved) parking areas on the project site. To ensure that vehicles would not result in any unsafe emergency access conditions, parking areas will be clearly identified through signage to direct vehicles to safe parking locations. ~~formalize or designate specific areas for parking onsite.~~ Therefore, the project would be consistent with this policy.

Policy T-5.5 New road to Lawson's Landing or Lawson's Dillon Beach Resort. A new, second road connecting Dillon Beach Road and Lawson's Landing would mitigate traffic congestion along Dillon Beach Road and in the Village during peak visitor periods. Should traffic levels increase substantially at Lawson's Landing, or new development be approved at Lawson's Dillon Beach Resort, a new road may be required to mitigate traffic impacts. All development proposals for Lawson's Landing and Lawson's Dillon Beach Resort shall be carefully reviewed for their potential contribution to traffic levels

and patterns, and additional roads shall be considered as mitigation whenever potential adverse impacts are identified.

In concept, the new connection should provide direct access to the major destination, Lawson's Landing, with secondary access (for example, a "T" intersection) to Lawson's Dillon Beach Resort. A new road may be able to utilize the alignment of the current Sand Haul Road (quarry road), though a specific alignment is not being recommended. Alternative alignments such as along and adjacent to Dillon Creek may prove more feasible for various reasons. The actual alignment and design of the new road connection would depend upon detailed environmental, geotechnical, and civil engineering studies. Such studies and their recommendations should consider and mitigate to the greatest extent possible the following:

- ▶ noise and emission pollutants upon nearby residential properties;
- ▶ curvatures and gradients suitable for accommodation of emergency and recreational vehicles;
- ▶ unstable soil conditions and environmentally sensitive plant communities associated with dunes on the Lawson's Dillon Beach Resort property;
- ▶ potential conflicts with trucks traveling to and from Dillon Beach Road and the sand quarry; and
- ▶ sight distances at the intersection of the additional access road with Dillon Beach Road.

Consistent. As described in Section 4.8, "Traffic and Circulation," of this Draft EIR, the project would only result in a minor increase (i.e., 19 daily trips) in daily vehicle trips associated with the new residence and mobile home for employees. Existing recreational use levels would be maintained and traffic associated with onsite recreational activities would not change from existing conditions. The project would not substantially increase roadway traffic volumes such that it would adversely affect the operation of local roadways. Although traffic congestion currently occurs along Cliff Street during peak recreation periods, the project would reduce vehicle queuing along Cliff Street through proposed improvements to the entrance and gatehouse (e.g., increase in vehicle lanes) and would not substantially increase the number of vehicle trips. No mitigation would be required for the project's operational traffic impacts. Mitigation Measure 4.8-4 requires that Sand Haul Road be improved for emergency access; however, the project would not be required to construct a secondary public access road from Dillon Beach Road.

Policy CF-2.2 Fire protection for proposed development. Proposed Master Plans, building permit applications, and land divisions shall be reviewed by the County Fire Chief, or other appropriate fire protection agency, before the issuance of a coastal development permit so that additional requirements for fire protection, including fire resistant materials, fire retardant landscaping, clearances from structures, fire trails, fire breaks, water storage facilities, sprinkler systems, and fire hydrants may be added as necessary to protect the new development and the surrounding area.

Consistent. The master plan and this Draft EIR will be circulated to the local fire department during the public review period. Further, the local fire department would

review all project building plans before the County issuing a building permit for these facilities.

Policy CF-6.1 Alternative community sewage disposal systems. Alternative community sewage disposal systems, such as a dune disposal system, shall only be permitted where a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with requirements of the Regional Water Quality Control Board and the County Health Department.

Consistent. The proposed wastewater treatment facility (with Mitigation Measure 4.6-1) would be constructed in the northern portion of the project site and operation, inspection, monitoring, and enforcement of the system would be the responsibility of the project sponsors subject to regulatory oversight by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

Policy CF-6.4 Disposal in dunes. Siting of a dune disposal sewage treatment system shall consider and mitigate potential visual impacts associated with construction of a sewage treatment plant, including use of an underground vault treatment unit.

Consistent. The proposed wastewater treatment system would include the construction of a sand filter system and an underground leachfield system in the northern portion of the project site. The sand filtrations system and leachfield would be located primarily underground and would not be visible. A small control building would be constructed near the sand dune/meadow margin. This building would not substantially alter views of the area because it would be relatively small, and would be lower in elevation than the surrounding sand dunes and foredunes (see Section 4.7, “Visual Resources”). Because the project would construct a wastewater treatment system that would be located primarily underground, it would be consistent with this policy.

Policy CF-6.7 Lawson’s Landing. As part of an expansion or redevelopment for Lawson’s Landing, improvements in sewage disposal facilities shall be required as necessary for human and environmental health. Such improvements shall be conducted in accordance with the requirements of the Regional Water Quality Control Board and the County Health Dept.

Consistent. The project would not increase the existing recreational use levels at the project site. The project would install a new onsite wastewater treatment system and would remove existing septic systems at Sand Point. Design and construction of this system would be subject to the requirements of the RWQCB.

Policy CF-6.8 Sewage system components. All components of new sewage systems shall be sited and designed in keeping with the environmental quality and environmental hazards, objects and policies of this Plan. Pipelines shall be carefully routed to avoid sensitive resources and environmental hazards such as erodible substrates.

Consistent. Consistent with the elements of the proposed master plan and recommended mitigation (Mitigation Measure 4.6-1 and 4.13-3), the proposed wastewater treatment system including conveyance pipelines would be sited to avoid sensitive resources and environmental hazards.

Policy CF-6.9 Community input. As the community, current water purveyors, North Marin Water District, County, and Regional Water Quality Control Board have expressed concern

regarding future large-scale sewage disposal systems in Dillon Beach, the County shall notify these parties when changes to existing systems, or new systems, that would require a County permit as proposed and shall discuss the proposal in a noticed hearing. This policy applies to community-type facilities that serve several residences or commercial businesses, not individual septic systems.

Consistent. This Draft EIR addresses the potential environmental impacts of project including the new wastewater treatment facility. The local community of Dillon Beach, RWQCB, and North Marin Water District will be notified of the public release of this Draft EIR. A public hearing to receive oral comments on the Draft EIR, including the proposed wastewater treatment system, will be held during the public review period and notice of this hearing will be provided to all parties.

Policy CF-8.1 Coastal permits. Coastal permits shall be granted only upon a determination that water service to the project is of an adequate quantity and quality to serve the proposed use. Evaluation of service proposals should consider the projections made by Questa Engineering, Inc., contained in Appendix B, as guidelines for Dillon Beach. Lack of available services or resources shall be grounds for denial of a project or for a reduction in the density otherwise indicated in the land use plan.

Consistent. As discussed in Section 4.3, “Water Supply,” the project would continue to use existing water wells at the project site. These water wells currently meet existing regulatory standards for potable water uses. The project would not substantially increase water demands at the site and existing water wells at the project site could adequately serve the project.

Policy CF-8.2 Water-saving devices. All new development shall incorporate low-flow water fixtures and other water-saving devices.

Consistent. The project would incorporate water-saving devices (i.e., low-flow water fixtures in proposed residences and restroom facilities. Therefore, the project would be consistent with this policy.

Policy CF-8.4 Dune sewage disposal. Before approval, the County shall require conclusive evidence that a dune sewage disposal system will not pose a contamination threat to groundwater, surface water, nor the beach on the seaward side of the dunes.

Consistent. The operation of the proposed wastewater treatment system located in onsite dunes was evaluated and analyzed for its potential impact to local water resources in Section 4.5, “Hydrology and Water Quality.” As described therein, the proposed wastewater treatment system would not result in any significant water quality impacts. Further, because the proposed system would replace existing septic systems at Sand Point, the project could reduce the load of constituents of concern (i.e., nitrogen) to the underlying groundwater basin and to Tomales Bay by more than 50% compared to existing conditions. This would be an improvement compared to existing conditions. However, constructing the wastewater treatment facility in onsite sand dunes would require stabilization of the dunes by planting vegetation on the western face to prevent erosion or shifting of sands during the operational lifetime of the facility. As described in Sections 4.6, “Geology and Soils” and 4.13, “Biological Resources,” stabilization of the sand dune would result in significant impacts related to the natural migration of the dune system. Mitigation Measure 4.6-1 requires that the wastewater treatment facility be

relocated outside of onsite sand dunes in one of three alternate locations identified in Exhibit 4.10-6, which are generally located in the northern portion of the project site. Based on preliminary review of these locations, these areas could feasibly support a wastewater treatment system and would not result in any new significant environmental impacts. Implementation of the project with recommended mitigation would be consistent with this policy.

Policy CF-8.5 Availability of Water. For projects subject to master plan and coastal permit approval, the availability of water shall be demonstrated by professional engineering studies that are based on field testing and conclusively demonstrate that (a) adequate quantity exists for the proposed development, including necessary public services such as fire protections, (b) withdrawal will not adversely affect coastal resources, including groundwater basins, aquifers, and streams, (c) withdrawal will not adversely affect existing and obligated water service, nor potential buildout in the Dillon Beach planning area as identified in this Community Plan, and (d) water quality meets local, state, and federal standards. Such studies shall provide the basis for establishing safe, sustained yields from the water source. The engineering studies shall take resident and visitor occupancy factors into account, as identified in Policy CD-14.1.

Consistent. The project's potential impacts to water resources were evaluated in Section 4.3 (Water Supply) of this Draft EIR. As described therein, the project would not substantially increase water demands at the site. Existing onsite water wells would be adequate to serve proposed facilities and uses and would meet existing local, state, and federal water quality standards for potable water uses.

Impact 4.2-6: Consistency with Standards of the Marin County Zoning Code. The project would be consistent with all Marin County Zoning Ordinance provisions. Therefore, this would be considered a *less-than-significant* impact under CEQA.

Subchapter 22.57.030 (C-APZ - Coastal agricultural production zone districts)

The eastern portion of the project site is zoned C-APZ. The purpose of the C-APZ zoning designation is to preserve land within the district for agricultural use. The principal use of lands in the district is agriculture although mineral resource production (e.g., sand quarrying) is permitted with a use permit.

Section 22.57.031 - Purpose.

The purpose of the coastal agricultural production zone is to preserve lands within the zone for agricultural use. Development must be “accessory, incidental, or in support of agricultural land uses,” and must conform to applicable zoning policies and standards.

Consistent. The primary function of all land designated agricultural on the project site is cattle and sheep ranching, a compatible agricultural use. All proposed changes and development to these lands would be in support of agricultural land uses, including the addition of a shop connected to an existing barn, the construction of an owners' residence, the repair of existing fencing, and the placement of water troughs and ~~Crystallyx~~RYSTALYX barrels ~~crystal lyxs~~ in pasture areas. Conformity of these developments to applicable zoning policies and standards are analyzed individually as follows.

Section 22.57.032 - Principal Permitted Uses.

Permitted uses in a C-APZ zone include, with certain limitations:

- ▶ agricultural uses,
- ▶ one single-family dwelling per parcel,
- ▶ accessory structures for the operation of agricultural uses, and
- ▶ bed and breakfast operations.

In addition, conditional uses requiring a permit include:

- ▶ farmworker housing;
- ▶ employee homes;
- ▶ mineral resource production; and
- ▶ private recreational activities, such as hunting, fishing and camping.

Consistent. The project would result in the continued use of the agricultural portions of the project site as a cattle and sheep ranch, which is consistent with the C-APZ designation. Furthermore, the construction of the owners' residence would be permissible as "one single-family dwelling per parcel." Other residences currently sited on the agricultural portion of the property are used to house employees of the ranching operation, a permitted conditional use. All other proposed changes would be consistent as "accessory structures for the operation of agricultural uses ... including barns, fences, stables, corrals, coops and pens, and utility facilities."

Sections 22.57.034-36 - Development Standards

Marin County Code sections 22.57.034 through 22.57.036 provide standards for development within C-APZ district. Specifically, these standards address development clustering, agricultural conservation easements, agricultural management plans, protection of agricultural viability, protection of riparian and scenic resources, and requirements for adequate water supply and public services. This section provides that design standards shall be subject to the requirements as set forth in Section 22.57.024. An independent analysis for consistency with these design requirements follows in the next subsection of this Draft EIR, below.

Consistent. The project includes an agricultural management plan designed to protect agricultural viability at the site and would continue agricultural uses in the agriculturally zoned areas of the site. Existing and proposed facilities would be loosely clustered on less than 2 percent of the total property area in the northeastern portions of the property maintaining a maximum amount of land available for agricultural use. The project site is currently subject to a Williamson Act contract to preserve the majority of the site for agricultural uses. Permanent conservation easements over undeveloped agricultural lands may not be appropriate given the small scale of agricultural accessory improvements proposed and that construction of the owner's residence is permissible in the agriculturally zoned portion of the property. The requirement for an agricultural conservation easement will be considered by the county as part of the merits of the project. The project would continue to protect and enhance the agricultural uses of the C-APZ designated area of the site.

Section 22.57.024 - Design Standards

Marin County Code 22.57.024 provides design and site preparation standards for development within the coastal district. Specifically, 22.57.024 provides standards related to building clustering; ridgelines;

geologic hazards; roads, driveways and utilities; fire protection; landscaping; building location/design; facilities; agricultural and open space uses; open space dedication and maintenance; and site preparation.

Consistent. The project would be consistent with the design requirements of the C-APZ zone. As discussed in this section and as analyzed in appropriate sections of this Draft EIR, the project has been designed with respect to onsite land features and potential environmental effects. A new owner's residence would be constructed in the C-APZ district and would be consistent with all the design standards of the C-APZ zone. Mitigation measures in this Draft EIR would reduce any potential significant construction-related water quality impacts to less-than-significant levels through the implementation of best management practices. Additional permits from Marin County would also need to be obtained before construction.

Subchapter 22.57.150 (C-RCR - Coastal resort and commercial recreation district)

The western portion of the project site is zoned C-RCR. The purpose of the R-RCR district is to create and protect areas within the coastal zone for resort and visitor-serving facilities. Emphasis is placed on public access to recreation areas within and adjacent to proposed development. All uses deemed appropriate for a resort area by the Planning Commission are permitted. However, new residential development is not permitted unless the Planning Commission deems it an appropriate use.

Section 22.57.151 - Purpose

The purpose of the coastal resort and commercial recreation district is to create and protect areas within the coastal zone for resort and visitor serving facilities. Emphasis is placed on public access to recreation areas within and adjacent to proposed development.

Consistent. The building and activities proposed as part of the project would enhance the existing resort and recreational uses in the areas zoned C-RCR at the project site. A new mobile home would be located at Sand Point and would house resort employees. This mobile home is intended as an integral part of the resort operation and not as a stand-alone residential unit. Public access to continue to be provided to coastal areas and would be improved near the entrance gate.

Section 22.57.152 - Principal Permitted Uses

All uses deemed normal and accessory for a resort area by the planning commission are permitted uses in C-RCR districts. However, residential uses including mobile homes are not permitted, unless deemed appropriate by the planning commission.

Consistent. The project would construct a new mobile home in the R-CRC district to be occupied by employees. Although the mobile home is not a principal permitted use, a new mobile home would be constructed to house campground employees and is intended to be an integral part of the resort operation and not a stand-alone residential unit. Recreational uses are the primary activity in the Sand Point area and the mobile home acts as an accessory use to the recreational resort area of the project site. Therefore, it is consistent with the principal permitted uses for the C-RCR district.

Section 22.57.153 - Design Standards

Requirements for design, site preparation and use of the project in the C-RCR district must adhere to the goals and policies of the local coastal plan, the Marin Countywide Plan, and the Dillon Beach Community Plan.

Consistent. The project is analyzed within this Draft EIR for consistency with the policies and goals of the Local Coastal Plan II, the Marin Countywide Plan, and the DBCP. See the rest of this section, “4.2.2 Environmental Impacts,” for individual analyses of these plans and policies.

Subchapter 22.57.020 (C-ARP-2 – Coastal Agricultural, Residential, Planned Districts)

The project site incorporates five small pockets of land in the northernmost area zoned as C-ARP. The project would continue existing agricultural activities in these areas.

Section 22.57.021 - Purpose

This zone provides flexibility in lot size and building locations and thereby promotes the concentration of residential and accessory uses to maintain the maximum amount of land available for agricultural use and to maintain the visual, natural resource, and wildlife habitat values of the property and surrounding areas.

Consistent. The building and activities associated with the project would enhance the existing agricultural uses including ranching and grazing activities. The project does not propose any developments or improvements in the areas zoned C-ARP. Therefore, the project would not change the current visual, natural resource, and habitat values of these areas.

Section 22.57.022 - Principal Permitted Uses

Permitted uses in the C-ARP district are subject to the County’s approval of the master plan. These uses include:

- (1) dairying;
- (2) grazing or breeding of cattle or sheep;
- (3) raising or keeping of poultry, fowl (including game birds), rabbits or goats or similar animals;
- (4) fish hatcheries and rearing ponds; oyster farming; mariculture;
- (5) crop, vine or tree farm, truck garden, greenhouse, horticulture;
- (6) farm and ranch buildings including dwelling, stables, barns pens, corrals, or coops; structures for killing, dressing, packing or handling products raised on the premises, but not including an abattoir for cattle, sheep or hogs; dwellings shall be incidental to the agricultural use of the land for the residence of the owner or lessee of the land and the family of the owner or lessee, or for their employees engaged in the agricultural use of the land; agricultural use of the land means agriculture as the primary or principal use of the land as demonstrated by the applicant to the satisfaction of the planning director. The total number of dwellings shall not exceed the density permitted in the district;
- (7) single-family dwellings;
- (8) grazing, breeding or training of horses; horse stables, including riding academies and boarding facilities incidental to these uses;
- (9) maintenance of land in its natural state for the purpose of preserving land for recreation, or for plant, animal or mineral preserves;
- (10) horseback riding or hiking trails;

- (11) public or private hunting of wildlife or fishing;
- (12) erection, construction, alteration or maintenance of gas, electric, water, communication or flood control facilities as approved by the appropriate governmental agencies; and
- (13) bed and breakfast operations as defined in Section 22.02.103 for such operations which offer or provide not more than three (3) guest rooms.

Consistent. The project would not change the existing uses occurring in the areas zoned C-ARP. The existing agricultural uses (e.g., ranching, grazing) would continue with implementation of the project.

Section 22.57.024 – Design Standards

The design requirements for the C-ARP district requires buildings to be clustered or sited in the most accessible, least visually prominent, and most geologically stable portion or portions of the site. The prominence of construction on open grassy hillsides must be minimized by placing buildings so that they are screened by existing vegetation, rock outcroppings or depressions in topography. In areas where usable agricultural land exists, residential development must be clustered or sited to minimize disruption of existing or possible future agricultural uses.

Consistent. The project would not construct any new building or structures in the areas zoned C-ARP.

Subchapter 22.56 (C District – Coastal District)

Marin County Code Sections 22.56.010 through 22.56.140 provide regulations governing projects in the various C districts. The entire project site is located within the Coastal district overlay.

Section 22.56.010 - Purpose

The purpose of this section is to provide the mechanisms to implement coastal policies for Marin County. This chapter implements policies which identify the location and density of development, provide for access to and along the coast, protect significant natural resources, protect archaeological and historical resources, and provide standards for public and private actions.

Consistent. The project would result in a minor increase in the density of development on the project site through the construction of two new residences and miscellaneous recreational improvements (e.g., restrooms). The project would continue to provide public access to coastal areas of the project site. The project also aims to protect significant natural resources and undiscovered archaeological and historical resources through the implementation of mitigation measures provided in Sections 4.12 (Archaeologic and Historic Resources) and 4.13 (Biological Resources).

Section 22.56.023 - Consistency with the California Coastal Act of 1976

This section requires all projects within the C district to be consistent with the California Coastal Act of 1976. The Coastal Act has been codified as Section 30000 through 30900 of the California Public Resources Code.

Consistent. This analysis is intended to identify project consistency and inconsistency with the Coastal Act or the LCP prepared in conformance with the Coastal Act. The LCP regulates the

allowable uses in wetland areas and requires a buffer strip around wetlands. Existing activities on the project site include camping in wetland areas and the project would allow camping to continue in these areas. Although camping is not listed as an allowable use, the project would not increase the intensity of camping in the wetland areas and existing uses on the project site are considered consistent under the baseline environmental conditions as described in Section 3.3.1.

Section 22.56.027 - Plan Area for C-Planned Districts

The area of the master plan and development plan shall include at least all contiguous properties under the same ownership. The area may also include multiple ownerships.

Consistent. The proposed master plan involves all properties under the ownership of the project sponsors.

Section 22.56.055 - Projects Requiring a Coastal Permit

Expansion or construction of water wells or septic systems within the C district require a coastal project permit.

Consistent. This Draft EIR is being prepared in support of a joint application to Marin County for Master Plan approval, a coastal permit, and a tidelands permit. Through the application submittals, review and approval by Marin County, and review by other regulatory agencies, the project would be consistent with this requirement.

Section 22.56.130 - Development Requirements, Standards and Conditions

Marin County Code 22.56.130 provides development requirements, standards, and conditions for development within the Coastal district. Concerning water supply, this section states that coastal project permits shall be granted only upon a determination that water service to the project is of adequate quantity and quality to serve the proposed use.

Consistent. The project would continue to use existing onsite groundwater wells to supply potable water to the new development (e.g., residences, restroom facilities, fire hydrants). As discussed in Section 4.3 (Water Supply), the groundwater wells have sufficient capacity and ability to serve the proposed uses on the project site.

Subsection 22.56.130.A.2. Before the authorization of subdivisions or construction of projects utilizing individual water wells, the applicant shall demonstrate a sustained water-well yield of at least one gallon per minute per residential unit. Additional requirements for fire protection, including increased yield rates, water storage facilities and fire hydrants shall be installed as recommended by the applicable fire protection agency.

Consistent. As discussed in Section 4.3 (Water Supply), the project would continue to use existing groundwater wells on the project site for potable water. New development (e.g., employee residence, restroom facilities, fire hydrants) associated with the project would receive water from three clustered groundwater wells located southeast of the entrance to Lawson's Landing. These clustered wells have a combined yield of 30 gallons per minute. In addition, the project would construct two new 100,000 gallon water storage tanks next to the same clustered wells to ensure adequate fire flow is available for fire protection onsite. Three new hydrants would also be installed along Lawson's Landing Road and connected to the new water storage tanks to further increase the fire fighting capabilities on the project site.

Subsection 22.56.130.A.4. New development shall be required to incorporate low-flow water fixtures and other water-saving devices.

Consistent. Construction of new structures associated with the project (e.g., restroom facilities, residences) would incorporate water-saving devices. Therefore, the project would be consistent with this policy.

Subsection 22.56.130.B.1. Septic System Standards. All septic systems shall meet the standards contained in either the “Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal System” adopted by the Regional Water Quality Control Board on April 17, 1979 or the Marin County Code, whichever is more stringent. No waivers shall be granted unless a public entity has formally assumed responsibility for inspecting, monitoring, and enforcing the maintenance of the system in accordance with criteria adopted by the Regional Board, or such waivers have otherwise been reviewed and approved by the Regional Board, or where such waivers have otherwise been reviewed and approved under standards established by the Regional Water Quality Control Board.

Consistent. The project would construct a new wastewater treatment facility to replace the existing system. Development plans for the new facility would be reviewed by the RWQCB and MCEHS before construction. Based on preliminary review, the RWQCB has determined the proposed system meets its standards.

MITIGATION MEASURES

The above policy consistency discussion references mitigation measures provided in other environmental topic sections of this Draft EIR. The following mitigation measures are provided here for reference and further detailed discussion related to these mitigation measures can be found in their representative section of this Draft EIR.

Mitigation Measure 4.5-2: Flood Hazards. All construction within the delineated floodplain shall adhere to Marin County’s Flood Plain Management Ordinance which requires that the first finished floor level of new and substantial improvements be at or above the Base Flood Elevation (BFE). Structures constructed in the flood zone shall be constructed of flood-proof materials and be anchored. It may be possible to lower the first finished floor level of a non-habitable structure if the building is flood proofed. All proposed plans would be subject to review and approval by the Marin County Department of Public Works.

Mitigation Measure 4.5-4: Construction Best Management Practices for Water Quality. In accordance with Marin County Code Chapter 23.08, the project sponsor shall implement erosion and sedimentation Best Management Practices to control stormwater and protect surface water quality including Dillon Creek and Tomales Bay. Best Management Practices (BMPs), designed to protect stormwater quality, are summarized in the *California Storm Water Best Management Practice Handbooks* (Stormwater Quality Task Force 1993) and can be recommended by the Association of Bay Area Governments *Manual Standards for Erosion and Sediment Control Measures*. BMPs are subject to review and approval by Marin County Department of Public Works and shall be implemented during project construction. According to Marin County Code Section 24.04.625, grading shall not be conducted during the rainy season (October 15 through April 15) without prior approval by Marin County Department of Public Works.

The following measures shall be implemented in accordance with the LCP:

- ▶ Sediment basins (including debris basin, desilting basins, or silt traps) shall be installed on the project site in conjunction with initial grading operations and maintained through the development process to

remove sediment from runoff waters. All sediment shall be retained onsite unless removed to an appropriate dumping location.

- ▶ Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils exposed during grading. Cut and fill slopes shall be stabilized immediately with approved landscape vegetation.
- ▶ All topsoil removed by grading operations shall be stockpiled for reuse onsite and shall be protected from compaction, wind, and erosion during stockpiling.

Mitigation Measure 4.5-5: Reduction of Offsite Stormwater Pollutants. The applicant shall modify the project's drainage system by installing devices that treat stormwater runoff to pre-project conditions. Such devices may include, but not be limited to, biofilter strips, vegetated channels, or wet ponds. These features shall be subject to review and approval by the Marin County Environmental Health Services Department.

Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road. The project sponsor shall relocate the proposed leachfield and access road to the recirculating sand filter system to a non-sand dune location located in the northern portion of the project site. Three potential alternate locations for the leachfield and sand filter system were identified and are presented in Exhibit 4.6-10. Preliminary evaluation of these locations indicates that from a dune stability and viability standpoint these locations would eliminate the impacts of the proposed leachfield on the dune system because they would be located outside even the most stable sand dune areas. Psomas undertook a preliminary review of the potential alternate locations and concluded that based on the soil types, slopes, and erosion hazards present in these areas, construction of a septic tank and leachfield system would be feasible as long as the leachfield were located in areas with less than 15% slope (Appendix H). Psomas also indicated that construction of a leachfield in this location would require the construction of force main piping and a pump station to pump wastewater from Sand Point to the alternate location. Based on preliminary environmental review of these alternate locations, no new sensitive habitat or species would be adversely affected. Further, because of the existing roadways near these locations, it is likely that construction of a new access road to the leachfield would not be required. Construction of a leachfield in any of the three proposed alternate locations would be consistent with the policies of the Marin Countywide Plan and LCP and would avoid potential inconsistencies associated with construction in onsite wetlands, coastal wetlands, and sand dune habitats. As identified in Exhibit 4.6-1, some areas of the alternate location sites are designated as prime or other important farmland. Construction of a leachfield within these lands would not adversely affect these farmland resources and would be consistent with County policies regarding allowable facilities on important farmlands. Prior to construction of the septic tank, pipelines, pump station, and leach field, the project sponsor shall have a qualified engineer prepare additional detailed design studies for the siting and operation of the leachfield and these studies shall be submitted to the County and RWQCB for review and approval.

As an alternative to a septic tank and leachfield system, staff of the RWQCB has indicated that an alternative wastewater treatment system or other treatment technologies such as a pond treatment system would be acceptable at the project site. Through the specific design and siting process for the alternate location for the wastewater treatment system, the project sponsor shall investigate whether an alternate treatment system should be constructed. Final review and approval of the system will be made by the RWQCB.

Mitigation Measure 4.6-3: Implement Seismic Design Measures. The project sponsor shall secure a California-certified engineering geologist and civil engineer to provide the project structural engineer with seismic design criteria and recommendations based on state and county regulations for development

in areas exposed to moderate to severe earthquakes. The site-specific recommendations made by this geologist and civil engineer shall be approved by the County Building Inspection Division before being implemented at the site.

- (a) As an overall performance criterion, seismic design features shall be adequate to ensure that the proposed relocated boathouse withstands the maximum credible earthquake for the San Andreas and Hayward faults. Examples of the seismic design criteria to be provided to the project structural engineer include:
- ▶ identification of the controlling fault for seismic engineering design;
 - ▶ design earthquake magnitude;
 - ▶ distance to energy source (earthquake);
 - ▶ likely duration of strong groundshaking and qualitative discussion of its intensity and frequency (e.g., high vs. low); and
 - ▶ discussion of the potential for amplified groundshaking and other impacts as a result of local geologic conditions.

The specific structural features appropriate for the project would be determined based on the seismic engineering design process.

- (b) The project sponsor shall use appropriate grading and design, in accordance with the UBC and County Code requirements, to reduce the secondary effects of groundshaking on human-made improvements.
- (c) Fill used during the construction of the project shall be properly designed with subsurface drainage and adequately compacted (i.e., minimum of 90% relative compaction as defined by the American Society for Testing and Materials [ASTM D1557]) to significantly reduce fill settlement.
- (d) Before any grading or construction permits are issued, the project sponsor shall submit for review and approval by the County a design-level geotechnical investigation. Plan review and construction observation/testing is required by the project geotechnical engineer. Final design of the proposed improvements shall incorporate the results of the geotechnical investigation approved by the County.
- (e) The construction contractor shall consult with a foundation engineer to develop an appropriate foundation design for the proposed boathouse. The structure shall be designed to accommodate up to 2.3 feet of secondary deformation without collapse. A possible design involves using a thickened reinforced concrete slab over a layer of cohesionless granular backfill. This approach may allow the foundation to accommodate permanent ground deformation without brittle failure; it could also reduce the risk to the structure from the effects of soil liquefaction by helping to support the temporary loss of bearing capacity that could occur in the event of liquefaction. A pile supported foundation should not be employed, because of the possibility of surface fault rupture through the site.

Mitigation Measure 4.8-4: Emergency Access Improvements to Sand Haul Road. Sand Haul Road shall be designated and improved (i.e., grade/paved) as an alternative public emergency access route.

Signs and placards showing the emergency route along Sand Haul Road shall be installed by the applicant and posted in appropriate locations.

The applicant shall coordinate with the Marin County Public Works Department regarding the specific design criteria for improvements to Sand Haul Road.

Mitigation Measure 4.9-1: Reduction Measures for the Generation of Short-Term Construction Emissions. In accordance with BAAQMD CEQA Guidelines (BAAQMD 1999), the following mitigation, which includes BAAQMD-recommended Basic, Enhanced, and Optional Control Measures, shall be implemented to reduce construction generated emissions.

- ▶ water all active construction areas at least twice daily.
- ▶ cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- ▶ pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- ▶ sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- ▶ sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- ▶ hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- ▶ enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- ▶ limit traffic speeds on unpaved roads to 15 mph in construction areas.
- ▶ install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- ▶ replant vegetation in disturbed areas as quickly as possible.
- ▶ install wheel washers for all exiting trucks, or wash off the tire or tracks of all trucks and equipment before leaving the site.
- ▶ install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
- ▶ suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- ▶ limit the area subject to excavation, grading, and other construction activity at any one time.
- ▶ minimize idling time.
- ▶ maintain properly tuned equipment.
- ▶ limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

In addition to the measures identified above, construction activities are also required to comply with all applicable BAAQMD rules and regulations, specifically Rule 8-3 regarding architectural coatings, Rule 8-15 regarding asphalt paving, Rule 11-2 regarding demolition, and Regulation 6 regarding particulate matter and visible emissions.

According to the BAAQMD CEQA Guidelines (BAAQMD 1999), implementation of all the above mitigation measures would reduce air pollutant emissions from construction activities to a less-than-significant level.

Mitigation Measure 4.12-2: Prepare and Implement Monitoring Plan and Halt Ground-Disturbing Activities in the Event of Accidental Discovery of a Cultural Resource. A qualified archaeologist approved by Marin County shall monitor all ground disturbing activities during construction. If cultural resources are discovered during construction, construction activities shall halt and the property owner will be notified regarding the discovery. The archaeologist shall evaluate the resource in accordance with state and federal guidelines and shall determine whether the resource is significant. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Section 21083-2 of CEQA. Mitigation in accordance with a plan approved by the Marin County Community Development Agency shall be implemented prior to commencement of work within the area of the resource find.

Mitigation Measure 4.12.3: Stop Potentially Damaging Work if Human Remains Are Uncovered During Construction, Assess the Significance of the Find, and Pursue Appropriate Management. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097.

In accordance with the California Health and Safety Code, if human remains are uncovered during construction at the project site, the construction contractor shall immediately halt potentially damaging excavation and notify the coroner, the State Native American Heritage Commission, and affected Native American groups. The California Health and Safety Code requires that if human remains are found in any location other than a dedicated cemetery, excavation is to be halted in the immediate area, and the county coroner is to be notified to determine the nature 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 by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The responsibilities of the Agency for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code Section 5097.9.

Mitigation Measure 4.13-1: Impacts on Sensitive Habitats. Since release of the Draft EIR for public review, the applicants further evaluated the feasibility of constructing the wastewater treatment system in the northern portion of the project site. As a result of the feasibility analysis, the applicant has agreed to relocate the wastewater treatment facility to the northern portion of the project site outside of on-site sand dunes.

~~Lawson's Landing shall implement the following measures to reduce potential impacts on sensitive habitats:~~

~~(a) The proposed wastewater treatment system shall be relocated to an alternate site where potential impacts to sensitive habitats and special status species would be avoided or reduced.~~

~~(b) If relocation of the proposed leachfield is determined not to be feasible, or if DFG or USFWS determine that impacts on sensitive habitats cannot be avoided, the project applicant shall prepare and implement a dune restoration and monitoring plan that includes all dune formations at Lawson's Landing. The plan shall be submitted to DFG and USFWS for approval. An objective of the plan shall be to ensure that project related impacts, both direct and indirect, on sensitive habitats and high value natural resources are avoided and/or reduced to the greatest extent feasible. The project applicant shall be responsible for reasonable implementation and management requirements that would achieve this objective. Because development and implementation of a comprehensive dune restoration and monitoring plan is a complex process with inherent agency consultation, cost, and timing constraints, it is not feasible to fully define the details and implement the plan before completion of this EIR. Possible elements of this plan could include:~~

~~(a) removal of European beachgrass from foredune and other dune areas~~

~~(b) elimination of grazing from the dune system~~

~~(c) restriction of public access to sensitive dune habitats~~

~~(d) monitoring of special status plant and wildlife populations, wetlands, and sensitive habitats within Lawson's Landing~~

~~(e) evaluation of the feasibility of the removal of nonnative grassland species from and restoration of the main meadow area~~

~~(f) evaluation of the environmental effects of the sand quarry on native vegetation, sensitive habitats, and special status species~~

Mitigation Measure 4.13-2: Impacts on Special-Status Plants. Lawson's Landing shall implement the following measures to reduce potential impacts on special-status plant species:

(a) Before the initiation of any ground-disturbing or vegetation-clearing activities, the project applicant shall retain a qualified botanist to conduct follow-up, focused surveys to confirm the location of potentially suitable habitats on the project site that would be indirectly or directly affected by project implementation for the special-status plants listed in Table 4.13-1, with special attention given to the four species that are presently or historically known to occur on the project site. For plants that require active dunes, this would include the entire dune system. The botanist shall conduct surveys for these special-status plant species at the appropriate time of year when the target species would be in flower and therefore clearly identifiable (i.e., blooming periods). Surveys shall be conducted following the DFG-approved protocol for surveying for special-status plant species.

(b) If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter report to the project applicant and the appropriate regulatory agencies, and no further mitigation will be required.

(c) If special-status plants are found and the populations can be avoided, they shall be clearly marked in the field by a qualified botanist for avoidance during construction activities. If the populations cannot be avoided, consultations with DFG and/or USFWS shall be required depending on the listing status of the plant. Through consultations, appropriate mitigation measures will be developed and implemented. Appropriate measures may include the creation of off-site populations through seed collection or transplanting, preservation and enhancement of existing

populations, or restoration or creation of suitable habitat in sufficient quantities to compensate for the impact. The project applicant shall implement all mitigation measures determined necessary during this consultation.

Mitigation Measure 4.13-3: Impacts to ~~Coastal and Section 404~~ Jurisdictional Wetlands. The following measures are designed to avoid impacts on coastal and Section 404 wetlands and other waters of the United States:

- (a) Before the project design is finalized, the project applicant shall hire a qualified biologist to conduct a Section 404 jurisdictional delineation of waters of the United States, (if one is not already prepared and verified), including wetlands, for any areas of project impact outside of the survey area for the existing verified wetland delineation from March 5, 2003. In addition, the project applicant or a qualified biologist shall conduct a delineation of wetlands, as defined by the California Coastal Act of 1976.
- (b) The project applicant or a qualified biologist shall contact DFG to determine whether streambed alterations would occur to drainage features as defined under Section 1602 of the California Fish and Game Code. If this is the case, the project applicant shall obtain a streambed alteration agreement from DFG for any proposed modifications of the features.
- (c) Based on the verified delineation, the project applicant shall avoid disturbance or fill of the protected coastal wetlands, which would also lead to avoidance of Section 404 wetlands and other waters of the United States, for any uses not authorized by the CCA for wetland fill.

(d) All jurisdiction wetlands shall be protected from impacts associated with implementation of the proposed project by a minimum 100-foot buffer. In some cases, such as when a special-status species requires habitat adjacent to a wetland for part of its life cycle, buffers greater than 100 feet may be necessary. Precise buffer width will be based upon consultation between the project applicant and the California Coastal Commission (CCC). Prior to beginning implementation of the proposed project, the project applicant shall submit a wetland avoidance plan to CCC for approval. The avoidance plan shall include a map that clearly demarcates jurisdiction waters and the buffer area. Based on CCC guidance for establishing buffer, it isThis will likely thatrequire relocation of some proposed facilities (e.g., trails, restrooms) will be required outside the a 100-foot buffer areas from onsite wetlands in less environmentally constrained areas as shown in Exhibit 6-1.

~~(d) For those wetlands and other waters of the United States that cannot be avoided during construction, authorization for fill of wetlands and alteration of waters of the United States for uses authorized for fill under the CCA, shall be secured from USACE via the Section 404 permitting process before project construction. Compensatory mitigation required for the Section 404 permit shall be implemented.~~

(e) ~~For~~ Wetlands and other waters of the United States filled for uses that are authorized under the CCA, ~~the project applicant~~ shall be replaced, restored, or enhanced so that there is ~~the acreage of jurisdictional habitat to be removed on a~~ “no net loss” ~~basis~~ in accordance with USACE, DFG, and ~~the~~ LCP requirements. The project applicant shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before beginning implementation of the proposed project: ~~Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the California Coastal Commission (CCC) may be~~

~~immitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC.~~

1. Authorization for fill of jurisdictional waters of the United States shall be secured the CWA Section 404 permitting process. Timing for compliance with the specific conditions of the 404 permit shall be per condition specified by the USACE in a mitigation monitoring plan that must be included with the Section 404 permit application. USACE typically require that mitigation monitoring plans included proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands functions and values in the project vicinity. The wetland creation section of the habitat mitigation and monitoring plan shall include the following: target areas for creation; a complete biological assessment of the existing resources on the target areas; performance standards for success that will illustrate that the compensation ratios are met; and a monitoring plan including schedule and annual report format. Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the CCC may be immitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.
2. Prior to construction in any areas containing wetland features, the project applicant shall obtain water quality certification pursuant to Section 401 of the Clean Water Act for the project. Any measures required as part of the issuance of water quality certification shall be implemented.
3. The project applicant shall obtain a Streambed Alteration Agreement under Section 1600 et seq. of the California Fish and Game Code for impacts to Waters of the State as defined under Section 1602 of the California Fish and Game Code.
4. The project applicant shall file a report of waste discharge with the Regional Water Quality Control Board for activities affecting waters of the state.

Mitigation Measure 4.13-4: Impacts to Special-Status Wildlife. The following measures are designed to minimize and mitigate impacts on special-status wildlife:

California Red-legged Frog

The following measures would reduce impacts to California red-legged frogs to a less-than-significant level:

- (a) Red-legged frogs are known and have been documented to occur on the project site (Monk and Associates 2002). Before construction of any project facilities, and as a follow-up to the habitat assessment conducted in May 2002 by Monk and Associates, the project applicant shall hire a qualified biologist to conduct a habitat assessment in accordance with the methods outlined in *Guidance on Site Assessment and Field Surveys for California Red-legged Frogs* (USFWS 1997).
- (b) The results of the red-legged frog assessment shall be summarized in a report to be provided to the USFWS Ecological Services Division, Sacramento Field Office. This report shall also include additional information related to survey as described under USFWS protocol (USFWS 1997).
- (c) If USFWS determines that implementation of the proposed project could result in take, the project proponent shall consult with USFWS under Section 7 or Section 10 to determine a future

course of action, including whether incidental take authorization is needed. Through consultation and negotiations with USFWS, appropriate mitigation and avoidance measures shall be determined and required to be implemented for the take authorizations. [These mitigation measures would typically include, but not be limited to, preservation or replacement of upland and aquatic habitat at a minimum 1:1 ratio, as well as avoidance and minimization measures \(e.g., preconstruction surveys, seasonal construction restrictions, etc.\) to reduce the potential for take of California red-legged frog.](#)

Special-status invertebrates

The following measures would reduce impacts to special-status invertebrates to a less-than-significant level:

- (a) Before the project design is finalized, the project applicant shall hire a qualified biologist to conduct focused surveys for special-status invertebrates on the project site.
- (b) If no special-status invertebrates are identified on the project site, no further mitigation for special-status invertebrates is required.
- (c) If special-status invertebrates are identified on the project site, the project applicant shall attempt to minimize disturbance to occupied habitat to the maximum extent feasible. If occupied habitat for Myrtle's silverspot butterfly cannot be avoided, consultations with USFWS [under Section 7 or Section 10 to determine a future course of action, including whether incidental take authorization is needed](#), shall be required. [Through consultation and negotiations with USFWS, appropriate mitigation measures shall be determined and required to be implemented for the take authorizations. These mitigation measures would typically include, but not be limited to, preservation or replacement of suitable habitat at a minimum 1:1 ratio, as well as avoidance and minimization measures \(e.g., preconstruction surveys, seasonal construction restrictions, etc.\) to reduce the potential for take of Myrtle's silverspot butterfly.](#)

4.2.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The project would be consistent with all policies and regulations related to proposed development at the Lawson's Landing with implementation of mitigation measures described above. Overall, the project would be consistent with all policies and regulations of the Dillon Beach Community Plan, Marin County Local Coastal Program Unit II, Marin Countywide Plan, and Marin County Zoning Code.

4.3 WATER SUPPLY

This section describes existing water supply services and evaluates potential impacts that may occur because of demand for water from the project. The water supply effects of the project would be generated primarily by the current activities (i.e., water use) occurring onsite associated with temporary and permanent residents of the 233-space trailer park, campers and day-use visitors using the restroom facilities, residents of the 10 onsite housing units, and boathouse operations.

4.3.1 EXISTING CONDITIONS

REGIONAL SETTING

Marin County is served by five water districts. These districts obtain water from reservoirs, groundwater, and connections with other district water resources. The districts are responsible for providing water to residents and seeking new sources of water when projections indicate a potential long-term deficit in supply. The project site is located in the North Marin Water District (NMWD) which serves a suburban population of 56,000 people situated in and near the City of Novato and several small improvement districts in the West Marin area near the coast. Because of the site's location, water service at Lawson's Landing is provided by private, onsite wells that are not connected to NMWD facilities.

LOCAL SETTING

Six onsite wells provide potable water to the project site. The water wells are located throughout the project site: three wells are located near the farm complex in the northern portion of the site and three wells are clustered together just southeast of the entrance to Lawson's Landing. The clustered water wells have a combined yield of 30 gallons per minute. Groundwater is pumped from the wells to one of six onsite water storage tanks, which provide water pressure and flow throughout the project site. Currently, the water system has storage capacity of 35,000 gallons.

4.3.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would normally have a significant effect on the environment as it relates to water supply if it would:

- ▶ require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, or
- ▶ require new or expanded entitlements to have sufficient water supplies available to serve the project.

Project-related effects on groundwater resources are analyzed in Section 4.5, "Hydrology and Water Quality."

Appendix N of the Marin County Environmental Impact Review Guidelines, adopted in 1994, provides guidelines for analyzing the significance of physical project impacts (Marin County 1994b). According to these guidelines, the project would have significant impacts related to water supply if it would:

- ▶ propose a significant increase in the consumption of potable water, and/or
- ▶ require substantial expansion of water supply, treatment, or distribution facilities.

PROJECT IMPACTS

Impact 4.3-1: Increased Project Demand for Water Supply. While recreational use levels would not change substantially, two new residences and a new restroom would increase demand for water supply from onsite wells. This demand would not exceed the capacity of the groundwater wells and the wells would be able to adequately serve the proposed project facilities. Therefore, this would be a *less-than-significant* impact.

Implementation of the Master Plan would not expand recreational facilities, so it would continue recreation uses at current levels, including use of the travel trailers, campsites, and day-use areas. As a result, no significant change in water demand would occur from proposed land uses. The project would result in the construction of two additional housing units and a new restroom and shower facility in the Sand Point area of the project site. These new residences and facilities would connect to existing wells onsite. The proposed mobile home and residences would result in only a minor increase in water demands at the project site. The three permitted wells have a combined yield of 30 gallons per minute. Based on a well pumping study prepared by Questa Engineering (1997), the existing wells at the project site have adequate capacity to serve the project. Therefore, water supply effects would be less than significant.

Because the proposed facilities would use ground water supplies located onsite and would not require connection to the NMWD, implementation of the project would not adversely affect the capabilities of the NMWD to provide water supplies to water users in its service area. This would be a less-than-significant water supply impact.

Impact 4.3-2: Water Use for Fire Flow. The project would be required to conform with the Marin County Fire Department's (MCFD) fire flow requirements. The project includes construction of new water facilities that would deliver the required fire flow set by MCFD. This would be a *less-than-significant* impact.

Water required for fire fighting is referred to as "fire flow." MCFD maintains oversight authority to ensure adequate water volume and pressure is available at the project site for fire flow. The County Fire Marshal indicated that existing fire flow capabilities at the project site are substandard. To improve water pressure and volume, the proposed Master Plan would include two new 100,000 gallon water storage tanks to serve the project site and would install three fire hydrants at the project site. Both water storage tanks would be located adjacent to existing wells just south of the entrance gate and would provide appropriate fire flow in the Sand Point area of the project site. The project sponsors consulted with the MCFD to determine the appropriate location for the new fire hydrants on the project site and determined that the fire hydrants would be constructed along Bay Road in the meadow area of the project site. These fire hydrants would be connected to the new 100,000 gallon water storage tanks. Fire flow and water pressure to the fire hydrants, new and existing, would improve compared to existing conditions. Further, the design of the proposed facilities would be reviewed by the MCFD for compliance with design standards before issuance of development permits. Therefore, this would be a less-than-significant impact.

CUMULATIVE IMPACTS

Impact 4.3-3: Cumulative Water Supply Impacts. Cumulative development would result in increased demand for NMWD water supply services. The project's demand for water would not contribute to the cumulative demand, because its water supply is only from onsite wells not connected to NMWD facilities. This would be a *less-than-significant* cumulative impact.

Cumulative development, including reasonably foreseeable future projects, is expected to result in an increase in the demand for water supply services from the NMWD. However, Lawson's Landing uses only onsite wells to provide its water supply and is not serviced by the NMWD. It would, therefore, not contribute to cumulatively increased demands for NMWD services. Further, the project's increased demands for groundwater resources would not result in a substantial demand for groundwater from the underlying groundwater basin. Therefore, this would be a less-than-significant cumulative impact.

Impact 4.3-4: Cumulative Fire Flow Impacts. Because fire flow for the project would be provided by onsite wells that are not connected to other fire flow water facilities, the project would not contribute to cumulative fire flow impacts in the project area. This impact would be less-than-significant cumulative impact.

The project would receive fire flow water from the onsite water sources separate from other fire flow water facilities in the area. As an independent fire flow system, it would not adversely affect other areas, nor would fire flow demands from outside the project adversely affect the onsite facilities. The project would not contribute to any cumulative fire flow impacts associated with offsite projects. This would be a less-than-significant cumulative impact.

4.3.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.3-1: No mitigation measures are required.

Mitigation Measure 4.3-2: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Cumulative Mitigation Measure 4.3-3: No mitigation measures are required.

Cumulative Mitigation Measure 4.3-4: No mitigation measures are required.

4.3.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The project's water supply impacts would be less-than-significant. No mitigation would be required.

4.4 WASTEWATER TREATMENT AND DISPOSAL

This section describes the proposed onsite wastewater treatment system and analyzes the feasibility of the system to adequately serve the project. The potential effects on hydrology and water quality resulting from implementation of the wastewater treatment system are analyzed in Section 4.5, “Hydrology and Water Quality.”

The information describing the design of the proposed onsite wastewater treatment system is based on the *Wastewater Facilities Plan for Lawson’s Landing, Marin County, California* (Questa 1997) prepared by the project applicant’s engineer. At the request of the County, this report was peer reviewed by Psomas and the results of the peer review were summarized in the *Technical Memorandum for the Wastewater Facilities Master Plan* (Psomas 2003). The peer review requested additional information and clarification from the project applicant’s engineer. Questa responded to this request for information and submitted the *Addendum Wastewater Facilities Plan for Lawson’s Landing, Marin County, California* (Questa 2004). That report was again peer reviewed by Psomas with the results of that peer review presented in the *Technical Memorandum for the Wastewater Facilities Master Plan* (Psomas 2004). A copy of all of these reports are available in Appendix D.

4.4.1 EXISTING CONDITIONS

REGIONAL AND LOCAL SETTING

There are nine wastewater treatment plants in Marin County, but the project site is not currently served by any of these treatment plants. Dillon Beach relies on individual sewage disposal systems in the form of septic systems, cesspools, mound systems, and other methods which discharge into the ground. The Oceana Marin residential development north of Dillon Beach is served by a separate wastewater treatment system that is maintained and operated by the North Marin Water District.

Wastewater treatment and disposal at Lawson’s Landing is provided by complex of onsite septic systems, portable toilets for day use and camping, and a disposal station for recreational vehicles. The portable toilets and disposal station are pumped on a regular basis and the wastewater is hauled to an appropriate offsite disposal facility. A large number of septic tanks are located in the Sand Point area of the project site and serve the recreational trailers, boathouse, and mobile homes. In general, one system was installed for every two trailers in the sandy soils along the perimeter of the lower main meadow area. Wastewater from the septic tanks percolates to underlying soils via leachlines that extend directly from the septic tanks. Because of the age and limited design and siting requirements (no percolation tests were required) during construction and installation of the septic systems, there is concern that the existing septic systems could result in deteriorating groundwater quality. In addition, because of their age (i.e., greater than 45 years old), the existing septic systems are not currently permitted by the County or the Regional Water Quality Control Board (RWQCB). Marin County has expressed a concern that the septic tanks and associated leachlines are inadequate by current County standards.

Existing residences located in the northern portion of the project site, use individual septic systems, which are permitted by the ~~RWQCB~~ [Marin County Environmental Health Department](#). No alterations to these systems are proposed under the master plan.

REGULATORY BACKGROUND

Criteria governing the siting and design of onsite wastewater disposal facilities are described in the San Francisco Bay RWQCB’s Guidelines for the Control of Individual Waste Treatment Disposal System and

the Marin County Sewage Disposal Regulation (pursuant to Marin County Code Chapter 18.06). A brief description of these regulations is provided below.

San Francisco Bay RWQCB Regulations

The San Francisco Bay Regional Water Quality Control Board (RWQCB) maintains regulatory authority and is the permitting authority for review, approval, certification, and inspection of onsite wastewater treatment systems in Marin County. Throughout California, the RWQCBs oversee the design and construction of onsite wastewater treatment systems and are responsible for ensuring these systems comply with the requirements established by the California State Water Resources Control Board (SWRCB).

The SWRCB is currently in the process of developing comprehensive statewide Onsite Wastewater Treatment System (OWTS) regulations that would establish provisions and requirements for the performance and operation of onsite wastewater treatment systems. SWRCB expects to approve and begin implementation of the new regulations in 2007. The RWQCBs and many counties, cities, and special districts would be responsible for assisting the SWRCB in implementation and enforcement of the OWTS requirements.

Currently, the San Francisco RWQCB regulates the construction and operation of onsite wastewater treatment systems through guidelines published in the ~~SWRCB's~~ RWQCB's Minimum Guidelines for the Control of Individual Wastewater Treatment and Disposal Systems (1979). These guidelines identify recommended minimum criteria to protect water quality and preclude the creation of health hazards and nuisance conditions that could result from the use of individual wastewater treatment and disposal systems.

The San Francisco RWQCB acknowledges that there are many differences in the geology, hydrology, geography, and meteorology within the nine counties that lie within its geographic boundaries (i.e., San Francisco Bay Region). As such, the guidelines represent minimum criteria generally acceptable for the construction and use of new individual wastewater disposal systems. Relevant sections of the guidelines are also used to determine the suitability of onsite soils for the construction and use of individual systems. The performance and monitoring standards for the proposed onsite wastewater treatment system at the project site would be required to meet the ~~SWRCB's~~ RWQCB's minimum guidelines for placement, design, construction, operation, and maintenance.

The proposed wastewater treatment system would consist of a recirculating sand filter to receive and treat effluent prior to disposal in an onsite leachfield via drip irrigation. According to staff at the RWQCB, there are currently no specific guidelines that address the construction and operation of a recirculating sand filter design (Allen, pers. comm., 2005). However, the SWRCB's minimum guidelines require the septic tank design to produce a clarified effluent consistent with acceptable standards and provide adequate space for sludge and scum accumulations. In addition, percolation tests must be carried out (in soils in their native state) to identify whether onsite soils are capable of supporting an onsite wastewater treatment system and whether adequate drainage exists at the site. The percolation tests would also determine the minimum distance of separation between the bottom of the leachfield and the groundwater table. The guidelines also require that all new systems be inspected at a frequency of at least once every two years to determine sludge and scum depths, observe evidence of surfacing effluent, and to assess general system operation. Staff of the RWQCB acknowledge that the RWQCB would be the agency responsible for permitting the onsite wastewater treatment system at Lawson's Landing (Blair, pers. comm., 2005).

Marin County Regulations

Pursuant to Marin County Code Chapter 18.06, the Marin County Environmental Health Services Division (MCEHS) maintains regulatory authority to review, approve, certify, and inspect individual wastewater treatment systems. The Code prohibits construction of individual sewage disposal systems without first obtaining a permit from MCEHS and prohibits construction, use, and maintenance of any component of an individual wastewater treatment system functioning “in such a manner as to overflow onto public or private land or affect any river, stream, creek, spring, lake, pond, reservoir, swamp, ocean, bay, water supply or water system.” To approve construction of an individual wastewater system, MCEHS must determine that the proposed system would not be injurious to the public health and welfare. MCEHS approval may be subject to any conditions deemed necessary to protect public health. Individual wastewater treatment systems are subject to biennial inspections to assure proper functioning before renewing a certificate of inspection. Because the proposed onsite wastewater system would serve the boathouse, mobile homes, and recreational trailers at Sand Point, it would not be considered an individual system subject to County approvals. It would, however, be subject to RWQCB requirements as described above.

Onsite Soil and Groundwater Investigations

Several soil and groundwater studies were conducted to identify onsite groundwater elevations, gradients, and flow patterns, and soil profile conditions. These field studies were conducted by Questa in 1996 and included:

- ▶ installation of approximately 20 shallow piezometers for water table measurements;
- ▶ drilling and installation of two deep monitoring wells for water table determinations, logging of subsurface geologic strata, and future water quality testing;
- ▶ elevation survey of piezometers and well heads;
- ▶ measurement of water levels; and
- ▶ percolation testing (6 test holes) in the high dune area (December 1996).

In addition, field investigations were performed by HSI Hydrologic Systems in September 2004 to confirm groundwater elevation and flow patterns at the site and evaluate potential groundwater quality impacts associated with operation of the project. The results of this analysis are summarized in Section 4.5, “Hydrology and Water Quality.” EDAW also peer reviewed the applicant’s technical reports describing the onsite wastewater system. This review included field surveys by Psomas and EDAW in September 2004 (Appendix D).

4.4.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would normally have a significant effect on the environment as it related to wastewater treatment and disposal if it would:

- ▶ exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board; and/or

- ▶ require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Because the project includes the construction of a new wastewater treatment facility, the thresholds of significance listed in Appendix N of the Marin County Environmental Impact Review Guidelines (1994) have been modified such that the project would result in significant impacts if:

- ▶ wastewater flows exceed the capacity of, contribute a significant increase in flows to, or require substantial expansion of any wastewater collection or treatment facilities;
- ▶ the system creates public health hazards related to untreated wastewater; or
- ▶ the system would not comply with Marin County Environmental Health Services Division standards.

Proposed Onsite Treatment System

A new centralized wastewater treatment system is proposed to be constructed in a sand dune in the southern portion of the project site (Exhibit 4.1-1) and would serve the travel trailers, boathouse and mobile homes at sand point, the wastewater disposal stations, and the proposed restroom facilities in the main meadow area. The existing septic tanks on the project site would be properly abandoned and/or removed in accordance with the requirements of the MCEHS and RWQCB. The proposed wastewater treatment system would include the following:

Wastewater Collection System

A STEP collection system would be installed at the project site and would use individual septic tanks at the proposed restrooms, mobile homes, travel trailers, and other buildings (i.e., boathouse). These septic tanks would vary in size depending on the facilities they serve (e.g., 1,200-gallon or larger) and would be connected to the wastewater treatment system via series of small diameter piping (2-inch to 4-inch) that would convey effluent to the central treatment facility located at the sand dune to the northeast of Sand Point. The pump systems for the proposed restroom facilities would be designed with additional storage capacity (i.e., surge capacity) (Questa 2004).

Wastewater Treatment System

A recirculating sand filter (or equivalent treatment system) would be located in the dunes area to receive and treat effluent to an advanced secondary level before disposal in the proposed leachfield. The sand filter treatment system would include a series of underground fiberglass tanks with pumps, sand filter beds, associated piping, and a small control building. The sand filter would be designed for peak flow of 30,000 gallons per day (gpd) to 37,500 gpd, based on a loading rate of 4.0 to 5.0 gpd per square foot (gpd/ft²). The tanks would include a 20,000-gallon influent flow equalization tank, a 20,000-gallon recirculation tank, and a 10,000 gallon leachfield dosing tank (Questa 2004).

Wastewater Disposal

Disposal of the treated wastewater would be accomplished through a combination of subsurface leachfield beds and a drip irrigation-dispersal field located in the sand dune. The leachfield beds and drip irrigation field would cover approximately 1.5 acres and would provide two beds designed to accommodate 100% of design wastewater flows consistent with RWQCB requirements. The leachfield bed and drip irrigation field would each have a capacity of 30,000 gpd; therefore, the system would provide a total disposal capacity of 60,000 gpd. In addition, a reserve area would be designated in the

area of the proposed leachfield as a potential leachfield area. The reserve area would provide 100% design capacity (i.e., 30,000 gpd). The proposed leachfield area and the reserve area would be sited to provide a minimum 20-foot separation between the bottom of the leachfield and underlying groundwater.

Sand Dune Stabilization

To ensure the long-term operation of the proposed leachfield, the sand dune that would accommodate the leachfield would need to be stabilized to prevent the dune from naturally deflating or shifting with the prevailing winds, potentially exposing the leachfield. The proposed dune stabilization approach includes two elements: (1) fencing to preclude access by livestock; and (2) hydroseeding and planting, including the use of a soil sealant or tackifier to help hold sands in place. These elements are briefly described below:

- ▶ **Fencing:** Two types of fencing would be installed around the dune. Three-strand barbed wire livestock fencing would be installed around the large perimeter of the dune stabilization area and would prevent cattle and sheep from grazing or trampling the dune. Modified “snow fencing” would be installed in rows 30 to 45 feet apart on the slope below the leachfield. The fencing would be installed perpendicular to the direction of prevailing winds, and would typically consist of 3 to 4-foot tall wooden slats held together with a light wire or plastic mesh. The fence would buffer the wind, trap shifting sand, and would provide a buffer behind which vegetation could establish.
- ▶ **Planting:** The planting program includes three planting treatments: 1) hydroseeding the leachfield site and surrounding area with native species and soil sealant; 2) planting dune grass popaguiques over the leachfield; and 3) planting native woody plant seedlings in a band at the base of the slope to reinforce the toe of the sand dune slope and help stabilize the lower edge of the dunes from erosion. The plant species proposed for planting include dunegrass (*Leymus mollis*), beach bluegrass (*Poa douglasii*), coyote bush (*Baccharis pilularis*), and bush lupine (*Lupinus arboreus*).

Operation and Permitting

The wastewater facilities would be operated as a private wastewater system under permitting, monitoring, and reporting requirements of the San Francisco Bay RWQCB.

PROJECT IMPACTS

Impact 4.4-1: Impacts to Offsite Wastewater Treatment Systems. Because the project includes an onsite wastewater treatment system, it would not contribute to any offsite wastewater collection or treatment facilities. The project would have *no impact* on offsite wastewater treatment systems.

Lawson’s Landing is not currently served by any wastewater collection or treatment facilities operated by local or regional agencies or entities. The project includes construction of a new wastewater treatment system onsite. Mitigation Measure 4.6-1 would require that this system is re-located to a non-sand dune location in the northern area of the project site (Exhibit 4.6-10). Re-location of the system would be feasible from a design, siting, and environmental standpoint and no new significant environmental effects would occur. This system would serve onsite residences, restroom facilities, and the onsite disposal stations. The project would abandon or remove existing septic tanks at Sand Point and would no longer need to pump onsite disposal stations and haul the wastewater to an offsite disposal facility. Although, the project would continue to use some portable restrooms as the site, Lawson’s Landing does not own these facilities. The number of portable restrooms onsite would be reduced and those that remain onsite would continue to be the responsibility of the company that leases these facilities to Lawson’s Landing.

The proposed wastewater treatment system would be owned and operated by Lawson's Landing subject to the regulations of the RWQCB. The project would not contribute to any offsite wastewater collection or treatment facilities. Therefore, the project would have no impact on offsite wastewater systems.

Impact 4.4-2: Compliance with RWQCB Standards. The proposed wastewater treatment system would meet all applicable requirements of the RWQCB. Therefore, this would be a *less-than-significant* impact.

The proposed design and siting of the wastewater treatment system was reviewed for its compliance with RWQCB requirements. Psomas peer reviewed the proposed sizing criteria for the design of the facilities. Through that peer review process, which included comments by Psomas, and responses to those comments by Questa, Psomas determined that the engineering design of the proposed system and the placement within the sand dune would meet the sizing and design criteria of the RWQCB. Further, based on field reconnaissance of the site, review of aerial photographs of the site, and review of groundwater data, the proposed leachfields would maintain an adequate separation distance from underlying groundwater (Psomas 2004). Staff of the RWQCB have indicated that the proposed location and design of the system would be acceptable (Allen, pers. comm., 2005). Mitigation Measure 4.6-1 would require the relocation of the wastewater treatment system to the northern area of the project site outside onsite sand dunes. Based on preliminary review of these locations, construction of a wastewater treatment system would be feasible from a design, siting, and environmental standpoint. Further, staff of the RWQCB indicated that construction in the alternate location would be acceptable as long as no significant adverse environmental impacts would result (Allen, pers. comm., 2005). The RWQCB also indicated alternate treatment technologies (i.e., pond treatment system) may be feasible onsite. In the past, the RWQCB has indicated that a pond treatment system would likely be infeasible and should be located away from onsite sand dunes (Marin County 1977). However, because alternate, non-sand dune locations are proposed, the RWQCB has indicated that pond treatment systems may be feasible onsite (Allen, pers. comm., 2005). Nonetheless, because the proposed wastewater treatment system would meet RWQCB standards and would be acceptable based on its current design, this would be a less-than-significant impact.

Impact 4.4-3: Feasibility of Long-Term Operation. The project would stabilize the existing onsite sand dune with vegetation and fencing. Based on available data from similar facilities in sand dunes in Manila, California it is uncertain if the proposed stabilization methods could feasibly stabilize the onsite sand dunes to prevent the sand dune from shifting and causing the leachfield to fail. Therefore, the impacts of providing a reliable wastewater treatment system at the project site are uncertain and could result in *potentially significant* health hazard impacts associated with public exposure to untreated effluent if the system fails.

As discussed in Impact 4.4-~~3~~² above, the proposed design of the wastewater treatment system would be in compliance with the requirements of the RWQCB and, therefore, under normal siting conditions would result in a wastewater treatment system that would have a long-term reliability for operation. Because of the limited area onsite that would provide minimum separation distances to groundwater in close proximity to Sand Point, the project would result in the construction of a leachfield in a migrating sand dune. To ensure that the leachfield remains stable over its operational life (i.e., 30 years or more), the western face of the sand dune would be planted with vegetation to hold sands in place and prevent its migration. As discussed in Sections 4.6, "Geology and Soils" and Section 4.13, "Biological Resources" stabilization of the sand dune could have significant adverse impacts associated with natural dune migration. Mitigation Measure 4.6-1 requires that the proposed leachfield be relocated to areas outside of onsite sand dunes in the northern portion of the project site. Based on preliminary evaluation of these proposed locations, the successful operation of the wastewater treatment system would be feasible from a siting, design, and environmental standpoint (see Section 4.6, "Geology and Soils" and Section 4.13,

“Biological Resources”). Therefore, this would be less-than-significant impact (see Section 4.6, “Geology and Soils”).

CUMULATIVE IMPACTS

Impact 4.4-4: Cumulative Development Wastewater Impacts. The wastewater treatment systems for cumulative projects would be required to comply with RWQCB standards and are not anticipated to adversely affect public health or water quality. This would be a *less-than-significant* cumulative impact.

The project site is not served by an offsite wastewater treatment system. Cumulative projects would each use onsite wastewater treatment systems and would not contribute to any cumulative development impacts related to the capacity of wastewater collection or treatment facilities. Depending on the size of the onsite wastewater treatment system, the RWQCB and MCEHS are responsible for ensuring all cumulative development projects, including the project, comply with RWQCB and/or County standards for wastewater treatment. Therefore, the wastewater treatment systems for the cumulative projects are not anticipated to adversely affect public health or welfare. This would be a less-than-significant cumulative impact.

4.4.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.4-1: No mitigation measures are required.

Mitigation Measure 4.4-2: No mitigation measures are required.

Mitigation Measure 4.4-3: Implement Mitigation Measures 4.6-1 and 4.13-1.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.4-4: No mitigation measures are required.

4.4.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

All of the project’s wastewater impacts would be less than significant.

4.5 HYDROLOGY AND WATER QUALITY

This section addresses project impacts related to hydrology, groundwater, and water quality. This discussion includes a summary of the existing hydrology in the project vicinity, an analysis of the impacts of the project on these features, and mitigation measures, if feasible, to reduce any significant impacts. This evaluation is based on information supplied by the applicant's hydrology and water quality engineer and independently peer reviewed and analyzed by Psomas, the hydrology and water quality consulting engineers for this EIR, and the Lawson's Landing Master Plan Water Resources Evaluation Report, prepared by HSI Hydrologic Systems at the request of EDAW. A copy of the HSI report is included in Appendix E.

4.5.1 EXISTING CONDITIONS

SURFACE HYDROLOGY

The hydrology of the project site is closely related to the site's topography, geology, and soil characteristics. Runoff from the project site drains into two watersheds: Dillon Creek Watershed and the Brazil Cove Watershed. Runoff from the northern portion (hillside areas) of the site drains to the Dillon Creek Watershed, which discharges surface drainage to Dillon Creek and the Pacific Ocean near the town of Dillon Beach. Dillon Creek generally runs in an east-west direction and bisects the northern portion of the project site near Dillon Beach Road. The remainder of the site including meadow and sand dune areas drain to the larger Brazil Cove watershed, which discharges surface drainage to Tomales Bay located near the Sand Point area (south) of the project site.

The northern hillside areas are characterized by numerous groundwater seeps, draining to gullies formed along the slopes along both sides of Dillon Creek. Stormwater runoff from the site is rapid and generally follows established drainage paths. Infiltration of precipitation within the interior dune areas is rapid, and contributes to the local groundwater basin by gravity flow along the underlying bedrock to the lower gradient areas of the main meadow. Because infiltration within the watershed is high and stormwater runoff volumes are correspondingly low, stormwater runoff facilities are minimal. The drainage network within the project site consists of approximately 7,300 linear feet of drainage ditches and accompanying roadway culverts running in a northwest-southeast direction, eventually discharging into Tomales Bay near Sand Point. All of these facilities are located in the main meadow area of the project site. No formal drainage facilities are located in the northern or eastern portions of the project site because these areas are relatively undeveloped. During heavy rainfall events, groundwater levels at the site have been observed to rise two or more inches, which has resulted in the temporary flooding of the lowland meadow areas. Pondered waters usually recede within 12 to 24 hours and are drained by the existing onsite drainage network.

SURFACE WATER QUALITY

The nature of the recreational and other land uses on the site, including agricultural activities, roadways, parking areas, sand quarry operations, and boat and equipment servicing facilities, influence the water quality of runoff from the site. In the Lawson's Landing area, as in the entire San Francisco Bay Area, contaminants contributed by vehicular emissions, automobile brake and tire wear, spills, and atmospheric fallout, accumulate within the drainage area during the summer dry period. Much of this accumulation is flushed out by the first winter rains. This runoff can contribute significant levels of contaminants to local receiving waters. Contaminants within runoff can be toxic to aquatic organisms and humans.

Grazing Activities

The area surrounding Tomales Bay has for many years operated as livestock grazing land. Many of these grazing lands are located adjacent to or in proximity of a creek that discharges into Tomales Bay. Recent studies have identified that grazing lands can serve as non-point sources of contamination within the local watershed. Livestock operations within the Tomales Bay watershed and at the project site include dairy and beef cattle, and sheep grazing operations. These livestock operations could contribute non-point source contaminants to Tomales Bay. The common pathogens of primary concern that can be transmitted to humans through water are listed in Table 4.5-1. Although no site specific investigations at the project site have been conducted, it is expected that some common pathogens associated with onsite livestock operations may be transported to surface drainages and eventually to Tomales Bay.

Table 4.5-1 Pathogens of Primary Concern associated with Livestock Operations	
Pathogen	Special Concerns
Waterborne Protozoa <i>Cryptosporidium parvum</i>	Low infections dose; environmentally resistant oocysts
<i>Giardia duodenalis</i>	Low infections dose; environmentally resistant oocysts
Waterborn Bacteria	
<i>Campylobacter spp.</i>	Common in livestock and wild birds
<i>Salmonella spp.</i>	Common in livestock feces
Pathogenic strains of <i>E. coli</i>	Can be highly infectious for humans
Waterborn Viruses	Little scientific evidence that viruses shed in livestock feces pose a health threat in the U.S.
Source: HSI 2004	

Boating Activities

Tomales Bay is a popular location for recreational and commercial boating activity. In recent years, increased boating activity within Tomales Bay has potentially contributed to the bay's contamination concerns. Currently, there are no controls or policies regulating the mooring of boats within Tomales Bay for short stays or live-aboards.

The Department of Health Services has identified that boat mooring within the bay is a potential health concern because of the lack of sewage pump-out facilities within the bay (DHS 2002). An outbreak of a Norwalk-like virus in May 1998 sickened approximately 171 people who ate Tomales Bay oysters. The cause of the sickness was ~~found~~ assumed to be the inappropriate disposal of human waste within the bay by a local boater.

Planning efforts are currently underway by the County to resolve health related concerns associated with boat mooring in Tomales Bay. These improvements would include the construction of sewage pump-out facilities within the bay and to provide additional public restroom facilities for boaters and other recreational users in the bay.

HYDROGEOLOGY

Groundwater Levels

Near the coastal areas of the project site the valley floor ranges between 5 to 8 feet above mean sea level. The water table beneath the valley floor ranges between zero and 2 feet. Groundwater elevations near the coastline are heavily influenced by diurnal tidal fluctuations; however, this influence decreases towards inland areas (Questa Engineering 1987). A central feature of the project site is the large subirrigated meadow (main meadow) located between the foredunes to the west and the interior dunes to the east.

Based on piezometer records, monitoring well data, and review of topographic maps, groundwater levels at the project site during the winter may rise and intersect the ground surface near the sand dune/meadow margin and within ditches in the main meadow area. During the summer and late fall, groundwater levels appear to decline to about two feet below the surface of the meadows and are one foot below the invert of the ditches in the meadows. A site visit was conducted in October 2003 to assess the conditions for potential indications of high groundwater. No surface water was observed in the drainage ditches in the meadows, indicating the groundwater levels were below the ground surface. Moist conditions were observed in the bottom of one of the drainage ditches. Shallow drainage excavations throughout the meadow area indicate that the water table is within a foot of the ground surface. The groundwater levels within the meadow fluctuate seasonally.

A visual inspection and map review of the project site indicates that ponded areas of groundwater occur primarily at the sand dune/meadow margin. The estimated average depth of ponding in these areas is approximately 2 inches with an average surface area of 0.16 acre. These seasonal ponded areas primarily are a result of seasonal storm events; however, some ponded water areas occur because of compaction associated with onsite agriculture activities. For example, cattle grazing on the site compacts soils resulting in the purging of shallow groundwater to the surface. The average depth of ponding in these areas could be as great as 10 inches (HSI 2004).

There is no data available to evaluate the effects of tides on groundwater levels at Lawson's Landing. It is likely that tides influence groundwater levels near the bay. Studies of groundwater levels near the entrance to Lawson's Landing show a flattening of the groundwater gradient potentially caused by incoming tides blocking groundwater flow (HSI 2004).

GROUNDWATER FLOW DIRECTION

Groundwater contours for the sand dunes and main meadow areas of the project site were developed from groundwater elevation data collected near the entrance to Lawson's Landing (Questa 1987) and from groundwater elevation data obtained to prepare the proposed wastewater facilities master plan (Questa 1998). In general, groundwater beneath the sand dunes and main meadow areas of the project site generally flows in a south-southwest direction to Sand Point and Tomales Bay. During the winter, groundwater flows more to the west towards the Pacific Ocean (HSI 2004). The average groundwater flow gradient beneath the sand dunes is approximately 0.004 foot per foot during the summer and winter. The groundwater flow gradient beneath the meadow area is currently unknown.

GROUNDWATER QUALITY

The shallow depth to groundwater within high use areas of the southern portion of the site raises concerns regarding possible groundwater contamination from existing onsite septic system, and day use activities (i.e., vehicles, boating repair activities). Septic systems, which are now outdated in their design, were

installed to serve the travel trailers in the southern portion of the site. Typically, one system was installed for every two trailers in the sandy soils along the perimeter of the lower main meadow area.

Because of their age and limited design and siting requirements (i.e., no percolation tests were required) during their construction and installation, there is concern that these existing systems could potentially result in adverse groundwater quality conditions at the site including nitrate and bacterial contamination of groundwater resources and associated impacts to receiving waters of Tomales Bay. However, groundwater sampling for nitrates has not indicated that this is the case (HSI 2004).

Onsite fuel storage also raises concerns regarding possible groundwater contamination. Four fuel storage tanks are present at the project site. Two aboveground fuel storage tanks are located near the marina. These tanks were recently installed in 2003 at the request of the San Francisco Bay Regional Water Quality Control Board (RWQCB) and replaced two existing underground storage tanks at the site. Two aboveground storage tanks are also located near the gatehouse. No known spills or releases of fuel have occurred during operation of these facilities.

REGULATORY BACKGROUND

In general, water quality is regulated through the federal Clean Water Act, which is administered by the U.S. Environmental Protection Agency (EPA), with implementation delegated to the State Water Resources Control Board and a number of Regional Water Quality Control Boards.

Water quality in West Marin is primarily regulated by the San Francisco Bay RWQCB. The following provides a description of the agencies that have regulatory control over water quality in West Marin.

U.S. Environmental Protection Agency

The U.S. EPA (Region IX) is responsible for administering the federal Clean Water Act. Generally, the EPA does not get directly involved in project-level water quality protection unless the states do not comply with the Clean Water Act.

In an effort to reduce non-point source pollutants into surface waters of the United States, Congress amended Section 402(p) of the Clean Water Act in 1987 to require National Pollutant Discharge Elimination System (NPDES) permits for certain stormwater discharge sources. Regulation of these stormwater discharge sources was delegated to the RWQCB. Projects involving disturbance (i.e., clearing, grading, and excavation) of 5 or more acres are required to comply with the provisions of the statewide General Construction Activity Stormwater Permit. The statewide permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies potential sources of pollution and provides best management practices (BMPs) to reduce stormwater-related pollutant discharge into surface waters. In addition, NPDES permits are required for municipal separate storm sewer systems (MS4s) serving communities of over 100,000 population. NPDES permits are also required for certain industrial, agricultural, and other uses, as defined in the federal regulations for the implementation of NPDES. Marin County does not meet the criteria requiring issuance of an NPDES permit for municipal separate storm sewer systems.

In administering the Clean Water Act, the EPA also promulgated new receiving water criteria for toxic constituents in 1992 that were imposed on nine states (including California) and other U.S. territories because these jurisdictions failed to comply fully with Section 303(c)(2)(B) of the Clean Water Act. These new receiving water criteria were included in the 1992 National Toxics Rule (NTR). The NTR criteria are directed at the protection of human and aquatic life for various constituents. The criteria for arsenic, cadmium, chromium (III), chromium (IV), copper, lead, mercury, nickel, selenium, silver, and

zinc were also recently amended for the jurisdictions affected by the NTR and became effective on May 4, 1995.

California Environmental Protection Agency

California EPA (Cal-EPA) is responsible for administering the provisions of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) and the Porter-Cologne Water Quality Act of 1969. Proposition 65 and the Porter-Cologne Water Quality Act are intended to protect the health of California citizens and the State's surface and groundwater resources.

Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, is intended to protect California citizens and the State's drinking water resources from chemicals known to cause cancer, birth defects or other reproductive harm, and to inform citizens about exposure to such chemicals. The Office of Environmental Health Hazard Assessment, an office of California EPA, is the lead agency responsible for the implementation of Proposition 65 (OEHHA Program Summary 1997).

The Porter-Cologne Water Quality Act of 1969 provides for coordinated regulatory controls over all activities that may affect water quality. The State Water Resource Control Board, an office of California EPA, is the lead agency responsible for the enforcement of the Porter-Cologne Water Quality Act and provides for the establishment of waste discharge requirements for discharges to the State's surface and groundwater resources.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), as part of the Cal-EPA, is responsible for water rights, statewide policies, and appeals of RWQCB decisions. The SWRCB shares authority for implementation of the federal Clean Water Act and the state Porter-Cologne Act with the regional boards. Two of the on-going plans and programs managed by the SWRCB regarding water quality are the Ocean Plan, a management document for the regulation of point and non-point discharges for specified constituents, and the Mussel Watch Program. The Mussel Watch Program has been in existence since 1977 and monitors ocean mussels for a variety of contaminants.

In 1976, the State initiated the State Mussel Watch and State Toxic Substances Monitoring Programs to regularly monitor the concentration of pollutants in the tissue of aquatic organisms. Tissue levels reflect exposure over longer periods of time than might be evident from water column sampling and provide a field-based estimate for exposure of people, fish, and wildlife to pollutants in the food chain.

Marin County

A number of programs have been implemented for the control of stormwater runoff and surface water pollution prevention. Based on requirements imposed by the RWQCB in the 1991 and 1997 Water Quality Control Plan (Basin Plan), Marin County developed the Marin County Stormwater Pollution Prevention Program (MCSTOPPP). In 1995, MCSTOPPP staff and consultants developed a five year action plan (Action Plan 2000) for preventing stormwater pollution and enhancing creek and wetland habitat in the local area. Action Plan 2005 is currently being prepared and will provide local municipalities guidance and goals for the reduction of stormwater pollution in the county. Accomplishments of the MCSTOPPP program are detailed in Annual Reports prepared by the County.

Marin County Goals and Policies

Several goals and policies related to hydrology and water quality are included in the Countywide Plan (1994). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plan Consistency.”

Dillon Beach Community Plan

Several policies related to hydrology and water are included in the Dillon Beach Community Plan (1989). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plan Consistency.”

4.5.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, asks the following questions for determining significant hydrology and water quality effects.

- ▶ Would the project violate any water quality standards or waste discharge requirement?
- ▶ Would the project 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)?
- ▶ Would the project 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?
- ▶ Would the project 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?
- ▶ Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- ▶ Would the project otherwise substantially degrade water quality?
- ▶ Would the project 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?
- ▶ Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- ▶ Would the project 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?

Appendix N of the Marin County Environmental Impact Review Guidelines, adopted in 1994, also provides the following guidelines for analyzing the significance of project impacts (Marin County 1994b):

- ▶ criteria for determining the significance of hydrology and water quality impacts related to whether the project would result in substantial degradation of surface or groundwater resources compared to prevailing conditions, or whether it would cause or increase the potential for substantial flooding, erosion or siltation.

Analyses should consider the following questions.

- ▶ Does the project propose facilities that would be located in flood-prone areas?
- ▶ Does the project propose facilities that would increase offsite flood hazard, erosion, or sedimentation?
- ▶ Does the project propose uses or facilities that would substantially degrade or deplete groundwater resources?
- ▶ Does the project propose facilities that would interfere substantially with groundwater recharge?
- ▶ Does the project propose uses or facilities that would substantially degrade surface or groundwater quality?

PROJECT RUNOFF ANALYSIS

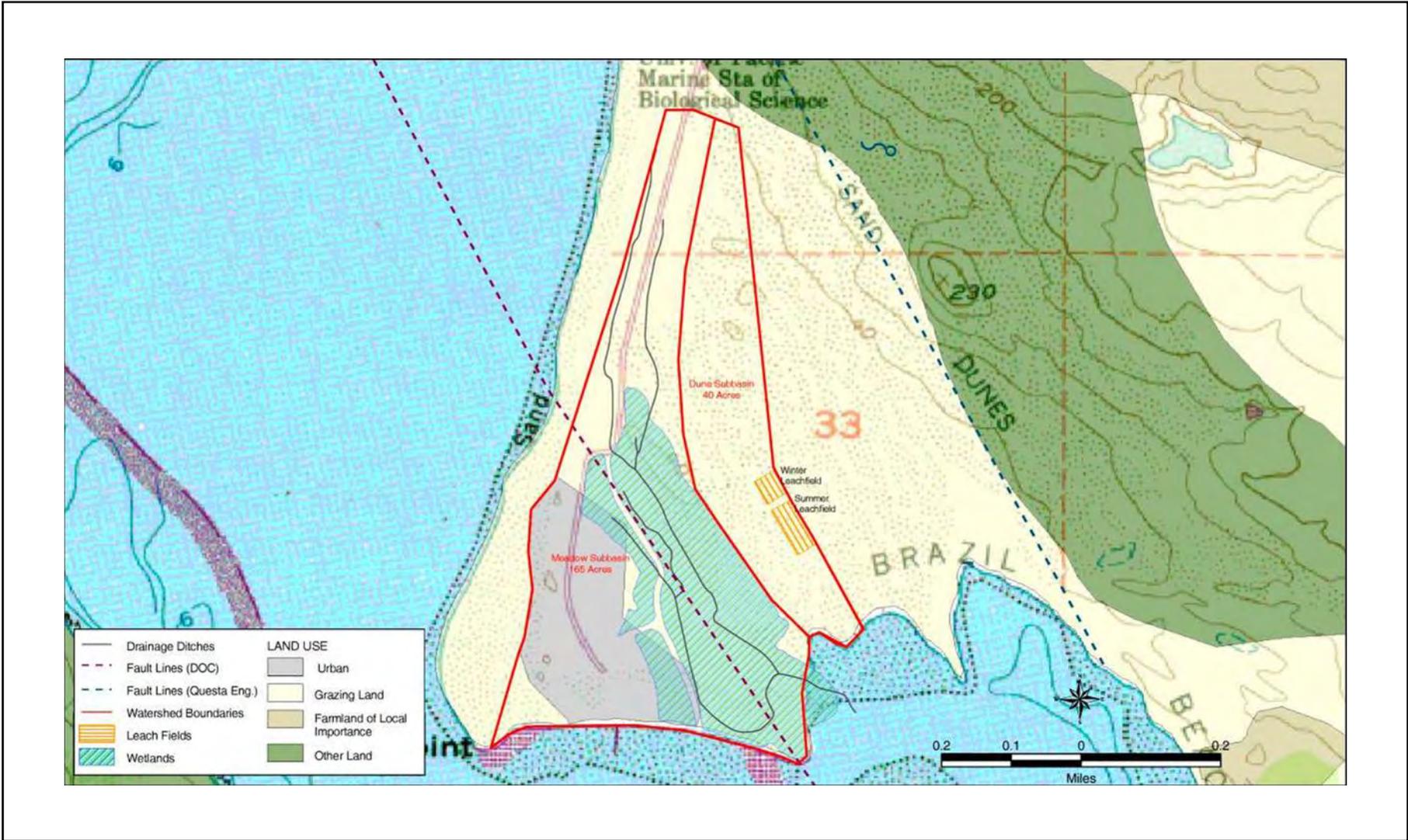
The project includes several new facility modifications that are expected to improve water quality in Tomales Bay. These facility modifications include establishing a common onsite wastewater treatment facility that would connect to a proposed sand dune leach field, increasing the number of modernized restrooms and shower facilities, improving the disposal facilities for recreational vehicle use, and developing a new boathouse and boatyard with improved runoff disposal features to limit contamination discharge into the bay.

In general, most of the project site is undeveloped or in a relatively unaltered pervious state. Approximately 250,000 square feet of impervious surfaces exists at the project site, which account for less than 1% of the total ~~940~~960-acre property. Most of the impervious areas are located at Sand Point and consist of paved roadways and building pads. Proposed improvements (e.g., wastewater treatment system, restrooms, residence, mobile home, and water storage tanks) would result in the increase in the area of impervious surfaces onsite by approximately 13,000 square-feet, which would be a 0.2% increase compared to existing conditions (HSI 2004).

HYDROLOGIC MODEL

A hydrologic model of Lawson's Landing was developed to evaluate the anticipated changes in the quality and quantity of stormwater runoff from a 165-acre area (meadow and sand dune area) of the project site, during varying storm events that would be expected with implementation of the project. The study area was subdivided into 2 basins: 1) a dune subbasin that is approximately 40 acres in size, and 2) a meadows subbasin that is approximately 125 acres in size (Exhibit 4.5-1). The dune subbasin and the meadows subbasin are connected through a series of overland flow plains and drainage swales. The meadows subbasin is connected to Tomales Bay through a series of man-made drainage ditches.

The 10-, 50-, and 100- year storm events were modeled for the study area using the U.S. Army Corp of Engineers Hydrologic Modeling System (HEC-HMS). The HEC-HMS modeling system is made up of three main components: a basin model, a meteorologic model, and the control specifications. Below is a brief explanation of each component. For additional details, please refer to Appendix E.



Source: HSI 2004

Modeled Watershed Subbasins

Basin Model: This component allows the simulation of the watershed characteristics by identifying the number, size, and orientation of the required subbasins, identifying reaches and defining the routing methods used to connect the subbasins, and determining the percolation rates, capillary rise rates, and the soil retention zones within each of the subbasins.

Meteorologic Model: This component incorporates the precipitation and streamflow data for the simulation. This information is then used to simulate the storm event that would occur within the watershed.

Control Specifications: This component defines the starting and ending date and time for each simulated storm event and the time interval for the runoff analysis.

MODELING RESULTS

The hydrologic model results reflect the runoff that would be expected to occur during a potential 10-, 50-, or 100-year storm event in October (early rainfall) with a storm duration of 24 hours.

EXISTING CONDITIONS

Under existing conditions, during all modeled storm events, the total discharge into Tomales Bay is less than 2.6 acre-feet (ac-ft) (Table 4.5-2). In general, much of the runoff entering Tomales Bay originates from the meadow areas of the site. Because of the presence of medium-grained sands and slow percolation rates in the dune areas, a majority of the runoff either ponds locally or drains through onsite ditches and culverts to the meadow areas of the site.

Location	Peak Discharge (cubic feet per second [cfs])	Runoff Volume (ac-ft)
100-year Storm Event		
Dunes	5.8	1.1
Dune/Meadow Margin	5.8	1.1
Meadow	5.7	1.5
Bay Discharge	8.9	2.6
50-year Storm Event		
Dunes	5.4	1.0
Dune/Meadow Margin	5.4	1.0
Meadow	5.6	1.5
Bay Discharge	8.6	2.5
10-year Storm Event		
Dunes	3.8	0.72
Dune/Meadow Margin	3.8	0.72
Meadow	5.3	1.4
Bay Discharge	7.2	2.1
Source: HSI 2004		

PROJECT CONDITIONS

Stormwater runoff volumes were modeled for the project assuming that all proposed master plan facilities were implemented at the site. These proposed facilities would result in an increase in the impervious areas of the project site by 0.2% to a total of 4.8%. The modeling results for project conditions are presented in Table 4.5-3 and are analyzed in the impact discussion below.

Location	Peak Discharge (cubic feet per second [cfs])	Runoff Volume (ac-ft)
100-year Storm Event		
Dunes	5.8	1.1
Dune/Meadow Margin	5.8	1.1
Meadow	6.0	1.6
Bay Discharge	9.1	2.6
50-year Storm Event		
Dunes	5.4	1.0
Dune/Meadow Margin	5.4	1.0
Meadow	5.9	1.6
Bay Discharge	8.7	2.5
10-year Storm Event		
Dunes	3.8	0.72
Dune/Meadow Margin	3.8	0.72
Meadow	5.5	1.5
Bay Discharge	7.4	2.2
Source: HSI 2004		

PROJECT GROUNDWATER ANALYSIS

Proposed Onsite Wastewater Treatment System

A new wastewater treatment facility is proposed and would replace individual and communal restroom septic systems in the travel trailer community at Sand Point. The new system would include a septic tank and effluent pump system with a centralized wastewater treatment and disposal system. Wastewater collected at the septic tank would be pumped to a treatment plant and processed through sand bed filters (to obtain secondary treatment levels) located in the meadow area of the project site. The treated effluent would then be disposed of in two separate “summer” and “winter” leachfields. The leachfields would be located on the west-facing slope of the sand dunes, located east of the main meadows as shown in Exhibit 4.5-1. Please refer to Section 4.4, “Wastewater Treatment and Disposal,” for a description of the design of the onsite wastewater treatment system. The analysis contained in this section focuses on water quality impacts associated with operation of this system and discharge of treated effluent within the sand dune system.

Mounding Analysis

The proposed wastewater treatment system would percolate treated effluent into the sand dunes, which could create a groundwater mound. This groundwater mound would create radial flow and may locally steepen the groundwater gradient at the project site. To understand the project related hydrology and water quality impacts associated with the proposed wastewater treatment system, a mounding analysis was performed to determine how the project would change the hydrologic properties (i.e., groundwater

flow gradients, groundwater residence times, groundwater discharge to onsite drainage ditches, subsurface discharge to Tomales Bay) of the site. The mounding analysis was based on equations developed for the evaluation of percolation ponds developed by the U.S. Department of Agriculture in 1970. A description of the assumptions used in the analysis is provided in the *Water Resources Evaluation Report* prepared by HSI Hydrologic Systems (2004) (Appendix E). The results of this analysis are described in the impact analysis section below.

PROJECT IMPACTS

Impact 4.5-1: Potential On and Offsite Flooding Risk from Increased Stormwater. Because the project would not result in a substantial increase in the existing volume and rate of runoff from the site such that it would result in a substantial increase in on or offsite flooding above existing conditions, this would be a *less-than-significant* impact.

Existing facilities (roadways, buildings, water tanks and other paved surfaces) account for an estimated 250,000 square feet of impermeable surface. Overall, these facilities cover less than 1 percent of the total property. New development is proposed throughout the site and would generally be located in the main meadow area, westernmost sand dunes, and at Sand Point. The proposed facilities would result in a minor increase (13,000 square feet or approximately 0.2%) in the impervious surface areas of the project site. Because a majority of the project site and surrounding areas are undeveloped and generally pervious, the proposed facilities would not result in a substantial change in absorption rates at the project site. Based on modeling results, the project would increase peak discharge from the site by 0.2 cfs and would increase the discharge volume from the site by 0.06 ac-ft during a 100-year storm event. These results are summarized in Table 3.5-4. Existing onsite storm drainage facilities could adequately accommodate project-related stormwater volumes (HSI 2004). The project would not result in a substantial increase in the existing volume and rate of runoff from the site such that it would result in a substantial increase in on or offsite flooding above existing conditions. Therefore, this would be a less-than-significant impact.

Location	Existing Condition		Project Conditions	
	Peak Flow (cfs)	Runoff Volume (ac-ft)	Peak Flow (cfs)	Runoff Volume (ac-ft)
Dunes	5.7	1.11	5.7	1.11
Dune/Meadow Margin	5.7	1.11	5.7	1.11
Meadow	5.7	1.50	5.9	1.56
Bay Discharge	8.9	2.56	9.1	2.62

Source: HSI 2004

Impact 4.5-2: Exposure of People or Property to Water-Related Hazards. The project would construct new facilities within areas designated by FEMA as subject to minimal flooding. Although none of these facilities would be occupied on a long-term basis (e.g., housing), these facilities are associated with onsite recreational activities and could result in the potential exposure of people or structures to hazards associated with flood events. This would be a *potentially significant* impact.

The most recent Federal Emergency Management Act (FEMA) Flood Insurance Rate Map (FIRM) for Marin County (Community Panel Number 060173 0075 A), indicates that the entire project site, except for beach areas north and east of Sand Point, lies within Zone C, which is identified as an area that is subject to minimal flooding during flood events. The FIRM also indicates that the beach area north and

east from Sand Point lies with Zone V, which is identified as an area that is subject to a 100-year coastal flood with velocity wave action. In general, the areas of the project site within the Zone V floodplain are located along the coastline from Sand Point to the gatehouse entry and from Sand Point east to the property boundary. The Zone C floodplain areas extend from the coastline inland over the remainder of the project site. The project would construct new facilities within the meadow and Sand Point areas of the project site (Zone C) including restroom facilities, boathouse, and a new mobile home at Sand Point. The proposed mobile home would be occupied on a long-term basis and the restroom and boathouse facilities are associated with onsite recreational activities. Visitors to Lawson's Landing would be expected to use these facilities on a regular and continual basis. During flood events, the structures and the people that use these structures could be exposed to flood hazards (e.g., rising water). This would be a potentially significant impact.

Impact 4.5-3: Groundwater Impacts Associated with Onsite Pumping. Because the project would not increase recreational use levels at the project site, water demand and corresponding water pumping rates from onsite wells would not substantially change from existing conditions. Further, under worst-case (high-demand) pumping conditions, groundwater levels near the existing wells would not be substantially affected and would be within the normal range of groundwater level fluctuations experienced at the site. This would be a *less-than-significant* impact.

The project would construct two new 100,000-gallon water storage tanks near the location of the existing onsite wells in the northern main meadow area. The storage tanks would improve water pressure and fire flow at the project site. All proposed water fixtures associated with the new restroom facilities, showers, and water spigots would be served by these water storage tanks. Because the project would not increase recreational use levels at the project site, water demand and corresponding water pumping rates from onsite wells would not substantially change from existing conditions. Instead, the proposed water tanks would provide a more reliable reserve of water for use during peak recreational periods or during emergency fire events. No adverse effects associated with operation of the water storage tanks are anticipated with implementation of the project.

Under worst-case (high-demand) pumping conditions, groundwater levels near the existing wells would only be expected to result in a localized drawdown (i.e., within 500 feet) of the underlying groundwater aquifer by less than one foot, which is within the normal range of groundwater level fluctuations experienced at the site (Marin County 2000). In general, a substantial lowering of the groundwater table is considered a lowering by 10 feet or more, which could adversely affect the ability of the basin to recharge. Because the project would not result in a substantial drawdown of the groundwater basin such that it impairs the ability of the basin to naturally recharge, this would be a less-than-significant impact.

Impact 4.5-4: Construction-related Water Quality Degradation. Temporary construction-related ground disturbances within the project site could result in the discharge of stormwater and non-stormwater discharges containing pollutants to drainage systems and ultimately to Tomales Bay. The discharge of pollutants to local waterways would be a *potentially significant* construction-related water quality impact.

Construction activities would occur in various areas throughout the project site, but would be primarily concentrated in the meadow and Sand Point areas. Grading, earth moving, excavation and utility installation, and building construction would disturb the existing vegetative cover, soil, and drainage systems within the project site. Construction activities are anticipated to occur on and off in various locations in several phases. At this time it is unknown when specific construction activities would occur and it is possible that construction of project facilities could occur during the fall and winter season. During construction, disturbed sites would be subject to exposure to wind erosion, rainfall, and winter

stormwater runoff events. In particular, construction activities could result in substantial soil erosion and stormwater discharges of suspended solids, increased turbidity, and potential mobilization of other pollutants from project construction sites as contaminated runoff or direct discharges to drainage channels. Intense periods of rainfall could result in short periods of sheet erosion within areas of exposed or stockpiled soils. If this erosion is uncontrolled, these soil materials could cause sedimentation and blockage of nearby drainage channels. Further, compaction of soils by heavy equipment may reduce the infiltration capacity of soils and increase the potential for runoff and erosion. Consequently, the project's construction-related water quality impacts would be potentially significant.

Impact 4.5-5: Increased Offsite Surface Runoff. Although project improvements are not expected to substantially increase the rate or volume of runoff from the site, runoff from isolated areas of the project site could carry contaminants to local waterways. If runoff from these areas is uncontrolled and not treated, the discharge could adversely affect the water quality of these waterways. This would be a *potentially significant* impact.

The majority of the project site is undeveloped and devoted to recreational and agricultural uses and would not change with implementation of the project. In general, irrigation and stormwater runoff from agricultural lands are not considered to be of high quality and can contain a variety of constituents/contaminants in relatively high concentrations. In addition, the recreational activities at the site could result in the transfer of contaminants including oils, solvents, heavy metals, pesticides, and sediment to roadways and meadow areas of the project site. Runoff from the project site eventually flows into Dillon Creek (northern areas) and Tomales Bay (central and southern areas). Although project improvements are not expected to substantially increase the rate or volume of runoff from the site, runoff from isolated areas of the project site could carry contaminants to the local waterways. The facility improvements of particular concern are the new boathouse and shipyard and paved roadways and parking areas. Both the shipyard and paved areas are susceptible to runoff containing oil and grease. If runoff from these areas is uncontrolled and not treated, the discharge could adversely affect the water quality of these waterways. This would be a potentially significant impact.

Impact 4.5-6: Impacts of Groundwater Discharge Volumes and Rates from the Onsite Wastewater Treatment System. Although the project would increase groundwater flow gradients within 100 feet of the proposed leachfield, the leachfield is located greater than 300 feet from nearest ponded water source and would not cause or substantially increase the volume of ponded waters in this area. Groundwater discharges to the Pacific Ocean and Tomales Bay would increase from 2 to 11 percent depending on the season, which would not represent a substantial increase in local groundwater discharge. Therefore, this would be a *less-than-significant* impact.

Groundwater discharges associated with operation of the proposed wastewater treatment system were projected based on existing groundwater contours developed for the area. The proposed leachfield system would be located on the southernmost sand dune located near Sand Point approximately 300 feet from the edge of the sand dune/meadow margin. Groundwater flow direction beneath this sand dune flows south-southwest during the summer, and shifts to the west during the winter at an average groundwater gradient of 0.004 feet per foot.

The wastewater treatment system would include dual leachfields: a summer leachfield and a winter leachfield. Each leachfield would be operated six months out of the year and would receive an average daily flow of 26,000 gallons (HSI 2004). This volume of wastewater is projected to have an application rate through the infiltration chambers of 0.28 feet per day in the summer and 0.25 feet per day in the winter. Based on the groundwater mounding analysis prepared for the project, the proposed leachfield is projected to create a small mound beneath the infiltration chambers, which would increase existing

groundwater gradients beneath the leachfield. The height of the mound is estimated to be less than 0.5 feet, and would dissipate within 100 feet of the proposed leachfield location (HSI 2004).

The height of the mound and rate at which wastewater is conveyed to the leachfields is of concern when it causes a substantial increase in local groundwater gradients such that it substantially increases or causes the ponding of groundwater at the surface or it is located within close proximity to surface water such that it could result in adverse water quality impacts. The groundwater mound associated with the proposed leachfield would be superimposed over an existing sloping groundwater surface and would result in a slight increase in local groundwater gradients. Based on local hydrogeologic conditions at the site, the groundwater gradient is projected to be 0.04 feet per foot. Although, the groundwater gradient would slightly increase with operation of the proposed leachfields, the increased gradients would be highly localized (within 100 feet) and would dissipate rapidly. The proposed leachfields are located greater than 300 feet east of the dune field/meadow margin where groundwater is known to pond during certain seasons. Because of the distance to ponded areas, the proposed leachfield would not cause an increase in the ponding of groundwater in this area.

The volume of effluent discharged to Tomales Bay or the Pacific Ocean has been estimated during summer and winter conditions. During the summer, approximately 0.5 million cubic feet of effluent would be discharged with groundwater. During the winter, approximately 0.2 million cubic feet of effluent would be discharged with groundwater. Typical groundwater discharges range from 4.5 to 10 million cubic feet during both the summer and the winter. Therefore, effluent from the proposed leachfield would represent approximately 5 to 11% of total outflow during the summer and 2 to 4% of outflow during the winter (HSI 2004). The project would not substantially increase the discharge volumes of groundwater to Tomales Bay or the Pacific Ocean. Therefore, this would be a less-than-significant impact.

Impact 4.5-7: Groundwater Quality Impacts Associated with the Onsite Wastewater Treatment System. Because the project would result in an approximate 50% reduction in the total nitrogen loading to Tomales Bay by improved wastewater treatment and closure of septic systems, compared to existing conditions, and the project would not result in adverse water quality impacts associated with the discharge of pathogens to Tomales Bay, the project's water quality impacts associated with operation of the onsite wastewater treatment system would be *less-than-significant*.

Groundwater quality impacts associated with the proposed leachfield could occur if treated wastewater is discharged to a local water body and it has not undergone sufficient residence within the groundwater system such that the constituent concentrations (i.e., nitrate and pathogens) exceed regulatory thresholds or cause adverse water quality impacts. The residence time of groundwater within the basin and subbasins is dependent on the underground travel times of groundwater within the soil profile. In general, shorter underground residence times are seen during the winter when groundwater levels are higher. Modeling performed for the project calculated the travel times of effluent from the leachfield to the dune field/meadow margin, to drainage ditches within the meadow, and ultimately to the Pacific Ocean or Tomales Bay. During the winter (when shortest travel times are expected) wastewater effluent from the leachfield is expected to reach the dune field/meadow margin within ~~56-55~~ to ~~103-129~~ days. The effluent is anticipated to continue to flow to the drainage ditches within the meadow area of the site. Travel time from the dune field/meadow margin to the drainage ditches is anticipated to take approximately 106 to 222 days. Once in the drainage ditches, the surface flow would be conveyed to Tomales Bay (HSI 2004). In below average rain years, groundwater elevations may remain below the ground surface, and effluent from the leachfield may be discharged directly to Tomales Bay or the Pacific Ocean rather than to the drainage ditches within the meadow. Under these conditions, it is anticipated that it would take 207 to 461 days for the effluent to be discharged to either Tomales Bay or the Pacific Ocean.

Under existing conditions, the individual septic tanks and leachfields serving the travel trailers at Sand Point are contributing constituents of concern (i.e., nitrogen and pathogens) to the underlying groundwater basin and ultimately to Tomales Bay and the Pacific Ocean. With implementation of the project, the existing septic systems serving the travel trailers would be properly abandoned and/or removed from the site and would no longer contribute constituents of concern to the underlying groundwater basin. The typical waste stream from individual septic systems contains approximately 40 mg/l of nitrogen.

The project includes the installation of an onsite wastewater treatment system that would replace existing outdated septic systems serving travel trailers at the site. The proposed system would treat wastewater in a sand filtration system and would then discharge this pretreated wastewater to the infiltration chambers of the leachfield. Biological processes within the infiltration chamber would further treat and breakdown constituents within the effluent. The effluent is then released to the underlying soils where it undergoes additional treatment (i.e., denitrification) as it travels towards the meadows and is ultimately discharged with groundwater to Tomales Bay and the Pacific Ocean. Based on the estimated travel times discussed above, the water quality analysis indicates that groundwater exposed in ponded groundwater areas in the meadow may contain nitrogen at concentrations of approximately 12 milligrams per liter (mg/L). Groundwater discharge to the ditches in the meadows may result in groundwater concentrations ranging from 0.6 to 12 mg/L, with the higher values occurring during early summer while groundwater levels are high and precipitation is low. Groundwater discharges to either Tomales Bay or the Pacific Ocean are estimated to contain nitrogen ranging from 0.6 to 1.1 mg/L (HSI 2004). Total annual nitrogen discharges to Tomales Bay are estimated for the project and existing conditions and are presented in Table 4.5-5.

Table 4.5-5 Projected Nitrogen Loading to Tomales Bay	
Condition	Annual Load (pounds)
Existing	1,773,892
Proposed	886,946

Source: HSI 2004

As shown in the above table, the project would result in an approximate 50% reduction in the total nitrogen loading to Tomales Bay compared to existing conditions. Further, nitrogen concentrations would also be substantially reduced compared to existing conditions.

The discharge wastewater from onsite wastewater treatment systems is known to contain pathogens. In general, soils provide a natural filtering mechanism for pathogens and field studies have shown that fecal indicator bacteria (i.e., bacteria that indicate the presence of pathogens) concentrations are usually undetectable if the wastewater discharge source is located a distance that is equivalent to a 25-day travel time from a water supply source. The generally accepted minimum separation for onsite wastewater treatment systems from the nearest water source is a 50-day travel time (HSI 2004). Based on the projected travel times associated with the proposed wastewater treatment system (discussed above), the shortest effluent travel time to a point of discharge would be approximately ~~56~~ 55 days. Therefore, the project would not result in adverse water quality impacts associated with the discharge of pathogens to Tomales Bay. Further, it is likely that the project would reduce the load of pathogens discharged to Tomales Bay compared to existing conditions because the project would abandon or remove the existing septic tanks and leachfields in the Sand Point area, which have shorter travel times for effluent discharged to groundwater and ultimately to Tomales Bay.

Because the project would result in an approximate 50% reduction in the total nitrogen loading to Tomales Bay compared to existing conditions, nitrogen concentrations would substantially reduced, and the project would not result in adverse water quality impacts associated with the discharge of pathogens to Tomales Bay, the project's water quality impacts associated with operation of the onsite wastewater treatment system would be less-than-significant.

Impact 4.5-8: Accidental Explosion or Release of Hazardous Substances. The project would involve the use, storage, and transport of hazardous materials at the project site during construction and operation. However, use of hazardous materials at the site would be in compliance with local, state, and federal regulations. Therefore, adverse water quality impacts as a result the routine transport, storage, and use of hazardous material would be *less than significant*.

Development of project facilities would involve the storage, use, and transport of hazardous materials. Further, four aboveground storage tanks that store fuel are located at the project site: 2 located near the marina, and 2 located near the gatehouse. The storage tanks at the marina were recently installed in 2003 at the request of the RWQCB to alleviate concerns regarding the operation of underground storage tanks in close proximity to Tomales Bay. No visual evidence of leaks from the underground storage tanks were observed during their replacement, and no spills at the project site have been reported to regulatory agencies (EPA 2004). No other modifications to onsite storage tanks are proposed. The project would continue to handle, transport, and use fuel in accordance with local, State, and federal laws pertaining to the operation and use of such material. Further, past use of fuel at that site has not resulted in the creation of any adverse environmental conditions including adverse conditions to water quality of Tomales Bay. Therefore, potential impacts to water quality associated with operation of the above ground storage tanks and use of fuel onsite would be less than significant.

CUMULATIVE IMPACTS

Impact 4.5-9: Cumulative On and Offsite Flooding Risk from Increased Stormwater. Because the project site is not located in close proximity to any cumulative projects and the project would not result in a substantial increase in the existing volume and rate of runoff from the site such that it would result in a substantial increase in on or offsite flooding above existing conditions, the project would result in a *less-than-significant* contribution to this cumulative stormwater flooding impact.

The project in combination with cumulative projects would result in an increase in impervious surfaces within the area, which would increase the volume of stormwater generated at these sites, which could increase on and onsite flooding risks at these properties. However, none of the cumulative projects are located in close proximity to the project site such that project stormwater volumes would combine cumulatively to result increased stormwater flooding impacts at the project site or at offsite project locations. Further, the project would not result in a substantial increase in the existing volume and rate of runoff from the site such that it would result inn a substantial increase in on or offsite flooding above existing levels. Therefore, the project would result in a less-than-significant contribution to this cumulative impact.

Impact 4.5-10: Cumulative Exposure of People or Property to Water-Related Hazards. The project in combination with cumulative development would construct new facilities within areas designated by FEMA as subject to minimal flooding, which could result in the potential exposure of people or structures to hazards associated with flood events. Implementation of mitigation recommended for the project would reduce the project's potential flood hazard

impact to a less-than-significant level. Therefore, the project's contribution to cumulative water-related hazard impacts would be *less-than-significant*.

The project in combination with cumulative development would result in the construction of buildings and structures within areas designated by FEMA as areas subject to flooding. Water-related hazards are typically site specific and do not combine with other cumulative development. The project is not located in close proximity to any of the cumulative developments such that proposed buildings and structures would combine to increase water hazard impacts. Further, mitigation has been recommended for the project that would require all buildings and structures constructed onsite to be designed to withstand water-related hazards based on Marin County design standards. This mitigation would reduce the project's water-related hazards to a less-than-significant level. The project also would not result in increased flood safety hazards to residents and users of the site because no increase in the number of travel trailers, day users, or campsites is proposed. Because the project would be required to mitigate potential water-related hazard impacts to less-than-significant levels, the project's contribution to cumulative water-related hazard impacts would be less-than-significant.

Impact 4.5-11: Cumulative Groundwater Pumping Impacts. Although the cumulative development would increase water demands and groundwater pumping, the project's contribution to this impact would be less-than-significant because it would not change existing use levels or groundwater pumping above existing conditions. This would be a *less-than-significant* cumulative groundwater pumping impact.

Cumulative development within the project area would increase water demands and associated private and municipal groundwater pumping, which could result in adverse groundwater pumping impacts to the underlying groundwater basin (i.e., lowering of groundwater or recharge). The project site is served by six private wells that are owned and operated by the project sponsor's. The project would not increase use levels at the site and water demands and associated groundwater pumping rates would not substantially change from existing conditions and would not result in the substantial lowering of groundwater levels at the site. Although the cumulative development would increase water demands and groundwater pumping, the project's contribution to this impact would be less-than-significant because it would not change existing use levels or groundwater pumping above existing conditions. This would be a less-than-significant cumulative groundwater pumping impact.

Impact 4.5-12: Cumulative Construction-Related Water Quality Degradation. Construction of the cumulative projects would expose onsite soils to wind and water erosion that could result in sediment or other contaminants being carried to Dillon Creek, Tomales Bay, and the Pacific Ocean. Construction-related degradation of surface water or groundwater would be a significant cumulative impact and the project's contribution this cumulative impact would be *significant*.

Construction of the cumulative projects could adversely affect the water quality of Dillon Creek, Tomales Bay, the Pacific Ocean, or local groundwater. Project construction would expose onsite soils to wind and water erosion that could result in sediment being carried to local surface waters. Stormwater contact with construction materials and potential leaks of fuels or fluids from construction vehicles or equipment could contaminate surface or groundwater. Construction-related degradation of surface water or groundwater would be a significant cumulative impact and the project's contribution to this cumulative impact would be significant.

Impact 4.5-13: Cumulative Groundwater Impacts Associated with the Onsite Wastewater Treatment System. The project's wastewater treatment system is expected to effectively treat wastewater at the site. Further, the project would not substantially degrade

groundwater quality or substantially increase groundwater discharge rates to Tomales Bay or the Pacific Ocean. Therefore the project's cumulative groundwater impact would be *less than significant*.

Cumulative groundwater impacts associated with the operation of onsite wastewater treatment systems occur when the treatment systems are located in close proximity to one another resulting in cumulative effluent discharges to the same groundwater basin or surface water bodies. None of the cumulative projects are located in close proximity to the project site. Further, the project would not substantially degrade groundwater quality or substantially increase groundwater discharge rates to Tomales Bay or the Pacific Ocean. Therefore the project's cumulative groundwater impact would be less than significant.

4.5.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.5-1: No mitigation measures are required.

Mitigation Measure 4.5-2: Flood Hazards. All construction within the delineated floodplain shall adhere to Marin County's Flood Plain Management Ordinance which requires that the ~~first lowest finished floor level~~ of new and substantial improvements be at or above the Base Flood Elevation (BFE) for V designated areas. ~~Structures constructed in the flood zone shall be constructed of flood proof materials and be anchored.~~ It may be possible to have the lowest floor below the BFE ~~lower the first finished floor level~~ of a non-habitable residential structure if the building is flood proofed. All proposed plans would be subject to review and approval by the Marin County Department of Public Works and Building Inspection.

Mitigation Measure 4.5-3: No mitigation measures are required.

Mitigation Measure 4.5-4: Construction Best Management Practices for Water Quality. In accordance with Marin County Code Chapter 23.08 and 23.18, the project sponsor shall implement erosion and sedimentation Best Management Practices to control stormwater and protect surface water quality including Dillon Creek and Tomales Bay. Best Management Practices (BMPs), designed to protect stormwater quality, are summarized in the *California Storm Water Best Management Practice Handbooks* (Stormwater Quality Task Force 1993) and can be recommended by the Association of Bay Area Governments *Manual Standards for Erosion and Sediment Control Measures*. BMPs are subject to review and approval by Marin County Department of Public Works and shall be implemented during project construction. According to Marin County Code Section 24.04.625, grading shall not be conducted during the rainy season (October 15 through April 15) without prior approval by Marin County Department of Public Works.

The following measures shall be implemented in accordance with the LCP:

- ▶ Sediment basins (including debris basin, desilting basins, or silt traps) shall be installed on the project site in conjunction with initial grading operations and maintained through the development process to remove sediment from runoff waters. All sediment shall be retained onsite unless removed to an appropriate dumping location.
- ▶ Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils exposed during grading. Cut and fill slopes shall be stabilized immediately with approved landscape vegetation.

- ▶ All topsoil removed by grading operations shall be stockpiled for reuse onsite and shall be protected from compaction, wind, and erosion during stockpiling.

Mitigation Measure 4.5-5: Reduction of Offsite Stormwater Pollutants. The applicant shall modify the project's drainage system by installing devices that treat stormwater runoff to pre-project conditions. Such devices may include, but not be limited to, biofilter strips, vegetated channels, or wet ponds. These features shall be subject to review and approval by the Marin County Environmental Health Services Department.

Mitigation Measure 4.5-6: No mitigation measures are required.

Mitigation Measure 4.5-7: No mitigation measures are required.

Mitigation Measure 4.5-8: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.5-9: No mitigation measures are required.

Mitigation Measure 4.5-10: No mitigation measures are required.

Mitigation Measure 4.5-11: No mitigation measures are required.

Mitigation Measure 4.5-12: Implement Mitigation Measure 4.5-4 (Construction Best Management Practices for Water Quality).

Mitigation Measure 4.5-13: No mitigation measures are required.

4.5.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the above mitigation measures, the project's hydrology and water quality impacts would be reduced to a less-than-significant level.

4.6 GEOLOGY AND SOILS

This section identifies and evaluates the changes in geologic, soils, and seismic conditions associated with implementation of the project. This section includes an analysis of potentially significant geology and soils effects, and mitigation measures recommended to reduce significant or potentially significant environmental impacts, where feasible.

The examination of geologic, soils, and seismic issues in this chapter is based on information from 1) site observations; 2) review of existing and available information published by State and federal agencies; 3) a geologic hazards assessment completed for the proposed project by William Lettis & Associates (2003) (Appendix F); and 4) a sand dune geomorphology and stability report prepared by Pacific Watershed Associates (2004) (Appendix G).

4.6.1 EXISTING CONDITIONS

REGIONAL SETTING

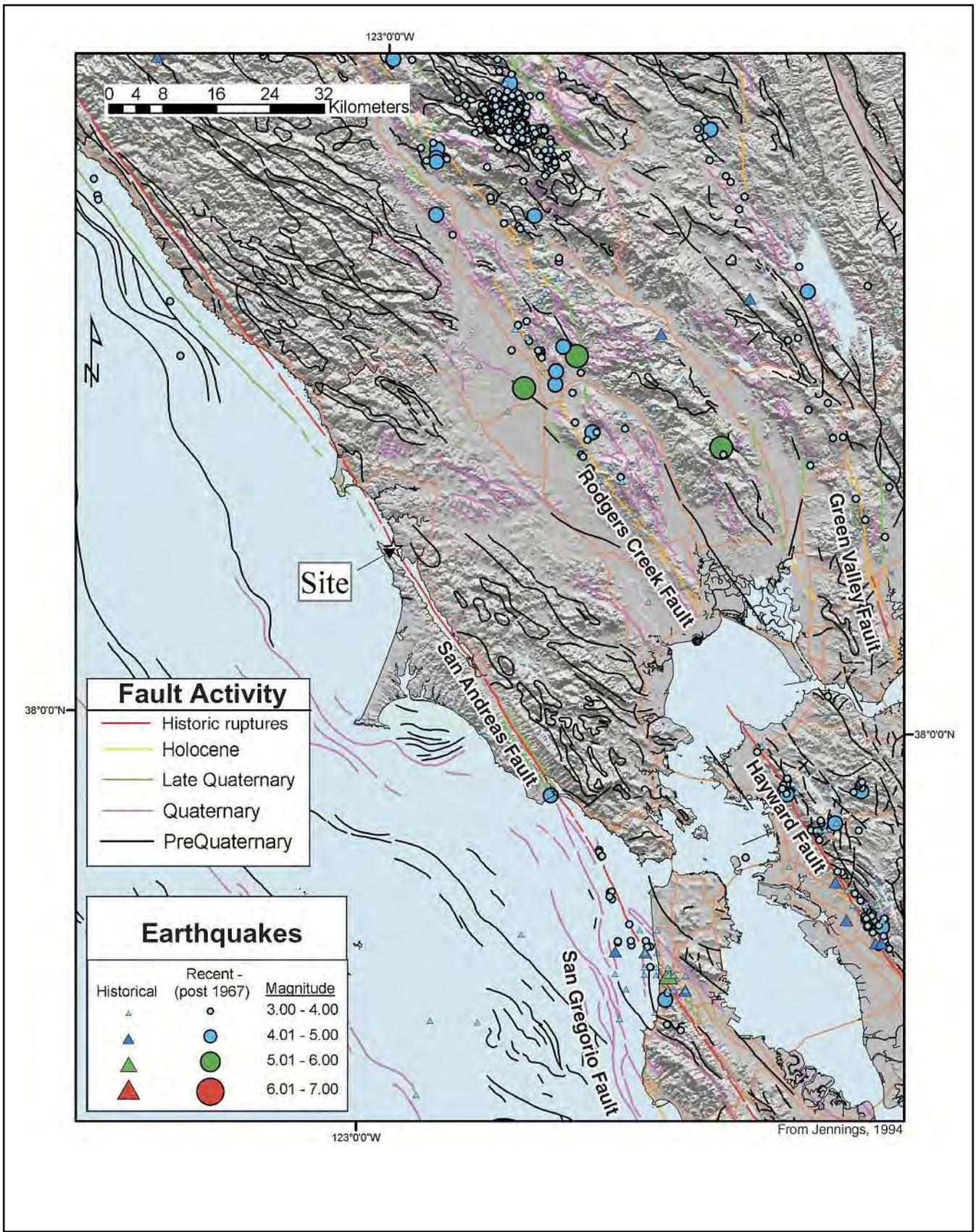
Regional Geology and Seismicity

Lawson's Landing is located in the northwest corner of Marin County at the mouth of Tomales Bay, near the community of Dillon Beach (Exhibit 3-3). The project area lies within the northern Coast Ranges physiographic province of California (Ernst 1981). The Coast Ranges are characterized by a north-northwest trending series of mountains and intervening valleys that extend from the Oregon border south to the Transverse Ranges of southern California. Most of the uplift in the Coast Ranges occurred by the Middle Miocene period (about 16 million years ago), with some uplift continuing through the Quaternary period (about the last 1.8 million years).

The structure of the Coast Ranges province within the San Francisco Bay area is related to both subduction processes that formed regional-scale folds and faults during the Mesozoic era (65–248 million years ago) (Wakabayashi 1992) and the active plate boundary zone of the San Andreas Fault system (Wallace 1990). The Mesozoic structures are now inactive and are overlain in many locations by undeformed Quaternary period sediments and geomorphic features.

The site is located in the seismically active San Francisco Bay area, which is dominated by several major active faults of the San Andreas Fault system, including the San Andreas, Hayward–Rodgers Creek, Calaveras, and Concord–Green Valley fault zones (Exhibit 4.6-1). The San Andreas fault system has accommodated more than 185 miles of relative motion between the North American plate and the Pacific plate (Wallace 1990). The San Andreas Fault is the greatest contributor to seismic hazards in the region because it produces the largest earthquakes and has the highest slip rate of any fault in the system (Petersen et al. 1996). As discussed below, the 1906 trace of the San Andreas fault projects through the Lawson's Landing project area, although the fault trace is now covered by active dune fields; the Rodgers Creek fault is 20 miles from the site at its closest approach.

The most intense historic earthquake shaking to occur in the vicinity of the site was probably associated with the April 18, 1906, "San Francisco" earthquake on the San Andreas fault. The earthquake had an estimated maximum moment magnitude (M_w) of 7.9. (The "moment magnitude" scale was developed as an alternative to the Richter scale and has replaced it in popularity among seismologists. This scale gives the most reliable estimate of earthquake size, especially for very large earthquakes; the Richter scale does not give reliable results when applied to earthquakes with a magnitude of 7 or more [USGS 2003a, 2003b]. Therefore, moment magnitude is used as the magnitude scale in this document.)



Source: William Lettis & Associates

Faults and Earthquake Epicenters in Project Area

The duration of the 1906 earthquake was approximately 1 minute and produced groundshaking of Modified Mercalli Intensity VIII to IX in the vicinity of the proposed project area (USGS 1993). The Modified Mercalli Intensity Scale, an earthquake shaking intensity scale based on local effects experienced by people, structures, and earth materials, is shown in Table 4.6-1; the table compares earthquake magnitude with earthquake intensity.

Table 4.6-1 Comparison of Earthquake Magnitude and Intensity		
Magnitude	Intensity	Description
1.0 - 3.0	I	I. Not felt except by a very few under especially favorable conditions.
3.0 - 3.9	II - III	II. Felt only by a few persons at rest, especially on upper floors of buildings. III. Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
4.0 - 4.9	IV - V	IV. Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably. V. Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
5.0 - 5.9	VI - VII	VI. Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight. VII. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
6.0 - 6.9	VII - IX	VIII. Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
7.0 and higher	VIII or higher	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. XI. Few, if any (masonry) structures remain standing. Bridges destroyed. Rails bent greatly. XII. Damage total. Lines of sight and level are distorted. Objects thrown into the air.
Source: USGS 2002		

In addition to the 1906 earthquake on the San Andreas fault, large earthquakes have also occurred in historic time on the Hayward–Rodgers Creek fault zone.

It is likely that the recent pattern of seismicity will persist into the foreseeable future. The San Andreas fault is considered to have a moderate probability of producing another major earthquake within the next 30 years (WGNCEP 1996). The U.S. Geological Survey Working Group on Earthquake Probabilities (USGS 2003c) estimates that there is a 62% probability that a “major” earthquake—that is, one measuring M_w 6.7 or greater—will occur in the San Francisco Bay region between 2002 and 2031. This size earthquake anywhere within the region would be felt in the project area, and could significantly affect the area through strong seismic groundshaking and other secondary earthquake effects. The working group

found that there is a 21% probability that the San Andreas Fault will experience a M_w 6.7 or greater magnitude earthquake during this time (USGS 2003c).

For development purposes, the estimated maximum credible earthquakes expected for the San Andreas and Hayward fault zones are M_w 7.9 and 7.0, respectively (WGNCEP 1996, Petersen et al. 1996). The highest peak acceleration is expected to occur from a large magnitude earthquake on the San Andreas Fault, which projects through the project area. Petersen et al. (1996) estimates groundshaking with a 10% probability of exceedence in 50 years to be on the order of 0.7g or greater. The level of strong groundshaking either could be amplified or dampened depending on the engineering properties of the soils.

LOCAL SETTING

Topography

Lawson's Landing consists of approximately ~~940~~ 960 acres of coastal dune, wetland, and hillside lands east and south of Dillon Beach. The majority of the project site, including the recreation use area in the southwestern portion of the site known locally as Sand Point, is located on relatively flat ground. Steep slopes within the project area are associated with sand dunes, which typically average 30–40 feet in height. The highest elevation within the study area is the top of a knoll at an elevation of 240 feet, located near the middle of the northernmost extent of the dune field.

The surface geology of the project area consists of a 10- to 40-foot-thick section of late Holocene (up to 10,000 years old) dune and beach sand with little to no soil development. There are both active and partially stabilized sand dunes. The stabilized dunes occur as a barrier "foredune complex" adjacent to the beach along the west side of the project area, and a moderately stable dune complex approximately 1,500 feet wide extending across the east side. Dune morphology and processes are described in greater detail below.

Between the barrier dunes on the west and the inland active sand field there is a topographic low containing local accumulations of fine-grained, organic-rich estuarine deposits in addition to dune sand. The lowland areas contain pockets of standing water because the water table is high, with groundwater typically less than 5 feet above mean sea level in lowland areas and rising to greater than 10 feet approaching the hills to the north and east (Questa Engineering 1997).

The lowland area is open to the bay to the southeast, and a low seawall has been constructed to minimize flooding and erosion (Exhibit 4.6-2). The low elevation of this area and exposure to the sea indicate the region is susceptible to flooding during storms and tsunamis.

Geologic Units

The San Andreas Fault crosses the Lawson's Landing project area at Sand Point (Exhibit 4.6-1) (Bortugno 1982). The high rate of tectonic activity along the San Andreas fault and the dynamic processes within the coastal environment are the most influential factors in the recent geologic and geomorphic development of the landscape surrounding Lawson's Landing. The major geological units in the vicinity of the project area include Franciscan Complex rocks that consist of meta-sandstone and shale, chert, greenstone, metamorphics, serpentinite, and other sheared rocks (Wakabayashi 1992), granitic rocks of the Salinian Block, and marine sandstone, conglomerate, and tuff of the Wilson Grove formation (Bortugno 1982). The entire peninsula of Sand Point is covered by a veneer of sand dunes and beach sand. On the eastern and northern sides of the project area the dune fields are buttressed against low-lying hills underlain by bedrock with elevations reaching 300 feet.



Lawson (1908)



USGS (1954)

Note: Photo shows lowland area between the barrier dune complex on the west, active and stabilized dunes on the east, and the seawall along the southeast coast. Inset shows the change in Sand Point coastline between the 1908 and 1954 USGS topographic maps

Source: William Lettis & Associates

Lowland Area and Other Project Site Landforms

Lawson's Landing Master Plan Draft EIR
P 02110069.01 11/04

EXHIBIT 4.6-2

EDAW

The stratigraphy at the Lawson's Landing project area consists of surficial late Holocene dune, beach, and estuarine deposits that overlie Quaternary to Pliocene (up to 5.3 million years old) alluvial and marine sediments, and Mesozoic age Franciscan Complex. Differential erosion of the basement surface because of the resistant lithologies results in local highs that form isolated hills ("knockers") distinctive to landscapes underlain by Franciscan Complex basement. One such knocker appears on the topographic maps as an isolated hill at an elevation of 230 feet near the center of the project site. Bedrock mapping by Blake et al. (1974) suggests that the hill is likely composed of a greenstone or sandstone body.

Subsurface Conditions

The basement rock beneath the surficial deposits in the project area consists of highly deformed Mesozoic Franciscan Complex. The Franciscan Complex contains structurally isolated inclusions of chert, greenstone, serpentinite and sandstone in a claystone matrix (Blake et al. 1974, Clark and Brabb 1997).

To the east of the project area, Franciscan Complex bedrock is unconformably overlain by the late Miocene to early Pliocene Wilson Grove Formation (Bortugno 1982). The Wilson Grove Formation consists of an erosional remnant of shallow marine sandstone and conglomerate. At Tom's Point, a peninsula located outside the project area approximately 7,500 feet southeast of Sand Point, Wilson Grove deposits are absent and the Franciscan Complex is overlain unconformably by estuarine and fluvial deposits of the late Pleistocene Millerton Formation (Clark and Brabb 1997; Grove, pers. comm., 2003). The distribution and thickness of Wilson Grove Formation and/or the presence of Millerton Formation beneath the project area is uncertain.

The thickness of the Holocene dune and beach sand deposits is not well-constrained, because of limited available subsurface information; however, data from water wells suggest that depth to bedrock is generally less than 65 feet.

Soils

Most of the project area is covered by late Holocene sand dunes. The dunes that are vegetated have a very weak A-horizon containing decayed organic material in a sand matrix. The active dunes lack soil profile development (SCS 1985). The areas overlain by sand dunes are highly permeable and well drained. In the lowland areas containing finer-grained organic estuarine deposits, the soils are mostly sandy to silty loams. These soils are highly permeable, but remain undrained because of the high groundwater level.

Upland areas north and east of the project area, away from the dune complex, are overlain by clay loam soils extending to a depth of 30–40 inches. The permeability of these soils is moderately low. The soils are potentially prone to rapid runoff that could create local erosion hazards (WESCO 1991). Because of the higher elevations of the upland areas, the water table is deeper than in the lowland areas, but perched groundwater may be associated with the Franciscan Complex bedrock highs (Questa Engineering 1997).

Soils at the project area are not prone to shrink-swell phenomenon (SCS 1985); therefore, the hazard from expansive soil is considered low.

Dune Geomorphology and Stability

Dune forms and processes are relatively complex within the Lawson's Landing study area and have, to a certain degree, been influenced by human activities (PWA 2004). The dune field at Lawson's Landing is currently in a transitional state between a pristine, naturally functioning dune and eco-system, and a disrupted and fragmented dune field dominated by invasive, non-native or naturalized vegetation (Exhibit

4.6-3). The general geomorphology of the dune field within the project area can be described as a well developed foredune bordered inland by a deflated surface and currently active transverse dunes of the youngest dune sequence. These historically active transverse dunes in and near the project area have been advancing over older paleodunes to the east at varying rates that in some areas average up to 10.9 feet per year. Recent increases in exotic vegetation on the foredune appear to have dramatically reduced the available sand supply to the active dune system. This has allowed unnatural enlargement of the deflated surfaces as the active transverse dunes migrate to the east without sand replenishment from the active beach. In addition, existing recreational activities that occur at the project site (e.g., hiking,) could result in minor disturbances to the natural function of the dune system.

The dune field at Lawson's Landing can be subdivided into two unique generations of dune advancement and three categories of dune stability (Exhibit 4.6-4). The older of the two generations of dunes visible at Lawson's Landing is currently the most stable. It is exposed in the southeastern portion of the property and in small patches beneath the younger, more mobile, dune sequence to the northwest. The younger dune sequence is a relatively thin veneer of actively mobile sand that is advancing over the older dune sequence. The younger dune sequence makes up most of the exposed sand deposits within the Lawson's Landing.

In general, the sand dunes at Lawson's Landing can be subdivided into three categories of dune stability, as follows.

Unstable

The actively mobile sand of the youngest dune sequence is by far the most unstable of the three categories of dune stability. Air photo analysis suggests dune fronts in this category can advance as much as ten feet a year, accompanied by locally significant deflation or aggradation of the dune crests and troughs as the sand waves (transverse dunes and parabolic dune fronts) advance to the southeast. The unstable dune areas have little or no vegetation present on them and do not show any signs of soil development. Based on air photo analysis, the area of unstable dunes within the project area has been shrinking over the past 50 years. This change in geographic distribution of active sand is thought to be due predominantly to three factors: stabilization of the foredune by exotic vegetation (European beachgrass) has essentially cut off the sand supply from the beach, which normally replenish the active dune system; partial or total stabilization of the younger dune sheet by mostly non-native or naturalized vegetation has increased the overall stability of the actively mobile sand in the dune field; and lastly, quarrying of active sand at several locations in the dune field has intercepted sand normally supplied to down-wind areas, which has reduced the rate of active sand dune advancement and allowed vegetative colonization of previously active dune areas.

Moderately Stable

Currently stabilized or partially stabilized areas of the youngest dune sequence can be categorized as moderately stable. These areas have either been recently colonized by vegetation (within the last 50 years), or they are located where remnants of the oldest dune sequence is helping stabilize the younger sequence. Because these dunes have only recently been colonized by vegetation their likelihood for long term stability is questionable and subject to change as variables which affect their stability change. Recently stabilized dunes have developed where remnants of the older dune advancement is facilitating stabilization of the younger advancement or where aggressive non-native or naturalized vegetation is aggressively colonizing the dune field. The most notable area of relative stability is the northern central section of the dune field. This area has essentially been converted from an actively mobile sand sheet to an almost entirely vegetated, currently stable dune complex. The result of this recent stabilization has

been to dramatically shift the overall relative abundance of active sand dunes to recently or moderately stabilized sand dunes.

Stable

The most stable areas of the dune field are composed of undisrupted remnants of the older dune sequence. Although there are areas of highly disrupted and destabilized older dunes, the eastern portion of the dune field as a whole exhibits extensive areas of stabilized dune deposits. The main difference between the most stable and intermediately stable category is the duration of the current stability and the likelihood for prolonged stabilization. Dunes categorized as most stable are located predominantly in the upland areas where the active sand has not been able to overrun the older dunes. These areas have been vegetated for the longest time and demonstrate pronounced soil development, a key indicator of prolonged stability. Air photo analysis and field reconnaissance further suggests the current areas of stable older dune sequence have not been heavily inundated by the younger dune sequence in the last 50 years.

Faults and Seismic Hazards

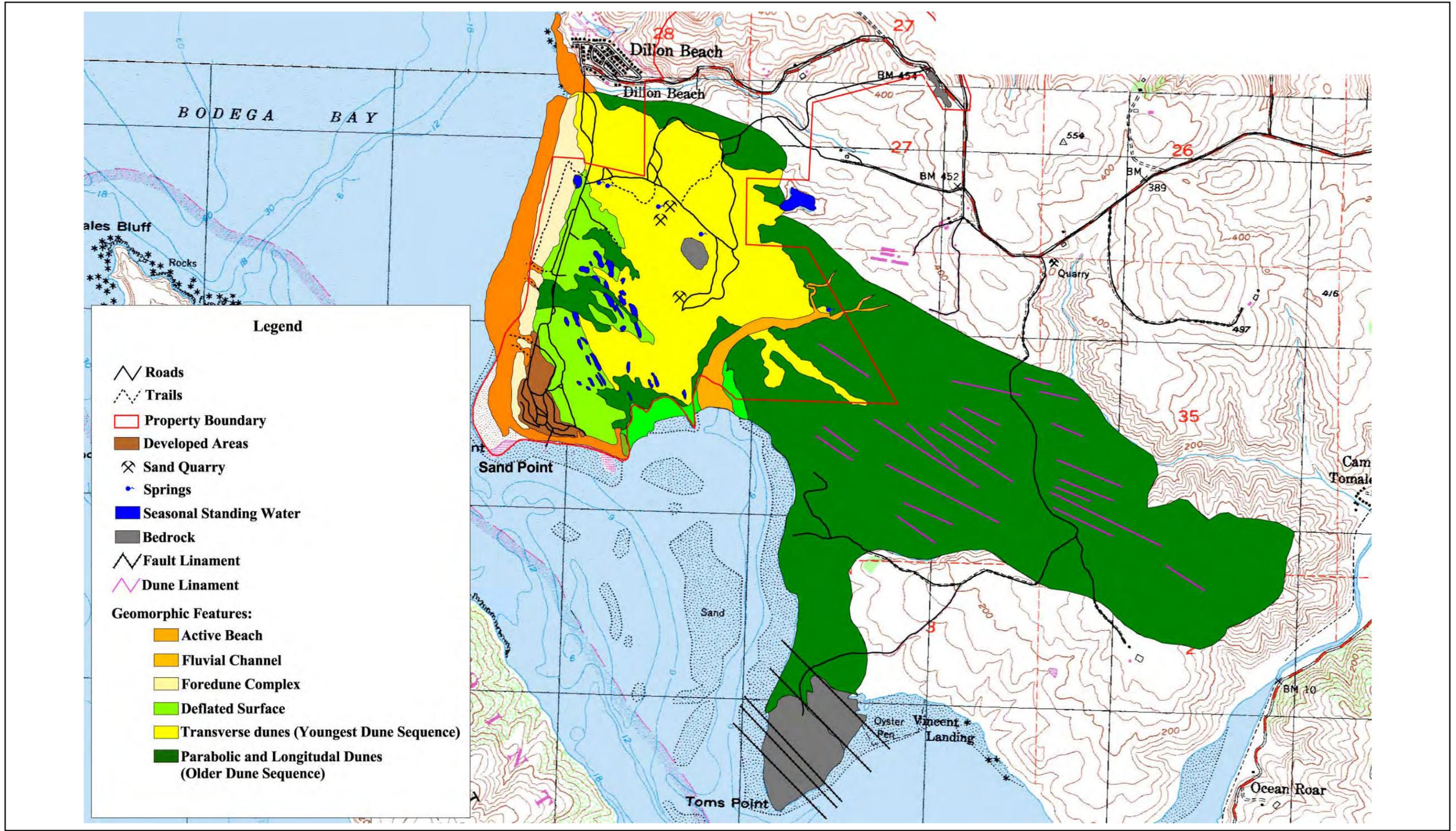
Lawson's Landing is located in the seismically active San Francisco Bay Region. The earliest written accounts of earthquakes in the San Francisco Bay area are from the 1800s, frequently from the logs of the Spanish missions. During this time there have been 14 earthquakes with a magnitude of 6.0 or greater in the San Francisco Bay region (William Lettis & Associates 2003). Earthquakes of this magnitude can pose significant groundshaking hazards. The most destructive earthquake to affect northern California was the 1906 San Francisco earthquake, which had an estimated moment magnitude of M_w 7.9. The event was centered near Olema, approximately 20 miles from the project site; the primary surface fault rupture projected through the Lawson's Landing project area, and groundshaking caused significant liquefaction at Sand Point (Lawson 1908).

Faults of the San Andreas system form the major structural features in the vicinity of the Lawson's Landing project area (Exhibit 4.6-1). This system accommodates 1.42 inches per year (in/yr) of the total 1.54 in/yr total relative plate motion (Kelson et al. 1992) and is the major tectonic boundary between the Pacific and North American plates (Wallace 1990). Exhibit 4.6-1 illustrates the location of the project area with respect to faults and the epicenters of post-1967 earthquakes in the region. Fault data were obtained from Jennings (1994).

Seismic hazards are generally classified as two types, primary and secondary. Primary geologic hazards include surface fault rupture. Secondary geologic hazards include groundshaking, liquefaction, tsunami, and seiche, among others. These seismic hazards and their history and potential for occurrence at Lawson's Landing are described below.

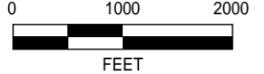
Surface Fault Rupture

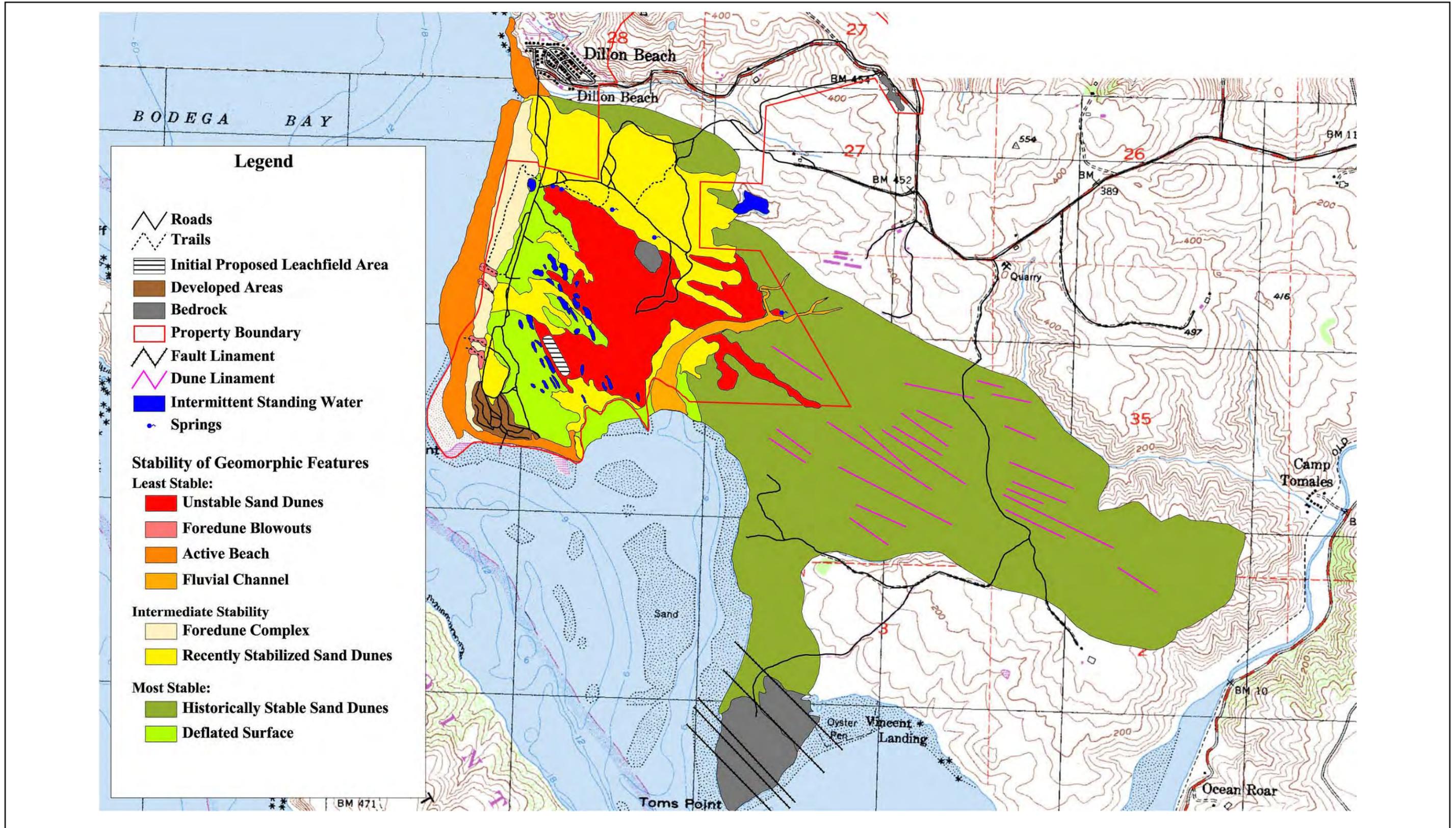
The fault zone of the San Andreas fault projects crosses through the southwest portion of Sand Point. Several previous studies have mapped the inferred location of the San Andreas Fault and these location are presented in Exhibit 4.6-5. However, because of the overlying sands and soils, an exact delineation of the fault trace is not known. The project area lies within an Alquist-Priolo Earthquake Hazards Zone (formerly Alquist-Priolo Special Studies Zone) (Exhibit 4.6-6). (See Alquist-Priolo Earthquake Fault Zoning Act under Regulatory Background below). However, because of the active dune field that crosses the project area and the lack of detailed subsurface data within the project area, geologic investigations at Sand Point have been unable to locate the active trace of the San Andreas fault with a high degree of confidence. However, William Lettis & Associates (2003) estimated the "preferred" and "possible" locations of the main and secondary fault zones (Exhibit 4.6-7) and inferred that the main fault trace can



Source: Pacific Watershed & Associates 01/06/04

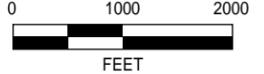
Geomorphic Features

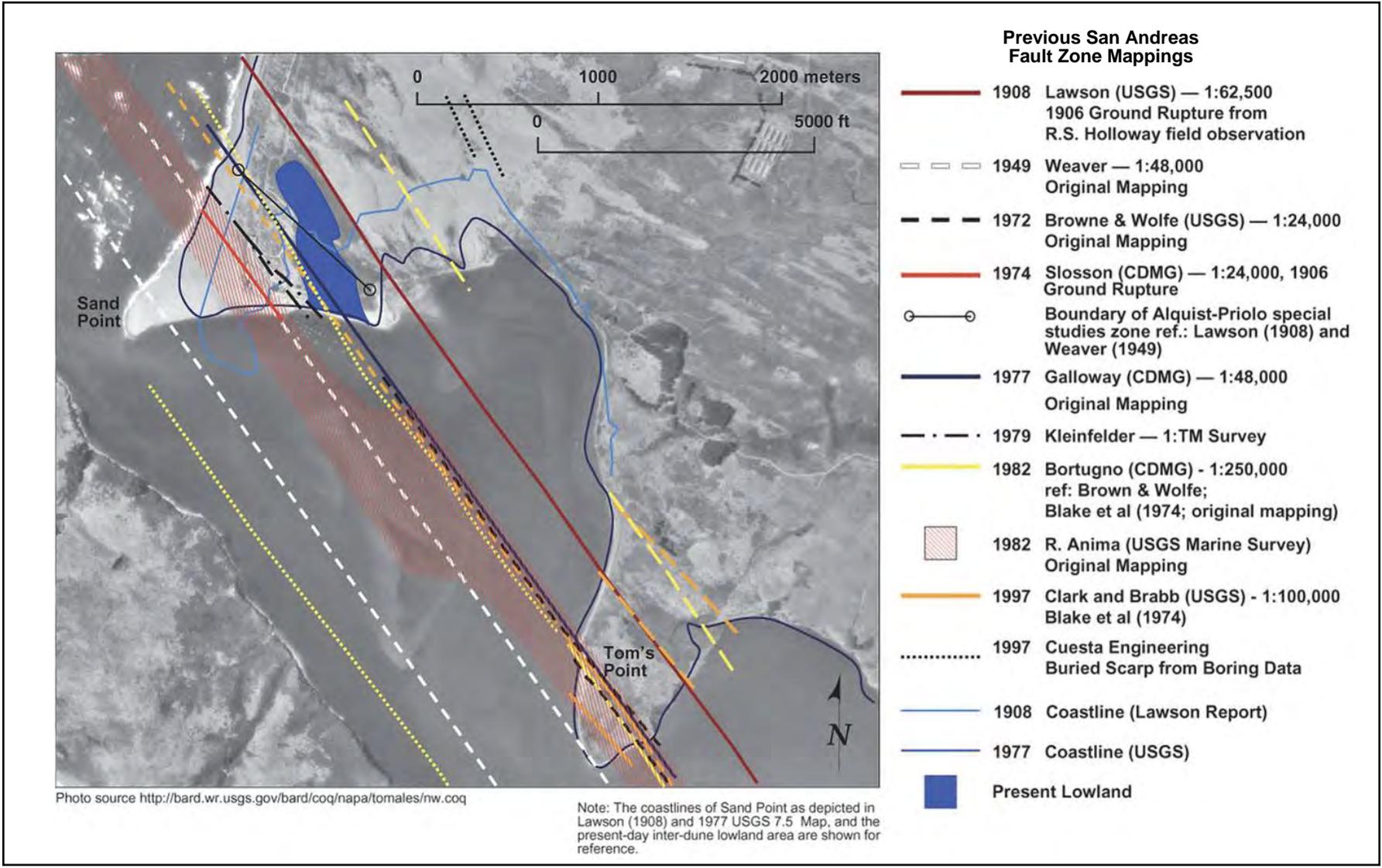




Source: Pacific Watershed & Associates 01/06/04

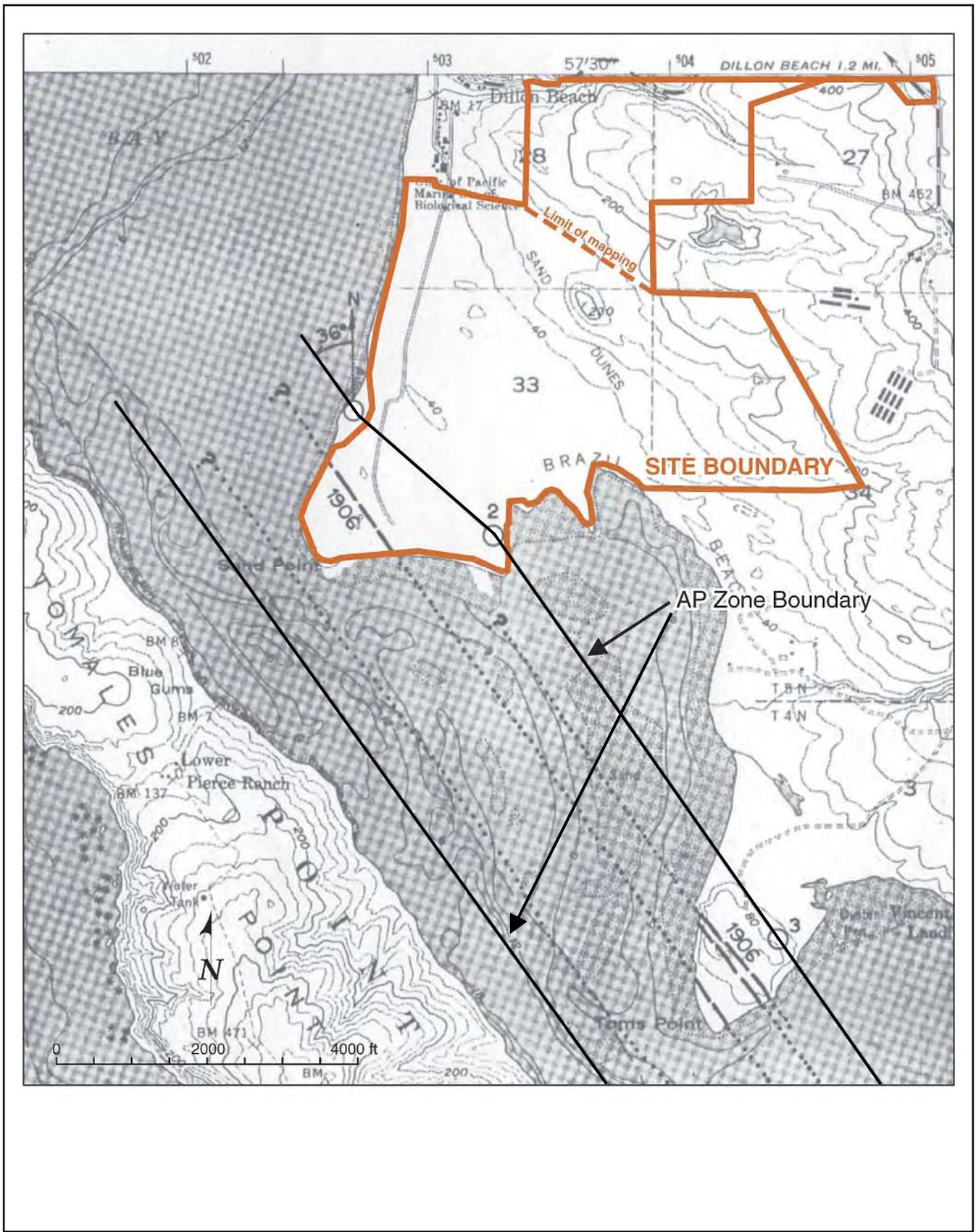
Dune Types





Source: William Lettis & Associates

Previously Mapped Traces of the San Andreas Fault at Sand Point



Source: CDMG 1974

Alquist-Priolo Earthquake Hazards Zone

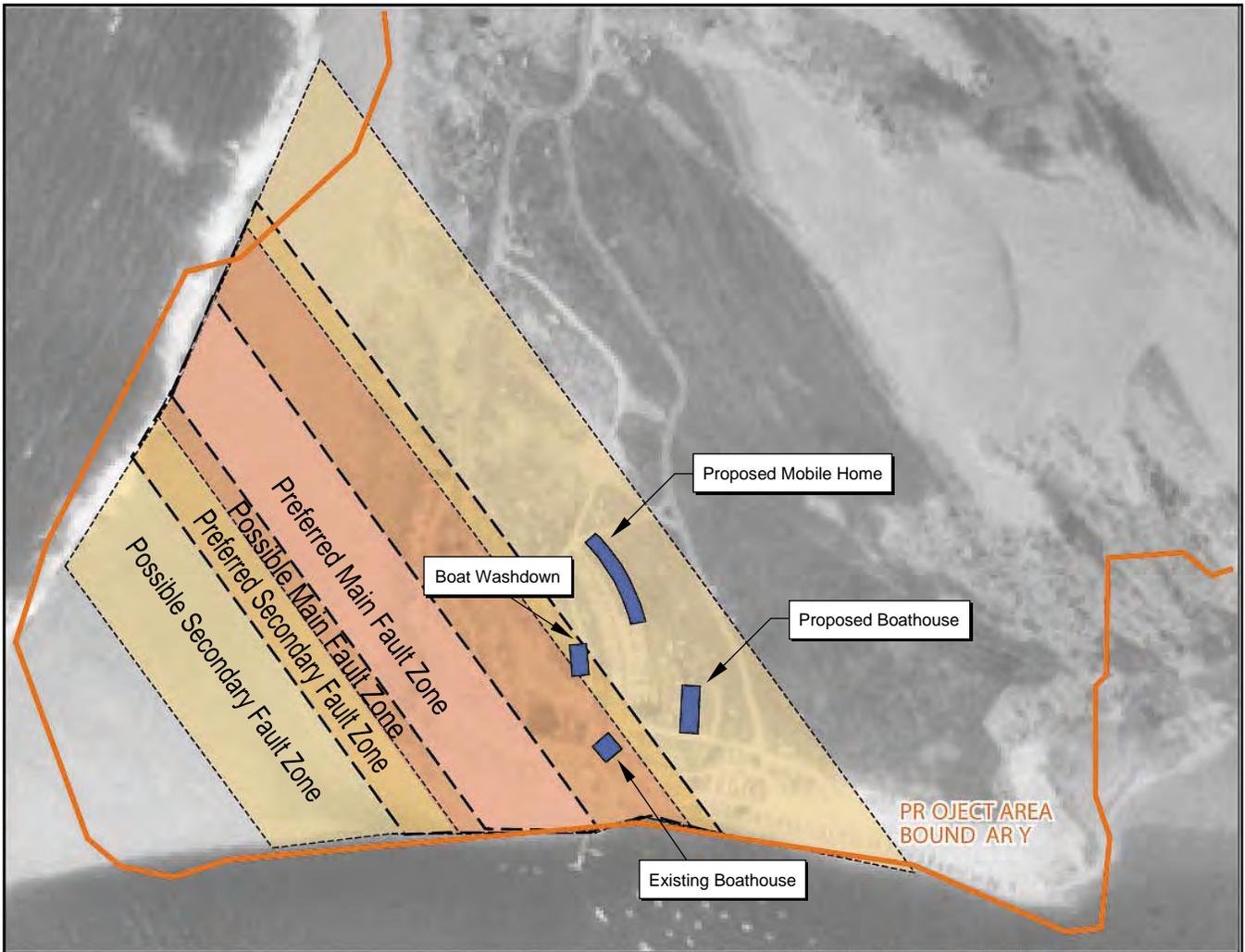


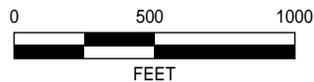
Photo source: <http://bard.wr.usgs.gov/bard/coq/napa/tomales/nw.coq>

 Proposed Structure

Source: William Lettis & Associates

Preferred and Possible Locations of the Main and Secondary Fault Zones

EXHIBIT 4.6-7



be anywhere within the main fault zone. Based on observations at Tom's Point and offshore data, the main fault zone (which includes the area accommodating the majority of slip during earthquakes) is approximately 130–165 feet wide (William Lettis & Associates 2003).

Direct field observations of the 1906 fault rupture at both Tom's Point and Sand Point are described by Lawson (1908). According to Lawson (1908), the northwest-trending rupture crossed Sand Point "...at the base of the spit..." and was surrounded on both sides by "...numerous and distinct" craters up to 6 feet in diameter interpreted to have formed as a result of liquefaction. There is no reference to the amount of offset at Sand Point in the Lawson (1908) report. Since the 1950s, travel trailers have occupied space at Sand Point; a pier and the current boathouse are located in this portion of the proposed project site. William Lettis & Associates (2003) estimated that future displacement within the main fault zone would be comparable to the 8-foot displacement at Tom's Point that was measured after the 1906 earthquake (Lawson 1908); the same report also estimated that approximately 1.6 feet of additional displacement could occur within the zone of secondary deformation (secondary fault zone).

The existing boathouse and associated structures (e.g., recreational trailers, laundry, garage, office, shop) are located within or immediately adjacent to identified fault zones and these structures would be subjected to the adverse effects of an earthquake along or near the San Andreas Fault or nearby fault system.

Liquefaction

Liquefaction is the phenomenon during which loose, saturated, cohesionless soils temporarily lose shear strength during strong groundshaking. Significant factors known to affect the liquefaction potential of soils are the characteristics of the materials such as grain size distribution, relative density, degree of saturation, the initial stresses acting on the soils, and the characteristics of the earthquake, such as the intensity and duration of the groundshaking.

Liquefaction is most likely to occur in the following locations:

- ▶ in saturated, relatively uniform, cohesionless, fine sands, silty sands, or coarse silts of low relative density (loose);
- ▶ generally above depths from 50 to 65 feet; and
- ▶ in areas where the water table is within 16 feet of the ground surface.

Although liquefaction effects are normally observed only in loose soils, dense sands and silts may show initial liquefaction (pore pressure buildup) effects, but these are rapidly inhibited by the dilatancy characteristics of such soils.

The Lawson's Landing area experienced soil failure as a result of liquefaction during the 1906 earthquake, indicating that soil within the project area has a very high susceptibility to liquefaction. Susceptibility to liquefaction at Lawson's Landing varies:

- ▶ *Lowland areas underlain by estuarine deposits:* Very high, because of the fine grained nature of deposits, low density, and shallow groundwater.
- ▶ *Beach areas:* Moderate to high, because of the increased packing of grains relative to the lowland areas.

- ▶ *Within dune fields (where elevations are greater than 15 feet):* Moderate, depending on depth to groundwater and degree of consolidation. However, these areas could be affected by gravitational flow failure as a result of the liquefaction of deeper layers and lateral spreading of surficial deposits. In general, the dune areas may have lower liquefaction susceptibility, because the deposits are very well drained and may not have the opportunity to develop increase pore pressures that lead to soil liquefaction.

Exhibit 4.6-8 shows relative liquefaction susceptibility zones.

In addition to liquefaction, other potential hazards at the project area could include localized occurrences of seismically induced settlement. Dissipation of excess pore pressure generated by groundshaking may produce volume changes within the liquefied soil layers, which would be manifested at the ground surface as settlement. Non-liquefaction related subsidence is not judged to be a hazard at the site (William Lettis & Associates 2003).

Tsunami and Seiche

A tsunami (also known as a “seismic sea wave” and, incorrectly, “tidal wave”) is an ocean gravity wave produced by sudden and significant displacement of the seafloor and/or sea surface. Tsunamis are high-energy, long-period sea waves caused by seismic disturbances. The energy as well as the height of the wave increases as it approaches the coastline and it creates a runup (a rush of water up a geologic or man made structure). Tsunamis can be caused by submarine volcanic explosions or landslides, and most commonly, ground displacement associated with large (magnitude greater than about 7) earthquakes. Because of the high rate of large-magnitude earthquakes within the “circum-Pacific seismic belt,” Pacific coastlines appear to have experienced more tsunami events than elsewhere (Lander et al. 1993).

Wave heights associated with tsunami (height above normal tide level referred to as “runup”) can be very large, with historical occurrences of 138 feet at Scotch Cap on Unimak Island, Alaska (Okal et al. 2003), and Holocene events of 23-52 feet at Lagoon Creek, approximately 12 miles south of Crescent City, California (Abramson 1998) and 62 feet at Orick, California (Carver and Carver 1996). However, most tsunamis have runup heights on the order of 3.3–9.8 feet, and the events described above are extreme examples.

Part of the Lawson’s Landing project area experienced tsunami inundation following the M_w 9.2 1964 Alaska earthquake. Observations of tsunami runup along the California coast caused by this earthquake vary widely. The highest runup observed was in Crescent City where it reached 15.7 feet above normal wave height, causing more than \$15 million in damages. Just north of Sand Point at Bodega Bay the runup was 2.6 feet. According to eyewitness accounts, the tsunami achieved a runup height of approximately 3.3 feet at Sand Point, damaging the pier and flooding low-lying areas (elevation of less than 10 feet). William Lettis & Associates (2003) conservatively estimated that a maximum runup for a future tsunami event at Lawson’s Landing would be approximately 6.5 feet. However, because the 1964 tsunami was caused by the second largest earthquake in recorded history, and historical earthquakes in the northern California region have not produced significant tsunami wave trains, the maximum runup from the 1964 event represents a likely maximum runup elevation for Lawson’s Landing (William Lettis & Associates 2003). The shaded “very high” liquefaction zone shown in Exhibit 4.6-5 also represents the expected maximum tsunami inundation area. Existing buildings and structures, including habitable structures, in the Sand Point area are currently located in the maximum tsunami inundation area and would be subjected to the adverse effects of tsunami wave run-up.

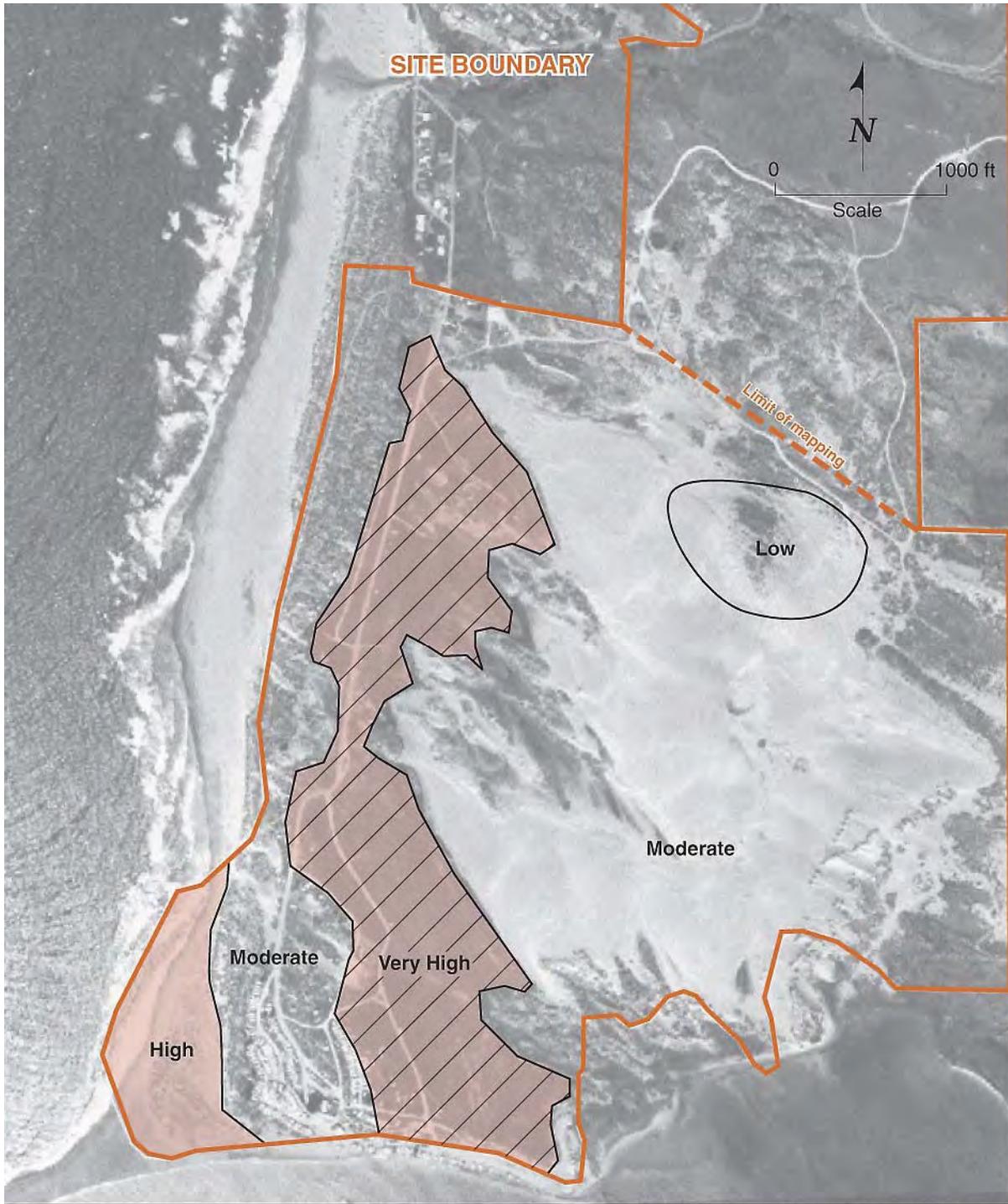
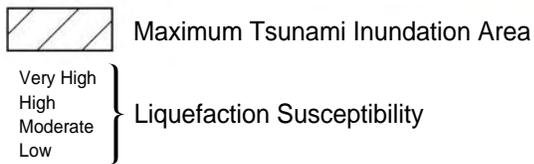


Photo source: Marin County Community Development Agency.



Source: William Lettis & Associates

Liquefaction Susceptibility Zones and Tsunami Hazard Areas

EXHIBIT 4.6-8

A seiche is a periodic oscillation of an enclosed or restricted water body, typically a lake or reservoir, produced by seismic shaking. The project area is not located near any enclosed water bodies, such as lakes or reservoirs; therefore, this potential hazard is not discussed further in this document.

Tsunami Warning

The West Coast and Alaska Tsunami Warning Center (WC/ATWC) is part of the National Oceanic Atmospheric Administration (NOAA) and is responsible for detecting, locating, sizing, and analyzing earthquakes throughout the Pacific and Atlantic basins. Earthquakes that activate the WC/ATWC alarm system initiate an earthquake and tsunami investigation which includes the following four basic steps: automatic locating and sizing the earthquake; earthquake analysis, review, and modification if necessary; obtaining sea level data from water level sites throughout the Pacific basin to verify the existence of a tsunami and to calibrate models; and disseminating information to appropriate emergency management officials.

Initial tsunami bulletins are issued as soon as the earthquake's tsunami potential has been analyzed. Warnings are based on earthquake magnitude and location only. After the initial bulletin has been issued, the WC/ATWC monitors the recorded tsunami effects and, in coordination the Pacific Tsunami Warning Center (PTWC), issues a cancellation, extension, or final bulletin as appropriate.

Once a tsunami warning has been issued, the nearest tide gages and tsunami detectors are monitored to confirm the existence or nonexistence of a tsunami, and its degree of severity. The WC/ATWC has access to more than 100 tide sites throughout the Pacific Basin. Approximately 50% of these sites are maintained by NOAA's National Ocean Survey (NOS). In addition to the NOS sites, the other agencies such as the Pacific Tsunami Warning Center and the Japanese Meteorological Agency provide sea level information to the WC/ATWC. The WC/ATWC maintains real-time telemetry equipment at several NOS gages in Alaska and fully maintains an eighth tide gage at Shemya, Alaska. These gages provide real-time data sampled every 15 seconds, and are transmitted via dedicated circuits or satellite.

Mineral Resources

Varying levels of sand quarrying have occurred in the interior dunes of the project site since the 1930s. At present there are two active sand quarrying operations on the site (see Chapter 2, Project Description, for a discussion of sand quarrying operations).

In 1987, the California Division of Mines and Geology (CDMG) (now the California Geological Survey [CGS]) published a comprehensive mineral land classification for aggregate materials in the San Francisco-Monterey Bay Area (Stinson et al. 1987). In the North San Francisco Bay Production-Consumption Region, lands were classified in the following categories:

- ▶ **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- ▶ **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- ▶ **MRZ-3:** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- ▶ **MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ category.

The project area is not classified on the aggregate maps of Stinson et al. (1987). Based on review of the classifications defined above, William Lettis & Associates (2003) determined that the presence of an operating sand quarry at Lawson's Landing and the unknown gross market value of this sand deposit places the project area in either category MRZ-2 or MRZ-3.

Other than sand deposits, there are no mineral resources that have been identified or that are under development in the project area.

REGULATORY BACKGROUND

Various state and local regulations apply to geologic hazards in the San Francisco Bay area. The primary regulations applicable to the project are described below.

State of California

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Special Studies Zone Act, now known as the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code [PRC] §2621 et seq.), was enacted in 1972. The Alquist-Priolo Act prohibits construction of most types of buildings intended for human occupancy across the traces of active faults and strictly regulates construction along active faults. The act is intended to reduce the hazard to life and property from surface fault ruptures during earthquakes; it is not directed toward other earthquake hazards.

The Alquist-Priolo Act defines criteria for identifying active faults. A fault is considered "sufficiently active" if one or more of its segments or strands show evidence of surface displacement during Holocene time (approximately the last 10,000 years); it is "well-defined" if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant 1997).

Areas along faults considered sufficiently active and well-defined are zoned differently than other areas, and construction in these areas is regulated more stringently. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as "earthquake fault zones" around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy.

Before a project can be permitted in the vicinity of an earthquake fault zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet).

Lawson's Landing lies within an Alquist-Priolo Earthquake Fault Zone. Therefore, to construct buildings intended for human occupancy (greater than 2,000 hours per year), an adequate setback must be required as mitigation so that new buildings are not constructed across the active trace of the fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC §§2690–2699.6) addresses non-surface fault rupture earthquake hazards, including liquefaction, strong groundshaking, and seismically induced landslides. Intended to reduce damage resulting from earthquakes, the Seismic Hazards

Mapping Act contains provisions conceptually similar to those of the Alquist-Priolo Act. The state is responsible for identifying and mapping areas at risk of strong groundshaking, liquefaction, landslides, and other earthquake and geologic hazards, and cities and counties must regulate development in mapped seismic hazard zones.

Under the Seismic Hazards Mapping Act, cities and counties may not issue development permits for sites in seismic hazard zones (see below for a discussion of seismic zones) until appropriate site-specific geologic and geotechnical investigations have been completed and measures to reduce potential damage have been incorporated into the development plans. Information on the seismic hazard maps is not sufficient to serve as a substitute for the required site-specific geologic and geotechnical investigations.

California Uniform Building Code

The State of California provides minimum standards for building design through the California Uniform Building Code (California UBC) (California Code of Regulations [CCR], Title 24). The California UBC is based on the Uniform Building Code (UBC), which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis), and has been modified for conditions within California. The UBC includes a seismic zone map to determine applicable seismic standards for proposed structures. Seismic zones range from 0 to 4, with Zone 0 being the least active and Zone 4 the most active. The project area is located in Seismic Zone 4 (William Lettis & Associates 2003). All new structures built or newly located at Lawson's Landing must comply with UBC requirements for this zone.

Marin County

Marin County Goals and Policies

Several goals and policies related to geologic hazards are included in the Marin Countywide Plan (1994). For a discussion of these goals and policies, please refer to Section 4.2, Land Use Plan Consistency.

Marin County Code

Under Marin County (County) Code §19.04.010, the County has adopted the California UBC, with minor amendments, as its building code.

Dillon Beach Community Plan

Several policies related to geologic hazards are included in the Dillon Beach Community Plan (1989). For a discussion of these goals and policies, please refer to Section 4.2, Land Use Plan Consistency.

4.6.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that the project would have a significant impact on geologic hazards if it would:

- ▶ expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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):

- ▶ strong seismic groundshaking;
- ▶ seismic-related ground failure, including liquefaction; or
- ▶ landslides;
- ▶ result in substantial soil erosion or the loss of topsoil;
- ▶ 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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse;
- ▶ be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property; or
- ▶ have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994), the project would have a significant impact related to geologic hazards if it would be located:

- ▶ within an Alquist-Priolo Special Studies Zone, a known active fault zone, or an area characterized by surface rupture that might be related to a fault;
- ▶ in an area with substrate consisting of material that is subject to liquefaction or other secondary seismic hazards in the event of groundshaking;
- ▶ in an area with evidence of static hazards, such as landsliding or excessively steep slopes, that could result in slope failure;
- ▶ in the vicinity of soil that is likely to collapse, as might be the case with karst topography, old mining properties, or areas of subsidence caused by groundwater drawdown;
- ▶ in an area with soils characterized by shrink/swell potential that might result in deformation of foundations or damage to structures;

- ▶ in a Mineral Resource Zone identified by the California Department of Mines and Geology or within an area designated as important Farmland identified by the Soil Conservation Service (U.S. Department of Agriculture); or
- ▶ next to a water body that might be subject to tsunamis or seiche waves.

An analysis of the project's consistency with County goals and policies, including those related to geologic hazards, is included in Section 4.2, Land Use Plan Consistency.

PROJECT IMPACTS

Impact 4.6-1: Impacts of Stabilizing Dunes on Dune Processes. The proposed leachfield site and the proposed access road to the recirculating sand filter system lie within areas of actively moving sand dunes of high instability. Implementation of the project would require the dunes on the western edge of the dune field to be unnaturally stabilized. Stabilizing the western portion of the dune field could lead to unnatural fragmentation of the active dune areas, which could in turn influence the short- and long-term development of the dune system at Lawson's Landing. Further, the success of implementing a leachfield in an active dune system is unproven and best described as uncertain at this time. This would be a *potentially significant impact*.

Proposed infrastructure improvements and miscellaneous developments include installation of recreational vehicle dump sites, restrooms, showers, water faucets, fire hydrants, and the building of various structures designed for habitation and services. All of the proposed infrastructure installation sites are concentrated along the main access road that is aligned through the deflated meadow surface. Because of the minimal footprint of these structures and stable location, impacts on the dune system are not expected to occur. The construction of the relocated boathouse, new owner's residence and new employee mobile home would not occur in areas of actively mobile sand dunes. The majority of these structures are proposed in currently developed areas and would not add to the impacts on the dune system. Other proposed structures would be located in relatively stable areas of the dune system and are not expected to affect the dynamics of the dune system. Similarly, the road network is currently aligned through relatively stable portions of the dune system where it has minimal impacts in regards to sand dune mobility. Improvements to the existing road network are not expected to significantly affect the dune system.

The proposed leachfield site, access road to the recirculating sand filter system, and the sand filter system lie within areas of actively moving sand dunes of high instability. Implementation of the project would require the dunes on the western edge of the dune field to be unnaturally stabilized. Unnatural stabilization of dunes could adversely affect the targeted dune, as well as the rest of the down-wind dune system. Because the foredunes have been almost entirely stabilized, and are no longer replenishing the dune field with a constant supply of fresh sand, the active dunes on the western margin of the dune field have become the primary, albeit limited, source of sand for the internal portions of the dune field. Stabilization of any dunes occupying the western portion of the dune field could inhibit natural dune migration and the development of associated coastal dune field landforms. This could result in deflation of the dune field on the leeward side of artificially stabilized dune areas and the cessation or substantial slowing of the expansion of the deflated surface windward of stabilized dune areas.

Further, research has revealed that although planting vegetation on the dune to stabilize the surface and protect the proposed leachfield is an option, the likelihood of the stabilization succeeding is questionable (PWA 2004). In the unincorporated area of Manila, a small community located in northwestern California, three community leachfields have been constructed in the coastal sand dune environment. All

have failed in the last 30 years. The first of the three leachfields failed because of sand dune movement. Although the second and third leachfield installations successfully stabilized the dunes, the dune movement rates in Manila are roughly one-fifth the rates at Lawson's Landing. In addition, only the most aggressive non-native vegetation, in combination with physical structures (i.e. sand fences) is capable of stabilizing dunes as active as the ones at Lawson's Landing, and even if the vegetation could be established, it is not guaranteed that it would stabilize the site enough to adequately protect the new leachfields, which are planned to be in service for 20 years or more.

Because the project would plant native vegetation to stabilize the dune surface for the construction and operation of a leachfield, the effects of which would result in adverse impacts to the viability of the dune system, and the success of implementation of a functioning leachfield in a dune system is unproven and the project would result in potentially significant impacts to onsite sand dunes.

Impact 4.6-2: Impacts of Proposed Pathways on Fore-dune System. The proposed formal pedestrian pathways, depending on their orientation, could result in the development of dune blowouts. This would be a *potentially significant* impact.

The proposed formal pedestrian pathways would be located in the fore-dunes and adjacent deflated meadow surface to the east. Exclusionary fencing along the interior margin of the fore-dune has been proposed to reduce impacts to sensitive dune areas and species. Because the fore-dune is highly stabilized and not actively migrating or transitioning eastward, impacts of the fencing itself would be less than significant. However, proposed pathways that are oriented in a generally southeast-northwest direction aligning them with the prevailing wind direction would provide a conduit for sand to be transported between the beach and the deflated surface to the east. In these cases, as can be seen in existing areas onsite, blowouts (i.e., instability of the dune surface) of the fore-dune can develop. This would be a potentially significant impact.

Impact 4.6-3: Increased Risks as a Result of Surface Fault Rupture. The San Andreas fault crosses through the project site, and portions of the Sand Point area are located within an Alquist-Priolo Earthquake Hazards Zone. As currently planned, the relocated boathouse would avoid the main fault zone, but would be located within the zone of secondary deformation (secondary fault zone), where additional displacement could occur. This would be a *potentially significant* impact.

The main fault zone of the San Andreas fault crosses through the southwest portion of Sand Point, and the area lies within an Alquist-Priolo Earthquake Hazards Zone (formerly Alquist-Priolo Special Studies Zone). The estimated future displacement within the main fault zone is comparable to the 8-foot displacement at Tom's Point that was measured after the 1906 earthquake. In addition, while the relocated boathouse and boat storage facilities would avoid the main fault zone of the San Andreas fault, as currently planned it would be located within the zone of secondary deformation (secondary fault zone); it has been estimated that approximately 2.3 feet of additional displacement could occur within this zone. ~~Although allowable by the county, e~~Construction of a building in such an area could increase the risk to Lawson's Landing staff and visitors in case of a surface fault rupture. This would be potentially significant impact.

Impact 4.6-4: Increased Risks as a Result of Earthquake Groundshaking. The project site is located on the San Andreas Fault and within UBC Seismic Zone 4, and would be affected by groundshaking by one or more moderate earthquakes. However, implementation of the project would not increase the risk of an earthquake; moreover, new buildings would be designed and constructed/installed to meet seismic design requirements for UBC Zone 4, and the number of travel trailers, RVs, and day users at the site would not increase above existing conditions. Therefore, this would be a *less-than-significant* impact.

The project site is located on the San Andreas Fault and lies within UBC Seismic Zone 4. Because the project site is located on an active fault, it would be affected by groundshaking from one or more moderate earthquakes. The estimated ground motion characteristics along the San Andreas fault zone could result in strong to very strong groundshaking. The groundshaking accompanying such large earthquakes on the San Andreas Fault Zone and other active Bay Area fault zones (e.g., Hayward–Rodgers Creek) would have primary and secondary effects. Primary effects of groundshaking are those that directly affect structures on the project site. Secondary effects are defined as indirect effects on improvements resulting from the effects of shaking on earth materials. Secondary effects, which include liquefaction and lateral spreading, are discussed below in Impact 4.6-5.

Implementation of the project would not increase the risks from a moderate to severe earthquake. The project would add some new buildings onsite—a relocated boathouse, an owner’s residence, and a new employee mobile home. At a minimum, these new buildings would be designed and constructed to contemporary seismic design requirements for groundshaking specified in the UBC for Seismic Zone 4. For this reason, and because the number of travel trailers, recreational vehicles (RVs), and day users permitted on the site would not increase, the risks resulting from groundshaking would be essentially the same as under current conditions. This would be a less-than-significant impact.

Impact 4.6-5: Potential for Seismic-Related Ground Failure, Including Liquefaction and Lateral Spreading. Seismic-related ground failure is considered a hazard in the project area. The project, in and of itself, would not increase the risk of liquefaction at the site and would not result in a significant adverse environmental change. Therefore, this would be a *less-than-significant* impact.

The Lawson’s Landing area experienced soil failure as a result of liquefaction during the 1906 earthquake. Based on the texture and density of shallow surficial deposits, the presence of high groundwater, and the occurrence of historical liquefaction, parts of the project area have a very high susceptibility to liquefaction and lateral spreading. Specifically, susceptibility to liquefaction at Lawson’s Landing ranges from moderate within the dune fields (where elevations are greater than about 15 feet) to very high in lowland areas underlain by estuarine deposits. Although the relocated boathouse would be built further back (east) from Tomales Bay than the current boathouse, it would remain in one of the lowland areas in which the susceptibility to liquefaction would be very high. The susceptibility to liquefaction of the existing boathouse, which would be replaced, is very high; the proposed project, in and of itself, would not increase the risk of liquefaction and therefore would not result in a significant and adverse environmental change. This would be a less-than-significant impact.

Impact 4.6-6: Potential for Slope Instability and Landslides. The potential for slope instability at the site is very low. The new buildings that would be constructed onsite would not be subject to landslides. The proposed septic and leachfield system would be designed in such a way to mitigate strain from minor slope movements. This impact would be *less than significant*.

The potential for slope instability at the site is very low and restricted to shallow failures of steep slopes of the sand dunes. Therefore, the relocated boathouse, as well as the new owner’s residence and new employee mobile home, would not be subject to landslides. Minor slope failures could place strains on the proposed septic and leachfield system. However, the system would be designed with flexible components and at sufficient depth to mitigate strain induced from these minor slope movements. With these elements in place, this impact would be less than significant.

Impact 4.6-7: Potential for Expansive Soils. Soils at the project area are not prone to shrink/swell phenomenon. This would be a *less-than-significant* impact.

Soils in the project area are not prone to shrink/swell phenomenon; therefore, the hazard from expansive soil is considered low. This would be a less-than-significant impact.

Impact 4.6-8: Potential for Unstable Soil Conditions during Construction. The areas in which construction would occur under the project are relatively level; therefore, grading should be minimal and is not expected to destabilize soil conditions. This would be a *less-than-significant* impact.

Construction-related impacts on the geologic environment primarily involve terrain modifications including excavations, fills, and dust generation. The portions of the project area in which construction would occur are primarily level; therefore, grading should be minimal and is not expected to destabilize soil conditions. This would be a less-than-significant impact.

Impact 4.6-9: Potential Disturbance of Mineral Resources. The project area is not classified on the CDMG (now CGS) comprehensive mineral land classification for aggregate materials. Other than sand deposits, no mineral resources have been identified or are under development in the project area, and project construction would not occur at either of the sand quarries. This would be a *less-than-significant* impact.

Varying levels of sand quarrying have occurred in the interior dunes of the project site since the 1930s. At present there are two active sand quarrying operations on the site. However, the project area is not classified on the comprehensive mineral land classification for aggregate materials in the San Francisco-Monterey Bay Area published by CDMG (now CGS). William Lettis & Associates, in its review of geological/geotechnical reports prepared for Lawson's Landing, stated that the project area would probably fall into either category MRZ-2 or MRZ-3 because of the presence of operating sand quarries and the unknown gross market value of this sand deposit; however, such a classification has never been formally made. Other than sand deposits, no mineral resources have been identified or are under development in the project area. In addition, project construction would not occur at either of the sand quarries. This would be a less-than-significant impact.

Impact 4.6-10: Potential for Damage Caused by a Tsunami. Because there would be substantial warning, allowing for evacuation from the site, a tsunami would not be expected to result in substantial risk to Lawson's Landing residents and visitors; in addition, implementation of the project would not exacerbate the tsunami hazard and would not result in a significant adverse environmental change. This would be a *less-than-significant* impact.

It has been estimated that the California coastline is subject to a tsunami with a runup of 20 feet every 50 years. Therefore, it is probable that the project site would subject to a tsunami impact sometime during the lifetime of the existing and proposed facilities. Part of the Lawson's Landing project area experienced tsunami inundation following the M_w 9.2 1964 Alaska earthquake. The tsunami achieved a runup height of approximately 3.3 feet at Sand Point, damaging the pier and flooding low-lying areas (elevation of less than 10 feet). Tsunami inundation maps have not been prepared for the Tomales/Bodega area. It has been estimated that a maximum run-up height of twice the height of the 1964 tsunami, or approximately 6.5 feet, could be expected at Lawson's Landing (Lettis 2003). However, it is not expected that the Tomales Bay entrance is conducive to extreme amplification of tsunami wave trains. This is supported by tide gauge data that show a mean tidal range of only 3.5 feet. In addition, the coastal dune complex and sea wall would help dissipate the tsunami wave energy and reduce the erosive and scouring effects of the wave run-in and run-out. A tsunami would not be expected to result in substantial risks to residents and

visitors. The most likely effect would be inundation and moderate erosion as the water drains to the lowland areas on retreat.

Because damaging tsunamis originate from distant sources, Lawson's Landing staff and recreational facility users would have substantial warning to evacuate before arrival of the tsunami; evacuation would become easier under the project because the entrance to Lawson's Landing would be expanded to provide three inbound vehicle lanes and one outbound lane (see Chapter 3, Project Description)..

Under existing conditions, the current boathouse, the travel trailer park, reconstructed gatehouse, and other recreational facilities are located within the area susceptible to flooding caused by a tsunami. Implementation of the project would not exacerbate this hazard. The relocated boathouse would be subject to the threat, but because it would be located directly behind the current boathouse, the tsunami threat would be the same as under existing conditions and the project would not result in a significant and adverse change in the environment. In addition, the early tsunami warning capabilities of the West Coast and Alaska Tsunami Warning Center would provide ample time for evacuation of coastal areas in Lawson's Landing if a threat of tsunami occurs. This would be a less-than-significant impact.

CUMULATIVE IMPACTS

Impact 4.6-11: Cumulative Geologic Impacts. The project's geologic impacts would be site-specific. Because of the physical separation of the cumulative projects and the low likelihood of geologic instability, the project would neither be affected by, nor would it affect, other planned or proposed development in the project vicinity. However, the project would increase the number of facilities (e.g., restrooms) that would support and would continue camping activities at the site. These activities would be located in tsunami and fault hazard areas within the project site. This would be a *significant* cumulative geologic and hazard impact.

A project's effects on geology are generally site-specific and neither affect nor are affected by other planned or proposed development in the region. Cumulative geologic impacts could occur if, for example, a project were a hillside development and project grading, in conjunction with grading for other reasonably foreseeable projects on the same hillside or on a common ridgeline, would collectively alter the topographic features in that region. Also, grading for a number of projects in proximity to one another could collectively weaken geologic substructures, resulting in landslides or other geologic effects. The closest cumulative project is located approximately 8 to 9 miles away (refer to Chapter 4.1, Approach to Environmental Analysis for a description). As such, none of these cumulative conditions would occur on or around the project site. Neither the project nor the closest cumulative project is expected to weaken or substantially alter geologic substructures, either individually or cumulatively. However, the project would increase the number of facilities (e.g., restrooms) that would support and would continue camping activities at the site. These activities would be located in tsunami and fault hazard areas within the project site. This would be a significant cumulative geologic and hazard impact.

Impact 4.6-12: Cumulative Dune Impacts. The project in combination with cumulative projects would result in cumulative development of Tomales Bay shoreline areas, which could result in significant cumulative impacts related to dune systems as a whole in the region. Further, the project would result in the continuation of recreational activities at the site which would contribute to the degradation of onsite sand dunes. These activities create an existing adverse baseline condition to which the project contribution would result in a *significant* cumulative dune impact.

Human disturbances are common to most dune fields that have public access. The coastal dunes in the project area have been substantially affected by human activities (PWA 2004). The spatial distribution and nature of the impacts have varied through time. Historic disturbances vary in their extent and magnitude, having eliminated large portions of the once active dune system, and locally accelerating erosional processes in others. There are three primary types of human disturbances that have had an affect on the natural operation and functioning of the dune system in the study area since the early 1900's. These include the introduction of exotic vegetation or the colonization of naturalized vegetative species (bush lupine and European beachgrass); residential, commercial and recreational development; and recreational activities. Most of these human disturbances to the system continue to impart an effect on dune processes. Some of these effects are permanent and effectively irreversible. Exhibit 4.6-9 displays the results of analyzing aerial photography taken between 1954 and 2000. The area of unvegetated sand in the project area was reduced by 44%, predominantly from encroachment of non-native or naturalized vegetation.

The closest cumulative project is the Nick's Cove project located approximately 8 to 9 miles south of the project site. For a project to have a direct effect on the same dune system at Lawson's Landing, it would need to share the same sand source(s) (PWA 2004). Because of its distance from Lawson's Landing and the fact that this project would not be located within the same sand source at the project site, this project would not combine cumulatively with the project. However, this cumulative project does propose new and expanded uses in the Tomales Bay shoreline area. Depending on the extent of modifications in the dune system at that location, the project in combination with the shoreline part of the Nick's Cove project could result in significant cumulative impacts related to dune systems as a whole in the region. Further, the project would result in a substantial contribution to this cumulative impact, because it would result in the stabilization of the dunes at the project site with non-native vegetation, which could adversely affect the viability of the dune system onsite. In addition to development impacts on the natural migration of onsite sand dunes, the project would result in the continuation of recreational land uses at the project site including camping and hiking in sand dune areas. Although the project would not increase the rate or intensity of recreational activities at the site, it would construct facilities that would allow these uses to continue into the future and would result in the continuation of adverse human effects to the sand dune system including degradation of the sand dunes and introduction of exotic vegetation. This is an existing adverse environmental condition and the project would result in the continuation of this adverse condition. As a result, the project would contribute to significant cumulative sand dune impact.

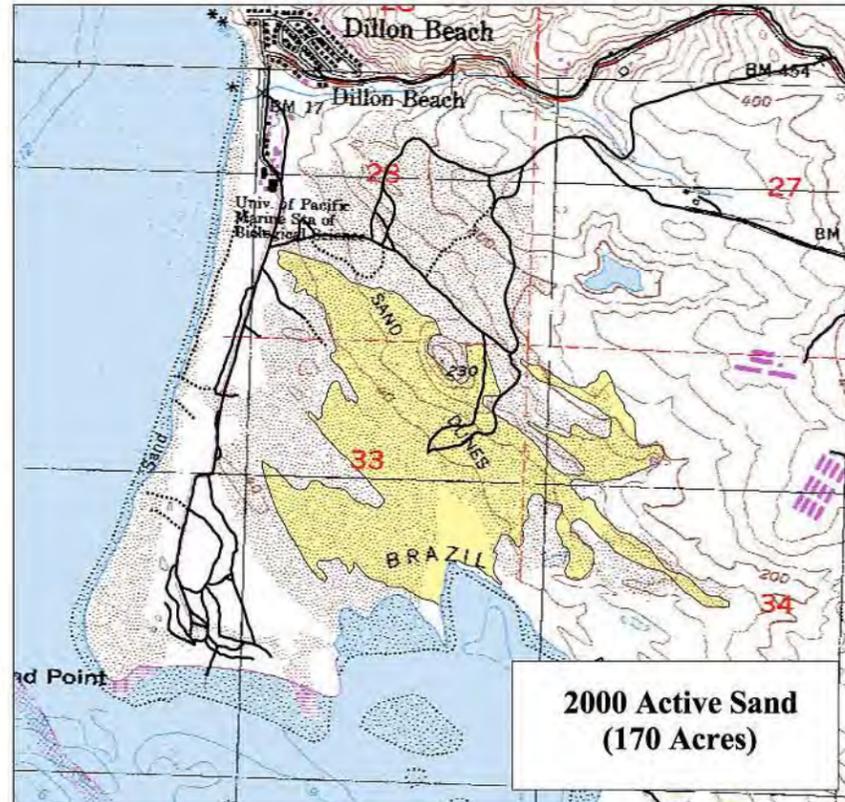
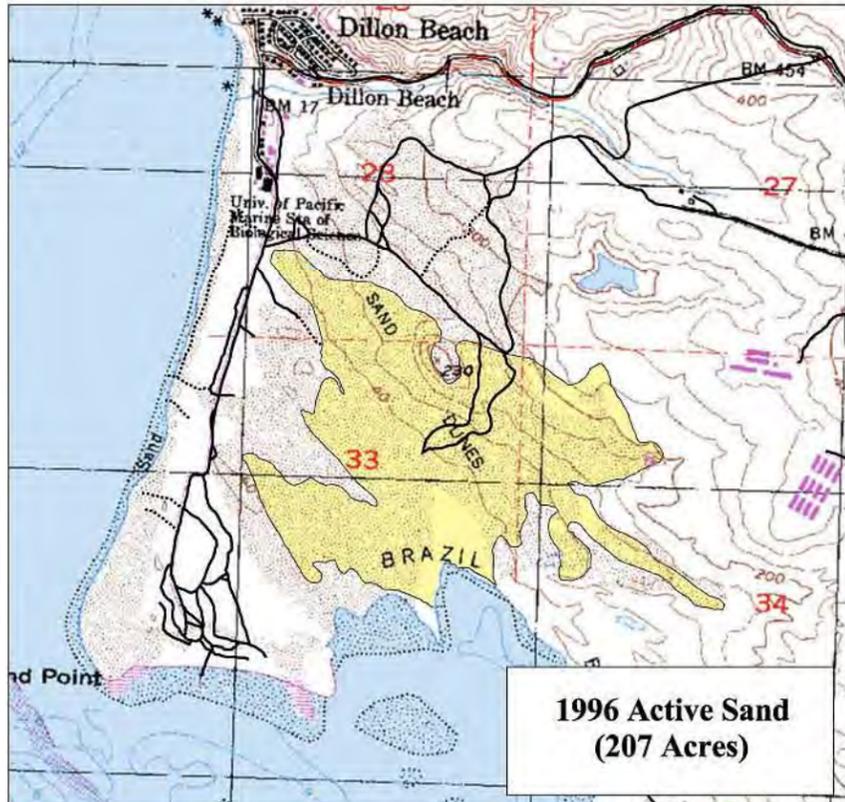
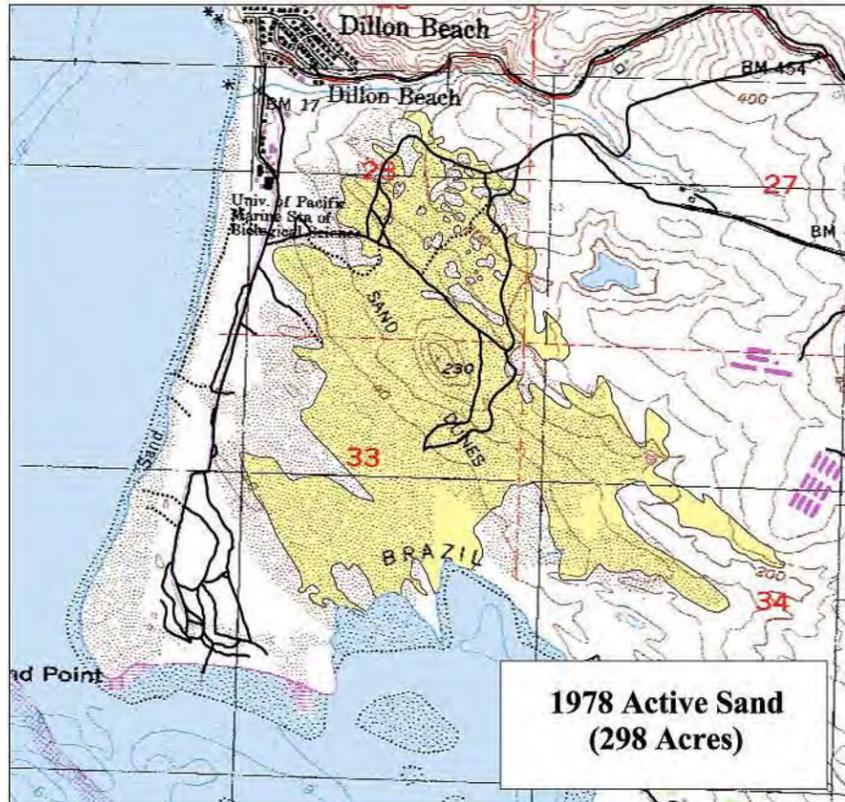
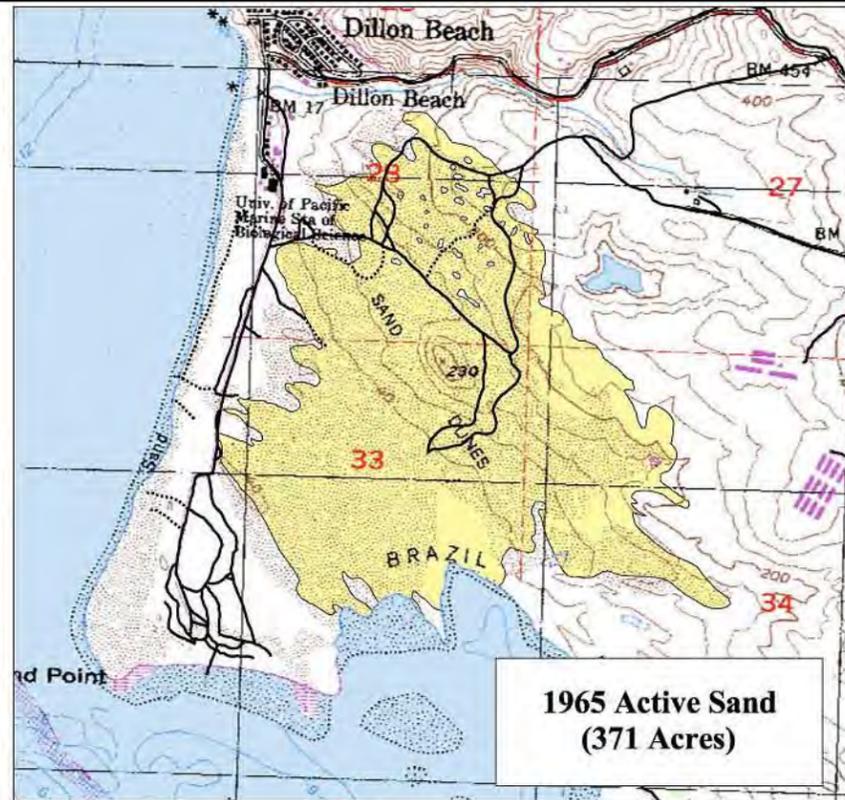
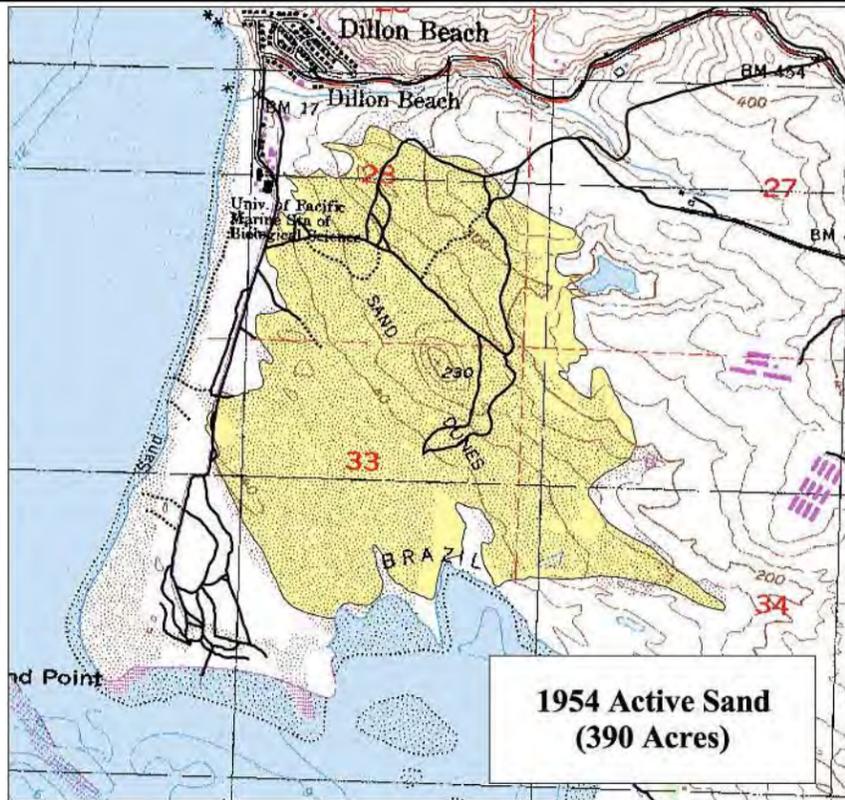
4.6.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.6-1: Relocate Proposed Leachfields and Access Road.

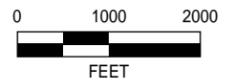
The project sponsor shall relocate the proposed leachfield and access road to the recirculating sand filter system to a non-sand dune location, such as in the northern portion of the project site. Three potential alternate locations for the leachfield and sand filter system were identified during the EIR preparation and are presented in Exhibit 4.6-10. Preliminary evaluation of these locations indicates that from a dune stability and viability standpoint these locations would eliminate the impacts of the proposed leachfield on the dune system, because they would be located outside even the most stable sand dune areas. A preliminary engineering review of the potential alternate locations indicates that based on the soil types, slopes, and erosion hazards present in these areas, construction of a septic tank and leachfield system would be feasible as long as the leachfield were located in areas with less than 15% slope (Appendix H). Construction of a leachfield in this location would require the installation of force main piping and a pump station to pump wastewater from Sand Point to the alternate location.

-  Roads
-  Trails
-  Active/Mobile Sand



Source: Pacific Watershed & Associates 01/06/04

Areas of Active Mobile Sand

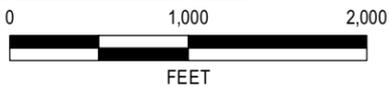




Sources: Wesco 1992, Image taken in 2000, EDAW 2005

Alternate Wastewater Treatment System Locations

EXHIBIT 4.6-10



Based on preliminary environmental review of these alternate locations, no new sensitive habitat or species would be adversely affected. Further, because of the existing roadways near these locations, it is likely that construction of a new access road to the leachfield would not be required. Construction of a leachfield in any of the three proposed alternate locations would be consistent with the policies of the Marin Countywide Plan and LCP and would avoid potential inconsistencies associated with construction in onsite wetlands, coastal wetlands, and sand dune habitats. As identified in Exhibit 4.6-1, some areas of the alternate location sites are designated as prime or other important farmland. Construction of a leachfield within these lands would not result in a significant loss of farmland resources and would be consistent with County policies regarding allowable facilities on important farmlands. Prior to construction of the septic tank, pipelines, pump station, and leach field, the project sponsor shall have a qualified engineer prepare additional detailed design investigations for the siting and operation of the leachfield and these studies shall be submitted to the County and RWQCB for review and approval.

As an option to a septic tank and leachfield system, staff of the RWQCB has indicated that an alternative wastewater treatment system or other treatment technologies, such as a pond treatment system, would be acceptable at the project site. Through the specific design and siting process for the alternate location for the wastewater treatment system, the project sponsor shall determine whether an alternate treatment system should be constructed. Final review and approval of the system will be made by the RWQCB.

Mitigation Measure 4.6-2: Implement Protective Measures in the Fore-dune System.

The project sponsor shall plan and design the trails in the fore-dune system to reduce the potential for the development of dune blowouts onsite. Specific actions include the following:

- (a) All pedestrian paths crossing the primary fore-dune for the entire length of the planning area shall be planned and designated in coordination with a coastal geomorphologist and approved by the County of Marin. At each designated site, pathways shall be planned for naturally low elevation “passes” through the ridge, or other locations where erosion potential is lowest.
- (b) In consultation with a coastal geomorphologist, pedestrian pathways through the primary fore-dune shall be oriented in a southwesterly direction, so that strong ~~summer~~ winds do not create sand blowouts in the dune face. Paths shall be planned to follow topographically low routes, minimize sharp turns, and avoid steep pitches. The design of the paths should include consideration of a meandering zig-zag design to minimize the linear surface area that would be exposed to the northeast winds.
- (c) In consultation with a coastal geomorphologist, all entry paths through the primary fore-dune shall be monitored for geomorphic or vegetative changes or signs of deterioration. Monitoring techniques could include, but not be limited to, ground photo points, aerial photographs, and physical measurement. Other forms of monitoring may be required, as determined by the coastal geomorphologist and approved by the County of Marin.
- (d) Paths that cannot be stabilized or that do not remain stable during their use shall be closed and the area restored in consultation with a coastal geomorphologist and as approved by the County of Marin.
- (e) Designated pathways shall be fenced to prevent off-trail pedestrian activities and bovine traffic. Fencing can be used to cordon off fore-dunes in high-use areas where recreational activities are not permitted. Fencing with signs indicating dune protection or other similar language shall be used.

- (f) Provide public education on sand dune processes and reasons for protection through signs, displays at key access points, brochures for beach and dune users, and/or presentations to organized user groups.

Mitigation Measure 4.6-3: Implement Seismic Design Measures.

The project sponsor shall secure a California-certified engineering geologist and civil engineer to provide the project structural engineer with seismic design criteria and recommendations based on state and county regulations for development in areas exposed to moderate to severe earthquakes. The site-specific recommendations made by this geologist and civil engineer shall be approved by the County Building Inspection Division before being implemented at the site.

- (a) As an overall performance criterion, seismic design features shall be adequate to ensure that the proposed relocated boathouse withstands the maximum credible earthquake for the San Andreas and Hayward faults. Examples of the seismic design criteria to be provided to the project structural engineer include:
 - ▶ identification of the controlling fault for seismic engineering design;
 - ▶ design earthquake magnitude;
 - ▶ distance to energy source (earthquake);
 - ▶ likely duration of strong groundshaking and qualitative discussion of its intensity and frequency (e.g., high vs. low); and
 - ▶ discussion of the potential for amplified groundshaking and other impacts as a result of local geologic conditions.

The specific structural features appropriate for the project would be determined based on the seismic engineering design process.

- (b) The project sponsor shall use appropriate grading and design, in accordance with the UBC and County Code requirements, to reduce the secondary effects of groundshaking on human-made improvements.
- (c) Fill used during the construction of the project shall be properly designed with subsurface drainage and adequately compacted (i.e., minimum of 90% relative compaction as defined by the American Society for Testing and Materials [ASTM D1557]) to significantly reduce fill settlement.
- (d) Before any grading or construction permits are issued, the project sponsor shall submit for review and approval by the County a design-level geotechnical investigation. Plan review and construction observation/testing is required by the project geotechnical engineer. Final design of the proposed improvements shall incorporate the results of the geotechnical investigation approved by the County.
- (e) The construction contractor shall consult with a foundation engineer to develop an appropriate foundation design for the proposed boathouse. The structure shall be designed to accommodate up to 2.3 feet of secondary deformation without collapse. A possible design involves using a thickened reinforced concrete slab over a layer of cohesionless granular backfill. This approach

may allow the foundation to accommodate permanent ground deformation without brittle failure; it could also reduce the risk to the structure from the effects of soil liquefaction by helping to support the temporary loss of bearing capacity that could occur in the event of liquefaction. A pile supported foundation should not be employed, because of the possibility of surface fault rupture through the site.

Mitigation Measure 4.6-4: No mitigation measures are required.

Mitigation Measure 4.6-5: No mitigation measures are required.

Mitigation Measure 4.6-6: No mitigation measures are required.

Mitigation Measure 4.6-7: No mitigation measures are required.

Mitigation Measure 4.6-8: No mitigation measures are required.

Mitigation Measure 4.6-9: No mitigation measures are required.

Mitigation Measure 4.6-10: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.6-11: Cumulative Tsunami and Fault Hazard Impacts.

Because existing camping activities in areas subject to tsunami and fault hazards are part of the baseline conditions, against which project impacts are measured, no feasible mitigation is available to reduce this impact to a less-than-significant level. Therefore, the project's contribution to cumulative tsunami and fault hazard impacts would be cumulatively significant and unavoidable.

Mitigation Measure 4.6-12: Cumulative Dune Impacts.

Implement Mitigation Measure 4.6-1. Because existing camping and recreational activities are part of the baseline condition against which project impacts are measured, no feasible mitigation is available to reduce cumulative sand dune impacts to a less-than-significant level. Therefore, the project's contribution to cumulative sand dune impacts would be cumulatively significant and unavoidable.

4.6.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures the project's geology and soils impacts and tsunami and fault hazard impacts, would be reduced to a less-than-significant level, with the exception of cumulative sand dune and tsunami and fault hazard impacts. The project would result in the continuation of recreational activities that result in adverse impacts to onsite sand dunes and occur within tsunami and fault hazard impacts. No feasible mitigation is available to reduce these impacts. Therefore, these impacts would remain significant and unavoidable.

4.7 VISUAL RESOURCES AND NIGHTTIME LIGHTING

This section addresses the aesthetic and visual quality issues related to the implementation of the project. The existing visual and nighttime lighting environment is described first, followed by a discussion of the aesthetic effects of the project, and mitigation measures for any identified significant adverse impacts. The information presented in this Section is based on site reconnaissance visits in April and August 2003, and in October of 2004, and a visit to the Point Reyes National Seashore (across Tomales Bay from the project site) in June 2003.

4.7.1 EXISTING CONDITIONS

VISUAL SETTING

Lawson's Landing is located in the northwest corner of Marin County, near the town of Dillon Beach (Exhibit 3-3). In general, the project site is a peninsula surrounded by the open space areas of adjacent pastures and farmland to the east and the south and the rural coastal community of Dillon Beach to the north. The coastline, Tomales Bay, and the Pacific Ocean are located west of the site. The northernmost extension of the Point Reyes National Seashore is located across Tomales Bay southwest of the project site. The project site is characterized by rolling, grassy hillsides that gradually descend in elevation towards the coastline (west). In some areas the grassy hillsides change into vegetated and unvegetated sand dunes that merge with the coastal beaches.

Views of the Site

The visual characteristics of the 940960-acre project site are diverse and vary depending on the location of a specific observation viewpoint. Aerial views of the project site generally consist of grassy hillsides in the eastern property areas, a large system of migrating sand dunes and meadow areas in the central and northwestern property areas, and coastal beaches and the informal travel trailer community in the western portion of the project site.

Close-range views of the project site are generally limited to areas within the project site and vary depending on the location within the site. Close-range views are generally characterized by beaches, foredunes, meadows, and sand dunes (Photos 1 and 2, Exhibit 4.7-1; Photo 3, Exhibit 4.7-2). Most of the project site is relatively undeveloped with the exception of a small area located in the southwestern corner. This developed area is locally known as Sand Point and is occupied by an informal community of travel trailers, a boathouse, and pier and dock facilities (Photo 4, Exhibit 4.7-2; Photo 5, Exhibit 4.7-3). The development pattern of this area is visually unorganized and is generally clustered into mixed-size groupings of travel trailers. South of the pier is an area where recreational vehicles (RVs) are often parked along the Tomales Bay seawall (Photo 6, Exhibit 4.7-3). Unlike the travel trailer area, this portion of the site is relatively organized in appearance. The RVs are oriented along the seawall and are usually positioned fairly densely, with just a few feet separating each RV in some cases.

Distant views of the hillside areas of the project site are available from the town of Dillon Beach, from portions of Dillon Beach Road east of the site, and from the Point Reyes National Seashore across Tomales Bay during clear weather conditions (i.e., no fog). Views of hillside areas remain largely unchanged throughout the seasons because of the relatively undeveloped nature of these areas. In the winter and spring months the hillsides are relatively green and turn to brown during the summer and fall months.



Photo 1. Looking west from foredunes onsite.



Photo 2. Looking west from interior sand dunes. Meadow areas visible in foreground, foredune visible in background. Point Reyes National Seashore visible in distant background.

Source: EDAW 2004

Representative Photographs

EXHIBIT 4.7-1



Photo 3. View southwest from interior dunes. Wetlands and meadow area in middleground, Sand Point in background. Tomales Bay visible in distant background.



Photo 4. Easton Boathouse at Lawson's Landing.

Source: EDAW 2004



Photo 5. Travel Trailer Community at Sand Point.



Photo 6. Seawall

Source: EDAW 2004

Representative Photographs

EXHIBIT 4.7-3

Views of the sand dunes are largely consistent throughout the site. In general, the sand dunes are partially vegetated near their eastern margins with hillside areas and are relatively devoid of vegetation the closer their location to the coastline (Photos 7 and 8, Exhibit 4.7-4; Photo 9, Exhibit 4.7-5), except for the barrier dunes immediately behind the beach, which are vegetated. The sand dunes are prominent visual features of the site and are visible from the coastal areas of the project site, the town of Dillon Beach to the north, and from the Point Reyes National Seashore southwest of the site.

Distant views of the main meadow areas, foredunes, and beach areas of the project site are available from the hillside areas of Dillon Beach (Photo 10, Exhibit 4.7-6), from the interior sand dune areas of the project site (Photo 11, Exhibit 4.7-7), and from Point Reyes National Seashore. Views of the main meadow and beach areas of the site are not available from the hillside areas of Dillon Beach Road (east of the site) because of the intervening topography and the presence of tall vegetation. During some times of the year, wetlands are present in the main meadow areas (i.e., deflated sand dune areas) (Exhibits 4.7-2 and 4.7-4). During the winter and spring months the meadow areas are green and turn a golden brown during the dry summer months. The foredunes are somewhat vegetated with European beachgrass and present a visual barrier between the main meadow areas and the beach. The foredunes are approximately 20–25 feet high, are located in a north-south orientation, and line the project site from the gatehouse entrance to Sand Point.

Town of Dillon Beach

The town of Dillon Beach is located on a steep hill immediately north and west of the project site. On the north end of town, the Oceana Marin subdivision consists of coastal saltbox-style homes and like the project site is primarily surrounded by open space areas devoted to agriculture. Closer to the project site in the southern portions of Dillon Beach, the old town (village) area features densely packed, brightly painted beach cottages from the 1930s with very small lots and narrow streets reminiscent of a New England fishing village. Separating the village from the project site is Lawson's Dillon Beach Resort, which includes a store, parking area, travel trailers, and a 4.1-acre public beach area (Marin County 1989). A collection of residential homes are located along Cliff Street, just south of Dillon Beach Resort and north of the project site (Photo 12, Exhibit 4.7-7). Views of the project site are available from several hillside areas in the town of Dillon Beach and are described in greater detail below (Viewpoint 1).

Point Reyes National Seashore

Located across Tomales Bay to the southwest of the project site is the northernmost portion of the 100-square-mile Point Reyes National Seashore, operated by the National Park Service. The Tomales Point Section of the national seashore is located approximately 1/2-mile south-southwest of Sand Point near the mouth of Tomales Bay. This area is characterized by grassy hills and bluffs featuring non-native Monterey Cypress trees and "Blue Gum" eucalyptus trees; it is also home to a 2,600-acre tule elk reserve, where one of the largest herds in California is protected (National Park Service 1998). Views of the project site are available from Tomales Point and are described in greater detail below (Viewpoint 2).

Representative Viewpoints

The representative viewpoints for this analysis were selected based on their ability to view the primary areas of the project site that would be physically altered through implementation of the Lawson's Landing Master Plan. These areas are generally limited to the western sand dune/meadow margin, the main meadow area, and Sand Point. Views of these areas of the project site are available from various locations within the town of Dillon Beach, from the Point Reyes National Seashore across Tomales Bay, and from various areas within the project site. Open views of these areas are generally limited to hillside areas that



Photo 7. Looking east towards interior sand dunes from meadow area.



Photo 8. Looking south of sand dune/meadow margin.

Source: EDAW 2004

Representative Photographs

EXHIBIT 4.7-4



Photo 9. Looking southwest from interior sand dunes.

Source: EDAW 2004



Photo 10. Coastal areas of project site looking south from hillside areas of Dillon Beach.

Source: EDAW 2004

Representative Photograph

EXHIBIT 4.7-6

Lawson's Landing Master Plan Draft EIR
P 02110069.01 011/04

EDAW



Photo 11. Main meadow area looking west from interior dunes.



Photo 12. Looking south from Dillon beach. Residences along Cliff Street are visible in the middleground.

Source: EDAW 2004

Representative Photographs

EXHIBIT 4.7-7

provide an elevated view of the project site. The primary areas of the project site that would be altered are not visible from the hillside areas to the east of the project site along Dillon Beach Road because of intervening terrain and tall vegetation. Therefore, this viewpoint is not considered in this analysis.

Three representative viewpoints were selected for this analysis (Exhibit 4.7-8). Site photographs were taken to document representative views of the project site from these viewpoint locations and are described in Exhibit 4.7-8 and shown in Photos 13 through 15 (Exhibits 4.7-9 through 4.7-11).

Viewpoint 1—Town of Dillon Beach

This viewpoint is located north of the project site within the Town of Dillon Beach, along Ocean View Drive (Photo 13, Exhibit 4.7-9). The beach, foredunes, and main meadow areas of the project site are visible from this viewpoint. The San Point area is visible in middle-ground adjacent to Tomales Bay. The vegetated hillside areas of the Point Reyes National Seashore are visible in the background. In general, the expansive meadow area dominates the viewshed from this viewpoint, while the Point Reyes National Seashore dominates background views. The day use RVs and travel trailers are visible throughout the site.

Viewpoint 2—Tomales Point Area of Point Reyes National Seashore

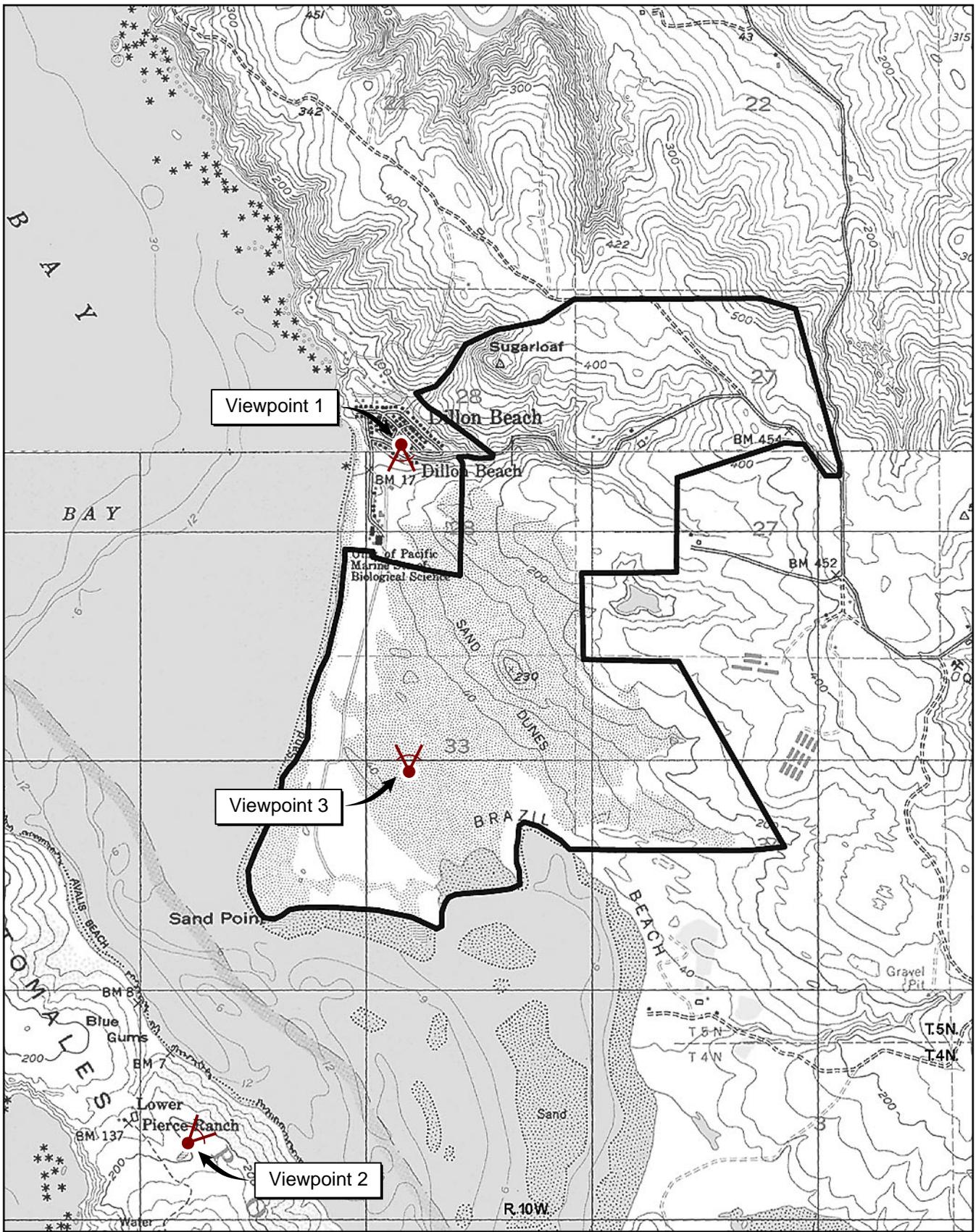
This viewpoint is located across Tomales Bay at the Tomales Point Tule Elk Reserve of the Point Reyes National Seashore (Photo 14, Exhibit 4.7-10). The photograph was taken from the recreational trail in early June, when fog and low overcast prevailed throughout most of the day. The coastal and meadow areas of the project site are visible in the middle-ground, while the interior sand dunes and hillside areas are visible in the background, although views are often somewhat obscured because of the presence of fog. The boathouse, pier, RVs along the sea wall, and the community of travel trailers are clearly visible in the middle-ground in the center of the photo. These areas generally form a long linear feature located along the coastline of Tomales Bay. Portions of the vegetated foredunes are visible north (left) of the travel trailers. The main meadow area and the interior sand dunes are visible east (behind) of the developed areas of Sand Point. In general, views of the hillside areas of the Point Reyes National Seashore (foreground) and the unvegetated interior sand dunes (background) dominate this viewpoint because of their larger land area in comparison to the developed portions of Sand Point and the main meadow area.

Viewpoint 3—Sand Point

This viewpoint is located in the Sand Point area of the project site and provides views of the main meadow, foredunes, and hillside areas of Dillon Beach (Photo 15, Exhibit 4.7-11). The predominant features of this viewpoint are of undeveloped main meadow areas (foreground and middle-ground), and the developed areas of Dillon Beach (background).

Nighttime Lighting

Because of the rural character of the areas around Dillon Beach and the project site, minimal lighting exists on the project site. Existing nighttime lighting sources at the project site consist of interior and limited exterior perimeter lighting from onsite residences, and the minimal lighting associated with the travel trailers. Nighttime lighting sources are generally concentrated near Sand Point. No formal lighting systems (i.e., street lights) are located onsite. One pole-mounted light is located near the boathouse facility at Sand Point. The majority of the project site is undeveloped and used for grazing and sand quarrying, and therefore does not generate any nighttime lighting. In general, the individual light sources are apparent, but an overall nighttime glow does not occur from the project site.



Source: USGS Valley Ford and Tomales Quads 1954 (photorevised 1971) – Contour Interval 20/40 Feet

Representative Viewpoint Locations

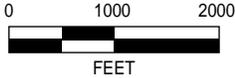




Photo 13. Coastal areas of project site looking south from hillside areas of Dillon Beach.

Source: EDAW 2004

Representative Photograph – Viewpoint 1

EXHIBIT 4.7-9



Photo 14. Looking Northwest from Point Reyes National Seashore

Source: EDAW 2004



Photo 15. Looking north from Sand Point area of project site.

Source: EDAW 2004

In the project vicinity, the town of Dillon Beach is the dominant nighttime lighting feature because of its relatively developed nature in comparison to the project site. Nighttime lighting sources in Dillon Beach consist of pole-mounted street lighting, and interior and perimeter lighting associated with local residences. Although the town of Dillon Beach is more developed than the project site, overall nighttime glow from individual lighting sources in Dillon Beach is limited.

REGULATORY BACKGROUND

Federal Agency Methods for Evaluating Visual Resources

Two federal agencies have well-established methods for evaluating visual resources and project-related effects on those resources: the U.S. Forest Service (USFS) and the Federal Highway Administration (FHWA). Although these methodologies are not required for this project, they provide useful principles for visual impact assessment. Visual impact assessment involves consideration of several elements, including the visual resources of the region and the immediate area, important viewing locations (e.g., roads) and the general visibility of potentially distracting elements, and viewer groups and their sensitivities. The visual character and quality of the region and a particular area are assessed based on three criteria:

- ▶ Vividness is the visual power or memorability of landscape components as they combine in striking or distinctive visual patterns.
- ▶ Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes as well as natural settings.
- ▶ Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the artificial landscape.

The appearance of the landscape is assessed using these criteria and descriptions of the dominance of elements of form, line, color, and texture. These elements are the basic components used to describe the visual character and quality (U.S. Forest Service 1974, Federal Highway Administration 1983).

Another important element of visual impact assessment is viewer sensitivity or concern. Viewer sensitivity is gauged based on the visibility of resources in the landscape, the proximity of viewers to the visual resource, the elevational position of viewers relative to the visual resource, the frequency and duration of views, the number of viewers, and the type and expectations of individuals and viewer groups.

The criteria for identifying the importance of views are related in part to the position of the viewer relative to the resource. An area of the landscape that is visible from a particular location (e.g., an overlook) or series of points (e.g., a road or trail) is defined as a viewshed. To identify the importance of views, a viewshed may be divided into distance zones (i.e., foreground, middle-ground, and background). Generally, the closer a resource is to the viewer, the more dominant it is and the greater is its importance to the viewer. Although distance zones in viewsheds may vary between different geographic regions or types of terrain, a commonly used set of criteria identifies the foreground distance zones as 0.25–0.5 mile from the viewer, the middle-ground zone as extending from the foreground zone to 3–5 miles from the viewer, and the background zone as extending outward beyond the middle-ground zone (U.S. Forest Service 1974).

Visual sensitivity also depends on the number and type of viewers and the frequency and duration of views. Generally, visual sensitivity increases with an increase in total number of viewers, the frequency of

viewing (e.g., daily or seasonally), and the duration of views (i.e., how long a scene is viewed). Also, visual sensitivity is higher for views seen by people who are driving for pleasure; people engaged in recreational activities such as hiking, biking, or camping; and residents. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work (U.S. Forest Service 1974, Federal Highway Administration 1983, U.S. Soil Conservation Service 1978). Views from recreational trails and areas, scenic highways, and scenic overlooks are generally assessed as having high visual sensitivity.

California Scenic Highway Program

The intent of the California Scenic Highway Program is “to protect and enhance California’s natural scenic beauty and to protect the social and economic values provided by the State’s scenic resources” (California Department of Transportation 2001a). The California Department of Transportation (Caltrans) administers the program, which was established in 1963 and is governed by the California Streets and Highways Code (Section 260 et seq.). The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are eligible for designation as scenic (California Department of Transportation 2000, 2001b).

A county or city may nominate an eligible highway for designation as a scenic highway if it meets certain criteria based on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the view. To nominate such a highway, the local jurisdiction, with citizen participation, must submit a scenic corridor protection program to the Caltrans Departmental Transportation Advisory Committee that includes the following components:

- ▶ regulation of land use and density of development,
- ▶ detailed land and site planning,
- ▶ control of outdoor advertising,
- ▶ attention to and control of earthmoving and landscaping, and
- ▶ attention to the design and appearance of structures and equipment (California Department of Transportation 2001c).

Scenic highway designation can provide several types of benefits to the county. Scenic values are protected because the County must protect scenic areas from encroachment of inappropriate land uses, prohibit billboards, regulate grading to cause minimal alteration of existing contours and preserve important vegetative features, allow only low-density development on steep slopes and along ridgelines, and require noise setbacks for residential development. Designation as a scenic highway may also enhance land values and promote local tourism (California Department of Transportation 2001c).

There are no designated state or county scenic highways in the vicinity of the project area; State Route 1 (SR 1) is an eligible state scenic highway, but has not been officially designated as scenic (California Department of Transportation 1999).

Marin County Goals and Policies

Several goals and policies related to visual quality are included in the Countywide Plan (1994). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plan Consistency.”

Dillon Beach Community Plan

Several policies related to visual quality are included in the Dillon Beach Community Plan (1989). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plan Consistency.”

4.7.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on the Initial Study Checklist, Appendix G of the State CEQA Guidelines, the project would have a significant impact on visual (aesthetic) resources if it would:

- ▶ have a substantial adverse effect on a scenic vista;
- ▶ substantially damage scenic resources, including, but not limited to, trees, rock outcrops, and historic buildings within a state scenic highway;
- ▶ substantially degrade the existing visual character or quality of the site and its surroundings; or
- ▶ create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994), the project would have a significant impact related to aesthetics, visual resources, and light and glare if it would:

- ▶ not comply with County goals and policies related to visual quality;
- ▶ significantly alter the existing natural viewsheds, including changes in natural terrain or vegetation;
- ▶ significantly change the existing visual quality of the region or eliminate substantial visual resources;
- ▶ significantly increase light or glare in the project vicinity; or
- ▶ significantly reduce sunlight or introduce shadows in areas used extensively by the public.

As mentioned previously, an analysis of the project’s consistency with County goals and policies, including those related to visual quality, is included in Section 4.2, “Land Use Plan Consistency.”

PROJECT IMPACTS

Impact 4.7-1: Potential Adverse Effects on Scenic Vistas and Damage to Scenic Resources.

Although the project would add minor new elements to the visual landscape at Lawson’s Landing, the overall visual quality would not be substantially altered. Further, proposed facilities would be consistent with existing land uses and facilities at the site such that the overall visual quality and integrity, or intactness of the project site would not be affected. Therefore, impacts related to scenic vistas and resources of the project area would be *less than significant*.

A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. The coastal beach areas, natural sand dunes, and hillside areas of the project could be considered a local scenic vista because the local and regional availability of large undeveloped coastal areas with natural sand dune habitat are relatively rare. In general, the project would result in minor modifications of the landscape of the project site primarily concentrated near Sand Point, in the main meadow area, and at the developed gatehouse.

A wastewater treatment system and leachfield would be constructed in the westernmost dune near the center of the project site. These facilities would be primarily located underground within the existing dune system. The proposed leachfield would require the vegetation of the western face of the sand dune. This area would be approximately 5 acres in size and would be located adjacent and south of other vegetated sand dune areas. In general, the shape and form of the dune would remain in tact; however, the surface of the dune would be vegetated with similar vegetation that is currently present onsite. Large expansive areas of unvegetated sand dunes are present to the east of the proposed leachfield location. When viewed in combination with other sand dune areas of the project site, the proposed vegetated dune area for the leachfield would not substantially change the visual character of the project site or the overall character of the migrating dune system. The overall visual quality and integrity, or intactness, of this area of the project site would not be affected.

Several pedestrian paths are proposed throughout the foredune system to provide access to the shoreline areas of the project site. These paths would be sited to avoid and protect sensitive coastal habitats and would rotate in location to avoid excessive erosion of the dunes. Signage and some small scale fencing would be constructed. Although the signage and fencing would be new visual elements in the foredune area they would not substantially alter the visual experience of visitors to Lawson's Landing, nor would they be visible from distant locations. Scenic views would not be obstructed or otherwise altered with the addition of the pedestrian paths.

The project would reconstruct the existing gatehouse facility at the project site. In general, these modifications would involve widening of the gatehouse entry point, greater paving of ingress and egress access lanes, and a newer, slightly large gatehouse building. These improvements would be located in the same general location at the existing gatehouse and would not require the development of large areas of open space. Further, the proposed improvements would be consistent with the size, scale, and design of existing gatehouse facilities. Views of the proposed gatehouse from nearby residences and distant locations (i.e., hillside areas of Dillon Beach) would be substantially unchanged from existing conditions. Scenic views would not be obstructed or otherwise altered with the construction of a new gatehouse facility.

Although the project would add minor new elements to the visual landscape at Lawson's Landing, the overall visual quality would not be substantially altered. Further, proposed facilities would be consistent with and would compliment existing land uses and facilities at the site such that the overall visual quality and integrity, or intactness of the project site would not be affected. Therefore, impacts related to scenic vistas and resources of the project area would be less than significant.

Impact 4.7-2: Damage to Scenic Resources within a State Scenic Highway. No state designated scenic highways are located within the vicinity of the project site. Therefore, implementation of the project would not result in damages to scenic resources along a state scenic highway. This would be a *less-than-significant* impact.

A scenic resource is generally a resource, landmark, or area that has been noted for its outstanding scenic qualities and is thereby protected because of those qualities. A scenic resource within a state scenic highway is a resource that is noted for its outstanding scenic qualities and is visible from a state-designated scenic highway. There are no scenic state-designated highways or eligible routes, or City or County designated roadways in the immediate project area. The nearest eligible state scenic highway is State Route 1, greater than 2 miles east of the project site. The project site is not visible from State Route 1. Therefore, the project would have a less-than-significant impact on scenic resources within a state-designated highway.

Impact 4.7-3: Alteration of Visual Character of the Project Site. Implementation of the project would result in the conversion of small areas of the project site with new facilities that would support onsite land uses. In general, these facilities would be consistent with existing onsite facilities and would better serve existing onsite land uses. The overall visual quality of the site would not be substantially changed. Because no facilities are proposed that would obstruct or substantially alter views of the project site from on and offsite locations, and the project would not substantially change the visual character of the project site, this would be a *less-than-significant* impact.

The project site primarily consists of a mix of recreational, open space, and agricultural land uses. Implementation of the project would result in the conversion of small areas of the project site with new facilities that would support onsite land uses and includes 2 homes, recreational facilities (i.e., gatehouse, restrooms, boathouse, water storage tanks), and a new wastewater treatment system. In general, these facilities would be consistent with existing onsite facilities and would better serve existing onsite land uses (refer to Impact 4.7-1 above). The number of travel trailers would be unchanged from current conditions.

Construction of proposed facilities would primarily occur near the gatehouse (including new gatehouse facility, ~~mobile home~~, and 2 water storage tanks), in the main meadow area (new restroom facilities, [mobile home](#), fire hydrants) and at Sand Point (wastewater treatment system, new boat house). The project would not concentrate development in any one area of the project site such that it results in a substantial alteration of the project area. Proposed facilities would be similar in character, height, and scale to existing facilities at the site and would not block on or offsite views of the project site.

Some of the project facilities (i.e., restrooms, boathouse, and water storage tanks) would be visible within the project site and to a lesser extent from areas with clear direct views of the project site (i.e., hillside areas of Dillon Beach and Point Reyes National Seashore). With implementation of the project, views of the boathouse from Point Reyes National Seashore would be less prominent because the boathouse would be relocated to the east away from this viewpoint (Photo 14, Exhibit 4.7-10). Views of the developed and undeveloped areas of the project site would be substantially unchanged from this viewpoint.

Limited views of the proposed restroom facilities [and mobile home](#) in the main meadow area would be available from hillside areas of Dillon Beach, but these facilities would not dominate the viewshed. The restrooms would be located immediately adjacent to the road rather than in the middle of the meadow, so the visual quality of the meadow and of views toward the dunes and foredunes would remain unchanged. Although the project would add new man-made elements to the meadow area of project site, it would not significantly intensify the appearance of existing onsite land uses.

The proposed water storage tanks would be visible from hillside areas of Dillon Beach east of the main entrance road. These facilities would be of comparable size as the existing onsite water storage tank and would blend in with the existing terrain. [The applicant has indicated that the proposed water storage tanks would be constructed of similar materials as existing water storage tanks and would be painted or designed to blend in with the surrounding landscape. The existing storage tanks are barely perceptible from off-site areas \(see Photo 13 on page 4.7-12\) and the construction of two new tanks while slightly larger would not introduce a new substantial feature in overall viewshed from off-site areas. Therefore, the visual impacts associated with the water storage tanks would be less than significant.](#)

Pedestrian trails would be constructed through the foredune system, and other improvements would be implemented (i.e., interpretive signage) to further recreational use of the site. These facilities would not be visible from offsite locations and would only be visible in onsite areas that are immediately adjacent to the proposed trails. Further, these facilities would not be permanent features and would rotate throughout

the site. The overall visual quality of the site would be maintained. Because no facilities are proposed that would obstruct or substantially alter views of the project site from on and offsite locations, and the project would not substantially change the visual character of the site, this would be a less-than-significant impact.

Impact 4.7-4: Alteration of Nighttime Views. The project would introduce minor new sources of nighttime lighting in the project area, which would not cause a substantial visual change because these lighting sources would be limited, would not be concentrated in any one area of the project site, and would not combine with existing lighting sources to intensify nighttime glow at the site. As with existing conditions, the individual light sources would be discernible more than an overall glow or atmospheric illumination, including in overcast conditions. Therefore, nighttime lighting impacts would be *less than significant*.

Under current conditions, the project site contains only a few scattered residences in the northern portion of the site, the gatehouse facility near the entrance to the site, and the travel trailer community at Sand Point. These land uses are only minor contributors to existing sources of light, glare, or light trespass into the night sky in the project vicinity. Implementation of the project would require the installation of some new lighting sources in the South Ranch area of the property and adjacent to proposed restroom facilities in the main meadow area of the project site. The proposed lighting in the South Ranch area would be pole-mounted and would provide downward directional lighting near existing buildings. Lighting associated with the proposed restrooms would either be attached to a pole next to each restroom facility or attached directly to the restroom structures (i.e., perimeter lighting). The project sponsor proposes to install lighting fixtures that would be focused downwards to avoid the upwards casting of light. Area, or flood lighting, is not proposed.

The minimal proposed lighting sources would emit a level of illumination that is similar to the intensity of existing onsite lighting sources. Further, proposed lighting sources would not dominate nighttime views of the project site or the surrounding project vicinity. Although the project would introduce new sources of nighttime lighting in the project area, it would not cause a substantial visual change because these lighting sources would be limited, would not be concentrated in any one area of the project site, and would not combine with existing lighting sources to intensify nighttime glow at the site, including during overcast conditions. As with existing conditions, the individual light sources would be discernible more than an overall glow or atmospheric illumination. Therefore, nighttime lighting impacts would be less than significant.

CUMULATIVE IMPACTS

Impact 4.7-5: Cumulative Visual Impacts. Implementation of cumulative projects would result in a minor decrease in undeveloped open space and a minor increase in night lighting in the West Marin area. Because of their distance from the project site and their relatively small scale, none of the cumulative projects have the potential for combined visual effects with the project. Further, because the project would not substantially change day or nighttime views of the project site from surrounding viewpoints, the project would not result in a substantial incremental contribution to this cumulative visual impact. This would be a *less-than-significant* impact.

Cumulative visual quality impacts are assessed in relation to other nearby projects and other types of development. Cumulative visual quality impacts often occur when areas of undeveloped land are developed resulting in substantial and adverse changes to the existing visual character and viewsheds in the vicinity of the project. In the case of this analysis, the area of potential cumulative visual effect was considered to be the scenic vistas and viewsheds of the project site, Point Reyes, and Tomales Bay as seen

from within and around the project site. Scenic vistas and viewsheds of the project site, Point Reyes, and Tomales Bay would not be obstructed or otherwise altered with implementation of the project.

All of the planned and proposed cumulative projects are located in other communities (i.e., Marshall and Point Reyes) and would only be minor expansions, or continuations, of the existing uses at those sites. The project in combination with cumulative projects would only result in a minor decrease in regional open space and minor increase in nighttime lighting and would not result in the substantial loss of visual quality resulting from considerable reductions in open space. The visual effects of cumulative projects would be perceived as independent of, rather than combined with, the project, because of the separation in distance. Further, because the project would not substantially change day or nighttime views of the site from surrounding viewpoints, the project would not result in a substantial contribution to this cumulative visual impact. Therefore, the project's cumulative visual impacts would be less than significant.

4.7.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.7-1: No mitigation measures are required.

Mitigation Measure 4.7-2: No mitigation measures are required.

Mitigation Measure 4.7-3: No mitigation measures are required.

Mitigation Measure 4.7-4: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.7-5: No mitigation measures are required.

4.7.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The project's visual impacts would be less than significant. No mitigation is required.

4.8 TRANSPORTATION AND CIRCULATION

This section describes the existing transportation conditions in the project area, identifies potential impacts to the local transportation system resulting from implementation of the project and proposes mitigation measures to offset those identified impacts where necessary. This section analyzes the traffic conditions during the peak hours for study area intersections and highway. Parking, bicyclist safety, pedestrian safety, and emergency vehicle access issues are also analyzed. There are no public transit services to Dillon Beach or the local area. Therefore, impacts to public transportation facilities are not considered further in this analysis.

Whitlock & Weinberger Transportation, Inc. (W-Trans) conducted a review of traffic analyses previously prepared for the Lawson's Landing Master Plan. W-Trans reviewed the following reports:

- ▶ *Draft Lawson's Landing Environmental Assessment*, Western Ecological Services Company, Inc., August 7, 1991 (traffic study performed by Goodrich Traffic Group) (WESCO 1991);
- ▶ *Lawson's Landing Master Plan Traffic Study*, Crane Transportation Group, September 1993 (an update of the 1991 study) (Crane Transportation Group 1993); and
- ▶ "Draft Negative Declaration of Environmental Impact, Lawson's Landing Master Plan, Coastal Permit, and Tidelands Permit," Marin County Community Development Agency memorandum, September 20, 2000 (Marin County Community Development Agency 2000).

The transportation analysis presented in this section follows review and incorporation, where appropriate, of data from the above transportation studies and the overall review conducted by W-Trans (October 27, 2004) (Appendix I). A copy of each traffic study is available for review at the Marin County Community Development Agency, 3501 Civic Center Drive, San Rafael, California.

4.8.1 EXISTING CONDITIONS

SITE DESCRIPTION

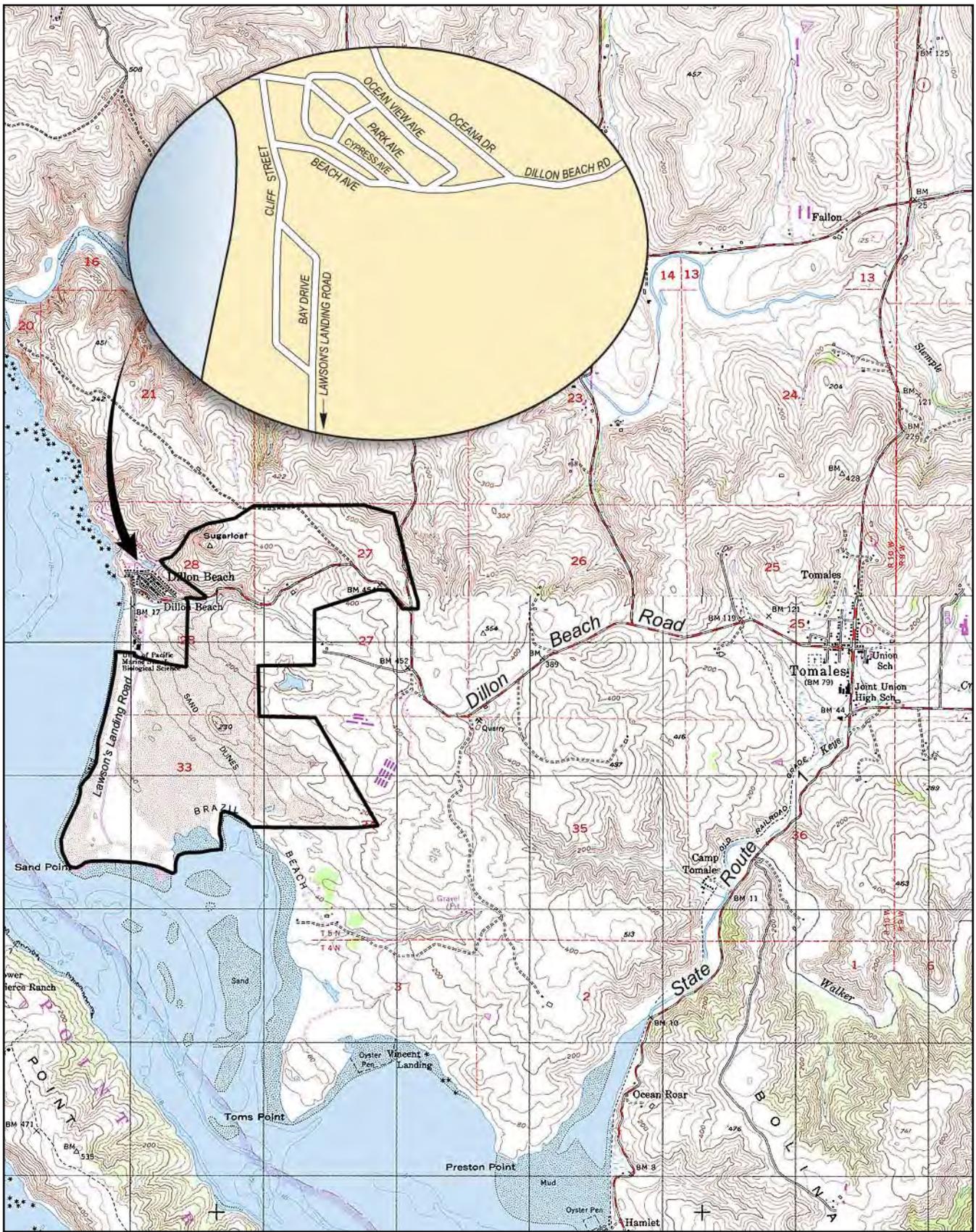
The project site is located south of Dillon Beach along Dillon Beach Road. Roadways in the vicinity of the project site include Dillon Beach Road, Oceana Drive, Valley Ford-Franklin School Road, Middle Road, and State Route (SR) 1.

Project Site Access

Regional access to the project site is provided by SR 1, also known as the Shoreline Highway. Local access to the community of Dillon Beach and the project site is provided by Dillon Beach Road. Descriptions of the local roadways are provided below. Exhibit 4.8-1 illustrates the roadway network serving the project area.

State Highways

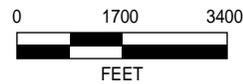
SR 1 is the only major regional highway located in the vicinity of the project site. SR 1 is a well-paved, two-lane roadway that passes through Tomales approximately 3 miles east of the site. SR 1 does not incorporate any traffic controls (e.g., signals, left-turn lanes) beyond stop signs on intersecting streets in the project area. Vehicle speeds along SR 1 near the project site range from 25 to 35 miles per hour (mph).



Source: USGS Valley Ford and Tomales Quads 1954 (photorevised 1971) – Contour Interval 20/40 Feet

Project Area Roadway Network

EXHIBIT 4.8-1



Arterials

Dillon Beach Road extends approximately 4 miles east from the Pacific coastline to SR 1 in Tomales. In general, this roadway has two well-paved lanes, a curving alignment, and moderate grades. Dirt shoulders are provided at infrequent intervals. Vehicle speeds along Dillon Beach Road range from 25 to 40 mph near the project site. Valley Ford-Franklin School Road and Middle Road both intersect Dillon Beach Road between Dillon Beach and Tomales. In the past, Dillon Beach Road has experienced erosion and pavement collapse near the coastline, which has temporarily limited travel to one-way flow over short segments until repairs are made.

Collectors and Local Roadways

At the entrance to Dillon Beach, Oceana Drive intersects Dillon Beach Road and extends northerly into the Oceana Marin residential development. Oceana Drive is stop sign controlled at its “T” intersection with Dillon Beach Road.

Dillon Beach Road extends to the west of the Oceana Drive intersection into the older section of the community of Dillon Beach where it changes names to Beach Avenue for three blocks, then changes names again to Cliff Street as it makes a 100-degree turn to the south. Beach Avenue has a varying 20- to 24-foot paved width with often minimal roadway shoulders. Because of its narrow alignment, on-street parking is prohibited. Even with no on-street parking, vehicles traveling in opposite directions must slow to 10 mph or less when passing. Several narrow roadways intersect Dillon Beach Road and Beach Avenue within the older part of the community. Small single-family residential units line each street. The availability of on-street parking varies depending on the individual street width.

Cliff Street extends to the south from Dillon Beach to Lawson’s Landing. Within Lawson’s Landing the roadway changes names to Bay Drive. Cliff Street is a narrow, well-paved two-lane roadway with moderate to flat grades. Cliff Street also incorporates two sharp curves near the entrance to Lawson’s Landing. Bay Drive is a narrow, poorly paved roadway with a generally flat alignment. One sharp S-curve is located along Bay Drive near the recreational trailers at Sand Point.

The entrance gate to Lawson’s Landing is located along Cliff Street. During peak recreation periods (e.g., summer, holidays), vehicles entering Lawson’s Landing will often queue at the entrance gate. These vehicles will sometimes back up as far as Dillon Beach resulting in traffic congestion along Cliff Street. Residents living in Dillon Beach have expressed concern on numerous occasions (including during the NOP review process) with existing traffic congestion because it limits their ability to leave or enter their homes and Dillon Beach. Existing vehicle queuing at the entrance gate also limits the ability of emergency vehicles to enter the Dillon Beach area including Lawson’s Landing.

Definitions of Levels of Service

The level of service (LOS) was determined for specific roadway segments in the project area roadway system to evaluate the quality of existing traffic conditions. LOS is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The LOS grades are generally defined as follows:

- ▶ LOS A represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver.

- ▶ LOS B has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.
- ▶ LOS C has stable operating conditions, but the operation of individual users is substantially affected by the interaction with others in the traffic stream.
- ▶ LOS D represents high-density, but stable flow. Users experience severe restrictions in speed and freedom to maneuver, with poor levels of comfort and convenience.
- ▶ LOS E represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
- ▶ LOS F is used to define forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

Marin County does not currently have data related to LOS capacities for roadway segments in the project area (Brook, pers. comm., 2004). For this reason, the LOS capacity for select roadway segments was determined by previous traffic studies for projects located in the Dillon Beach area that estimated the LOS capacities. For Dillon Beach Road, LOS E capacity was estimated at 1,000 two-way vehicles per hour (vph), LOS D is approximately 850 vph, and LOS C is approximately 700 vph. These estimates have not been challenged by the California Department of Transportation (Caltrans) or by the Marin County Public Works Department. For this reason, the previously estimated LOS capacities will be used in this analysis.

Existing Roadway Volumes

At Lawson’s Landing there are six maximum-use weekends per year that correspond with three summer holidays and three springtime low tide events. Traffic volumes on Dillon Beach Road and Cliff Street were included in the 1991 and 1993 traffic studies (Goodrich Traffic Group in WESCO 1991, Crane Transportation Group 1993) prepared for the Lawson’s Landing Master Plan. Table 4.8-1 includes a summary of the actual volumes for the Friday evening and Sunday afternoon peak periods from the earlier transportation studies as well as 2003 volumes collected by W-Trans. The highest volume from the three sources is indicated in boldface type. Both roadways would operate at LOS C or better based on observed two-way traffic volumes.

Source	Year	Dillon Beach Road				Cliff Street			
		Friday P.M. Peak		Sunday P.M. Peak		Friday P.M. Peak		Sunday P.M. Peak	
		EB	WB	EB	WB	EB	WB	EB	WB
Goodrich	1991	36	107	250	91	45	68	247	68
Crane	1993	75	83	190	110	85	105	185	115
W-Trans	2003	92	119	236	122	62	102	194	119
Ratio to 2003 counts		47%	64%	48%	64%	69%	13%	61%	30%

Notes: The Sunday peak period for the Goodrich study was 2-3 p.m.; the Sunday peak period was 1:30-2:30 for the Crane study, and 1-2 p.m. based on 2003 counts. Traffic counts obtained during summertime.
 EB = eastbound; WB = westbound
 ** = projected volume

Trip Generation

Trip generation for existing uses at Lawson's Landing were determined through the use of standard rates provided in the *Trip Generation* (6th Edition 1997), published by the Institute of Transportation Engineers. Standard rates are provided for single family dwellings and mobile homes, but limited information is available for campsites. Because trip generation rates for mobile homes and campsites are based on occupied units, an iterative application of these rates to various levels of occupancy together with estimates of trips associated with day users was adopted to balance the trip generation against the actual volumes obtained during traffic counts taken in July 2003 by W-Trans. A summary of the existing trip generation for Lawson's Landing is provided in Table 4.8-2, as described below, which represents the Lawson's Landing project operating during typical summertime conditions.

Land Use	Units	Daily		Weekday P.M. Peak Hour				Sunday Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Residences	10	9.57	96	1.01	10	6	4	0.94	9	5	4
Mobile homes	100	4.81	481	0.56	66	41	25	0.54	63	33	30
Campsites	200	n/a	955	0.39	78	51	27	n/a	130	35	95
Day users	200	n/a	400	n/a	10	4	6	n/a	111	46	65
Existing Site Total			1,932		164	102	62		313	119	194
<p>* Rates for mobile homes and campsites are based on occupied units; occupancy levels assumed to coincide with actual current (2003) daily and peak hour volumes on Cliff Street</p> <p>n/a Rates for day users and weekend rates for campsites are not available; these volumes were estimated to coincide with actual current (2003) volumes on Cliff Street.</p> <p>Source: Fehr and Peers 2004</p>											

As shown in Table 4.8-2, traffic counts were taken in July 2003 during weather conditions that would be expected to reflect a typical summertime day and typical peak summertime recreation conditions. Based on the actual traffic volumes obtained directly outside the entrance gate (164 p.m. peak hour trips on a Friday evening), the number of occupied campsites and day users were calculated by subtracting the trips for the 10 existing residential units on the project site and using standard trip generation rates for each land use (e.g., campsite, day use). Based on these calculations it was determined that approximately 200 campsites were occupied and 200 day users were present. In addition, based on historical occupation rates for the mobile homes, 100 mobile homes were occupied.

During peak weekend usage, such as 4th of July weekend, traffic volumes (and associated campsite and recreational trailer occupation rates) would be expected to temporarily increase for a short period. This increase, however, is not representative of typical summertime traffic conditions and would not be appropriate for determining the traffic impacts of the project. Nonetheless, it is acknowledged that traffic volumes along Dillon Beach Road and Cliff Street could be substantially greater than observed values in Table 4.8-2 during a holiday weekend and these traffic volumes could result in increased congestion of these roadways.

Intersections

Vehicle turning movement counts were not conducted at intersections in the project area and there are no signalized intersections in the project area. However, existing traffic volume counts were conducted during peak hours (Friday p.m. and Sunday p.m.) for Dillon Beach Road, Oceana Drive, and Cliff Street. These traffic volume counts were then distributed onto the local roadways in a manner consistent with traffic distribution patterns determined in the Dillon Beach Community Plan (Marin County 1989). The

traffic volume counts were used to determine the overall effect of vehicle trips on the roadway system, including intersections. The traffic volume counts and distribution of those vehicle trips onto the local roadways included the following intersections:

- ▶ SR 1/Dillon Beach Road,
- ▶ Dillon Beach Road/ Middle Road,
- ▶ Dillon Beach Road/Valley Ford-Franklin School Road,
- ▶ Dillon Beach Road/Oceana Drive, and
- ▶ Dillon Beach Road/Dillon Beach downtown.

Emergency Access

SR 1 and Dillon Beach Road are the primary roads used by emergency vehicles for access to Lawson's Landing. Emergency vehicles currently have access to the site from Cliff Street via Dillon Beach Road at the entrance to Lawson's Landing. "Emergency only" access is also provided by Sand Haul Road, which is a roadway that provides access from Dillon Beach Road to onsite sand quarrying activities and also provides access to the recreational areas of the site (Exhibit 3-10). Based on conversations with staff of the fire department, use of Sand Haul Road has never been required for emergency purposes (Brown, pers. comm., 2003). Sand Haul Road is one lane and includes sections of narrow, steep grades and hazardous dropoffs. Visibility is poor in some locations along San Haul Road, especially during foggy conditions. As described previously, existing vehicle queuing at the entrance gate also limits the ability of emergency vehicles to enter the Dillon Beach area including Lawson's Landing. On occasion a helicopter is required to land on the project site to respond to an emergency. In general, helicopters are directed to land in the open meadow areas of the project site.

Parking

There are no formalized (i.e., striped and designated) parking spaces at the project site. Parking for recreational vehicles is provided along the seawall at San Point. Residents or visitors to the trailer park typically park their vehicles adjacent to the trailer they reside in, if space allows. Some limited parking is available near the boat house. Campers and day use vehicles typically park in the meadow area along Bay Drive.

Pedestrian and Bicycle Circulation

Public access to the project site is provided across the northwestern boundary of the property as shown in Exhibit 3-6. Pedestrian access to the project site is provided along the beach from Dillon Beach and at the gatehouse entrance to Lawson's Landing. No formal pedestrian sidewalks or paths are provided onsite. Pedestrian access at the gate house is combined with the vehicle access point. Therefore, pedestrians and vehicles must share access to the site. Informal trails and pedestrian paths are provided throughout the foredunes to allow pedestrians to travel from the meadow areas of the site to the beach and vice versa.

Pedestrians and bicyclists travel within the roadways onsite because of the lack of paved shoulder areas or pathways. The roadways within Lawson's Landing, with the exception of a section of paved roadway at the entrance, have gravel or dirt surfaces.

REGULATORY BACKGROUND

Marin County

Marin County Goals and Policies

Several goals and policies related to transportation and circulation are included in the Countywide Plan (1994). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plan Consistency.”

Marin County Congestion Management Plan

Propositions 111 and 116, passed by voters in June 1990, triggered state legislation that requires urban counties to designate a countywide public agency known as a congestion management agency (CMA). The CMA’s responsibility is to create, administer, and update a countywide Congestion Management Program (CMP). The purposes of a CMP are: (1) to establish LOS standards for designated freeways, state highways, and local arterials; and (2) to maintain or achieve those standards by increasing the capacity of designated roads and/or managing travel demand on such roads. Incentives for incorporated cities and towns to take part in the CMP include the receipt of additional Proposition 111 gas tax revenue, Proposition 116 bond funds, and State Transportation System management funds. Another incentive includes making incorporated cities and towns eligible for state and federal funds under the Regional Transportation Improvement Program (RTIP) as administered by the Metropolitan Transportation Commission (MTC). If a local government fails to comply with the CMP, the CMA may direct the state to withhold funds and declare local projects ineligible for state or federal funding (Final 2003 Marin Congestion Management Program, 2004).

The CMA annually monitors service levels on freeways, state highways, and routes of regional significance in the county as part of its annual update of the CMP. In the project vicinity, SR 1 is designated as an arterial roadway in the CMP’s roadway network. According to the 2003 Marin County Congestion Management Program, SR 1 in the project vicinity operates at LOS A and no actions are necessary to improve this status level.

On March 2, 2004, the Marin County Board of Supervisors unanimously adopted Resolution No. 2004-21, which created the Transportation Authority of Marin (TAM). The TAM assumed the roles and responsibilities of the CMA.

Dillon Beach Community Plan

Several policies related to transportation and circulation are included in the Dillon Beach Community Plan (1989). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plan Consistency.”

4.8.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would have a significant impact on transportation and circulation if it would:

- ▶ cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);
- ▶ exceed, either individually or cumulatively, an LOS standard established by the county congestion management agency for designated roads or highways;
- ▶ 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;
- ▶ substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- ▶ result in inadequate emergency access;
- ▶ result in inadequate parking capacity; or
- ▶ conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994) and the Marin County Congestion Management Program, the project would have a significant impact related to transportation and circulation if:

- ▶ project traffic would significantly impact intersection LOS resulting in an unacceptable service level (e.g., below LOS D);
- ▶ the project would not have adequate parking and internal circulation capacity to accommodate projected traffic so that offsite areas are not adversely affected;
- ▶ the project would not include provisions for pedestrian and bicycle circulation and bicycle and motorcycle parking and security; or
- ▶ the project would generate more than 100 weekday p.m. peak hour trips.

An analysis of the project's consistency with County goals and policies, including those related to transportation and circulation, is included in Section 4.2, "Land Use Plan Consistency."

PROJECT IMPACTS

Trip Generation and Distribution

For the most part, the proposed Lawson's Landing Master Plan would continue existing activities and uses at current levels. The number of travel trailers (233), campsites (1,000), and allowed day-use vehicles (200) would not change. Improvements would upgrade some facilities, such as the wastewater treatment system but would not increase recreational use capacity. The exception would be the addition of two residences to the property. Therefore, additional trips above baseline conditions would be generated from only the two residences.

The trip generation potential of the project was estimated by referencing the Institute of Transportation Engineers Trip Generation Manual (6th Edition 1997). The standard trip generation rate for the single

detached family housing land use was used for the analysis as this represents the closest approximation to the project's land use. Trip generation rates provide the number of trips per unit of land use for a given time period. Multiplied by the number of units, trip generation rates yield the total traffic generated by the project for each time period being studied.

Based on this trip generation rate, the additional trip generation of the project is illustrated in Table 4.8-3. The project would generate an estimated 19 daily trips, two weekday p.m. peak hour trips, and two Sunday peak-hour trips to and from the project site. Based on the traffic volumes presented in Table 4.8-2, the 19 additional vehicle trips generated by the project would increase the existing daily trips by less than 2%.

Land Use	Units	Daily		Weekday P.M. Peak Hour				Sunday Peak Hour			
		Trip Generation Rate *	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Residences	2	9.57	19	1.01	2	1	1	0.94	2	1	1

* Average Daily Traffic trip rate based on ITE Land Use Code 210 (Single Family Detached Housing).
Source: Fehr and Peers 2004

Trip distribution characteristics for the project were determined based upon the existing traffic patterns observed at the study intersections and analysis of existing turning movements at the study area intersections. Existing congestion that occurs along Cliff Street during peak recreation periods was also considered in the analysis.

Impact 4.8-1: Increased Roadway Congestion from Construction Traffic. It is estimated that approximately 25–50 construction workers could access the project site on a daily basis during peak construction periods. This could result in adverse effects on the operation of area roadways during the peak commute periods. In addition, construction traffic, particularly truck traffic, could degrade pavement conditions along roadways used for access. This would be a *significant* impact.

Construction of the project would result in short-term increases in traffic on local roadways. Construction activities would require the hauling of equipment and materials to the project site and transportation of employees to and from offsite locations. Construction activities would require up to 25–50 construction workers that would commute to the site intermittently during construction of individual project facilities. These construction workers would generate 50 to 100 one-way daily trips to and from the project site. Under worst-case conditions, all workers would access the project site on a daily basis during peak construction periods. Material deliveries and occasional movement of heavy equipment would also occur on local roadways. If a large proportion of the construction-related vehicle trips were to occur during peak a.m. and p.m. commute periods and during peak recreation periods, construction traffic could substantially degrade operation of local roadways and further exacerbate existing congestion that occurs along Cliff Street. In addition, construction traffic, particularly truck traffic, could degrade pavement conditions along roadways used for access to the project site. Therefore, the project's impacts related to construction traffic would be significant.

Impact 4.8-2: Degradation of Operation of Unsignalized Intersections. The project would result in a minor increase of traffic volumes at unsignalized intersections in the project vicinity, but would not substantially increase delay. The operation of all project area intersections

would be unchanged and would be acceptable according to Marin County standards during the peak hours. Therefore, this impact would be *less than significant*.

The project would not cause significant changes in intersection operations because the project would only construct two new residential units, which would result in 19 additional vehicle trips on a daily basis, including two trips during the evening peak hour and two trips during the weekend peak hour. These vehicle trips represent less than 2% of the existing daily trips (Table 4.8-2) and would not degrade the operations at any of the study intersections associated with the project site. Although congestion along local roadways (e.g., Cliff Street) occurs during peak recreation periods, overall the roadways in the project area currently operate at acceptable levels (Brook, pers. comm., 2004). Because the operation of local intersections would not change and delay increases would be minimal, the project's effects on local unsignalized intersections would be less than significant.

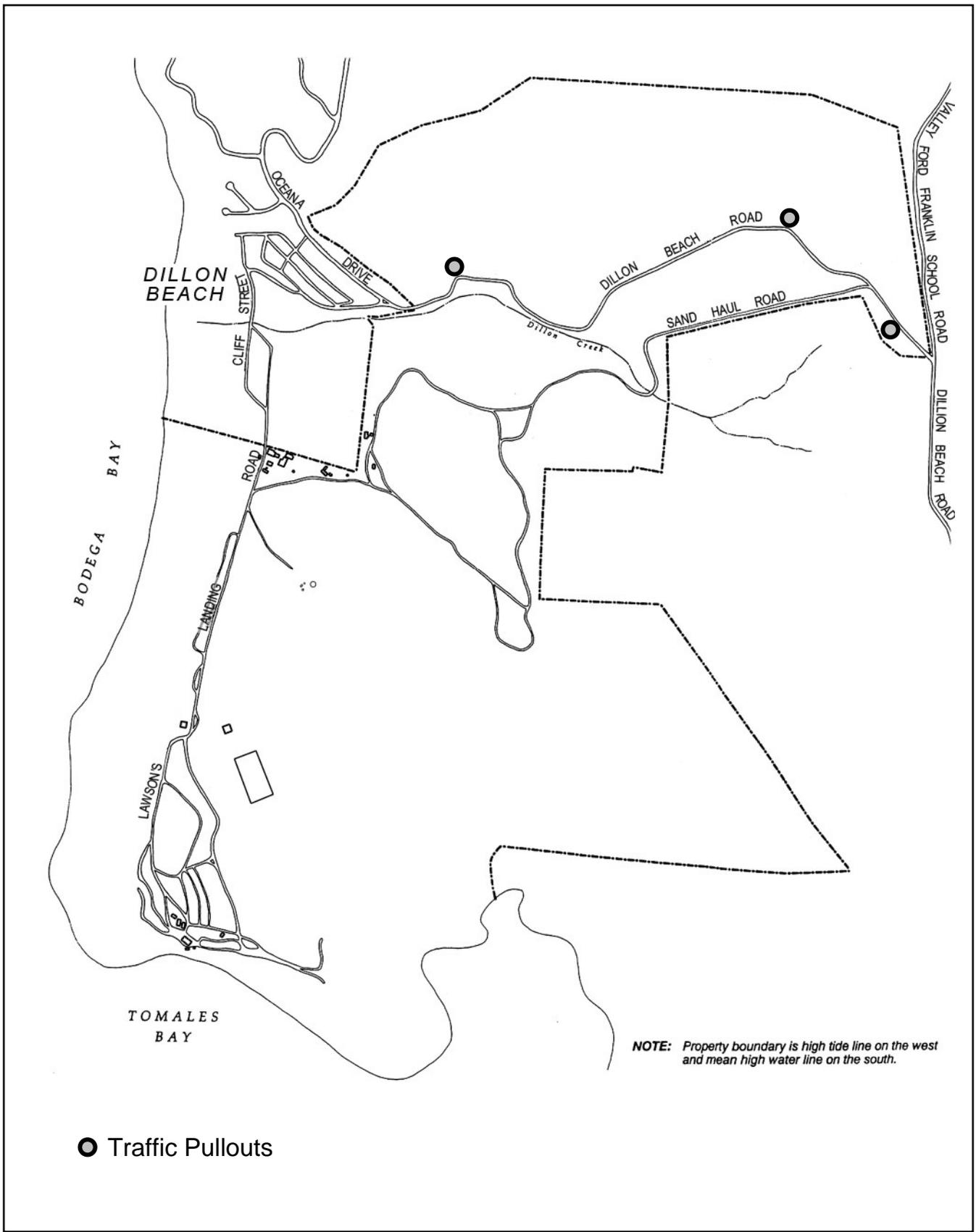
Impact 4.8-3: Increase Traffic Hazards Because of a Design Feature. Access to the project site is provided by Cliff Street. Cliff Street currently does not meet recommended roadway width standards of the American Association of State Highway Transportation Officials. Although project-related traffic trips would not result in any significant change in congestion associated with local roadways, for purposes of this analysis, the project's minor contribution of daily trips would result in a significant traffic hazard impact because of the existing substandard design of Cliff Street. This would be a *significant impact*.

Access to Lawson's Landing is provided by Dillon Beach Road. Dillon Beach Road incorporates a curving alignment with moderate grades. Dirt shoulder areas are currently provided at infrequent intervals along Dillon Beach Road to allow faster moving vehicles to pass slower moving vehicles (e.g., motor homes, trucks pulling trailers).

The collision history for the segment of Dillon Beach Road near the project site (approximately 4 miles) was reviewed for the period including the years 1994 through 2002. During this 9-year period there was only one collision reported on the section of Dillon Beach Road west of Oceana Drive, involving an intersection-related collision at Park Avenue. There were seven collisions on the section of Dillon Beach Road between Oceana Drive and SR 1. All of these collisions involved single-vehicle collisions with six resulting from a driver running off the road and either hitting an object or overturning. No specific sites of concern were identified (W-Trans 2004). With an average daily volume of approximately 1,900 vehicles on the 4-mile segment, this translates to a collision rate of 0.24 collisions per million vehicle miles (c/mvm). This is considerably less than the statewide average rate of 1.86 c/mvm for a rural two-lane road in mountainous terrain carrying a similar volume (W-Trans 2004). During follow-up communications with the Marin County Fire Department, staff indicated that they are not aware of any other collisions near Lawson's Landing (Park, pers. comm., 2005).

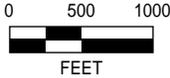
The project includes measures to improve the design of three informal pull-outs located along Dillon Beach Road as shown in Exhibit 4.8-2. These pull-outs would be slightly widened and paved to allow slower moving vehicles to pull out of the way of faster vehicles easier and safer. Because existing collision hazards are well below state standards and the project would improve existing turnout areas, this would be a beneficial impact of the project.

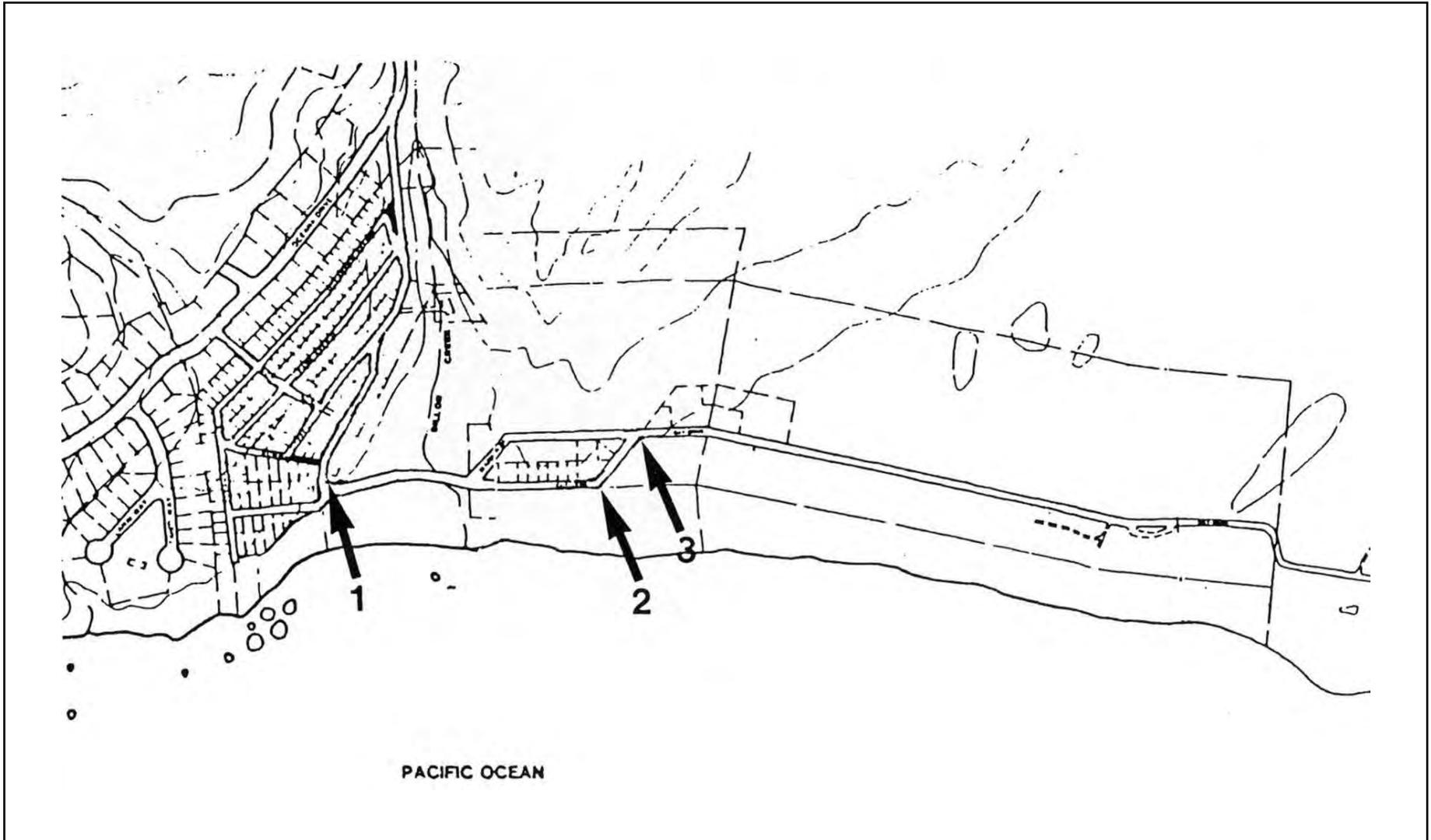
Travelers entering Lawson's Landing enter from Cliff Street. Currently, Cliff Street has been determined to be of substandard design with a narrow width and curved alignment which limits visibility around corners and restricts available space for vehicles passing in opposite directions (W-Trans 2004). As shown on Exhibit 4.8-3, Cliff Street also incorporates three sharp curves between Dillon Beach and the entrance to Lawson's Landing. These curves force vehicles to use most of the available pavement width



Source: Bollard & Brennan

Proposed Dillon Beach Road Pullout Locations





Source: Shannon & Associates; WESCO, 1998

Location of Existing Sharp Roadway Curves

EXHIBIT 4.8-3

to make the turn resulting in vehicles traveling in the opposite direction to completely stop and increasing the potential for vehicle collisions.

Information contained in *A Policy on Geometric Design of Highways and Streets* (4th Edition 2001) written by the American Association of State Highway Transportation Officials (AASHTO) indicated that a 25 mph roadway such as Cliff Street should have a minimum width of 30 feet, including 20 feet for the travelway and 5-foot shoulders, for a daily volume of up to 1,500 vehicles. This minimum suggested width would increase to 34 feet, including 6-foot shoulders, for roadway with 1,500 to 2,000 vehicles per day, and for a roadway with greater than 2,000 vehicles per day a minimum roadway width of 40 feet is recommended with 12-foot travel lanes and 8-foot shoulders.

Based on industry standard that about 10 percent of the daily trips occur during peak periods, Cliff Street would be expected to carry in excess of 2,000 vehicles per day under existing conditions. The Sunday peak hour total trips for 2003, as shown in Table 4.7-2, equal 313 total trips. Therefore, the total daily volume on weekends could reach as high as approximately 3,130 (313 x 10) trips. Based on this assumption, the AASHTO guidelines suggest a minimum width for Cliff Street to include 12-foot travel lanes and 8-foot shoulders. The existing roadway is generally 20 feet wide or less with limited shoulder width.

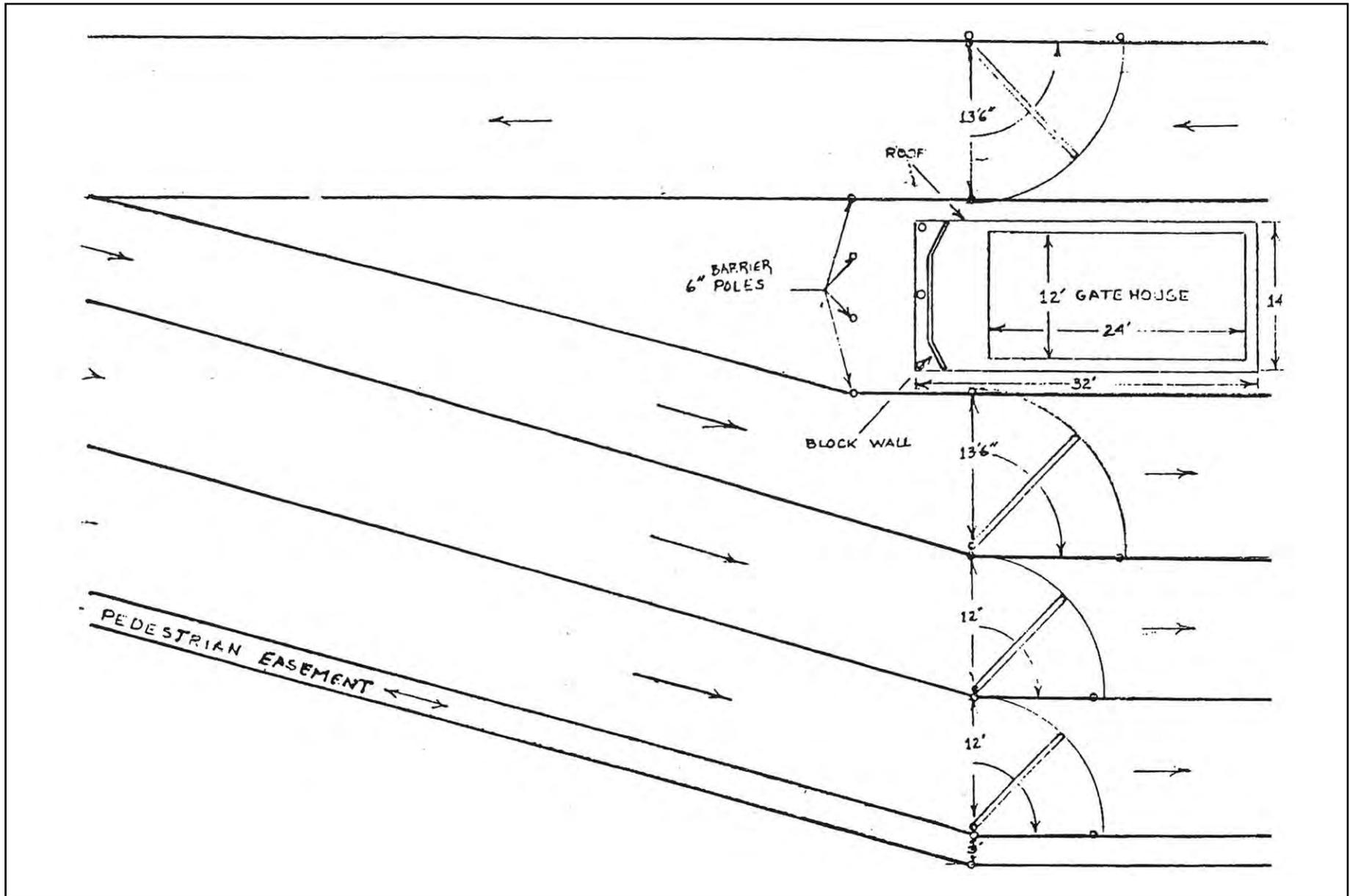
A collision history review performed for the project area shows that there have not been any reported collisions along Cliff Street except for one that occurred on the Lawson's Landing site that involved a single vehicle running off the road. Given the lack of collisions during the past nine years, it appears that Cliff Street has not experienced a high number of vehicle accidents even with substandard design.

The project would not significantly increase traffic volumes along Cliff Street and, by itself, would not create the need for widening Cliff Street. However, Marin County and Dillon Beach residents have expressed concern with the current roadway design of Cliff Street and the resulting queuing of vehicles during peak recreation periods. Although project-related trips would not result in any significant congestion associated with local roadways, existing operational conditions along Cliff Street are constrained during peak recreational periods. For purposes of this analysis, the project's minor contribution of daily trips to Cliff Street would result in a significant traffic hazard impact because of the existing substandard design and operation of Cliff Street. This would be a significant impact.

Impact 4.8-4: Emergency Vehicle Access. The entrance to Lawson's Landing would be expanded to alleviate existing congestion that occurs during peak recreation periods. However, the project would continue to provide inadequate emergency access routes to the project site because a secondary public emergency access point for public evacuation from the site would not be provided. This would be a *significant* impact.

Under the project, the entrance to Lawson's Landing would be improved and expanded to provide three inbound and one outbound vehicle lanes as shown in Exhibit 4.8-4. Further, Mitigation Measure 4.8-3 would widen Cliff Street to improve safety and traffic flow along this roadway. These improvements would triple the available queuing space at the entry gate and would improve traffic flow along Cliff Street thereby improving public and emergency access to the site. Vehicle queuing that currently occurs along Cliff Street during periods of heavy usage, particularly on summer and holiday weekends would be reduced.

Cliff Street provides the only public access point to the project site. Sand Haul Road can serve as a secondary "emergency vehicle only" access point to the site; however, the existing design (i.e., one lane) and sighting conditions along Sand Haul Road make this roadway unsafe for public emergency access or evacuation. If the entrance roadway to Lawson's Landing were blocked for any reason, emergency access to Lawson's Landing would be severely hampered. Although the project would not change



Source: Carl W. Vogler Sr. 1995

Proposed Gatehouse and Entry Road Modifications

EXHIBIT 4.8-4

operations or use of the site such that existing emergency access would be substantially affected by the project (Ginnodo, pers. comm., 2003), the project's contribution to the existing delay at the entrance gate although improved by the project (e.g., additional lanes) would continue to result in some blocking of emergency access. Potential blocking of a one-way in and one-way out access creates the need for secondary emergency access to the project site. The lack of a safe secondary public emergency access point at the site would result in the continuation of a significant emergency vehicle access impact.

Impact 4.8-5: Consistency with Marin County Congestion Management Plan. The project would not be subject to CMA review because it would generate less than 100 additional p.m. peak hour vehicle trips. Therefore, this would be a *less-than-significant* impact.

The threshold for conducting a CMP consistency evaluation requires a likelihood for the project to create an additional 100 p.m. peak-hour trips. The project would result in the construction of a new owner's residence and employee mobile home that would generate two additional p.m. peak-hour trips, which is substantially fewer than the 100 peak-hour trips used as the significance threshold in the Marin County CMP. This would be a less-than-significant impact.

Impact 4.8-6: Pedestrian and Bicycle Circulation. The project includes dedication of a 3-foot wide dirt path along the west side of the entry road. This dirt path would improve pedestrian and bicycle circulation throughout the project site. This would be a *beneficial* impact of the project.

Bay Drive, which is the primary access road within project site, is relatively narrow and does not incorporate any shoulders or pedestrian pathways. A safety issue arises for pedestrians and bicyclists who are forced to walk/ride in or along the road with vehicular traffic. Furthermore, directional signs are not provided along Bay Drive to identify the numerous dirt and paved paths connections, which results in the conflicting movement of pedestrians and bicyclists with vehicular traffic resulting in a safety hazard.

A 3-foot-wide dirt path would be constructed along the west side of the entry road to separate pedestrians and bicycles from motorized vehicles entering the project site. In addition, a formal pedestrian trail system would be constructed throughout the foredunes area. The trails would be sited to direct pedestrians away from sensitive biological species for their protection. Because the project would improve the circulation and safety of pedestrian and bicycle circulation onsite, this would be a beneficial impact of the project.

CUMULATIVE IMPACTS

Impact 4.8-7: Degradation of LOS at Unsignalized Intersections (Cumulative Plus Project Condition). Although local roadways in the vicinity of the project site are operating acceptably and the project would not have a considerable contribution to the degradation of these roadways, the project would contribute vehicle trips to an existing adverse traffic condition along Cliff Street. Therefore, this would be a *significant* cumulative traffic impact.

The project would result in the generation of 19 vehicle trips on a daily basis. Cumulative development in combination with the project would increase vehicle traffic on area roadways. However, the project is sufficiently distant from other cumulative development such that the project's traffic would not combine with traffic generated by cumulative development. Although, local roadways in the vicinity of the project site are operating acceptably and the project would not have a considerable contribution to the degradation of these roadways during peak recreation periods, Cliff Street becomes congested with vehicles accessing Lawson's Landing. This is an existing adverse condition and the project would

contribute trips (i.e., 19 daily trips) to this adverse condition. Therefore, this would be a significant cumulative traffic impact.

4.8.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.8-1: Construction Traffic. ~~Before project~~[Prior to start of](#) construction activities ~~begin~~, the project applicant shall prepare a construction traffic control plan that shall be applied to all construction activities associated with the project. The plan shall include, at a minimum, the following conditions:

- ▶ No construction-related traffic shall be allowed on the local roadway network on Sundays or any holiday.
- ▶ No construction delivery truck traffic shall be allowed on the local roadway network before 8:00 a.m. or after 4:30 p.m.
- ▶ No construction worker traffic shall be allowed on the local roadway network between 7:00 and 8:00 a.m. and between 4:30 and 6:00 p.m.
- ▶ Local roadways will be jointly monitored by the County and project applicant every six months to determine whether project related construction traffic is degrading roadway conditions. Roadways with potential to be damaged by construction traffic shall be so designated and included in the monitoring effort shall be agreed to by the County and the project applicant. All degradation of pavement conditions because of project construction traffic will be fully repaired by the project applicant to the satisfaction of Marin County.
- ▶ The project applicant shall prepare detailed analysis of roadway structural cross-section for Cliff Street to determine whether the roadway can withstand the vehicle loading for construction and normal operations.

Mitigation Measure 4.8-2: No mitigation measures are required.

Mitigation Measure 4.8-3: Widening of Cliff Street. Cliff Street shall be widened to the extent of the existing right-of-way at the three sharp curves, as shown on Exhibit 4.8-3, to soften the curves and improve sight distance to the satisfaction of Marin County Department of Public Works Traffic Division. This may require construction of a retaining wall to enlarge the sharp turn where Beach Avenue becomes Cliff Street, and widening the roadway to soften the curves and to improve sight distance at the two curves on Cliff Street closest to the entry gatehouse. Based on visual observations of the areas of proposed improvements, these proposed improvements would be feasible within the existing roadway alignment (W-Trans 2004). [Implementation of Mitigation Measures 4.13-2, 4.13-3, and 4.13-4 \(see Section 4.13, "Biological Resources"\) would reduce all potential construction-related impacts to nearby sensitive biological resources resulting from widening of Cliff Street to less-than-significant levels.](#)

Mitigation Measure 4.8-4: Emergency Access Improvements to Sand Haul Road. Sand Haul Road shall be designated and improved (i.e., grade/paved) [within its existing alignment](#) as an alternative public emergency access route. [Improvements to Sand Haul Road shall include grading, graveling, or paving of certain sections of the alignment to provide a smooth traveling surface for passenger cars to travel easily.](#) Signs and placards showing the emergency route along Sand Haul Road shall be installed by the applicant and posted in appropriate locations. [Implementation of Mitigation Measures 4.13-2, 4.13-3, and 4.13-4](#)

(see Section 4.13, “Biological Resources”) would reduce all potential construction-related impacts to nearby sensitive biological resources resulting from improving Sand Haul Road to less-than-significant levels.

The applicant shall coordinate with the Marin County Public Works Department regarding the specific design criteria for improvements to Sand Haul Road.

~~Implementation of Mitigation Measures 4.13-2, 4.13-3, and 4.13-4 (see Section 4.13, “Biological Resources”) would reduce all potential construction-related impacts to nearby sensitive biological resources resulting from improvements to Sand Haul Road to less-than-significant levels.~~

Mitigation Measure 4.8-5: No mitigation measures are required.

Mitigation Measure 4.8-6: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Cumulative Mitigation Measure 4.8-7: Cliff Street currently operates acceptably, but experiences periodic congestion during peak recreation periods. Implementation of proposed gate house improvements (i.e., providing additional lanes) and Mitigation Measure 4.8-3, Widening of Cliff Street, would reduce existing traffic congestion that occurs along Cliff Street and would further improve the operation of this roadway. Further, Mitigation Measure 4.8-4 would improve Sand Haul Road for emergency access by the public and emergency vehicles thereby improving emergency access to and from the project site. Although periods of congestion may still occur, the project has reduced its contribution to cumulative congestion impacts along Cliff Street to a less-than-significant level.

4.8.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, the project’s transportation and circulation impacts would be reduced to a less-than-significant level.

4.9 AIR QUALITY

This section includes a summary of applicable regulations, existing air quality conditions, and an analysis of potential short-term and long-term air quality impacts of the project. The method of analysis for short-term construction, long-term regional (operational), local mobile source, toxic and odorous air emissions is consistent with the recommendations of the Bay Area Air Quality Management District (BAAQMD), as presented in the *[BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans]* (BAAQMD 1999). In addition, mitigation measures are recommended, as necessary, to reduce potentially significant adverse air quality impacts.

4.9.1 EXISTING CONDITIONS

The project site is located in Marin County, which is under the jurisdiction of the BAAQMD. The BAAQMD is the primary local agency with respect to air quality for all of Marin County. Marin County is within the San Francisco Bay Area Air Basin (SFBAAB), which also includes all of Alameda, Contra Costa, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma, and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

CLIMATE, TOPOGRAPHY, AND AIR POLLUTION POTENTIAL

Climate and Topography

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits resulting in a western coast gap, Golden Gate, and an eastern coast gap, Carquinez Strait, which allow air to flow in and out of the SFBAAB and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high pressure cell is centered over the northeastern Pacific Ocean resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below to the surface because of the northwesterly flow produces a band of cold water off the California coast. Thus, the cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band resulting in condensation and the presence of fog and stratus clouds along the Northern California coast.

In the winter, the Pacific high-pressure cell weakens and shifts southward resulting in more frequent minimal offshore wind flow or, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Local meteorology of the project area is represented by measurements recorded at the San Rafael station. The normal annual precipitation, which occurs primarily from November through March, is approximately 35 inches. January temperatures range from a normal minimum of 41 degrees Fahrenheit (°F) to a normal maximum of 57°F. July temperatures range from a normal minimum of 54°F to a normal maximum of 81°F (National Oceanic and Atmospheric Administration 1992). The annual predominant wind direction and speed is from the northwest at approximately 10 mph (California Air Resources Board 1994).

Air Pollution Potential

Air pollution potential is influenced by wind circulation, inversions, stability, solar radiation, and sheltered terrain. For instance, low wind speeds result in restricted movement of air pollution, thus leading to potentially unhealthy levels of air pollution concentrations. Low wind speeds occur most frequently in the fall, winter, early morning, and at night.

An inversion is a layer of warmer air over a layer of cooler air. Inversions influence the mixing depth of the atmosphere, which is the vertical depth available for diluting air pollution near the ground, thus significantly affecting air quality conditions. The SFBAAB experiences two types of inversions. Summer and fall inversions are a result of subsiding air from the subtropical high-pressure zone and from the cool marine layer that is drawn into the area by the heated low-pressure zone in the Central Valley. Winter inversions, also termed radiation inversions, are formed as heat quickly radiates from the earth's surface after sunset cooling the surrounding air. Radiation inversions are strongest on clear, low-wind, cold winter nights, which allow the build-up of carbon monoxide (CO) and particulate matter (PM).

Stability describes the resistance of the atmosphere to vertical motions. The stability of the atmosphere is dependent upon the vertical distribution of temperature with height. When the temperature decreases vertically at 10 degrees Celsius (C) per 1000 meters, the atmosphere is "neutral". When the lapse rate is greater than 10 degrees C per 1000 meters, the atmosphere is "unstable". When the lapse rate is less than 10 degrees C per 1000 meters, the atmosphere is "stable". Stability categories range from "Extremely Unstable" (Class A), through Neutral (Class D), to "Stable" (Class F). Unstable conditions occur during daytime hours when solar heating warms the lower atmospheric layers sufficiently. Under A stability conditions, large horizontal wind direction fluctuations occur coupled with large vertical mixing depths. Under B stability conditions, wind direction fluctuations and the vertical mixing depth are less pronounced because of a decrease in the amount of solar heating. Under C stability conditions, solar heating is weak along with horizontal and vertical fluctuations because of a combination of thermal and mechanical turbulence. Under D stability conditions, vertical motions are primarily generated by mechanical turbulence. Under E and F stability conditions, air pollution emitted into the atmosphere travels downwind with poor dispersion.

The frequency of hot, sunny days during the summer months in the area is another important factor that affects air pollution potential. In the presence of solar radiation, reactive organic gases (ROG) and nitrogen oxides (NO_x) form to produce ozone (O₃).

EXISTING AMBIENT AIR QUALITY

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) currently focus on the following air pollutants as indicators of ambient air quality: O₃, CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), PM, and lead. Because these are the most prevalent air pollutants known to be deleterious to human health and extensive health-effects criteria documents are available, they are commonly referred to as "criteria air pollutants."

The EPA has established primary and secondary national ambient air quality standards (NAAQS) for the following criteria air pollutants: O₃, CO, NO₂, SO₂, respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead. The primary standards protect the public health and the secondary standards protect public welfare. In addition to the NAAQS, CARB has established California ambient air quality standards (CAAQS) for the criteria air pollutants, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulate matter. In most cases the CAAQS are more stringent than the NAAQS. The NAAQS and CAAQS as discussed above are listed in Table 4.9-1.

Table 4.9-1 Ambient Air Quality Standards and Designations						
Pollutant	Averaging Time	California		National Standards ²		
		Standards ^{1,3}	Attainment Status ⁹	Primary ^{3,4}	Secondary ^{3,5}	Attainment Status ¹⁰
Ozone (O ₃) ⁶	1-hour	0.09 parts per million (ppm) 180 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]	N (Serious)	0.12 ppm (235 $\mu\text{g}/\text{m}^3$)	Same as Primary Standard	N
	8-hour	–	–	0.08 ppm (157 $\mu\text{g}/\text{m}^3$)		N (Marginal)
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	–	U/A
	8-hour	9 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)		
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	–	–	0.053 ppm (100 $\mu\text{g}/\text{m}^3$)	Same as Primary Standard	U/A
	1-hour	0.25 ppm (470 $\mu\text{g}/\text{m}^3$)	A	–		–
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	–	–	0.030 ppm (80 $\mu\text{g}/\text{m}^3$)	–	A
	24-hour	0.04 ppm (105 $\mu\text{g}/\text{m}^3$)	A	0.14 ppm (365 $\mu\text{g}/\text{m}^3$)	–	
	3-hour	–	–	–	0.5 ppm (1300 $\mu\text{g}/\text{m}^3$)	
	1-hour	0.25 ppm (655 $\mu\text{g}/\text{m}^3$)	A	–	–	
Respirable Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 $\mu\text{g}/\text{m}^3$ *	N	50 $\mu\text{g}/\text{m}^3$ ⁶	Same as Primary Standard	U
	24-hour	50 $\mu\text{g}/\text{m}^3$		150 $\mu\text{g}/\text{m}^3$ ⁶		
Fine Particulate Matter (PM _{2.5}) ⁷	Annual Arithmetic Mean	12 $\mu\text{g}/\text{m}^3$ *	N	15 $\mu\text{g}/\text{m}^3$	Same as Primary Standard	U (Recommended)
	24-hour	–	–	65 $\mu\text{g}/\text{m}^3$		
Lead ⁸	30-day Average	1.5 $\mu\text{g}/\text{m}^3$	A	–	–	–
	Calendar Quarter	–	–	1.5 $\mu\text{g}/\text{m}^3$	Same as Primary Standard	A
Sulfates	24-hour	25 $\mu\text{g}/\text{m}^3$	A	No Federal		
Hydrogen Sulfide	1 hour	0.03 ppm	U			

**Table 4.9-1
Ambient Air Quality Standards and Designations**

Pollutant	Averaging Time	California		National Standards ²		
		Standards ^{1,3}	Attainment Status ⁹	Primary ^{3,4}	Secondary ^{3,5}	Attainment Status ¹⁰
		(42 µg/m ³)		Standards		
Vinyl Chloride ⁷	24-hour	0.01 ppm (26 µg/m ³)	U/A			
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) because of particles when the relative humidity is less than 70%.	U			

¹ California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, particulate matter (PM₁₀ and PM_{2.5}), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM₁₀ 24-hour standard is attained when 99% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The PM_{2.5} 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

⁴ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

⁵ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

⁶ New federal 8-hour ozone and fine particulate matter standards were promulgated by the EPA on July 18, 1997. Contact the EPA for further clarification and current federal policies.

⁷ On June 20, 2002, ARB approved staff recommendation to revise the PM₁₀ annual average standard to 20 µg/m³ and to establish an annual average standard for PM_{2.5} of 12 µg/m³. These standards took effect on July 5, 2003. Information regarding these revisions can be found at <http://www.arb.ca.gov/research/aaqs/std-rs.htm>.

⁸ CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

⁹ Unclassified (U): a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
 Attainment (A): a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a 3-year period.
 Nonattainment (N): a pollutant is designated nonattainment if there was a least one violation of a state standard for that pollutant in the area.
 Nonattainment/Transitional (NT): is a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant.

¹⁰ Nonattainment (N): any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
 Attainment (A): any area that meets the national primary or secondary ambient air quality standard for the pollutant.
 Unclassifiable (U): any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Source: California Air Resources Board 2004b, U.S. Environmental Protection Agency 2004

Criteria air pollutant concentrations are measured at several monitoring stations in the SFBAAB. The San Rafael-534 4th Street station is the closest monitoring station in proximity to the project site with recent data for O₃, CO, NO₂, and PM₁₀. In general, the ambient air quality measurements from this station are representative of the air quality in the vicinity of the project site. Table 4.9-2 summarizes the air quality data from the most recent 3 years. Ambient air quality conditions with respect to each separate criteria pollutant are described in Appendix I.

Table 4.9-2 Summary of Annual Ambient Air Quality Data (2001–2003)			
	2001	2002	2003
OZONE (O₃)			
State Standard (1-hr. avg., 0.09 ppm) National Standard (1-hr./8-hr. avg., 0.12/0.08 ppm)			
Maximum Concentration (1-hr./8-hr. avg., ppm)	0.087/ 0.065	0.077/ 0.056	0.087/ 0.067
Number of Days State Standard Exceeded	0	0	0
Number of Days National 1-hr./8-hr. Standard Exceeded	0/0	0/0	0/0
CARBON MONOXIDE (CO)			
State Standard (1-hr./8-hr. avg., 20/9.1 ppm) National Standard (1-hr./8-hr. avg., 35/9.5 ppm)			
Maximum Concentration (1-hr./8-hr. avg., ppm)	5.2/2.42	4.1/1.88	3.8/2.03
Number of Days State Standard Exceeded	0	0	0
Number of Days National 1-hr./8-hr. Standard Exceeded	0/0	0/0	0/0
NITROGEN DIOXIDE (NO₂)			
State Standard (1-hr. avg., 0.25 ppm) National Standard (annual, 0.053 ppm)			
Maximum Concentration (1-hr. avg., ppm)	0.061	0.057	0.066
Number of Days State Standard Exceeded	0	0	0
Annual Average (ppm)	0.017	0.017	0.016
RESPIRABLE PARTICULATE MATTER (PM₁₀)			
State Standard (24-hr. avg., 50 µg/m ³) National Standard (24-hr. av., 150 µg/m ³)			
Maximum Concentration (µg/m ³ , National/California ¹)	78.8/83.2	69.6/72.6	39.1/40.5
Number of Days State Standard Exceeded (Measured ²)	3	3	0
Number of Days National Standard Exceeded (Measured/Calculated ¹)	0/0	0/0	0/0
Notes: - = not available ¹ National and California statistics may differ for the following reasons: the state statistics are based on California approved samplers, whereas national statistics are based on samplers using the federal reference or equivalent methods. ² Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. The number of days a measurement was greater than the level of the national daily standard. Measurements are collected every day, every 3 days, or every 6 days, depending on the time of year and the site's monitoring schedule. The number of days above the standards is not directly related to the number of violations of the standard for the year.			
Sources: California Air Resources Board 2004b, U.S. Environmental Protection Agency 2004			

Both CARB and the EPA use monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of the designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called nonattainment-transitional. The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment. Attainment designations for the project area are shown below in Table 4.9-1 for each criteria air pollutant.

4.9.2 REGULATORY BACKGROUND

Air quality with respect to criteria and toxic air pollutants/contaminants within Marin County are regulated by such agencies as the BAAQMD, CARB, and EPA. Each of these agencies develops rules, regulations, policies, and/or goals to attain the goals or directives imposed through legislation. Although the EPA regulations may not be superseded, both state and local regulations may be more stringent.

CRITERIA AIR POLLUTANTS

Federal

U.S. Environmental Protection Agency

At the federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (FCAA), which was enacted in 1963. The FCAA was amended in 1970, 1977, and 1990.

The FCAA required the EPA to establish primary and secondary NAAQS, (Table 4.9-1). The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The Federal Clean Air Act Amendments of 1990 (FCAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA has responsibility to review all state SIPs to determine conformance to the mandates of the FCAAA and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

State

California Air Resources Board

The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA), which was adopted in 1988. The CCAA requires that all air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources, and provides districts with the authority to regulate indirect sources.

The CARB is primarily responsible for developing and implementing air pollution control plans to achieve and maintain the NAAQS. The CARB has primary responsibility for statewide pollution sources and produces a major part of the SIP. However, local air districts are still relied upon to provide additional strategies for sources under their jurisdiction. The CARB combines this data and submits the completed SIP to the EPA.

Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control and air quality management districts), establishing CAAQS (which in many cases are more stringent than the NAAQS), determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, and off-road vehicles.

Local

Bay Area Air Quality Management District

The BAAQMD attains and maintains air quality conditions in Marin County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. The BAAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the FCAA, FCAAA, and the CCAA.

In 1999, the BAAQMD released the BAAQMD CEQA Guidelines (BAAQMD 1999). This is an advisory document that provides lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The handbook contains the following applicable components:

- ▶ Criteria and thresholds for determining whether a project may have a significant adverse air quality impact;
- ▶ Specific procedures and modeling protocols for quantifying and analyzing air quality impacts
- ▶ Methods available to mitigate air quality impacts, and,
- ▶ Information for use in air quality assessments and environmental documents that will be updated more frequently such as air quality data, regulatory setting, climate, topography, etc.

Marin County

The Marin Countywide Plan Environmental Quality Element contains various policies and programs related to the reduction of air pollutants. The applicable Countywide Plan Air Quality Resources policies are discussed in Section 4.2, “Land Use Plans and Policy Consistency.”

AIR QUALITY PLANS

As stated above, the BAAQMD prepares plans to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans (OAP) for the national ozone standard and clean air plans (CAP) for the California standard both in coordination with the Metropolitan Transportation

Commission and the Association of Bay Area Governments. The most recent of which are the 2001 OAP and the 2000 CAP. The 2001 OAP is a revision to the Bay Area part of SIP and was prepared in response to the EPA's partial disapproval of the 1999 OAP. The 2001 OAP for the national 1-hour ozone standard includes two commitments for further planning: (1) conduct a mid-course review of progress toward attaining the national 1-hour ozone standard by December 2003, and (2) provide a revised ozone attainment strategy to the EPA by April 2004.

The 2000 CAP was adopted by the BAAQMD on December 20, 2000 and was then submitted to the CARB. The CCAA requires the BAAQMD to update the CAP for attaining the state 1-hour ozone standard every three years. The 2000 CAP is the third triennial update of the BAAQMD's original 1991 CAP. The 2000 CAP includes a control strategy review to ensure that the CAP includes all feasible measures to reduce ozone, updates to the emissions inventory, estimates of emission reductions, and assessments of air quality trends.

In April 2004, the EPA made a final finding that the SFBAAB has attained the national 1-hour ozone standard. Because of this finding, the previous planning commitments in the 2001 OAP are no longer required. The finding of attainment does not mean the SFBAAB has been reclassified as an attainment area for the 1-hour standard. The region must submit a redesignation request to EPA to be reclassified as an attainment area. Therefore, the portion of the 2004 Ozone Strategy addressing national ozone planning requirements will include: (1) a redesignation request and (2) a maintenance plan to show the region will continue to meet the 1-hour ozone standard. In addition, the 2004 Ozone Strategy will assess progress toward both ozone standards, review air pollution control strategies, and determine what additional control strategies will be needed (BAAQMD 2004).

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs), or in federal parlance under the FCAA, hazardous air pollutants (HAPs), are pollutants that result in an increase in mortality, a serious illness, or pose a present or potential hazard to human health. Health effects of TACs may include cancer, birth defects, and immune system and neurological damage.

TACs can be separated into carcinogens and noncarcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts will not occur. Noncarcinogenic TACs differ in that there is a safe level in which it is generally assumed that no negative health impacts would occur. These levels are determined on a pollutant-by-pollutant basis.

It is important to understand that TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, the EPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (MACT and BACT) to limit emissions. These in conjunction with additional rules set forth by the BAAQMD establish the regulatory framework for TACs.

Federal Hazardous Air Pollutant Program

Title III of the FCAA requires the EPA to promulgate national emissions standards for HAPs (NESHAP). The NESHAP may differ for major sources than for area sources of HAPs. (Major sources are defined as stationary sources with potential to emit more than 10 tons per year [TPY] of any HAP or more than 25 TPY of any combination of HAPs; all other sources are considered area sources.) The emissions standards are to be promulgated in two phases. In the first phase (1992–2000), the EPA developed technology-

based emission standards designed to produce the maximum emission reduction achievable. These standards are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), the EPA is required to promulgate health risk–based emissions standards where deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

The FCAAA required the EPA to promulgate vehicle or fuel standards containing reasonable requirements that control toxic emissions, at a minimum to benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 required the use of reformulated gasoline in selected U.S. cities (those with the most severe O₃ nonattainment conditions) to further reduce mobile-source emissions.

State and Local Toxic Air Contaminant Programs

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified over 21 TACs, and adopted the EPA’s list of HAPs as TACs. Most recently, diesel exhaust particulate was added to the CARB list of TACs.

Once a TAC is identified, CARB’s then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions. None of the TACs identified by CARB have a safe threshold.

The Hot Spots Act requires that existing facilities that emit toxic substances above specified level:

- ▶ prepare a toxic emission inventory,
- ▶ prepare a risk assessment if emissions are significant,
- ▶ notify the public of significant risk levels, and
- ▶ prepare and implement risk reduction measure.

At the local level, air pollution control or management districts may adopt and enforce CARB’s control measures. Under BAAQMD Rule 2-1 (General Permit Requirements) and Rule 2-2 (New Source Review), all sources that possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures. The BAAQMD limits emissions and public exposure to TACs through a number of programs. The BAAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors.

ODORS

Typically odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person’s reaction to foul odors can range from the psychological (i.e., irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor and in fact an odor that is offensive to one person may be perfectly acceptable to another (i.e., fast food restaurant). It is important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar odor. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Neither the state nor the federal governments have adopted any rules or regulations for the control of odors sources. However, the BAAQMD has adopted Rule 7 (Odorous Substances) that specifically addresses citizen complaints.

4.9.3 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, and the BAAQMD (BAAQMD 1999) provides guidelines for determining whether implementing the project would result in a significant air quality impact. A project would normally have a significant effect on the environment as it relates to air quality if it would result in the following:

- ▶ **Short-Term Construction Impacts.** Construction impacts associated with the project would be considered significant if the applicable control measures as listed in the BAAQMD CEQA Guidelines are not implemented.
- ▶ **Long-Term Regional (Operational) Impacts.** Regional impacts associated with the project would be considered significant if implementation of the project results in emissions of ROG, NOX, or PM10 that exceed 15 tons per year, 80 pounds per day, or 36 kilograms per day.
- ▶ **Local Mobile Source Carbon Monoxide Impacts.** Local impacts associated with the project would be considered significant if the project results in or contributes to CO concentrations that exceed the California 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm.
- ▶ **Odor Impacts.** Odor impacts associated with the project would be considered significant if project construction or operation frequently results in the exposure of sensitive receptors to unpleasant odorous emissions.
- ▶ **Toxic Air Contaminant Impacts.** Toxic air contaminant impacts associated with the project would be considered significant if project construction or operation results in the exposure of sensitive

receptors to toxic air contaminant emissions that exceed 10 in 1 million for the Maximally Exposed Individual (MEI) to contact cancer and/or a Hazard Index of 1 for the MEI.

Appendix N of the Marin County Environmental Impact Review Guidelines, adopted 1994, provides guidelines for analyzing the significance of physical project impacts (Marin County 1994). According to these guidelines, the project would have significant impacts related to air quality if it would:

- ▶ cause or contribute substantially to existing projected air quality violations,
- ▶ result in exposure of sensitive receptors (i.e., individuals with respiratory diseases, the young, the elderly) to substantial pollutant concentrations, or
- ▶ emit TAC's that result in a significant health risk about the APCD's level of significance.

PROJECT IMPACTS

Impact 4.9-1: Generation of Short-Term Emissions from Construction Activities. The project would result in the short-term generation of fugitive dust, equipment exhaust, temporary employee trip emissions, and other construction-related emissions. Because the applicable BAAQMD air quality control measures are not currently incorporated into the project, the projects short-term construction-related emissions could resort in or contribute to a violation of applicable air quality standards. This would be a *potentially significant impact*.

Implementation of the Lawson's Landing Master Plan would temporarily generate emissions of ROG, NO_x, and PM₁₀ from site grading and excavation, paving, demolition, motor vehicle exhaust associated with construction equipment, temporary construction employee commute trips, and material transport (especially on unpaved surfaces), and other construction operations.

Construction of the proposed improvements would involve several activities which would generate short-term concentrations of air pollutants. The three basic construction activities associated with the project are clearing and grubbing, grading, and paving. Clearing and grubbing of shrubs and groundcover to construct the proposed wastewater treatment systems and employee residents would occur first followed by grading and then by the application of paving material for construction of the onsite roadways.

Construction emissions would be primarily associated with the use of heavy equipment, the transport of materials to and from the site, temporary construction employee commute trips during construction, and the application of asphalt paving materials and architectural coatings. Construction-related emissions consist primarily of (RO), NO_x, and PM₁₀. Emissions of ROG and NO_x are generated primarily by the operation of gas- and diesel-powered motor vehicles, asphalt paving activities, and the application of architectural coatings. Emissions of PM₁₀ are generated primarily by wind erosion of exposed graded surfaces. Additional emissions of PM₁₀ would be generated by diesel-powered construction equipment exhaust.

Construction-related emissions are generally short-term in duration, but may cause adverse air quality impacts. PM₁₀ is the pollutant of greatest concern with respect to construction activities. (While construction equipment emits CO and ozone precursors, these emissions are included in the emissions inventory that is the basis for regional air quality plans, and are not expected to impede attainment of ozone or maintenance of CO standards in the Bay Area.) PM₁₀ emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle and equipment exhaust (BAAQMD 1999).

The BAAQMD emphasizes implementation of effective and comprehensive control measures rather than requiring a detailed quantification of construction emissions. The BAAQMD requires that all feasible control measures, which are dependent on the size of the construction area and the nature of the construction operations involved, shall be incorporated into the project design and implemented during all construction activities. Because the required control measures are not currently incorporated into the project, the short-term construction emissions could result in or contribute to a violation of the applicable air quality standards. As a result, this impact would be potentially significant.

Impact 4.9-2: Consistency with Air Quality Attainment Plans. The project would not result in an increase in regional population or employment growth that would conflict with forecasted growth projections used by the BAAQMD for the development of the CAP. Therefore, this would be a *less-than-significant* impact.

The emission inventories contained in the BAAQMD's CAP are based on projected population growth and vehicle miles traveled for the region based, in part, on the predicted growth identified in regional and community plans and also attribute some cumulative impacts from all development projects. Projects that would result in an increase in population growth or employment growth beyond that identified in regional or community plans, could result in increases in vehicle miles traveled (VMT) and, as a result, these increases in mobile source emissions could conflict with BAAQMD's CAP. Increases in VMT beyond that predicted in area plans would generally have a significant adverse incremental effect on the region's ability to attain state and federal ambient air quality standards.

As discussed in Section 4.2, "Land Use Plans and Policy Consistency," implementation of the project would not result in an increased in population or employment of the local area and, as a result, would not be anticipated to result in a substantial increase in vehicle miles traveled. Consequently, implementation of the project would not be anticipated to result in an increase in projected emissions that would conflict with or obstruct implementation of the BAAQMD's CAP. Therefore, the project would have a less-than-significant impact on the implementation of BAAQMD's CAP.

Impact 4.9-3: Generation of Long-Term Regional (Operational) Emissions of ROG, NO_x, and PM₁₀. With implementation of the project, there would be no increase in recreational usage of the project's facilities above existing conditions and the project would not result in the generation of a substantial number of vehicle trips such that they would result in the substantial generation of regional air emissions. Therefore, this would be a *less-than-significant* impact.

The project would not result in changes to the types or quantities of existing recreational activities offered at the project site because the existing number of trailer/mobile home spaces, and campsites would not change. Further, the maximum number of visitors accessing the site on a daily basis would not change with implementation of the project. The proposed residence and mobile home would result in a minor (e.g. 19 daily trips) increase in the number of daily trips to and from the project site. These trips would represent less than 2% of existing roadway volumes and would not result in the substantial generation of regional air emissions of ROG, NO_x, or PM₁₀. This impact would be a less-than-significant impact.

Impact 4.9-4: Generation of Local Mobile-Source CO Emissions. Implementation of the project would not result in the generation of new vehicle trips and consequently would not result in or further degrade unacceptable LOS at nearby intersections, and would not be anticipated to result in or contribute to local CO concentrations that exceed the California 1 or 8 hour ambient air quality standards of 20 parts per million (ppm) and 9 ppm, respectively. This impact would be a *less-than-significant* impact.

Carbon monoxide (CO) concentration is a direct function of vehicle idling time and, traffic flow conditions. Under specific meteorological conditions, CO concentrations near congested roadways and/or intersections may reach unhealthy levels with respect to local sensitive land-uses such as residential areas, schools, and hospitals. As a result, the BAAQMD recommends analysis of CO emissions at a local rather than a regional level.

The Transportation Project-Level Carbon Monoxide Protocol (Garza et al. 1997) states that signalized intersections at level of service (LOS) E or F represent a potential for a CO violation, also known as a “hot spot.” Thus, modeling of CO concentrations is typically recommended for receptors located near roadway intersections that are projected to operate at a LOS E or F.

Implementation of the project would not result in the generation of a substantial number of new vehicle trips and consequently would not result in or further degrade the LOS of nearby intersections. Thus, implementation of the project would not be anticipated to result in or contribute to local CO concentrations that exceed the California 1- or 8-hour ambient air quality standards of 20 parts per million (ppm) and 9 ppm, respectively. This would be a less-than-significant impact.

Impact 4.9-5: Risk of Exposure of Sensitive Receptors to Odorous Emissions. The project would not include the long-term operation of a major odorous emission source and construction-generated odors would be temporary and would dissipate rapidly from the source. The project would operate a new onsite wastewater treatment system in accordance with RWQCB standards. This would be a *less-than-significant* impact.

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The project would not include the long-term operation of a major odorous emission source; however, construction of the project would result in diesel exhaust emissions from onsite diesel equipment and asphalt paving emissions. Such emissions would be intermittent in nature and odors would dissipate rapidly from the source. In addition, mobile diesel equipment would be present onsite temporarily only during construction operations and given the rural nature of the project site such odors would not be anticipated to affect a substantial number of people. Therefore, the construction of the project is not anticipated to result in the exposure of sensitive receptors to an objectionable odor source.

The project includes the operation of an onsite wastewater treatment system that would include a below-ground separation tank, distribution box, and leachfield. The system treats odor-generating waste. The system is designed to minimize odors and would be operated in accordance with RWQCB standards. Therefore, this would be a less-than-significant impact.

Impact 4.9-6: Exposure of Sensitive Receptors to Toxic Air Emissions. Because of the temporary nature of diesel exhaust emissions from construction equipment and the fact that project would not include the operation of any toxic air emissions sources nor locate sensitive uses near existing sources of such emissions that are not subject to the permit process, this impact would be *less-than-significant*.

The exposure of sensitive receptors to toxic air emissions from short-term construction equipment, existing stationary sources and proposed stationary sources are discussed separately below.

As described in Impact 4.9-1, construction of the project would result in short-term, diesel exhaust emissions from onsite heavy duty equipment. Particulate exhaust emissions from diesel-fueled engines (diesel PM) were identified as a toxic air contaminant by the CARB in 1998. Construction of the project would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for site grading and excavation, paving, and other construction activities. According to the Office of Environmental Health Hazard Assessment, exposure to TACS should be calculated based on a 70-year exposure period to be compared with thresholds of significance. Because the use of mobilized equipment would be temporary (only 2% of the total exposure period), diesel PM from construction activities would not be anticipated to result in the exposure of sensitive receptors to levels that exceed the BAAQMD standards. Mobile diesel equipment would be used only during construction activities and would cease once the project is complete. Therefore, construction activities associated with the project would not be anticipated to result in the generation of diesel PM emissions that exceed the BAAQMD thresholds of significance. This would be a less-than-significant impact.

Under BAAQMD 2-1 (General Permit Requirements), all projects with stationary emission sources that have the potential to emit TACs are required to obtain permits from the BAAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including Rule 2-2 (New Source Review). Given that compliance with applicable standards are required for the construction and operation of land uses that may result in the emissions of TACs, the TAC emissions from the routine use of TACs in operations, both on and off the project site, are expected to be within established standards. As a result, stationary sources of toxic air emissions would be less than significant.

CUMULATIVE IMPACTS

Impact 4.9-7: Cumulative Air Quality Impacts. Development of the project would not result in an individually significant air quality impact of conflict with any applicable air quality plans. As a result, this impact is considered *less-than-significant*.

According to the BAAQMD CEQA Guidelines, the determination of significance for cumulative air quality impacts should be based on the consistency of the project with applicable plans if the project individually would not result in a significant impact. As discussed above, implementation of the project would not result in any significant impacts with respect to the generation of short-term construction, long-term regional, or local emissions of criteria air pollutants. In addition, as discussed in detail in Impact 4.9-2, implementation of the project would be consistent with all applicable air plans. Therefore, the project's contribution to cumulative regional air quality impacts would be cumulatively less-than-significant.

4.9.4 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.9-1: Reduction Measures for the Generation of Short-Term Construction Emissions. In accordance with BAAQMD CEQA Guidelines (BAAQMD 1999), the following mitigation, which includes BAAQMD-recommended Basic, Enhanced, and Optional Control Measures, shall be implemented to reduce construction generated emissions.

- ▶ water all active construction areas at least twice daily.
- ▶ cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

- ▶ pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- ▶ sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- ▶ sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- ▶ hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- ▶ enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- ▶ limit traffic speeds on unpaved roads to 15 mph in construction areas.
- ▶ install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- ▶ replant vegetation in disturbed areas as quickly as possible.
- ▶ install wheel washers for all exiting trucks, or wash off the tire or tracks of all trucks and equipment before leaving the site.
- ▶ install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
- ▶ suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- ▶ limit the area subject to excavation, grading, and other construction activity at any one time.
- ▶ minimize idling time.
- ▶ maintain properly tuned equipment.
- ▶ limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.

In addition to the measures identified above, construction activities are also required to comply with all applicable BAAQMD rules and regulations, specifically Rule 8-3 regarding architectural coatings, Rule 8-15 regarding asphalt paving, Rule 11-2 regarding demolition, and Regulation 6 regarding particulate matter and visible emissions.

According the BAAQMD CEQA Guidelines (BAAQMD 1999), implementation of all the above mitigation measures would reduce air pollutant emissions from construction activities to a less-than-significant level.

Mitigation Measure 4.9-2: No mitigation measures are required.

Mitigation Measure 4.9-3: No mitigation measures are required.

Mitigation Measure 4.9-4: No mitigation measures are required.

Mitigation Measure 4.9-5: No mitigation measures are required.

Mitigation Measure 4.9-6: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.9-7: No mitigation measures are required.

4.9.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project impacts would be reduced to a less-than-significant level with implementation of the mitigation described above. No cumulative air quality impacts would occur with the project.

4.10 NOISE

This section analyzes the noise impacts associated with the construction and operation of the project. Mitigation measures are recommended as necessary to reduce potentially significant project impacts. This section also presents a discussion of noise fundamentals, the existing noise environment in the project vicinity, and applicable state, and local noise regulations.

Bollard & Brennan, Inc. collected ambient noise measurements from the project site and prepared an Environmental Noise Analysis (2004). This section summarizes the results of Bollard & Brennan's report and incorporates information from the following reports, where relevant:

- ▶ *Draft Lawson's Landing Environmental Assessment* (Western Ecological Services Company, Inc. 1991); and
- ▶ *Notice of Draft Negative Declaration of Environmental Impact, Lawson's Landing Master Plan, Coastal Permit, and Tidelands Permit* (Marin County Community Development Agency 2000).

Copies of these reports are available for review at the Marin County Community Development Agency, 3501 Civic Center Drive, San Rafael, California.

4.10.1 EXISTING CONDITIONS

ACOUSTIC FUNDAMENTALS

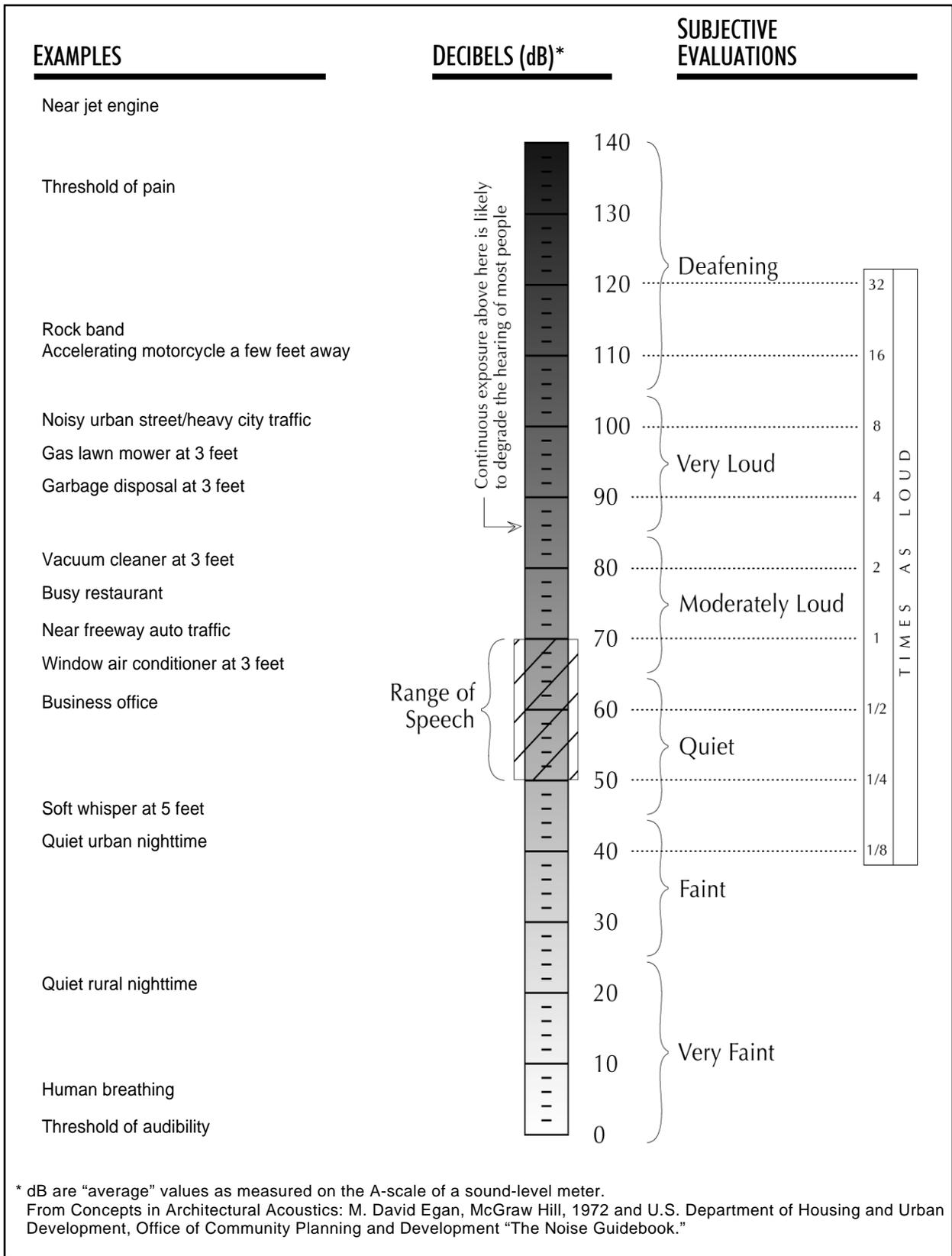
Noise is often defined as unwanted sound. Common environmental noise sources and noise levels are presented in Exhibit 4.10-1. Sound is a mechanical form of radiant energy transmitted by pressure waves in the air. It is characterized by two parameters: amplitude (loudness) and frequency (tone).

Amplitude

Amplitude is the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements correlate a 10 dB increase in amplitude with a perceived doubling of loudness and establish a 3 dB change in amplitude as the minimum audible difference perceptible to the average person.

Frequency

Frequency is the number of fluctuations of the pressure wave per second. The unit of frequency is the Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. Sound waves below 16 Hz or above 20,000 Hz cannot be heard at all, and the ear is more sensitive to sound in the higher portion of this range than in the lower. To approximate this sensitivity, environmental sound is usually measured in A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA.



Source: EDAW 2004

Typical Noise Levels

EXHIBIT 4.10-1

Noise Descriptors

The intensity of environmental noise fluctuates over time, and several descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source is dependant upon the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often used to describe environmental noise are defined below.

- ▶ L_{\max} (Maximum Noise Level): The maximum instantaneous noise level during a specific period of time. The L_{\max} may also be referred to as the “peak (noise) level.”
- ▶ L_{\min} (Minimum Noise Level): The minimum instantaneous noise level during a specific period of time.
- ▶ L_{eq} (Equivalent Noise Level): The energy mean noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the L_{eq} .
- ▶ L_{dn} (Day-Night Noise Level): The 24-hour L_{eq} with a 10 dBA “penalty” for the noise-sensitive hours between 10:00 p.m. and 6:00 a.m. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- ▶ CNEL (Community Noise Equivalent Level): The CNEL is similar to the L_{dn} described above, but with an additional 4.77 dBA “penalty” for the noise-sensitive hours between 7:00 p.m. to 10:00 p.m., which are typically reserved for relaxation, conversation, reading, and television. If using the same 24-hour noise data, the CNEL is typically approximately 0.5 dBA higher than the L_{dn} .

Characteristics of Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Noise generated by mobile sources (e.g., cars, trains) typically attenuates at a rate between 3.0 to 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6.0 to about 7.5 dBA per doubling of distance.

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the “line of sight” between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but are less effective than solid barriers.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks demanding concentration or coordination. Hearing loss can occur at the highest noise intensity levels. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases. The

acceptability of noise and the threat to public well-being are the basis for land use planning policies preventing exposure to excessive community noise levels.

EXISTING NOISE SENSITIVE LAND USES

Noise-sensitive land uses are generally considered to include those uses 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, including senior housing, are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places, where low interior noise levels are essential, are also considered noise-sensitive land uses.

Noise-sensitive land uses in the immediate project vicinity include existing and future single-family homes (including mobile homes) on the project site and immediately north of the project site in the community of Dillon Beach.

EXISTING NOISE ENVIRONMENT

The existing ambient noise environment in the immediate project vicinity is defined by a combination of natural sound (ocean, wildlife, etc.) and Lawson's Landing activities, including local roadway traffic, boat house and pier activities, and sand quarrying operations.

To quantify the existing ambient noise environment in the project vicinity, long-term (24-hour) ambient noise level surveys were conducted at two locations on the project site on September 16-17, 2003. The noise measurement locations are shown in Exhibit 4.10-2.

Larson-Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the noise level surveys. The meters were calibrated with a LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters (ANSI S1.4).

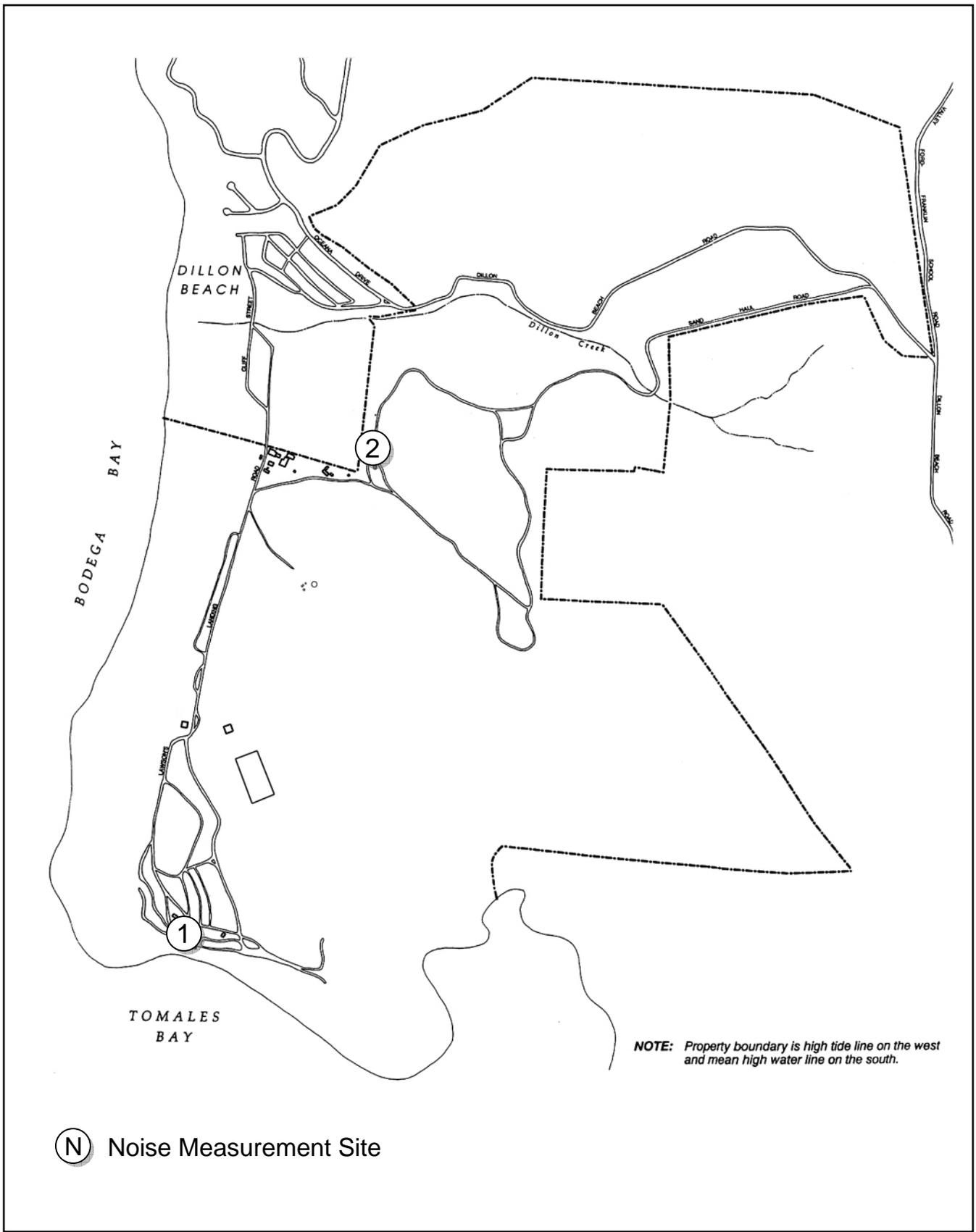
Ambient noise level survey results are presented in Exhibits 4.10-3 and 4.10-4 for Sites 1 and 2, respectively. These results accurately represent the existing noise environments for the two distinctly different residential settings on the project property (boat house/pier and ranch areas).

REGULATORY BACKGROUND

Various private and public agencies have established noise guidelines and standards to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise. Applicable standards and guidelines for the project are discussed below.

State of California

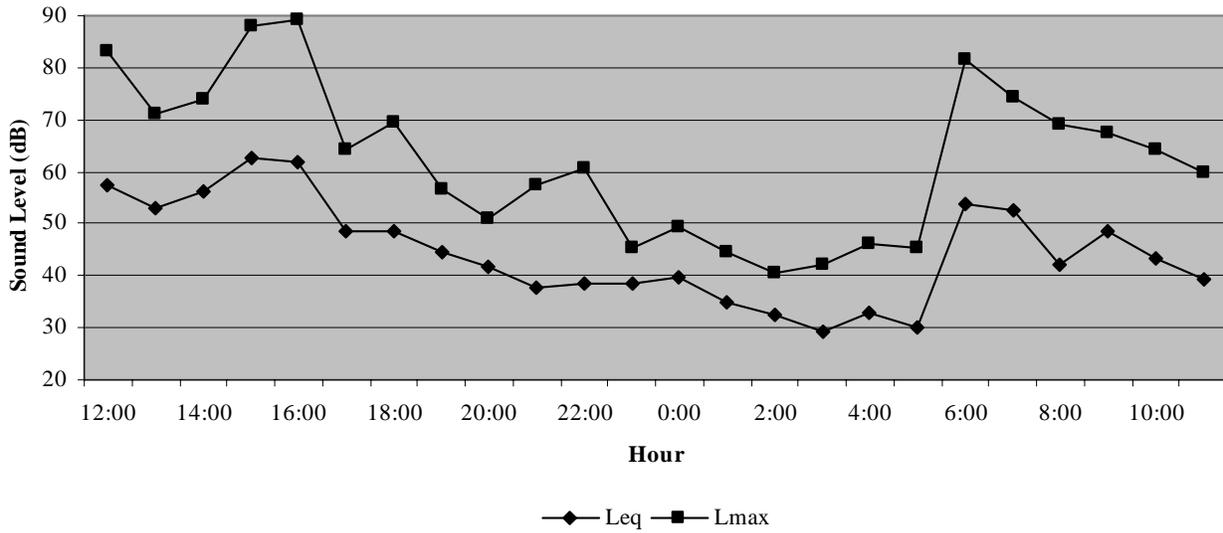
The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, freeway noise affecting classrooms, sound transmission control, occupational noise control, and noise insulation.



Source: Bollard & Brennan 2004

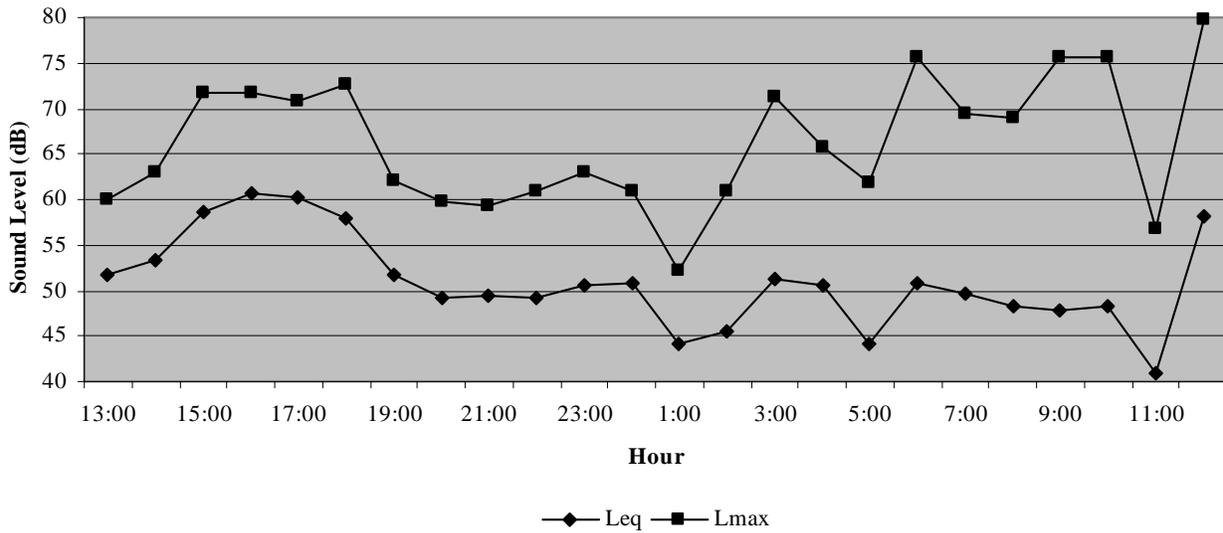
Noise Measurement Sites

**AMBIENT NOISE MEASUREMENT RESULTS
 SITE 1 - SEPTEMBER 16-17, 2003
 LAWSON'S LANDING PROJECT
 MARIN COUNTY, CALIFORNIA**



Source: Bollard & Brennan 2004

**AMBIENT NOISE MEASUREMENT RESULTS
 SITE 2 - SEPTEMBER 16-17, 2003
 LAWSON'S LANDING PROJECT
 MARIN COUNTY, CALIFORNIA**



Source: Bollard & Brennan 2004

The California Sound Transmission Control Standards state that interior noise levels attributable to exterior sources, with windows closed, shall not exceed an annual noise level of 45 dBA L_{dn} in any habitable room. The State Office of Noise Control provides guidance for the acceptability of projects within specific L_{dn} contours (State Office of Noise Control 1976). Projects that include residential uses, churches, libraries and schools are normally unacceptable in areas in which noise levels exceed 70 dBA L_{dn} , and conditionally acceptable in areas with noise levels between 60 and 70 dBA L_{dn} .

Marin County Noise Element Criteria

The Marin Countywide Plan Noise Element contains policies that address noise-sensitive land uses and standards to avoid noise-related impacts from existing uses and new developments within the unincorporated part of the County. Exhibit 4.10-5 presents the Marin County Land Use Compatibility for Community Noise Environments.

The acceptable noise exposure level in Marin County for noise-sensitive land uses, such as residential dwellings, schools, and parks, is 60 L_{dn} or less. The acceptable interior noise exposure level for new residential land uses is 45 dBA L_{dn} .

The Countywide Noise Element allows for an upward adjustment of the Exhibit 4.10-5 values to equal the measured ambient noise levels when the measured ambient noise levels already exceed the noise level standards. The criterion values in Exhibit 4.10-5 may also be reduced by 5 dB when the measured ambient noise levels are at least 10 dB lower than the noise level standards.

Measured existing ambient noise levels at Site 1 (Exhibit 4.10-3), exceeded the county's noise level standards between the hours of 6-7 a.m. and 12-4 p.m. Similarly, measured existing ambient noise levels at Site 2 (Exhibit 4.10-4) generally exceeded the standards between the hours of 12-7 p.m. Adjustments to the levels shown in Exhibit 4.10-5 are allowed in cases such as these where the measured ambient noise levels already exceed the standards. However, because measured ambient noise levels were not consistently above the standards and only represent a snap shot of the noise environment, for purposes of this analysis the noise level standards are not adjusted.

Marin County has adopted time-of-day noise standards that apply to construction activities. Noise-generating construction activities are limited to between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 4:00 p.m. on Saturday. Construction activities are prohibited on Sundays and holidays.

Dillon Beach Community Plan

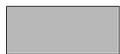
Policy EQ-11.1 of the Dillon Beach Community Plan established guidelines to minimize construction noise impacts at existing noise-sensitive land uses. This policy establishes hours of operation for construction work of 8:00 a.m. to 5:00 p.m., Monday-Friday. In addition, stationary construction noise sources should be located as far from noise-sensitive receivers as possible. Where applicable, construction equipment should incorporate modern-day noise reduction technology (e.g. mufflers and/or silencers).

Community Ambient Noise Degradation

In addition to the criteria discussed above, another consideration in defining impact criteria is based on the degradation of the existing noise environment. In community noise assessments, it is "generally not significant" if no noise-sensitive sites are located in the project area, or if increases in community noise

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} or CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL - LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES	[Bar with solid, diagonal, and cross-hatch patterns]					
RESIDENTIAL - MULTIFAMILY	[Bar with solid, diagonal, and cross-hatch patterns]					
TRANSIENT LODGING - MOTELS, HOTELS	[Bar with solid, diagonal, and cross-hatch patterns]					
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES	[Bar with solid, diagonal, and cross-hatch patterns]					
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES	[Bar with diagonal and cross-hatch patterns]					
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS	[Bar with diagonal and cross-hatch patterns]					
PLAYGROUNDS, NEIGHBORHOOD PARKS	[Bar with solid, diagonal, and cross-hatch patterns]					
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES	[Bar with solid, diagonal, and cross-hatch patterns]					
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL	[Bar with solid, diagonal, and cross-hatch patterns]					
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE	[Bar with solid, diagonal, and cross-hatch patterns]					

INTERPRETATION



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



CONDITIONALLY ACCEPTABLE

New construction should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply will normally suffice.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Source: Marin County 1994

**Marin County Land Use Compatibility for
Community Noise Environments**

EXHIBIT 4.10-5

level with the implementation of the project are expected to be 5 dBA or less at noise-sensitive locations, and the project would not result in violations of local ordinances or standards.

The “significance” of a change in noise levels is somewhat subjective. However, both Caltrans and the Federal Highway Administration have published general criteria, applicable to roadway noise that can also be used to define noise impacts associated with other community noise increase. In general, if the increase in noise exposure level is greater than 3 dBA, the significance of impact will depend on the ambient noise level and the presence of noise-sensitive land uses. Noise impacts can be considered “possibly significant” if increases in noise exposure levels are expected to be no greater than 5 dBA with implementation of the project. Noise impacts can be considered “generally significant” if a project causes noise standards or ordinances to be exceeded, or increases community noise levels by 6 to 10 dBA in urban areas, or increase noise levels by 1 dBA or more in more rural areas.

4.10.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, asks the following questions for determining significant effects related to noise:

- ▶ would the project result in 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?
- ▶ would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- ▶ would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- ▶ would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?
- ▶ 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?

For purposes of this analysis, a noise impact is considered “generally not significant” if increases in offsite community noise levels with implementation of the project change by 3 dBA or less at noise-sensitive locations because this represents the minimum audible difference to the average person.

Appendix N of the Marin County Environmental Impact Review Guidelines, adopted 1994, provides the following guidelines for analyzing the significance of project noise impacts (Marin County 1994b):

- ▶ would the project generate noise that would conflict with Countywide noise standards or other state or local noise standards?
- ▶ does the project propose land uses that substantially increase noise levels in areas of sensitive receptors?

- ▶ is the land use proposed by the project compatible with the baseline noise levels?

PROJECT IMPACTS

Impact 4.10-1: Construction-Generated Noise. Depending on the specific construction activities being performed, the location of these activities, and the equipment used, increases in average daily noise levels from construction activity could potentially exceed the County’s land use compatibility noise thresholds at nearby noise-sensitive receptors (i.e., residences) and result in an increase of average daily noise levels of 3 dBA or greater. Construction of the project could result in temporary, *potentially significant* noise impacts.

Construction noise would be temporary and would include noise from activities such as demolition of existing facilities, site preparation, truck hauling of material, paving, and building and infrastructure construction. Construction noise typically occurs intermittently and varies depending on the nature or phase. Noise associated with some construction equipment (i.e., earthmovers, dozers) could reach high levels. Depending on the operations conducted, individual equipment noise levels can range from 79 to 91 dBA at 50 feet, as indicated in Table 4.10-1. The exact onsite equipment required for the construction activities for the project is not known at this time, but would be anticipated to include at least one scraper, one excavator, one loader, one backhoe, and one truck at any one time. The simultaneous operation of such onsite construction equipment could potentially result in combined intermittent noise levels of approximately 93 dBA at 50 feet from the construction site. Although such levels would be audible at the nearest existing residences (primarily near the Boat House - Site 1), they would be temporary in nature and would likely occur during normal daytime working hours. Nonetheless, because construction activities could result in periods of elevated noise levels and these noise levels could exceed the County’s land use compatibility noise thresholds and result in an increase in average daily noise levels of 3 dBA or greater, this would be a potentially significant short-term noise impact.

Type of Equipment	Noise Level in dBA at 50 feet	
	Without Feasible Noise Control	With Feasible Noise Control ¹
Loader	79	75
Dozer or Tractor	80	75
Crane	83	75
Scraper	88	80
Excavator	88	80
Compactor	82	75
Backhoe	85	75
Grader	85	75
Generator	78	75
Truck	91	75

¹ Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds in accordance with manufacturers’ specifications.
Sources: EPA 1971

Impact 4.10-2: Operational Noise Impacts. Implementation of the project would not be anticipated to result in a noticeable increase in average daily ambient noise levels at nearby noise-sensitive land uses that would exceed the County’s land use compatibility noise exposure thresholds.

Further, the project would not result in the generation of new vehicle trips that would result in a noticeable increase in traffic noise levels along local roadways. This would be a *less-than-significant* impact.

The project would construct the necessary upgrades at onsite facilities to improve the operational performance of those facilities (e.g. new wastewater system, new boat house). These upgrades would not change the land uses or operations at the site. The project includes the construction of two onsite residences. Noise typically associated with such development includes minimal roadway traffic noise associated with residential traffic, amplified music, adult and children voices, as well as noise generated by various recreational activities and yard maintenance equipment. Activities associated with these land uses would result in only minor increase in ambient noise levels primarily during the day and evening hours and less frequently at night as perceived by the closest residential receptors, which include the onsite travel trailers and residences and the offsite residences located north of the gatehouse along Cliff Street. Noise levels generated by stationary sources, primarily residential air conditioning units, typically average less than 60 dBA at 3 feet from the source (EPA 1971). Noise generated by the proposed residences would not result in a noticeable increase (i.e., 3 dBA or greater) in ambient noise levels at nearby land uses.

The project would not result in changes to the level or capacity of existing recreational activities offered at the project site because the existing number of trailer/mobile home spaces, campsites, and day-use vehicles allowed on the property would not change from current conditions. On an emergency basis, helicopters would land in the Main Meadow area of the project site and could subject residents and visitors to the project site to a loud, temporary noise source. Because use levels at the project site would not change, emergency helicopter landings would be infrequent and short-term in duration and would not substantially change from existing conditions. The proposed mobile home and residence would generate 19 daily vehicle trips, which is less than 2% of existing roadway volumes. Typically, a doubling of roadway traffic volumes is required to result in a noticeable (i.e., 3 dBA) increase in ambient noise levels. Because implementation of the project would not be anticipated to result in a noticeable increase in average daily ambient noise levels at nearby noise-sensitive land uses that would exceed the County's land use compatibility noise exposure thresholds, the project would not substantially increase the frequency of emergency helicopter landings and the project would not result in a substantial increase in traffic trips, the project would result in less-than-significant operational noise impacts.

CUMULATIVE IMPACTS

Impact 4.10-3: Cumulative Noise Impacts. Implementation of the project would not result in the substantial generation of new vehicle trips and consequently would not result in an increase in traffic noise levels along local roadways. Further, the project's stationary noise sources would not combine cumulatively with noise sources of other cumulative development because of the remote nature of the site and the distance of the site from cumulative development. The project would not contribute to cumulative noise impacts. Therefore, this would be a *less-than-significant* cumulative noise impact.

Noise levels associated with the project's proposed stationary noise sources (e.g., residences) would not combine cumulatively with noise sources of other cumulative development because the remote nature of the project site and the site's distance from other cumulative development. As discussed above in Impact 4.10-2, implementation of the project would not result in the generation of new vehicle trips and consequently would not result in an increase in traffic noise levels along local roadways. Furthermore, proposed improvements would not result in any new stationary sources of noise at the site. Traffic volumes associated with cumulative development would result in increased noise levels in the area. However, the project would not make a considerable contribution to this cumulative impact because it would not result in audible significant increases in project-related traffic noise resulting from vehicle traffic. Further, increases in traffic noise levels

associated with cumulative development would likely result in an increase of less than 1 dBA. Such an increase is generally considered imperceptible and not significant. This would be a less-than-significant cumulative noise impact.

4.10.4 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.10-1: Construction-Related Noise Impacts.

- ▶ Construction activities shall adhere to the Dillon Beach Community Plan requirements with respect to hours of operation: Heavy or otherwise “noisy” construction equipment (e.g. bulldozers, backhoes, scrapers/graders, heavy trucks, compactors, pavers, and pneumatic tools) should be operated during the hours of 8 a.m.-5 p.m. only, Monday through Saturday. Construction activities shall be prohibited on Sundays and holidays.
- ▶ Equipment engine doors on motorized equipment shall be closed during equipment operation.
- ▶ All construction equipment shall be equipped with mufflers.
- ▶ When not in use, motorized construction equipment shall not be left idling.
- ▶ Stationary noise-generating construction equipment (e.g., generators and compressors) shall be located the greatest distance possible from nearby noise-sensitive land uses.

Mitigation Measure 4.10-2: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.10-3: No mitigation measures are required.

4.10.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measure, noise-related project impacts would be reduced to a less-than-significant level.

4.11 LAND USE, AGRICULTURE, AND RECREATION

This section discusses the existing onsite and surrounding land uses, analyzes the changes or impacts to these uses that would occur with implementation of the project, and recommends mitigation measures, if necessary, to reduce any significant impacts. This analysis addresses the project's effects on land use and compatibility, community character, agriculture, and recreational facilities. An analysis of the project's consistency with applicable land use policies is included in Section 4.2, "Land Use Plan and Policy Consistency."

The information in this section is based on data obtained through field reconnaissance of onsite and surrounding land uses conducted by EDAW staff in 2003, review of county and community plans, and review of aerial photographs of the project site and vicinity.

4.11.1 EXISTING CONDITIONS

The project site is located in western Marin County in a predominantly undeveloped area characterized by mountains, rolling hills, beaches, rocky shoreline, bays, lagoons, and tidal wetlands. The property is bordered by coastal ridges on the north and east, Tomales Bay on the south, and the Pacific Ocean (Bodega Bay) on the west. Existing onsite and surrounding land uses are described below.

EXISTING ONSITE LAND USES

The 940960-acre project site currently supports several land uses. The majority of the site is used for agricultural purposes (sheep and cattle grazing), with recreation, sand quarrying, and residential uses on various portions of the property. The northern portion of the property houses a ranching operation with a barn complex and several ranching pastures and hayfields totaling approximately 552 acres. The southern portion of the property supports approximately 221 acres of grazing and calving land, but cattle and sheep graze over most of the site (i.e., approximately 849 total acres). Recreational uses cover approximately 180 acres in the southwestern portion of the project site and include a boathouse complex with pier, camping areas, and a travel trailer park. Sand is quarried from dune areas near the central portion of the property on approximately 39 acres. In addition to 233 units in the trailer park, a total of ten residences are located in three areas of the property. Specifically, two houses and a mobile home are located near the barn complex, two mobile homes and a house are located near the entrance gate house, and three mobile homes are located near the boathouse complex at Sand Point. These residences are occupied by owners and staff of Lawson's Landing. Lawson's Landing also allows 200 day-use vehicles to access the site for recreational activities on a daily basis.

SURROUNDING LAND USES

Land uses in the vicinity of the project site include agricultural lands, open space, coastal beaches, and low density residential areas. The coastal community of Dillon Beach is located just northwest of the project site. A small tract of residences is located just north of the main entrance along Cliff Street.

Land to the north and east is generally open countryside with isolated farmhouses and is used primarily for agricultural operations including grazing and ranching. Tomales Bay and coastal beaches are located to the south of the project site. The Pacific Ocean (Bodega Bay) is located to the west with the northernmost portion of Point Reyes National Seashore visible west of Bodega Bay.

FARMLAND MAPPING AND MONITORING PROGRAM

The U.S. Natural Resources Conservation Service (NRCS) developed a system to categorize types of soils by their suitability for agriculture. The California Department of Conservation (CDC) used these soil categories to map California's farmland. The resulting Farmland Mapping and Monitoring Program (FMMP) was created to provide data for decision makers for use in planning for the current and future use of the state's agricultural lands. The FMMP gives designations to land areas according to their suitability for agricultural production. These designations include Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, Other Land, and Water. Most of the project site and surrounding lands are designated as Grazing Lands and Farmlands of Local Importance (Exhibit 4.11-1).

The CDC defines Grazing Land as "land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock." Farmland of Local Importance is defined by each county in California. In Marin County, it is defined as land that is not irrigated, but is cultivated or has the potential for cultivation. No portion of the site or any surrounding land is classified by CDC or Marin County as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Exhibit 4.11-1).

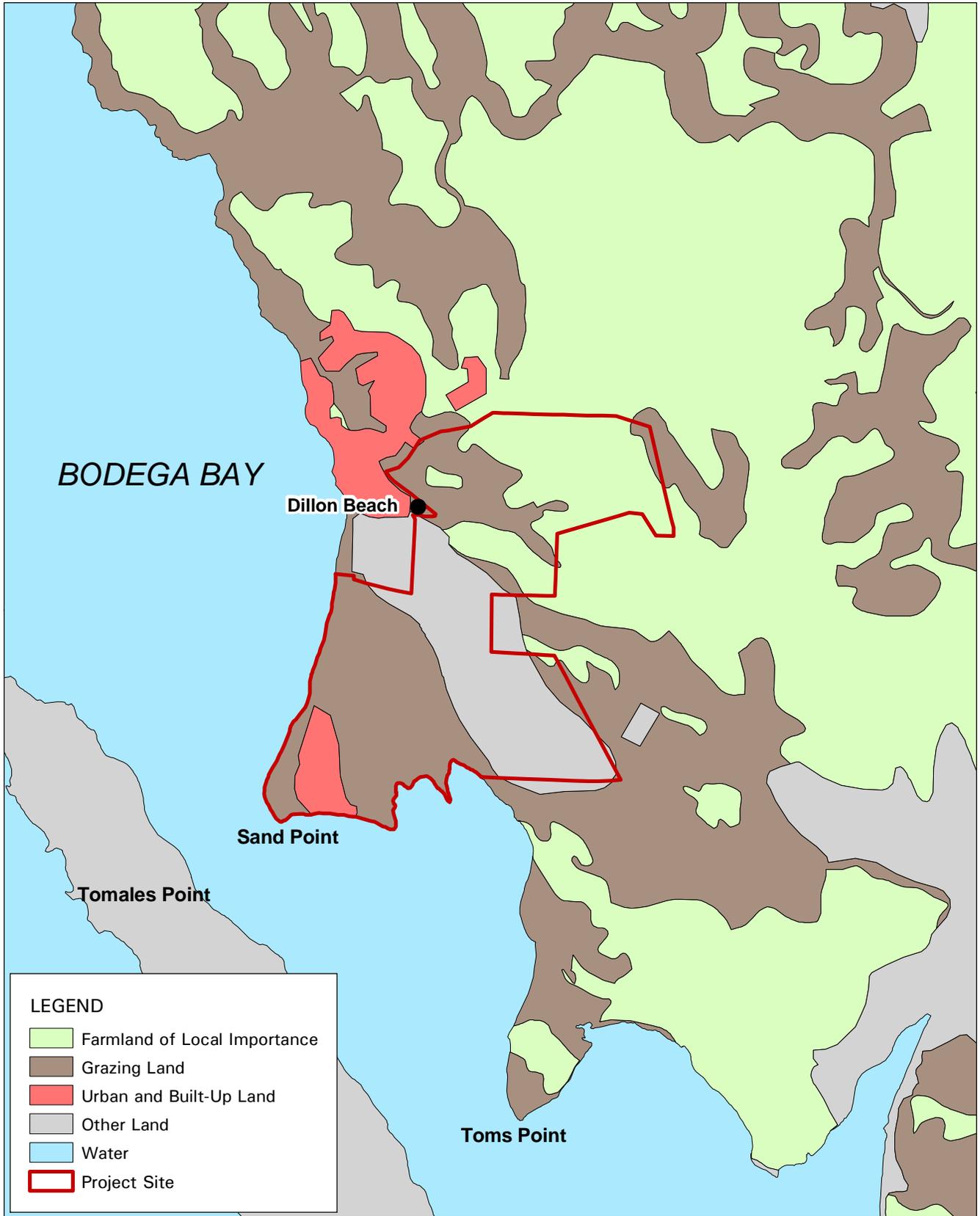
As discussed in Section 4.6, "Geology and Soils," the project site incorporates Holocene sand dunes and clay loam soils. The clay loam soils on the project site extend from the dune complex traversing through the center of the property to the upland areas north and east of the project site. The California Department of Conservation does not classify the clay loam soil unit as Prime Farmland soil (CDC, Soil Candidate Listing, Marin County 2004) and the project site is not currently irrigated. Therefore, the project site is not considered Prime Farmland based on CDC definitions.

WILLIAMSON ACT

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971 (California Department of Conservation 2005).

Marin County established policies, contained in Board of Supervisors Resolution #71-38, to administer Williamson Act contracts, which are referred to as Land Conservation Agreements (LCA). These policies specify which land uses are compatible with the terms of LCAs and provide guidance for considering residential development and subdivision of land encumbered by LCAs. The statements below summarize Marin County's policies.

1. During the term of the agreement, the land subject to the agreement cannot be used for any purpose other than the production of agricultural commodities for commercial purposes or other uses determined by the County to be compatible with such uses. All structures must be directly related to and compatible with allowed uses.
2. Allowed uses and structures must be consistent with permitted uses listed in Section III of Resolution 71-38.



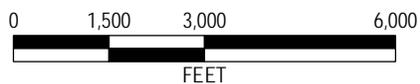
Source: FMMP 2002

Important Farmland

EXHIBIT 4.11-1

Lawson's Landing Master Plan Draft EIR

X 02110069.01 11/04



3. As a general rule, only one single family residence (principal residence) may be permitted on land subject to a LCA regardless of the number of parcels included within the contract. Additional units up to the maximum allowed under the zoning may be developed for family members or employees engaged in the agricultural use of the land only after an affirmative finding by the County that such units are reasonably related to the agricultural use of the land. In rare instances, a dwelling unit exceeding the maximum density permitted under the zoning may be considered by Use Permit application pursuant to Marin County Code Section 22.10.020(b)(18).
4. A parcel or parcels subject to a LCA may be subdivided consistent with County standards. Parcels created by subdividing lands subject to LCAs may be developed with residential units consistent with paragraph 3 above. However, approval of additional units should be clearly related to the agricultural use of the property and shall not support or encourage the development of separate parcels for residential purposes.
5. The overriding principle of developing residential units on parcels subject to LCAs is that such development shall be the minimum necessary to support agricultural use of the land. Development of parcels created through a subdivision process will not be encouraged and will be subject to the rigorous standards expressed in Resolution 71-38 (Riesenfeld 1990).

Three overriding issues related to allowable uses on properties subject to LCAs come out of the above statements which include (1) approval of additional residential units should be clearly related to agricultural use of the property, (2) allowed uses and structures must be consistent with permitted uses under Resolution 71-38, and (3) development of residential units shall be the minimum necessary to support agricultural use of the land.

The majority of parcels within Lawson's Landing having a current LCA, according to Marin County assessor parcel maps.

RECREATION

The project site supports a 180-acre recreation area in the southwest portion of the property known locally as Sand Point. This area currently supports a travel trailer park; camping areas; a boathouse complex including an office, snack bar, shops and pier; boat storage, rental, launching, and mooring; restroom facilities; and laundry. A maximum of 200 day-use vehicles, in addition to 1,000 campsites, are allowed. Recreational opportunities include camping, boating, fishing, clamming, beachcombing, and hiking. The trailer park houses 233 travel trailers on a year-round basis, but the majority of the travel trailers are used on a seasonal basis (i.e., spring and summer). The boathouse area provides boat storage and repair and sells fishing and camping supplies. Camping areas are primarily located in the main meadow along the western border of the project site.

EXISTING OPEN SPACE

Public open space generally includes lands owned by a federal, state, and/or local agency, and privately-owned lands used for parks, outdoor recreation areas, habitat protection, agriculture, public and quasi-public uses, and golf courses. The ~~940~~960-acre project site is largely private open space used for grazing, recreation, and reclamation.

PUBLIC TRAILS

No public trails are located on the project site. The project site supports a 180-acre recreation area in the southwest portion of the property that incorporates an informal and discontinuous system of private

pedestrian trails that are situated mostly in an east-west direction along the foredunes and provide access to the water-fronting portion of the property.

4.11.2 ENVIRONMENTAL IMPACTS

This section analyzes the changes to land uses proposed in the Lawson's Landing Master Plan that are above and beyond the baseline conditions. Section 3.3.2, Project Description, identifies and describes the baseline land uses for Lawson's Landing project site.

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would normally have a significant effect on the environment as it relates to land use, agriculture, or recreation if it would:

- ▶ disrupt or divide the physical arrangement of an established community.
- ▶ conflict with existing zoning for agricultural use, or with a Williamson Act contract.
- ▶ involve changes which could result in conversion of Farmland to non-agricultural use.
- ▶ 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.
- ▶ include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Appendix N of the Marin County Environmental Impact Review Guidelines, adopted 1994, provides guidelines for analyzing the significance of physical project impacts (Marin County 1994b). According to these guidelines, the project would have significant impacts related to land use or recreation if it would:

- ▶ result in conversion of dedicated open space into urban or suburban scale development.
- ▶ call for land uses that would convert prime agricultural land to non-agricultural use or impair the productivity of prime agricultural land.
- ▶ call for land uses that would conflict with existing or proposed uses at the periphery of the project area, or result in nuisance impacts as a result of incompatible land uses.

An analysis of the project's consistency with County land use policies is included in Section 4.2, "Land Use Plans and Policy Consistency."

PROJECT IMPACTS

Impact 4.11-1: Alteration of Onsite Land Uses. The project would result in the upgrading of existing recreation facilities, the enhancement of agricultural facilities, construction of new wastewater treatment facilities, and the construction of one new owners' residence and one new employee residence. These physical changes are in support of and consistent with continuing the existing agricultural, recreational, residential, and sand quarrying activities. There would be no change in the capacity of recreation facilities, recreational use levels, and the overall uses of the project site. Consequently, this would be a *less-than-significant* impact.

Implementation of the project would result in physical changes to lands currently used for recreation including the construction of restrooms, shower facilities, and an onsite wastewater treatment system; the installation of water storage tanks; expansion of the boat house; the reconstruction and expansion of the gatehouse and vehicle entrance lanes; the addition of a pedestrian trail system and informational signage; and the formalizing and signing of existing traffic pull-outs on Dillon Beach Road. These proposed physical changes would upgrade existing recreational facilities at the site. The number of travel trailers, campsites (i.e., 1,000), and vehicles allowed for day use (i.e., 200) would not change, so the capacity of recreation facilities would remain the same. Consequently, use levels (i.e., number of campers, day users, vehicles) would be unchanged from existing levels. The project would also result in the merger of numerous parcels in the recreation use area to ensure that this area would continue to be used for recreational purposes into the foreseeable future. These facility and parcel changes are in support of continuing the existing recreational land uses. Therefore, the project would not result in significant alterations to recreational land uses at the project site.

Implementation of the project would result in minor physical changes in land areas currently used for agricultural practices (cattle and sheep ranching) including the construction of a new 1,000 square foot shop attached to an existing barn, the placement of new water troughs and ~~Crystalalx barrels~~ RYSTALYX barrels ~~erystal-lyxs~~ throughout pasture areas, and the reconstruction of an existing fence. These proposed physical changes would improve existing agricultural facilities and would not change the type or intensity of existing agricultural land uses. Further, these uses would be allowable under the existing LCAs and are consistent with the conditional and permitted uses of the underlying zoning districts.

The project would result in the construction of one new owner's residence by the northern barn complex, and one new employee mobile home near the recreation area at Sand Point. These residences would be used in support of the existing agricultural and recreational uses and would be consistent with existing land use designations (see Section 4.2, "Land Use Plans and Policy Consistency"). The addition of the two residences would not alter the dominant agricultural and recreational land uses at the project site and would be allowable under existing LCAs.

The project would result in the construction of facilities that would support or enhance existing ranching, recreation, and open space activities. The project would not result in the conversion of farmland or open space areas to urban uses and proposed uses would be consistent with existing land use designations for the project site. With implementation of the project, land uses would be unchanged from existing conditions. Therefore, this would be a less-than-significant impact.

Impact 4.11-2: Conversion of Agricultural Land or Williamson Act Contract Land. The project site is not designated as Prime Farmland, nor would the project involve the conversion of existing farmland to a non-agricultural use. Proposed changes in the agricultural portions of the property involve improvements for farming operations and would not adversely affect the productivity of this farmland. The agricultural activities would remain essentially the same and would be consistent with existing land conservation agreements. This would be a *less-than-significant* impact.

The agricultural portions of the property are designated as Grazing Land or Farmland of Local Importance by the FMMP. The entire site is under a Williamson Act contract. The majority of the project site is used for cattle and sheep grazing. Facilities that would be implemented under the project would be primarily located in recreation areas outside the areas primarily used for ranching operations. Some minor physical changes such as the construction of a new 1,000 square foot shop attached to an existing barn and the placement of new water troughs and ~~Crystalalx~~ RYSTALYX barrels ~~erystal-lyxs~~ throughout pasture areas would be implemented but would be consistent with existing agricultural operations. The

project would not convert farmland to non-agricultural uses nor would it result in the cancellation of the existing Williamson Act contract. Therefore, this would be a less-than-significant impact.

Impact 4.11-3: Capacity of Recreational Facilities. The project would upgrade the existing recreational facilities at the site but would not increase the capacity of facilities nor the recreational use levels. The proposed improvements to onsite recreational facilities would enhance the operation of existing facilities but would not result in the need for additional recreational facilities onsite or offsite. Recreational activities at the site would remain essentially the same with implementation of the project. Therefore, the project would have a *less-than-significant* impact on recreational facilities.

Implementation of the project would result in changes to existing recreation facilities at the site. These changes would improve the quality of recreational opportunities available at the project site by providing improved facilities and correcting existing deficiencies with the existing facilities. The project would not result in the construction of a substantial number of new housing units and, therefore, would not increase demand for neighborhood or regional parks or other recreational facilities.

Although the project would involve upgrading existing recreational facilities, these facilities would not increase the number of travel trailers, campsites, or day-use vehicles. The overall recreation uses of the project site would continue at use levels the same as existing conditions. Because the project would not substantially change the recreational uses onsite or require the need for new or expanded of recreational facilities offsite, the project would result in less-than-significant impacts to recreational facilities.

Impact 4.11-4: Land Use Compatibility. The project would not change the type, level, or location of existing onsite land uses including recreation, agriculture, residential, and sand mining operations. Existing uses are compatible with each other and surrounding land uses. Therefore, the project would result in *less-than-significant* land use compatibility impacts.

The project site is used primarily for agricultural (e.g., cattle and sheep ranching) and recreational activities. The project would improve the existing recreational and agricultural facilities and construct two residences to support these existing onsite uses. Existing land uses are compatible in terms of land use type and density with surrounding land uses. Ranching and cattle grazing occur over the entire site, and are adjacent to other agricultural or open space lands to the north and the east. Recreational activities occur on the southern and western areas of the property, and are adjacent to the Pacific Ocean to the west and the south, and the small coastal resort community of Dillon Beach to the northwest.

The project would not result in changes to existing land uses onsite or offsite, but would only result in physical improvements to existing facilities and activities. In addition, the project would not increase the recreational use levels above existing levels. Overall, the project would improve the existing conditions at Lawson's Landing and would not change the type, density, or location of existing land uses on the project site. Furthermore, proposed land uses would be compatible with onsite and surrounding land uses. Therefore, this would be a less-than-significant impact.

Impact 4.11-5: Change in Community Character. Dillon Beach and Lawson's Landing would retain their character as a coastal community and recreational area. The project would have a *less-than-significant* impact on community character.

The project site is used primarily for agriculture, but the majority of the proposed changes would be related to recreational uses of the site. These changes are designed to improve existing recreational facilities without changing the existing land use or levels of use at the site. The character of the project site would continue as a coastal fishing and camping beach resort.

Lawson's Landing is a relatively isolated coastal property located along the Pacific coastline. The closest residential area is the coastal community of Dillon Beach located north of the project site. The project site is located adjacent to this community and would not divide the community. Because the project would not change existing onsite land uses, would not increase the recreational use levels, and would not change the overall character of Lawson's Landing, the project would not adversely affect the character of the project site and surrounding community. This would be a less-than-significant impact.

CUMULATIVE IMPACTS

Impact 4.11-6: Cumulative Impacts Related to Land Use, Agriculture, and Recreation. The project would not result in the conversion of any farmland resources and it would not contribute to any cumulative farmland impacts. Given the physical separation of the project from other cumulative development, land use impacts would not be cumulative. The project would not increase demand for recreational facilities and, therefore, would not contribute to cumulative recreation impacts. This would be a *less-than-significant* cumulative impact.

The project would not result in the conversion of any farmland resources. Proposed uses would be consistent with and compatible with existing onsite agricultural operations. Therefore, the project would not contribute to cumulative farmland resource impacts.

The project would improve existing onsite recreational facilities. Because the project would continue existing onsite recreational activities and would not substantially increase demand for recreational resources within the area, the project would not contribute to cumulative recreational facility impacts.

Other proposed developments would undergo their own land use impact analysis. The project would result in the development of some previously undeveloped areas (e.g., residences, leach field). However, because of the project's physical separation from other cumulative development, land use impacts would not be cumulative in nature. The project's land use, agriculture, and recreational impacts would be less than significant.

4.11.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.11-1: No mitigation measures are required.

Mitigation Measure 4.11-2: No mitigation measures are required.

Mitigation Measure 4.11-3: No mitigation measures are required.

Mitigation Measure 4.11-4: No mitigation measures are required.

Mitigation Measure 4.11-5: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.11-6: No mitigation measures required.

4.11.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The project's land use, agricultural, and recreation impacts would be less-than-significant. No mitigation would be required.

4.12 CULTURAL RESOURCES

This section describes the potential impacts to archaeological and historic resources associated with the proposed Lawson's Landing Master Plan project. This evaluation is based on data obtained through review of existing documents related to prehistoric and historic resources as well as cultural resources surveys conducted by EDAW archaeologists on May 4, 2003. Maps, reports, and documents that relate to prehistoric and historic archaeological resources and resource potentially within the study area were revised at the Historical Resources Information System Northwest Information Center at Sonoma State University in Rohnert Park in May 2003.

Section 21083.2 of CEQA and Section 15064.5 of the State CEQA Guidelines provide criteria for assessing the significance of project impacts on prehistoric and historic resources and for developing mitigation measures to reduce potentially significant effects to such resources. This section is prepared in accordance with these sections of CEQA and the State CEQA Guidelines.

One previously identified site, CA-MRN-523, is located where the leach field will be placed. One newly identified site, a sparse shell scatter designated EDAW 1, is located at the proposed mobile home and garage site.

4.12.1 EXISTING CONDITIONS

PREHISTORIC SETTING

Lawson's Landing is located in the northwest corner of Marin County, California near the community of Dillon Beach. The project area consists of approximately ~~940~~⁹⁶⁰ acres of coastal dune, wetland, and hillside lands east and south of Dillon Beach. The property is bordered by the Pacific Ocean on the west, Tomales Bay on the south, and coastal ridges to the east and north.

In the early 1970s, Fredrickson (1974; 1973) proposed a sequence of cultural manifestations or patterns for the central districts of the North Coast Ranges, placing them within a framework of cultural periods he believed were applicable to California as a whole. The idea of cultural patterns was distinct from the concepts of previous researchers (Beardsley 1954; Meighan 1955) who tended to emphasize assemblages of material goods as the basis for their classifications. Fredrickson took a much broader view of archaeological material culture and defined the term pattern as "...an adaptive mode shared in general outline by a number of analytically separable cultures over an appreciable period of time within an appreciable geographic space" (Fredrickson 1973:117). These different cultural modes could be characterized by:

- ▶ similar technological skills and devices (specific cultural items);
- ▶ similar economic modes (production, distribution, consumption), including especially participation in trade networks and practices surrounding wealth (often inferential); and/or
- ▶ similar mortuary and ceremonial practices (Fredrickson 1973:118).

Fredrickson also recognized that the economic/cultural component of each pattern could be manifested in neighboring geographic regions according to the presence of stylistically different artifact assemblages. He introduced the term aspect as a cultural subset of the pattern, defining it as a set of historically related technological and stylistic cultural assemblages. Fredrickson argued that these temporal periods should be kept separate from the dating and definition of particular patterns given the coexistence of more than one cultural pattern operating at any given point in time in California prehistory (Fredrickson 1974:46). This

integrative framework provides the means for discussing temporally equivalent cultural patterns across a broad geographic space.

The following is a summary of these temporal periods with descriptions of the associated cultural patterns that have been identified for the region. The summaries incorporate recent taxonomic and interpretative revisions that are summarized from the recent work of White and Frederickson (1992).

PALEO-INDIAN PERIOD (10,000 B.C. TO 6000 B.C.)

This period saw the first spread of humans into California with most known sites being situated along lakeshores. A developed mano/metate technology may have been present at this time, although evidence regarding this technology is scarce. Tribes were not heavily dependent upon trade networks, and trading activities occurred on an ad hoc, individual basis. Characteristic artifacts noted in the assemblages include fluted projectile points and flaked crescents.

LOWER ARCHAIC PERIOD (6000 B.C. TO 3000 B.C.)

The beginning of this period coincided with a climatic shift to more arid conditions. Subsistence appears to have been focused more on plant foods, although hunting clearly still provided important food and raw material sources. Settlement appeared to be semi-sedentary with little emphasis on material wealth. Most tools were manufactured of local materials, and exchange remained on an ad hoc basis. Distinctive artifact types include large projectile points, milling slabs, and handstones.

MIDDLE ARCHAIC PERIOD (3000 B.C. TO 1000 B.C.)

This period starts at the end of mid-Holocene climatic conditions when weather patterns became similar to present-day conditions. Discernable cultural change was likely brought about in response to these changes in climate and accompanying variation in floral and faunal resources. Economic systems likely included the introduction of acorn processing technology. Hunting remained an important source of food, although reliance on plant foods appears to have dominated the subsistence system. There was an overall growth in population and a general expansion in land use. Important artifacts characteristic of this period include the introduction of the bowl mortar and pestle and the continued use of large projectile points.

UPPER ARCHAIC PERIOD (1000 B.C. TO A.D. 500)

A marked expansion of sociopolitical complexity marks this period. There was a greater complexity of trade systems with evidence for regular, sustained exchanges between groups. Shell beads gained in significance as possible indicators of personal status and as important trade items. This period retained large projectile points, but the milling stone and handstone were replaced throughout most of California by the bowl mortar and pestle.

EMERGENT PERIOD (A.D. 500 TO 1800)

This period is distinguished by the advent of several technological and social changes. The bow and arrow were introduced. Territorial boundaries between groups became well established and were documented in early historic accounts. The exchange of goods between groups became more regular. The clamshell disk bead became a monetary unit of exchange and increasing quantities of goods were transported over greater distances.

Cultural traits that distinguish this period include distinctive burial practices. Artifact assemblages include clam and Olivella shell disk beads, magnesite cylinders, and Haliotis (abalone) ornaments, as well as bird

bone whistles and tubes and flanged soapstone pipes. The mortar and pestle are the predominant milling implements and small arrow points replaced the larger projectile point forms.

Understanding of these periods, their associated artifact types, and the reasons for cultural change during the prehistoric era sets a framework for the interpretation of prehistoric cultural resources found near the Lawson's Landing area.

ETHNOGRAPHIC SETTING

The Lawson's Landing area is located in a part of Marin County that is known to have been occupied, at least intermittently, for the past 6,000 years or more based upon evidence gathered from archaeological sites in the region (Fredrickson 1973). The ethnographic inhabitants of the area were the Coast Miwok Indian group who are known to have established villages in the vicinity of the project site (Kroeber 1925). This region historically consisted of ranching, orchards, and similar agricultural land uses. During this historic period, much of the historic bay marshland was filled.

Coast Miwok groups focused on a band of territory extending from the coast several miles inland. Settlements included permanent villages and smaller resource exploitation campsites (Stewart 1986). Fish, shellfish, sea mammals, seaweed and water fowl were all readily accessible along the coast. Reeds, willows and redwood bark collected along the drainages provided raw materials for baskets and nets, clothing, boats and shelter. Berries, seeds, nuts and game could all be collected inland. Clam shells also provided a vital resource, as a source for beads (Alvarez 1989). Clam shell disc beads originating on the north/central California coast have been recovered as far inland as the western Great Basin (Hughes and Bennyhoff 1986).

Coast Miwok territory included Marin County up to its interface with the Kashaya Pomo, Southern Pomo and Wappo territories in Sonoma County (Kelly 1978). These likely were the Native Americans encountered by Drake and Cermeño during their voyages. There are few other records of these peoples until the latter portions of the 18th century, when the enforced missionization of many of the Coast Miwok took its toll on the culture. At the beginning of the American period (ca. 1850), there were approximately 250 Coast Miwok left. By the 1930s, there were reportedly three individuals who retained predominantly Coast Miwok heritage (Kelly 1978).

HISTORIC SETTING

The earliest visitors to the Marin-Sonoma coast were English and Spanish sailors, including Sir Francis Drake in 1579, Cabrillo in 1542, and Cermeño in 1595. Cermeño, in fact, was wrecked nearby in Drake's Bay, south of the project area. Artifacts from his ship were recovered from Native American village sites nearby (Fredrickson 1962). The British and Spanish did not engage in overland explorations, or even much exploration of the bays until the late 18th century. Russian seal and sea otter hunters from Alaska made covert poaching trips to Bodega Bay in the early 19th century. They eventually annexed part of this territory, establishing Fort Ross in 1812. While they continued to hunt sea mammals, a small agricultural community was also established, growing fruits, grains and livestock for settlements in Alaska. These holdings were sold to John Sutter in 1841, after the seal and otter populations had dwindled to unprofitability.

The Mexican government moved to block Russian expansion along the California coast using several methods. Vallejo was sent to establish a series of settlements north of San Francisco, beginning in 1833. In 1846, the Mexican governor of Alta California granted Juan Padilla lands which included Tomales and Bodega bays (WESCO 1991).

Several buildings were constructed within the present-day Lawson Ranch after the turn of the century. The Franklin School site (CA-MRN-596H) is located at the intersection of Dillon Beach and Valley Ford-Two Rock Roads, in the northeastern portion of the project area. The area was used for military training during WWII, and recreational development began after the war. The Lawson's Landing property was acquired by the Merle and Walter Lawson families in the late 1920s. Ownership of the property has since passed through subsequent generations of the Lawson families.

ARCHAEOLOGICAL SETTING

A number of reports, which include overviews (Marin County Community Development Agency 2000; WESCO 1991) and surveys of cultural resources, have been prepared for the project area (Alvarez 1991; Gerike 1982; Holman 1983; Jackson 1976). These reports were reviewed, and a search request was sent to the Northwest Information Center (NWIC) of the California Historical Resources Information System in May 2003 to obtain copies of Department of Parks and Recreation site record forms for recorded resources within the project area. Twenty-three archaeological sites have been identified within the Lawson's Landing project area.

The 23 sites fall into several categories; occupation/burial, shell scatter (frequently with bird and small mammal bone), lithic scatter, and historic homesteads. One site, CA-MRN-523, identified in the approximate location of the proposed leach field, was noted in the 1976, 1981 and 1991 surveys, has since disappeared. Over the course of several years, the dune that the site was situated on shifted several feet, and all site constituents were blown away, buried or otherwise removed leaving only a sparse lithic scatter on the surface. In 1997, subsurface testing was conducted at CA-MRN-523. No surface or subsurface artifacts were noted at that time. Of the remaining sites, the WESCO report (1991) estimated that at least 10 have a subsurface component. The ethnographic village of *sakloki* was reportedly located near CA-MRN-523. If evidence of this village remains, it seems likely that it is buried below the trailers in the Sand Point area (Shannon 1998).

A site visit was made in May 2003 by EDAW archaeologists. Only the areas that would be directly disturbed by the project were inspected because thorough pedestrian surveys of the entire project site have been conducted in the past. Each area of potential project disturbance was examined by a qualified professional archaeologist who visually examined the area in detail. Archaeologists walked transects approximately 15 meters apart across the proposed leach field site.

One previously unidentified archaeological site (designated as EDAW 1) was noted during the survey. This consisted of a sparse shell scatter at the location of the proposed mobile home and garage site along the main road running from the gatehouse to the Lawson's Landing store and office. There are previously identified sites in the vicinity; however, none of these sites were observed during the EDAW survey.

REGULATORY BACKGROUND

Section 21083.2 of CEQA and Section 15064.5 of the State CEQA Guidelines provide criteria for assessing the significance of project impacts on prehistoric and historic archaeological resources. A significant property must have the potential to contribute important information towards scholarly research, which can then be conveyed to the general public. Section 21083.2 defines a "unique archaeological resource" as "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any one of the following criteria:

- ▶ contains information needed to answer important scientific research questions and that there is a demonstrable public interest in the information;

- ▶ has special and particular quality such as being the oldest of its type or the best available example of its type;
- ▶ is directly associated with a scientifically recognized important prehistoric or historic event or person.”

The Public Resources Code Section 15064.5 defines a “substantial adverse change” to historic resources as the “demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.”

4.12.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that implementation of the Lawson’s Landing Project would have a significant impact if it were to result in:

- ▶ the physical demolition, destruction, relocation or alteration of a historical resource or its immediate surroundings to the extent that those physical characteristics which convey the historical significance and justify the identification of the historic resource (or the eligibility for such identification) would be materially altered;
- ▶ the disturbance of any human remains, including those interred outside of formal cemeteries.
- ▶ the physical demolition, destruction, relocation or alteration of a unique archaeological resource;

CEQA Section 21083.2 defines a “unique archaeological resource” as “an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- ▶ contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- ▶ has a special and particular quality such as being the oldest of its type or the best available example of its type;
- ▶ is directly associated with a scientifically recognized important prehistoric or historic event or person.”

Appendix N of the Marin County Environmental Impact Review Guidelines (1994) also provides the following guidelines for assessing the significance of impacts to cultural resources:

The significance of impacts to historical and archaeological resources is generally determined by whether Federal or State listed resources are affected by the project.

- ▶ does the project disrupt or adversely affect a prehistoric or archaeological site, or a property of historic or cultural significance to a community or ethnic or social group, or a paleontological site, except as part of a scientific study?
- ▶ does the project affect a local landmark of local cultural/historical importance?

PROJECT IMPACTS

Impact 4.12-1: Potential Destruction of or Damage to Known Cultural Resources. Implementation of the project could result in the disturbance of known prehistoric archaeological sites in the area of the proposed mobile home and leach field. Disturbance or damage to these resources would be a *potentially significant impact*.

No known historic resources are located on the project site. Prehistoric shell scatter (EDAW 1, located at the proposed mobile home and garage site) was identified during the most recent project survey. Based on visual observations of this site surface, this shell scatter does not appear to be unique in origin and does not appear to contain sufficient information to qualify it as eligible for listing to the CRHR.

The proposed leach field would be located in the area where CA-MRN-523 was once known to be located. CA-MRN-523 has not been visible for the last several years, and may have been destroyed by shifting dunes. Portions of the site may remain and construction of the leach field could potentially disturb this resource. This would be a potentially significant impact.

Impact 4.12-2: Potential Destruction of or Damage to Previously Undiscovered Cultural Resources. Subsurface disturbances could potentially destroy or damage previously undiscovered important prehistoric and historic cultural resources at the project site. This would be a *potentially significant impact*.

Based on information provided by the pre-field research and field survey, the project site may contain significant cultural resources. Large occupation sites with human burials have been documented in the immediate vicinity. The Dillon Beach area was heavily occupied during the prehistoric period as evidenced by the number and variety of cultural resources sites located in the area.

Implementation of the project could adversely affect previously undiscovered important prehistoric and historic archaeological resources. The possibility of encountering previously undiscovered prehistoric resources would be a potentially significant impact.

Impact 4.12-3: Potential to Uncover Human Remains. Implementation of the project could result in subsurface disturbances that could uncover previously undiscovered prehistoric burials. This would be a *potentially significant impact*.

Human remains have been found during previous field surveys within the sand dunes. None of the burials were located in areas currently proposed for project development. However, development of the project could disturb previously undiscovered prehistoric burials. The lack of surface evidence of cultural resources does not preclude the existence of buried, subsurface materials, including human remains. Because the project could potentially uncover unknown or undocumented Native American burials, this would be a potentially significant impact.

CUMULATIVE IMPACTS

Impact 4.12-4: Cumulative Impacts on Prehistoric Resources. Implementation of the proposed development could potentially uncover previously unknown prehistoric resources on the cumulative project sites. This would be a *potentially significant cumulative impact*.

The cumulative projects would involve construction activities that could potentially affect prehistoric resources on the cumulative project sites. Although the majority of the project sites are small, implementation of the cumulative projects could uncover previously unknown prehistoric or historic

resources. If these resources are assessed as “historic” under CEQA, this impact could be significant. Therefore, this would be a potentially significant cumulative impact.

4.12.3 MITIGATION MEASURES

Mitigation Measure 4.12-1: Monitor Ground-Disturbing Activities in the Vicinity of Shell Scatter EDAW 1 and CA-MRN-523. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activities within 100 feet of the proposed mobile home and garage site (EDAW 1) and leach field (CA-MRN-523). If subsurface concentrations of artifacts or other cultural materials such as stone, bone, or shell are uncovered during excavation operations, all construction activities in the area shall halt until the finds can be assessed. The archaeologist shall evaluate the find, and additional mitigation measures may be required depending on the potential significance of the finds. The archaeologist shall recommend additional actions deemed necessary for the protection of these resources. Such actions may include subsurface testing, data recovery, mapping, capping, or avoidance of the resource. The project proponent shall ensure that additional protection actions (if needed) are implemented before construction continues at this site.

Mitigation Measure 4.12-2: Prepare and Implement Monitoring Plan and Halt Ground-Disturbing Activities in the Event of Accidental Discovery of a Cultural Resource. A qualified archaeologist approved by Marin County shall monitor all ground disturbing activities during construction. If cultural resources are discovered during construction, construction activities shall halt and the property owner will be notified regarding the discovery. The archaeologist shall evaluate the resource in accordance with state and federal guidelines and shall determine whether the resource is significant. All archaeological excavation and monitoring activities shall be conducted in accordance with prevailing professional standards as outlined in Section 21083-2 of CEQA. Mitigation in accordance with a plan approved by the Marin County Community Development Agency shall be implemented prior to commencement of work within the area of the resource find.

Mitigation Measure 4.12.3: Stop Potentially Damaging Work if Human Remains Are Uncovered During Construction, Assess the Significance of the Find, and Pursue Appropriate Management. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097.

In accordance with the California Health and Safety Code, if human remains are uncovered during construction at the project site, the construction contractor shall immediately halt potentially damaging excavation and notify the coroner, the State Native American Heritage Commission, and affected Native American groups. The California Health and Safety Code requires that if human remains are found in any location other than a dedicated cemetery, excavation is to be halted in the immediate area, and the county coroner is to be notified to determine the nature 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 by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The responsibilities of the Agency for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code Section 5097.9.

CUMULATIVE MITIGATION MEASURES

Cumulative Mitigation Measure 4.12-4: Implementation of Mitigation Measure 4.12.2 and Mitigation Measure 4.12-3 on a project-by-project basis would reduce significant cumulative impacts to archaeological resources to a less-than-significant level.

4.12.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measure, all cultural resources-related project impacts would be reduced to a less-than-significant level.

4.13 BIOLOGICAL RESOURCES

This section describes the biological resources on the project site including common vegetation and wildlife resources, sensitive biological communities, and special-status species that are known, or have potential to occur on the project site. Information presented in this section is based on a review of relevant background literature, electronic database searches of the California Department of Fish and Game's (DFG's) Natural Diversity Data Base (CNDDDB) and California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Plants of California, and reconnaissance-level field surveys conducted by EDAW biologists on May 9, 2003 and October 1, 2004. The purpose of the field surveys was to characterize common biological resources present at the project site and to document areas that could support special-status species and sensitive habitats.

Two recent studies examined sensitive biological resources in the Tomales Dunes and at the project site. A biological resource impact assessment on the project was prepared by Monk & Associates (2002) for the project applicant. A biogeographic assessment of the Tomales Dunes was prepared by Peter Baye for the Environmental Action Committee of West Marin. After peer review, EDAW used these reports to support the description of the environmental setting of this Draft EIR. A copy of both reports is provided in Appendix J.

4.13.1 EXISTING CONDITIONS

The project site is located on a coastal peninsula in Marin County at elevations ranging from sea level to approximately 520 feet. The site is bordered by the Pacific Ocean on the west, Tomales Bay on the south, and coastal ridges to the east and north. Surrounding land uses include agricultural and open space lands, coastal beaches, and low-density residential areas.

Subsequent to publication of the DEIR, the project applicants commissioned the preparation of additional biological studies to fulfill the requirements of mitigation recommended in the DEIR (see Section 4.13.3, "Mitigation Measures," of the DEIR). The studies prepared included:

- ▶ *Vegetation Communities and Update on Special-Status Species Issues, Lawson's Landing Dillon Beach, Marin County, California* prepared by Monk & Associates dated September 12, 2006 and amended October 30, 2006, and
- ▶ *Investigation, Presence, and Geographic Extent of Wetlands as Defined by the California Coastal Act, Lawson's Landing, Marin County, California* prepared by Monk & Associates dated February 2007.

These studies provide additional updated information regarding sensitive resources on the project site and were peer-reviewed by EDAW biologists. Copies of these studies are available in Appendix L of the FEIR. The discussion that follows presents the information that was relied upon in preparing the DEIR's analysis of the project's biological resources impacts. The information contain within the above studies was reviewed by Marin County and its environmental consultants to determine if it resulted in any changes to the impact analysis. None of the information contained in the above studies would result in any changes to the analysis or conclusions presented herein. A summary of the results of these studies can be found in Master Response 3 of the FEIR. These studies will be used by Marin County to review the project's compliance with recommended mitigation and to inform the merits discussion addressing where proposed facilities could be located on the project site.

HABITAT TYPES

The project site is characterized by plant communities common to the north-central California coast. Many of these habitats are considered sensitive. Locations of [plant](#) habitats types present on the project site are shown in Exhibit 4.13-1. Brief descriptions are provided below along with discussions of associated wildlife habitat.

Tomales Dunes, the dune complex that extends from Dillon Beach to Sand Point at the mouth of Tomales Bay, contrast strongly with the two proximate dunes systems, Bodega Head and Point Reyes. According to Baye (2004), the Tomales Dunes are distinctive because of: the very high proportion and extent of dune slack wetlands, the very high proportion of naturally mobile, unvegetated or sparsely vegetated high-relief dunes still uncolonized by European beachgrass, the largest continuous expanse of native scrub vegetation on paleodunes in California north of Monterey Bay, and the northernmost stands of extensive, continuous, and still-expanding dune scrub dominated by mock-heather (Tomales Dunes represents the northern limit of its full development).

Beach

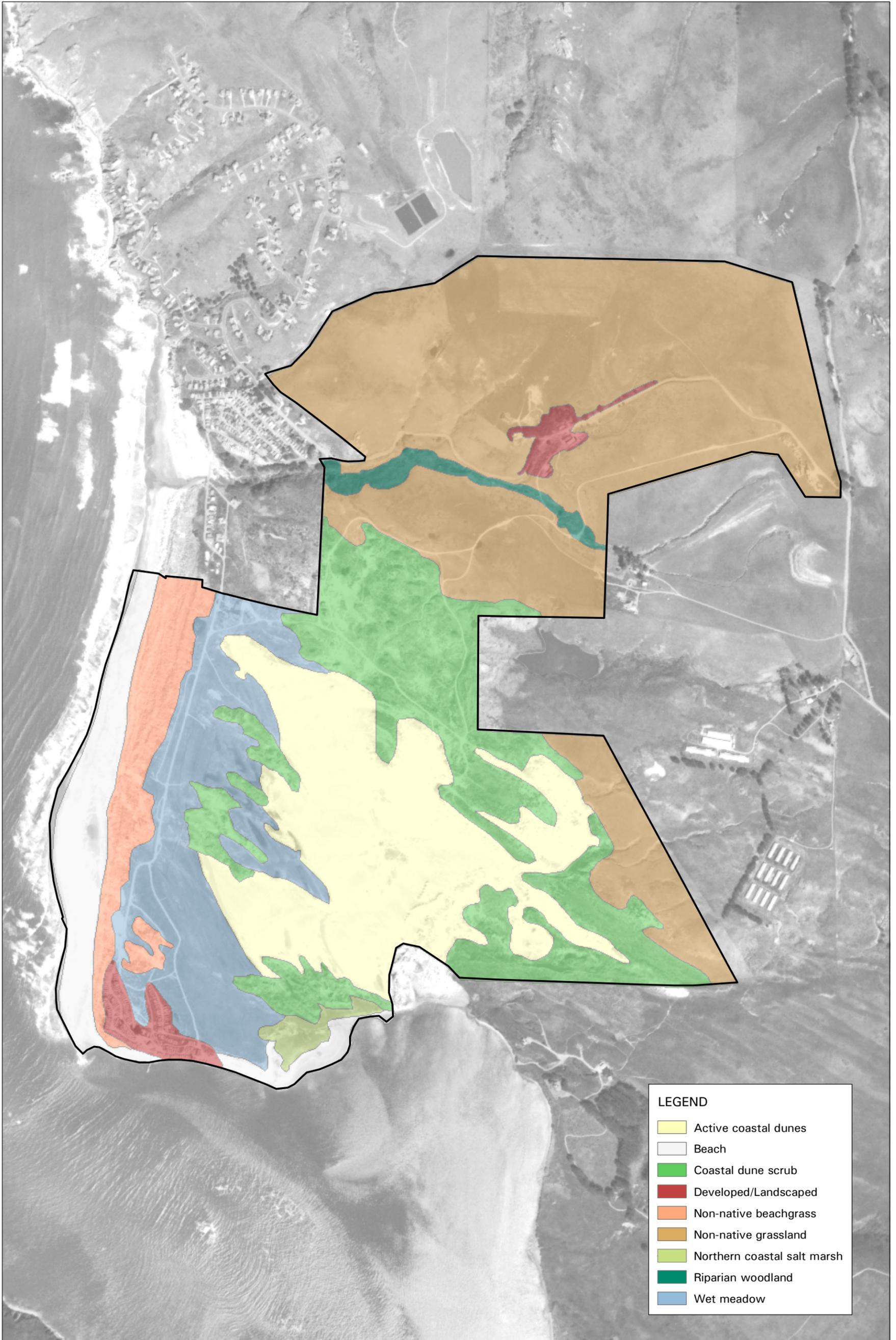
Beach habitat is located along the western and southern boundaries of the project site adjacent to the Pacific Ocean and Tomales Bay. The beach consists of an intertidal section of permanently moist sand, called the *foreshore*, and a *backshore* area between the limit of perennial dune vegetation and summer high tide lines (Baye 2004). Sea-rocket (*Cakile maritima*), a nonnative annual to short-lived perennial forb, is the only plant typically found along the beach, where it grows in small, low-growing clumps.

Nonnative Beachgrass

The nonnative species, European beachgrass (*Ammophila arenaria*), provides the dominant cover in the foredune complex adjacent to the beach on the project site. Foredunes, ridges of sand parallel with the beach and positioned above the mean high tide line, are formed by the accumulation of sand in and around plants that are tolerant of sand burial. Robert Holland (1986) gave the name northern foredunes to these areas of sand accumulation ranging from Monterey County north to Oregon. The steep primary foredune now found along the shoreline of northern California and Oregon has been attributed to the presence of the introduced European beachgrass. Before the introduction of this species, the primary foredune is believed to have been less continuous and more hummocky (Pickart and Sawyer 1998).

European beach grass was planted by the U.S. Soil Conservation Service beginning in the 1930s to stabilize the northern foredunes on the project site (Monk & Associates 2002). This aggressively invasive plant is now recognized as a significant threat to native coastal dune flora because of its stabilizing characteristics. Native and naturalized shrubs in this habitat include bush lupine (*Lupinus arboreus*), mock heather (*Ericameria ericoides*), and coyote brush (*Baccharis pilularis*). Herbaceous plants such as nonnative Baltic rush (*Juncus balticus*), ice plant (*Carpobrotus* spp.), and rabbitfoot grass (*Polypogon monspiliensis*), and native dune vegetation such as yarrow (*Achillea millefolium*) and native dune grass (*Elymus mollis*) are also present in low numbers.

The native shrubs and nonnative European beach grass growing along the foredunes provide limited value to most native wildlife species in the project area. Wildlife expected in this habitat include common passerine bird species (i.e., perching birds) such as Brewer's blackbird (*Euphagus cyanocephalus*), white-crowned sparrow (*Zonotrichia leucophrys*), song sparrow (*Melospiza melodia*), house finch (*Carpodacus mexicanus*), and California towhee (*Pipilo crissalis*). Small to medium sized mammals such as black-tailed hare (*Lepus californicus*) and long-tailed weasel (*Mustela frenata*) are also expected in this habitat. The northern foredunes on the project site are frequented by people, and therefore, do not provide a

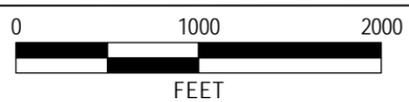


Sources: Pacific Watershed Associates 2000, EDAW 2004

Habitat Types

Lawson's Landing Master Plan Draft EIR
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EXHIBIT 4.13-1



secluded location for wildlife. Thus, it is likely that more human-adapted and tolerant species such as the Brewer's blackbird and the California towhee may nest in this community while more secretive species may not. The northern foredunes also provide habitat for the Pacific sand bear scarab beetle (*Lichnanthe ursina*), a federal "species of concern" which has been observed on several occasions between 1992 and 2002 in this community (see the "special-status species" section) (Monk & Associates 2002). Pacific sand scarab beetle and other special-status species are discussed under sensitive biological resources.

Active Coastal Dunes

A large expanse of active coastal dune habitat is located east of the wet meadow habitat at Lawson's Landing. This habitat type is characterized by barren, mobile sand accumulations whose size and shape vary with wind direction and speed, site topography, sand source, and grain size (Holland 1986). Active coastal dunes are usually devoid of vegetation because of perennially high winds and shifting sands that bury seedling vegetation. In the absence of the stabilizing vegetation found in the northern foredunes, these dunes shift continuously, overrunning adjacent foredune and dune scrub communities in a process of natural dune rejuvenation (Holland 1986).

Active coastal dunes support a low diversity of animal species. The absence of vegetation removes foraging opportunities for mammals and birds, escape cover, and nesting opportunities for birds. The actively moving sand also limits the number of invertebrates and reptiles that are found in this habitat. However, sand wasps (*Bembix* sp.) and the sand bear scarab beetle have been observed flying low and landing in the dunes. Active coastal dunes are mainly frequented by wide-ranging animals that are moving between other habitats on the project site. Monk & Associates biologists have observed common ravens (*Corvus corax*), western gulls (*Larus occidentalis*), black-tailed hares, and signs (i.e., tracks, skulls) of gray fox and black-tailed deer in the active dunes. Monk & Associates biologists also observed a peregrine falcon (*Falco peregrinus*) perched on the edge of one of the larger active coastal dunes. It was likely resting between hunting forays on the project site. There is no suitable nesting habitat for this raptor in or adjacent to the project site on the property.

Wet Meadows

Wet meadows form in areas where the surface of a dune is at or near the water table. These areas are often referred to as dune slacks (Monk & Associates 2002) or dune hollows (Pickart and Sawyer 1998). These meadows are a combination of mesic (i.e., wet) grassland areas interspersed with seasonal wetlands (depressions that become saturated or inundated during a part of the year). These wetland communities are commonly dominated by rushes (*Juncus* spp.), sedges (*Carex* spp.), and other seasonally or perennially wet plants (Holland and Keil 1995).

Cattle grazing and visitor and maintenance activities (such as camping, campsite mowing, vehicle parking, campfires and draining via ditches) over the last 40 years have disturbed the wet meadow areas at Lawson's Landing. As a result, nonnative grassland and ruderal species have become established in many areas. Dominant vegetation includes kikuyu grass (*Pennisetum clandestinum*), salt grass (*Distichlis spicata*), Baltic rush (*Juncus balticus*), brown-headed rush (*Juncus phaeocephalus*), beach strawberry (*Fragaria chiloensis*), silverweed (*Potentilla anserine* ssp. *pacifica*), and cow clover (*Trifolium wormskioldii*). During summer months, nonnative velvet grass (*Holcus lanatus*) is also dominant. Other native species include seep monkey flower (*Mimulus guttatus*), water cress (*Rorippa nasturtium-aquaticum*), chain speedwell (*Veronica catenata*), and, in late summer, the ladies' tresses orchid (*Spiranthes porrifolia*). Spring vetch (*Vicia sativa*), teesdalia (*Teesdalia coronopifolia*), cut-leaf geranium (*Geranium dissectum*), small quaking grass (*Briza minor*), and silver European hair grass (*Aira caryophylla*) are among the ruderals and nonnatives present in the wet meadows at Lawson's Landing.

In several locations in the dune slacks, ponds have formed from the exposed water table. These are encircled with Baltic rush, three square bulrush (*Scirpus pungens*) brown-headed rush, and spikerush (*Eleocharis macrostachya*). Aquatic plants such as floating pennywort (*Hydrocotyle ranunculoides*), water starwort (*Callitriche* spp.), and long leaf pondweed (*Potamogeton nodosus*) are also present (Monk & Associates 2002).

Wet meadows provide green forage for small mammals such as the black-tailed hare and Audubon's cottontail (*Sylvilagus audubonii*), and for the Columbian black-tailed deer (*Odocoileus hemionus columbianus*). Raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), long-tailed weasel, gray fox (*Urocyon cinereoargenteus*), and striped skunk (*Mephitis mephitis*) are expected to forage in this habitat. A semi-permanently ponded dune slack is located immediately southwest of the entrance gate. Amphibians such as Pacific tree frog (*Hyla regilla*) and western toad (*Bufo boreas*) use this habitat for breeding, while the western aquatic garter snake (*Thamnophis couchii*) preys on tadpoles.

Coastal Dune Scrub

Coastal dune scrub is a dense coastal scrub community of scattered shrubs, subshrubs, and herbs, generally less than one meter tall and often developing considerable cover. This habitat type intergrades towards the coast with the northern foredunes and inland with coastal scrub, maritime chaparral or coastal sage-chaparral scrub (Holland 1986). Dune scrubs typically have soils which are considerably more stable than those of foredune communities because they tend to be in the wind-shadow of the foredunes and they have more extensive vegetative cover. These soils also contain more organic matter, retain more water, are more fertile, and have a lower salt content than soils of pioneer dune communities (Holland and Keil 1995). Coastal dune scrub is considered a sensitive habitat by DFG and it contains many regionally and globally rare and endangered species as well as many endemic species.

On the project site shrubs such as yellow bush lupine (*Lupinus arboreus*), mock heather (*Ericameria ericoides*), and coyote brush (*Baccharis pilularis*) dominate coastal dune scrub east of the gate house into the southeastern portion of the site (Exhibit 4.13-1). Other common perennials include beach bur (*Ambrosia chamissonis*), sand mat (*Cardionema ramosissimum*), sand verbena (*Abronia latifolia*), and nonnative sea rocket (*Cakile edentula*). Nonnative ruderals include European beach grass (*Ammophila arenaria*), bur clover (*Medicago polymorpha*), cat's ear (*Sonchus* spp.), English plantain (*Plantago lanceolata*), sheep sorrel (*Rumex acetosella*), ripgut brome (*Bromus diandrus*), and red stem filaree (*Erodium cicutarium*).

A 230-foot tall mound, known as "Little Sugarloaf Peak," is adjacent to the sand quarry sites of the interior active dunes. The mound, which is composed of Franciscan formation sandstones overlain with a shallow sand veneer (WESCO 1991), is sparsely vegetated with the same coastal dune scrub species described above.

Because of the diversity of shrubs, woody perennials, and annuals, many wildlife species are attracted to coastal dune scrub on the project site. Song sparrow, white-crowned sparrow, Bewick's wren (*Thryomanes bewickii*), spotted towhee, and California towhee nest in this community. Columbian black-tailed deer bed here and have young. Monk & Associate biologists have observed newborn fawns in this habitat on two separate occasions. Botta's pocket gopher (*Thomomys bottae*) is found here, and foxes and coyotes (*Canis latrans*) den here. The gray fox was the common fox species in this area at one time, but it may have been replaced by the European red fox (*Vulpes vulpes*) which is rapidly expanding into the gray fox's territory throughout much of its range in California.

Northern Coastal Salt Marsh

Salt marsh communities along the northern coast of California are referred to by Holland (1986) as northern coastal salt marshes. These are areas of highly productive, herbaceous and suffrutescent, salt-tolerant hydrophytes which form a moderate to dense cover and stand up to one meter tall. Characteristic species include California cordgrass (*Spartina foliosa*) nearer to the open water, with pickleweed (*Salicornia virginica*) at mid-littoral elevations.

A relatively large area of salt marsh habitat, dominated by pickleweed, is present along the southern boundary of the project site, adjacent to Tomales Bay. Subdominants include arrow grass (*Triglochin cocinna*), jaumea (*Jaumea carnosa*), salt grass, and brass buttons (*Cotula cornopifolia*). Heartscale (*Atriplex triangularis*), sea lavender (*Limonium californicum*), and seaside plantain (*Plantago maritime*) are also scattered throughout this habitat type. Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*), a special-status species, is also found within this community.

The salt marsh provides foraging opportunities for the great blue heron, great egret, and savannah sparrow. Because salt marsh habitats are subject to tides, large areas of the salt marsh are devoid of vegetation and are sand or mud flats. Shorebirds including killdeer (*Charadrius vociferous*), western sandpiper (*Calidris mauri*), least sandpiper (*Calidris minutilla*), short-billed dowitcher (*Limnodromus griseus*), and whimbrel (*Numenius phaeopus*) can be observed foraging in the sand flats of the project site during low tide.

Nonnative Grassland

A large expanse of nonnative grassland occurs throughout the northern and eastern portions of the project site. It is dominated by foxtail barley (*Hordeum marinum* ssp. *leporinum*), Italian rye grass (*Lolium multiflorum*), and riggut brome (*Bromus diandrus*). Curly dock (*Rumex crispus*), sheep sorrel (*Rumex acetocella*), and field mustard (*Hirschfelda incana*) are common nonnative forbes. Native species identified within this community include harvest brodiaea (*Brodiaea elegans*), California poppy (*Escholzia californica*), and California buttercup (*Ranunculus californicus*).

Nonnative grassland on the project site provides foraging opportunities for a variety of animals including black-tailed hare, Audubon's cottontail, Columbian black-tailed deer, western bluebird (*Sialia mexicana*), Brewer's blackbird (*Euphagus cyanocephalus*), California horned lark (*Eremophila alpestris actia*), and savannah sparrow. This community also provides denning opportunities for foxes and coyotes. Small mammals expected to occur include Botta's pocket gopher, western harvest mouse (*Reithrodontomys megalotis*), and deer mouse (*Peromyscus maniculatus*).

Riparian Woodland

A narrow band of riparian woodland is located along Dillon Creek in the northwestern portion of the project site. This area is dominated by willows (*Salix* spp.) with coyote brush (*Baccharis pilularis*) forming the border with adjacent nonnative grasslands.

Developed and Landscaped Habitats

Developed areas on the project site include facilities for agricultural, ranching, and sand quarrying operations, residential houses, roads, a trailer park, campsites, and recreational day-use facilities. Landscaped habitat occurs at the northeastern end of Lawson's Landing project site in association with residential homes and ranching and agricultural buildings. Vegetation in this area is dominated by eucalyptus (*Eucalyptus* spp.) and cypress (*Cupressus* sp.).

SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources addressed in the following sections include those that are afforded special protection through CEQA, California Fish and Game Code (including but not limited to the California Endangered Species Act [CESA]), the federal Endangered Species Act (ESA), and the Clean Water Act (CWA). Special-status species addressed in this section include plants and animals that are legally protected or that are otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. These include species that are state and/or federally listed as rare, threatened, or endangered; those considered as candidates or proposed for listing; species identified by DFG and/or U.S. Fish and Wildlife Service (USFWS) as species of concern; and plants considered by CNPS to be rare, threatened, or endangered (List 1B and List 2).

Table 4.13-1 provides information on special-status [plants](#)[species](#) potentially occurring on the project site. This list was developed through searches of the CNDDDB (CNDDDB 2004) and CNPS Inventory (CNPS 2004) for specific information on documented observations of special-status species in the Tomales and Valley Ford U.S. Geological Survey quadrangles.

Special-Status Plant Species

A total of 38 special-status plant species have potential to occur on the project site. These special-status species, their legal status, and habitat affinities are listed in Table 4.13-1 (located at the end of this section). Four of these species are presently or historically known to occur on-site and are discussed in detail below. These include Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*), Tidestrom's lupine (*Lupinus tidestromii*), woolly-headed spineflower (*Chorizanthe cuspidata* var. *villosa*), and San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*).

Point Reyes bird's beak (*Cordylanthus maritimus* ssp. *palustris*), an annual hemiparasitic herb of coastal salt marshes, is a CNPS List 1B (plants rare, threatened, or endangered in California or elsewhere) species and a federal Species of Concern. This species has been greatly reduced by habitat conversion and deterioration because of development, competition from nonnative plants, cattle grazing, and trampling (CNPS 2004). Point Reyes bird's beak blooms from June to October. The current range of Point Reyes bird's beak includes Humboldt, Marin, and Sonoma counties. It is believed to have been extirpated from Alameda, Santa Clara, and San Mateo counties.

In July 1992, Monk & Associates biologists Dianne Lake and Sarah Lynch identified a population of Point Reyes bird's beak in the coastal salt marsh habitat at the south end of the project site near Brazil Beach. Sixty-one plants were identified at that time. Because it was unknown at that time whether or not cattle grazing negatively affected the population, the applicants agreed to fence a portion of the 61 plants to see if removing grazing would result in a healthier population. In August 1992, 17 *Cordylanthus* plants located approximately 200 feet north of the shoreline were fenced in an approximately 10-foot by 10-foot enclosure. This population was monitored on a somewhat annual basis between 1992 and 2001. The results are summarized in Table 4.13-2.

During each monitoring visit, other plant species growing in the enclosure and percent cover of these species were also noted. Based on the monitoring observations, it appears that if grazing is removed, the surrounding vegetation (i.e., marsh jaumea (*Jaumea carnosa*) and arrow-grass (*Triglochin* sp.)) becomes too tall and robust, and perhaps out-competes the *Cordylanthus*. It was noted during each survey year that the number of *Cordylanthus* plants growing outside the enclosure was always higher than the number growing inside the enclosure. In 2001, Monk & Associates informed the applicants that the enclosure was no longer necessary and could be opened up to grazing. In 2002, one *Cordylanthus* plant was

observed inside the now defunct enclosure, and approximately 1,000 *Cordylanthus* plants were observed in portions of the salt marsh located between 20 and 100 feet south of the enclosure.

Monitoring Date	Number of <i>Cordylanthus</i> plants in Enclosure
July 24, 1992	17
July 16, 1993	48
July 23, 1994	261
July 13, 1996	5
July 20, 1997	2
July 25, 1998	0
July 4, 2001	0

Source: Monk & Associates 2002

Tidestrom's lupine (*Lupinus tidestromii*) is a federal and state listed endangered species. Tidestrom's lupine is also on CNPS List 1B. This perennial lupine is found in coastal dune habitats where it grows in sand. An endemic California species, it blooms from April to June. Tidestrom's lupine is seriously threatened by coastal development, trampling, and nonnative plants, however, properly timed grazing may be beneficial (CNPS 2004).

In 1992, Dianne Lake, Monk & Associates biologist, identified two Tidestrom's lupine plants growing in a vegetated wet meadow at the northern end of the project site. Once these plants were discovered, the applicants put a barb wire enclosure around the two lupine plants to protect them from cattle grazing. Sarah Lynch monitored these plants on a semiannual basis for several years. By removing grazing, the two lupine plants were eventually out-competed by the surrounding Baltic rush, cow clover, and kikuyu grass. Hence, the fence was removed in approximately 1999. The Tidestrom's lupine has not been seen on the project site in several years and is believed to be extirpated. Peter Baye, a coastal plant ecologist, notes that no voucher specimen of this species was collected by Monk & Associates to verify its identification before the population was extirpated. Baye also notes that the project site is located outside of the three historic disjunct population centers for the species (Baye 2004).

Woolly-headed spineflower (*Chorizanthe cuspidata* var. *villosa*) is a CNPS List 1B (plants rare, threatened, or endangered in California and elsewhere) species and a federal Species of Concern. This annual herb is found in coastal dunes, coastal prairie, and coastal scrub habitat and flowers from May to August. Woolly-headed spineflower was identified in the abandoned sand quarry by WESCO and Monk & Associates biologists in 1991. During the 2002 special-status plant surveys of the project site, Monk & Associates biologists documented several large populations of this plant growing with another special-status plant, San Francisco Bay spineflower, in three separate locations near the gatehouse.

San Francisco Bay spineflower (*Chorizanthe cuspidata* var. *cuspidata*) is a CNPS List 1B (plants rare, threatened, or endangered in California and elsewhere) species and a federal Species of Concern. San Francisco Bay spineflower is found in coastal bluff scrub and coastal dunes where it typically flowers from April through July. This subspecies of *Chorizanthe cuspidata* was documented growing with woolly-headed spineflower by Monk & Associates biologists in 2002 near the gatehouse on the project site.

Special-Status Wildlife Species

Searches of the CNDDDB's Valley Ford and Tomales USGS quadrangles (the quads covered by the project site) and the USFWS species list for Marin County were used to identify special-status animal species in the vicinity of the project site. In addition, special-status invertebrates identified by Baye (2004) as occurring or potentially occurring in the vicinity of the project site are also addressed. The project site provides suitable habitat for nine of these animals: western snowy plover, California red-legged frog, Myrtle's silverspot butterfly, Ricksecker's water scavenger beetle, Pacific sand bear scarab beetle, globose dune beetle, sandy beach tiger beetle, Marin elfin butterfly, and Point Reyes blue butterfly. These nine species are discussed below. All other special-status species known from the region would either not be expected to occur within the project site because of the lack of suitable habitat, or they are restricted to Tomales Bay.

Western snowy plover (*Charadrius alexandrinus nivosus*) is federally listed as threatened and a state species of Special Concern. The Pacific coast populations of the western snowy plover breed primarily on coastal beaches from southern Washington to southern Baja California, Mexico. Sand spits, dune-backed beaches, unvegetated strands, open area around estuaries and beaches at river mouths are the preferred coastal habitats for nesting (USFWS 1993). Snowy plovers breed in loose colonies with the number of adults at coastal breeding sites ranging from 2 to 318. On the Pacific coast, larger concentrations of breeding birds occur in the south than in the north, suggesting that the center of the plovers' coastal distribution lies closer to the southern boundary of California (USFWS 1993). The breeding season extends from early March to late-September. In winter, snowy plovers are found on many of the beaches used for nesting but also on beaches not used for nesting. They also visit manmade salt ponds and estuarine sand and mud flats (USFWS 1999). The wintering season often overlaps the nesting season with birds arriving on wintering areas as early as midsummer.

The western snowy plover has not been observed nesting at Dillon Beach (or Lawson's Landing) in recent years, but substantial numbers spend the winter in the area (G. Page, ornithologist/snowy plover expert, Point Reyes Bird Observatory, email communication with S. Lynch of Monk & Associates, April 10, 2002). In 1999, the USFWS designated critical habitat for the western snowy plover (USFWS 1999). Dillon Beach was included in the area designated as critical habitat.

Monk & Associates biologists conducted three separate surveys for western snowy plovers on the project site. These surveys were conducted May 9, July 10, and July 14, 2002. During these surveys, between 5 and 11 snowy plovers were observed along Dillon Beach. None of these birds were nesting. All birds observed were standing behind small sand hillocks or vegetation receiving shelter from the wind and were determined to be transitory on the project site.

California red-legged frog (*Rana aurora draytonii*) is federally listed as threatened and a state Species of Special Concern. The California red-legged frog is typically found in ponds, slow-flowing portions of perennial streams, and in intermittent streams that maintain water in the summer months. Populations probably cannot be maintained if all surface water disappears (Jennings and Hayes 1994). Larval California red-legged frogs require 11-20 weeks of permanent water to reach metamorphosis. Riparian vegetation such as willows (*Salix* spp.) and emergent vegetation such as cattails (*Typha* spp.) are preferred red-legged frog habitats, though not necessary for this species to be present.

In 2000, the USFWS designated critical habitat for the California red-legged frog (USFWS 2000). Watersheds within and adjacent to Tomales Bay are included in Critical Habitat Unit 12. Lawson's Landing appears to be at the northern tip of this unit.

On May 9, 2002, Monk & Associates conducted a California red-legged frog site assessment on the project site. During this assessment all inundated and saturated wetland habitats were checked for the presence of the California red-legged frog. California red-legged frog larvae ranging from 1.5 inches to 2.5 inches total length were found in two dune slack ponds. The ponds where the frogs were found are the two ponds that retain surface water for a minimum of 10 months of the year; all other wetlands on the project site dry down completely by the late summer months.

Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*) is federally listed as endangered. It has no state status. Myrtle's silverspot occurs in ~~foggy~~, coastal dune, coastal prairie, coastal scrub, and grassland habitats in Marin County. The species has been identified in the vicinity of the project site just north of Dillon Beach in 2003, along coastal prairie to the north and south of Estero de San Antonio approximately 3 km north of the dunes, and from Point Reyes peninsula, including part of the northern point directly across Tomales Bay from the Tomales dunes (Baye 2004). There is also an unconfirmed report of the species from summer 2003 in the vicinity of the sand quarry on the project site. The larval food plant of the Myrtle's silverspot is presumed to be western dog violet (*Viola adunca*). It is not known whether western dog violet occurs on the project site. Adult Myrtle's silverspots are opportunistic nectar feeders and will use a variety of flowers. Many flowers on the project site represent potential nectar sources for adult Myrtle's silverspot butterfly.— They are strong flyers and movements of several kilometers are quite possible (Baye 2004).

Myrtle's silverspot butterfly was included in a recovery plan that also addressed seven listed coastal plants published by USFWS in 1998 (USFWS 1998). The area around and south of Dillon Beach, extending south of Tom's Point was identified as a high-priority area for reintroduction of this species. The purpose of recovery plans is to delineate reasonable actions which are believed to have required the recovery and protection of federally listed species. The USFWS has no specific legislative mandate to require state and federal agencies, or private entities to implement tasks for endangered and threatened species recovery identified in recovery plans.

Pacific sand bear scarab beetle (*Lichnanthe ursina*) is a federal Species of Concern. It has no state status. The Pacific sand bear scarab beetle occurs in coastal sand dunes of California from Sonoma County south to San Mateo County and also inland Los Angeles County. In the region of the project site, the Pacific sand bear scarab beetle is known to occur on the foredunes of Dillon Beach (Carlson 1980) and it also has been identified at the abandoned quarry and on the project site's active sand dunes (Monk & Associates pers. obs.). Little is known about the ecology of the Pacific sand bear scarab beetle.

In 1991, small numbers of the Pacific sand bear scarab beetle were observed by WESCO biologists within the abandoned quarry site and in the central dune scrub habitat immediately east of the active quarry (WESCO 1991). In 1996, Monk & Associates identified approximately four sand bear scarab beetles flying within the abandoned quarry and landing in the herbaceous vegetation beneath yellow bush lupine plants. Monk & Associates also observed one Pacific sand bear scarab beetle flying low over the dunes in the western portion of the active quarry. In 1998, Monk & Associates only observed one scarab beetle. In 2002, Monk & Associates saw small numbers of this beetle flying over the active dunes and landing in the sand.

Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*) is a federal Species of Concern. This species does not have any state status. Specific details of this beetle's natural history are unknown. This species is known only from the immediate San Francisco Bay area where it has been found in calm, shallow water of ponds, streams, marshes, or lakes. One of the specimens in the collection at the California Academy of Sciences is from the Bolinas area. It was collected in 1940. The dune slack ponds provide potentially suitable habitat for the Ricksecker's water scavenger beetle. No specific studies for this beetle have been conducted on the project site.

Globose dune beetle (*Coelus globosus*) is a federal Species of Concern. This species does not have any state status. It is restricted to coastal sand dunes, where it is usually found by digging in sand below plants. The globose dune beetle is a small, black, and flightless member of the darkling beetle family (Tenebrionidae). Monk & Associates (1999) reported that this species occurs in the Tomales dunes, including the sand quarry. Dedicated surveys are needed to determine the abundance and extent of the species' population in the Tomales dunes.

Sandy beach tiger beetle (*Cicindela hirticollis gravida*) is a federal Species of Concern. This species does not have any state status. Suitable habitat for the sandy beach tiger beetle is sandy substrate near water. The project site is included within the broad range of this species, but it has not been identified on the project site (Baye 2004). Dedicated surveys for the species are needed to assess whether it is present in the Tomales dunes.

Marin elfin butterfly (*Incisalia mossii marinensis*) is a federal Species of Concern. It has no state status. According to USFWS, the Marin elfin butterfly is found in the Dillon Beach area on rock outcrops and bluffs (Baye 2004). No specific studies for this butterfly have been conducted on the project site.

Point Reyes blue butterfly (*Icaricia icarioides* ssp. *parapheres*) is a federal Species of Concern. The Point Reyes blue butterfly occurs in dune habitat. Although the butterfly has not been identified in the project vicinity, dedicated surveys are needed to assess whether it is present in the Tomales dunes (Baye 2004).

SENSITIVE HABITATS

Sensitive habitats include those that are of special concern to resource agencies, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, and/or Section 404 of the federal CWA as discussed subsequently under Regulatory Background. Sensitive habitats on the project site consist of coastal salt marsh, central dune scrub, wet meadows, coastal dunes, riparian habitat, and wetlands. The locations of habitat types on the project site are shown in Exhibit 4.13-1. A portion of the wet meadow habitat within the project site has been designated as jurisdictional wetlands and waters pursuant to Section 404 of the Clean Water Act. A wetland delineation, prepared by WESCO, was verified by the U.S. Army Corps of Engineers (USACE) in April 1993. USACE reverified the delineation on April 14, 1998 and March 5, 2003 (Exhibit 4.13-2).

REGULATORY BACKGROUND

Many biological resources in California are legally protected and impacts to these resources are regulated by a variety of laws and policies. Before implementation, proposed projects need to demonstrate compliance with these regulations. Key regulatory issues applicable to the proposed project are discussed below.

Federal Regulations

Federal Endangered Species Act

Pursuant to the federal ESA, the USFWS has authority over projects that may result in take of a federally-listed species. Under the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take. If a project has a likelihood that it would result in take of a federally-listed species, either an incidental take permit, under Section 10(a) of the ESA, or a federal interagency consultation, under Section 7 of the ESA, is required.

Section 404 of the Clean Water Act

Section 404 of the CWA establishes a requirement to obtain a permit before initiating any activity that involves any discharge of dredged or fill material into “waters of the U.S.,” including wetlands. Waters of the U.S. include navigable waters of the U.S., interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Many surface waters and wetlands in California meet the criteria for waters of the U.S., including intermittent streams and seasonal lakes and wetlands.

Pursuant to Section 404 of the CWA, USACE regulates and issues permits for activities that involve the discharge of dredged or fill materials into waters of the U.S. Fills of less than ½ acre of non-tidal waters of the U.S. for residential, commercial, or institutional development projects can generally be authorized under USACE’s nationwide permit (NWP) program, provided the project satisfies the terms and conditions of the particular NWP. Fills that do not qualify for a NWP require an individual permit. The project is expected to be permitted under a NWP 12 for utility lines.

Based on a recent court case, wetlands that are considered “isolated” (i.e. that are not hydrologically connected to waters of the United States) are no longer subject to USACE jurisdiction (SWANCC 2001). The regulation of fill to those wetlands now falls to the Regional Water Quality Control Boards (RWQCB). The decision on whether a wetland is truly isolated lies with USACE who will typically evaluate data presented in a wetland delineation or similar technical report.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that “any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge” with the RWQCB through an application for waste discharge (Water Code Section 13260(a)(1)). The term “waters of the state” is defined as any surface or groundwater, including saline waters, within the boundaries of the state (Water Code Section 13050(e)). The RWQCB, one of the Porter-Cologne Authorities, considers clean fill in waters of the state to constitute “pollution.” Pollution is defined as an alteration of the quality of the waters of the state, which unreasonably affects its beneficial uses (Water Code Section 13050(1)).

National Marine Sanctuaries Act

In 1972, in response to a growing awareness of the value of U.S. coastal waters, Congress passed the National Marine Sanctuaries Act (NMSA). The act authorized the designation of National Marine Sanctuaries to protect significant waters and secure habitat for aquatic species, shelter historically significant shipwrecks and other cultural resources and serve as valuable locations for research, fishing, wildlife viewing, boating, and tourism.

The Gulf of the Farallones National Marine Sanctuary (GFNMS) protects an area of 948 square nautical miles (1,255 square miles) off the northern and central California coast. Extending from a few miles north of San Francisco to Bodega Bay, the waters within the GFNMS are part of a nationally significant marine ecosystem. The GFNMS supports an abundance of species by encompassing a diversity of highly productive marine habitats. As directed by the NMSA, GFNMS's role is to protect the area's natural

[resource and ecosystem values by conserving the biodiversity, productivity, and aesthetic qualities of the marine environment in the Gulf of the Farallones through ecosystem-based management \(GFNMS 2007\).](#)

[Regulations specific to the GFNMS prohibit certain activities to occur within the GFNMS including exploring, developing, or producing for oil or gas; discharging or depositing any materials; construction of structures other than navigation aids; drilling; dredging; operate a vessel carrying cargo \(e.g., tanker\); flying motorized aircraft less than 1,000 feet over the waters; removal of historical or cultural resource; and operation of motorized personal watercraft except for emergency search and rescue mission \(Code of Federal Regulations, Title 15, Part 922\). However, egress of personal water craft into the GFNMS is allowed from Lawson's Landing and Bodega Harbor \(Department of Commerce 2001\).](#)

State Regulations

California Endangered Species Act

Pursuant to the CESA and Section 2081 of the Fish and Game Code, a permit from DFG is required for projects that could result in the take of a state-listed threatened or endangered species. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the definition does not include "harm" or "harass," as the federal act does. As a result, the threshold for a take under the CESA is higher than that under the ESA.

California Fish and Game Code Section 3503.5 - Protection of Raptors

Section 3503.5 of the Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs. Violations include destruction of active raptor nests as a result of tree removal and disturbance to nesting pairs by nearby human activity, which may cause nest abandonment and reproductive failure.

Section 1602 et seq. of the California Fish and Game Code

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream or lake in California that supports wildlife resources is subject to regulation by DFG, pursuant to Section 1602 of the California Fish and Game Code. Section 1602 states that it is unlawful for any person, governmental agency, state, local, or any public utility to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake without first notifying DFG of such activity. The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports wildlife, fish, or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. DFG's jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

California Coastal Act of 1976

The California Coastal Act of 1976 (Public Resources Code 30000 *et. seq.*) establishes policies guiding development and conservation along the California coast. The Coastal Act requires that local governments lying wholly or in part within the coastal zone prepare a Local Coastal Program for its portion of the coastal zone, as defined by Coastal Act Section 30108.6. The California Coastal Act of 1976 requires approval (i.e., "certification") of a City's Local Coastal Program by the California Coastal Commission. The Local Coastal Plan (Marin County Local Coastal Program, Unit 2) was approved in 1981 and is discussed in further detail in the following section.

The California Coastal Commission (CCC) regulates wetlands in accordance with the provisions of the Coastal Act. Section 30121 of the Coastal Act broadly defines a wetland as lands within the coastal zone that may be “covered periodically or permanently with shallow water.” As a result, areas that do not meet the federal definition of wetlands, may receive protection under the Coastal Act. Section 30233 of the Coastal Act identifies activities in which the diking, filling, or dredging of coastal wetlands is permitted. Some project activities (e.g., restrooms, trails) proposed at Lawson’s Landing are not included in the list of permitted activities and would therefore not qualify for fill of coastal wetlands under the Coastal Act.

Regional and Local Policies and Ordinances

Dillon Beach Community Plan

The objectives and policies from the 1988 Community Plan would apply to the project. The project’s consistency with these policies and objectives are discussed in Section 4.2, “Land Use Plans and Policy Consistency.”

Marin County Local Coastal Program Unit II

The policies from the 1981 Local Coastal Plan (LCP) section on natural resources would apply to the project. The project’s consistency with these policies are discussed in Section 4.2, “Land Use Plans and Policy Consistency.”

Marin Countywide Plan

The policies from the 1994 Marin Countywide Plan would apply to the proposed project. The project’s consistency with these policies are discussed in Section 4.2, “Land Use Plans and Policy Consistency.”

4.13.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

These thresholds have been prepared based on a review of the applicable parts of the Initial Study Checklist, Appendix G and Section 15065 of the State CEQA Guidelines. The project would have a significant impact on biological resources if it would:

- ▶ 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 DFG or USFWS;
- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by DFG or USFWS;
- ▶ have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, rivers, etc.) through direct removal, filling, hydrological interruption, or other means;
- ▶ interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- ▶ 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; or substantially reduce the number or restrict the range of an endangered, rare or threatened species;
- ▶ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- ▶ conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994), the project would have a significant impact related to biological resources if it would:

- ▶ substantially reduce the number or restrict the range of a rare, endangered, or threatened plant or animal;
- ▶ cause a fish or wildlife population drop to below self-sustaining levels; or
- ▶ adversely affect significant riparian lands, wetlands, marshes, and other significant wildlife habitats.

PROJECT IMPACTS

Impact 4.13-1: Impacts on Sensitive Habitats. Implementation of the project could result in the removal, disturbance, or degradation of sensitive habitats on the project site. Sensitive habitats on the project site consist of coastal dunes, coastal salt marsh, central dune scrub, riparian habitat, meadows and seeps, and wetlands. These habitats are considered sensitive habitats by DFG and receive protection under the California Fish and Game Code. Development in these sensitive habitats is also discouraged by local and regional policies and ordinances including the LCP and the Dillon Beach Community Plan. This would be a *significant* impact.

One of the elements of the Master Plan includes citing facilities in areas that would avoid or minimize impacts to sensitive communities to the extent feasible. It is difficult to accurately assess the degree to which impacts to sensitive habitats can be avoided, however, because a specific footprint for each of the proposed facilities has not yet been determined, and wetlands, as defined by the Coastal Act, have not been identified. Coastal Act wetlands could cover the entire extent of wet meadow habitat, as depicted in Exhibit 4.13-1. While these wetlands may be protected, their biological value varies throughout the wet meadow area. Wetlands that pond for longer duration and have less disturbance have generally higher biological value.

Construction of project facilities (e.g., restrooms, trails, roadways, wastewater treatment facility) could have a substantial adverse effect on sensitive habitats through both direct removal, disturbance, or degradation of these habitats or indirectly through the introduction of species to stabilize the active dune system. Although, it is assumed that all species used to stabilize the dune system would be native species that are known to occur on the project site, it is not certain. Substantial effects on sensitive habitats could include the removal, disturbance, or degradation of sensitive wet meadow habitat; inhibition of natural dune processes; and fragmentation of the active dune areas. Construction of a wastewater treatment system and lines could adversely affect active dunes, wetlands, and coastal scrub. An access road to the wastewater facilities, restroom and shower facilities, and water faucets could adversely affect both coastal scrub and wetland habitats.

In Section II, the Resources Project section of the LCP, coastal dunes are described as “environmentally sensitive habitat areas.” Environmentally sensitive habitat areas are defined in Section 30107.5 of the California Coastal Act as, “any area in which plant or animal life or their habitats are either rare or especially valuable because of the special nature or role in an ecosystem.” According to the LCP, “more specifically, such habitats may serve as prime examples of particular natural communities; be unique, rare, or fragile; provide habitat for rare or endangered species of wildlife and thus be vital to species survival; or be of particular scientific or educational interest.” The LCP identified one of the most significant habitat areas as the coastal dunes, encompassing some 250 acres, in the vicinity of Sand Point. “This area...is used for a recreational resort known as Lawson’s Landing” (Marin County 1980). The LCP policy (5) that applies to sand dunes states: “No development shall be permitted in coastal dunes to preserve dune formations, vegetation, and wildlife habitats. If additional development is proposed at Lawson’s Landing, it shall be sited out of the dunes and designed to minimize impacts on adjacent dune vegetation and habitat. Overuse in the dune area shall be prevented by such mechanisms as restricted parking, directing pedestrian traffic to areas capable of sustaining increased use, and fencing.” These special protections included in coastal plans are evidence of the importance of these habitats. Therefore, disturbance, filling, or removal of environmentally sensitive habitat areas would be a significant effect.

According to the Dillon Beach Community Plan (DBCP) (Policy EQ-6.1), the diking filling, or dredging of wetlands for the purposes of residential or commercial development, or facilities that support residential or commercial development shall not be permitted. Similarly, policies EQ-7.2 and EQ-7.3 state that future development or improvements proposed for Lawson’s Landing shall be sited out of the coastal sand dune area and designed to minimize impacts to adjacent dune vegetation and habitat, including areas of dune scrub. Proposed construction on the project site, including the wastewater treatment system, an access road, restroom and shower facilities, and water faucets, supports residential and commercial development, and, therefore, conflicts with these three policies stated in the DBCP. In addition, the DBCP requires proposals for coastal development at Lawson’s Landing or a dunes sewage disposal system to be reviewed by the Gulf of the Farallones National Marine Sanctuary.

The Marin Countywide Plan (Policy EQ-2.43) states that development shall not encroach into sensitive wildlife habitats, and buffer zones between development and identified or potential wetland areas shall be provided. The planting of aggressive exotic plants should also be avoided in any development over which the County has review authority (Policy EQ-3.13). European beach grass, a species frequently used to stabilize dunes, is on the California Invasive Plant Council’s (Cal-IPC) List A-1: Most Invasive Wildland Pest Plant (documented as aggressive invaders that displace natives and disrupt natural habitats).

The biogeographic assessment of the Tomales Dunes prepared by Baye (2004) is relevant to the assessment of potential impacts on sensitive habitats described in this Draft EIR because it analyzes sensitive biological resources at Lawson’s Landing. The regional importance of the Tomales Dunes complex according to Baye (2004) is summarized in the environmental setting section.

A relevant study to this impact discussion is that of Pacific Watershed Associates (2004), which analyzed the historic and current sand dune processes and movement at Lawson’s Landing. According to PWA, construction of the sewage treatment facilities at Lawson’s Landing is the most likely facet of the currently proposed upgrades to have a direct impact on sensitive habitats and ecological processes. The most deleterious component of the proposed wastewater treatment system improvements is the leachfield and the associated dune stabilization that would be required. Regardless of the specific location of the leachfield, stabilizing dunes on the western margin of the dune field would have the same stability problems and potentially detrimental effects on the dune system as a whole (PWA 2004).

The effects of unnaturally stabilizing dunes on the western edge of the dune field with native or non-native species could be significant and wide ranging. The most significant of the potential effects would

be to inhibit natural dune migration and the development of coastal dune field landforms, resulting in the deflation of the dune field on the leeward side of artificially stabilized dune areas and the cessation or substantial slowing of the expansion of the deflated surface windward of stabilized dune areas. This could lead to unnatural fragmentation of the active dune areas, which could in turn influence the short- and long-term development of the dune system at Lawson's Landing (PWA 2004). Deflation plains (i.e., wet meadows) are already expanding as a result of European beachgrass invasion and most active dune fields are now completely isolated from direct sediment inputs from the foredunes; the effect is an expansion of the area of sensitive wetlands and wetland habitats between the foredune and active dune field. In addition, the aggressive nature of nonnative European beachgrass allows it to out-compete native species, in turn altering native plant communities and eliminating habitats for special-status plant and animal species. Although stabilization of the active dune system for the construction of a wastewater treatment facility is proposed using native and non-native dune species, it will be difficult to prevent European beachgrass from overtaking the native plantings because it is already present on the project site and is an aggressive colonizer.

Coastal processes are difficult to predict; therefore, it is difficult to quantify the potential effects of constructing the sewage treatment facilities and other proposed development in the project area. However, there is scientific evidence that human activities related to dune stabilization and alteration, locally and regionally, has resulted in elimination of large portions of the once active dune system and the acceleration of erosional processes (Baye 2004). Because of the potential for implementation of the project to result in the removal, disturbance, or degradation of sensitive habitats on the project site, including introduction of non-native plant species, this impact would be significant.

Impact 4.13-2: Impacts on Special-Status Plants. The project could result in the disturbance or removal of special-status plant species and their associated habitat, and could substantially reduce the number or restrict the range of endangered, rare, or threatened species. This would be a *potentially significant* impact.

Implementation of the project could result in disturbance and removal of coastal dunes, coastal dune scrub, wet meadow, and coastal salt marsh habitats that could support San Francisco Bay spineflower, woolly-headed spineflower, Point Reyes bird's-beak, and Tidestrom's lupine. These special-status plant species are protected under CESA and/or the ESA. In addition, potentially suitable habitat is present for an additional 33 species of special-status plants. Although these plants were not identified at the project site during 1992 and 2002 rare plant surveys, habitat is present that could support the colonization of these species.

In addition to direct disturbance or removal of special-status plant species, the unintentional, potential spread of invasive European beachgrass through the stabilization of active dunes for the construction of the leachfield could result in a decline of habitat quality for native species, including special-status plant species, thus causing an indirect loss of special-status species and their habitats. The unintentional colonization by European beachgrass would be expected in areas where the dunes are being stabilized. Because the project could result in the disturbance or removal of special-status plant species and their associated habitat, and could substantially reduce the number or restrict the range of endangered, rare or threatened species, this would be a potentially significant impact.

Impact 4.13-3: Impacts to Wetlands. Impacts, including disturbance or fill, to waters of the United States, including wetlands, as defined by Section 404 of the CWA, and coastal wetlands as defined by the CCA, could result from site grading or other activities during the construction of proposed improvements. Facilities that would require fill of wetlands include restrooms, trails, and conveyance pipelines. Because of the potential for the project

to result in filling of or disturbance to wetlands protected by USACE, DFG, Coastal Act, and local and regional plans, this would be a *significant* impact.

A portion of the wet meadow habitat within the project site has been designated as jurisdictional wetlands and waters pursuant to Section 404 of the Clean Water Act (Exhibit 4.13-2). Construction of the project could result in disturbance, fill, and removal of wetlands, which qualify as jurisdictional waters of the United States. Placement of fill into any of these features would require a Section 404 permit from USACE. Consultation with DFG would be needed to determine if jurisdictional drainages on the project site qualify for protection under Section 1602 of the Fish and Game Code. In addition to receiving federal and state protection, the Dillon Beach Community Plan, the California Coastal Act of 1976, and the LCP provide policies that address the filling, alteration, and removal of wetland habitat.

Section 30121 of the Coastal Act broadly defines a wetland as lands within the coastal zone that may be “covered periodically or permanently with shallow water.” As a result, areas that do not meet the federal definition of wetlands, may receive protection under the Coastal Act. Under this definition, much of the wet meadow habitat at Lawson’s Landing may qualify as wetland in accordance with the Coastal Act definition. The wetland exhibit (Exhibit 4.13-2) does not identify all potentially jurisdictional wetlands under the Coastal Act. While these wetlands may be protected, their biological value varies throughout the wet meadow area because of cattle grazing and visitor and maintenance activities. Wetlands that pond for longer duration and have less disturbance have generally higher biological value than wetlands that pond only briefly and have sustained greater disturbance from cattle grazing and human activities.

Some facilities proposed for construction in the wet meadow on the project site do not qualify for a permit to dike, fill, or dredge wetlands under Section 30233 of the Coastal Act. Permitted activities are limited to the following: (1) new or expanded port, energy, and coastal-dependent industrial facilities; (2) maintenance of existing or restoration of previously dredged navigation channels, turning basins, vessel berthing and mooring areas, and boat launching ramps; (3) entrance channels for new or expanded boating facilities; (4) new or expanded boating facilities and the placement of structural pilings for public recreational piers in open coastal waters other than wetlands; (5) incidental public service purposes, including, but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines; (6) mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas; (7) restoration purposes; and (8) nature study, aquaculture, or similar resource dependent activities. The construction of conveyance pipeline as part of the wastewater treatment facility and water lines for camping area faucets would, however, be consistent with item 5 in the list of permitted activities under the Coastal Act.

According to the LCP section 4, wetlands in the coastal zone shall be preserved and maintained, consistent with the policies in this section, as productive wildlife habitats, recreational open space, and water filtering and storage areas. Only “resource-dependent activities” are allowable land uses within wetlands under the LCP. Construction of project components, such as restrooms, a leachfield access road, or trails, in the wet meadow habitat would not be resource dependent actions and would, therefore, not qualify as allowable uses. In addition, Policy EQ-6.1 of the Dillon Beach Community Plan states that the filling of wetlands for the purposes of residential or commercial development, or facilities that support residential or commercial development shall not be permitted. Proposed development on the project site is in conflict with both of these local policies.

Indirect impacts to seasonal wetlands may result from construction of facilities in and adjacent to the wet meadow area, including an access road to the wastewater facilities, restroom and shower facilities, and water faucets, within a 100-foot buffer around seasonal wetlands. These facilities could have gradual adverse effects related to wetland hydrology and soil compaction over time. Project components sited

within 100 feet of wetlands would not be consistent with the wetland buffer policies of the Marin County LCP Unit II.

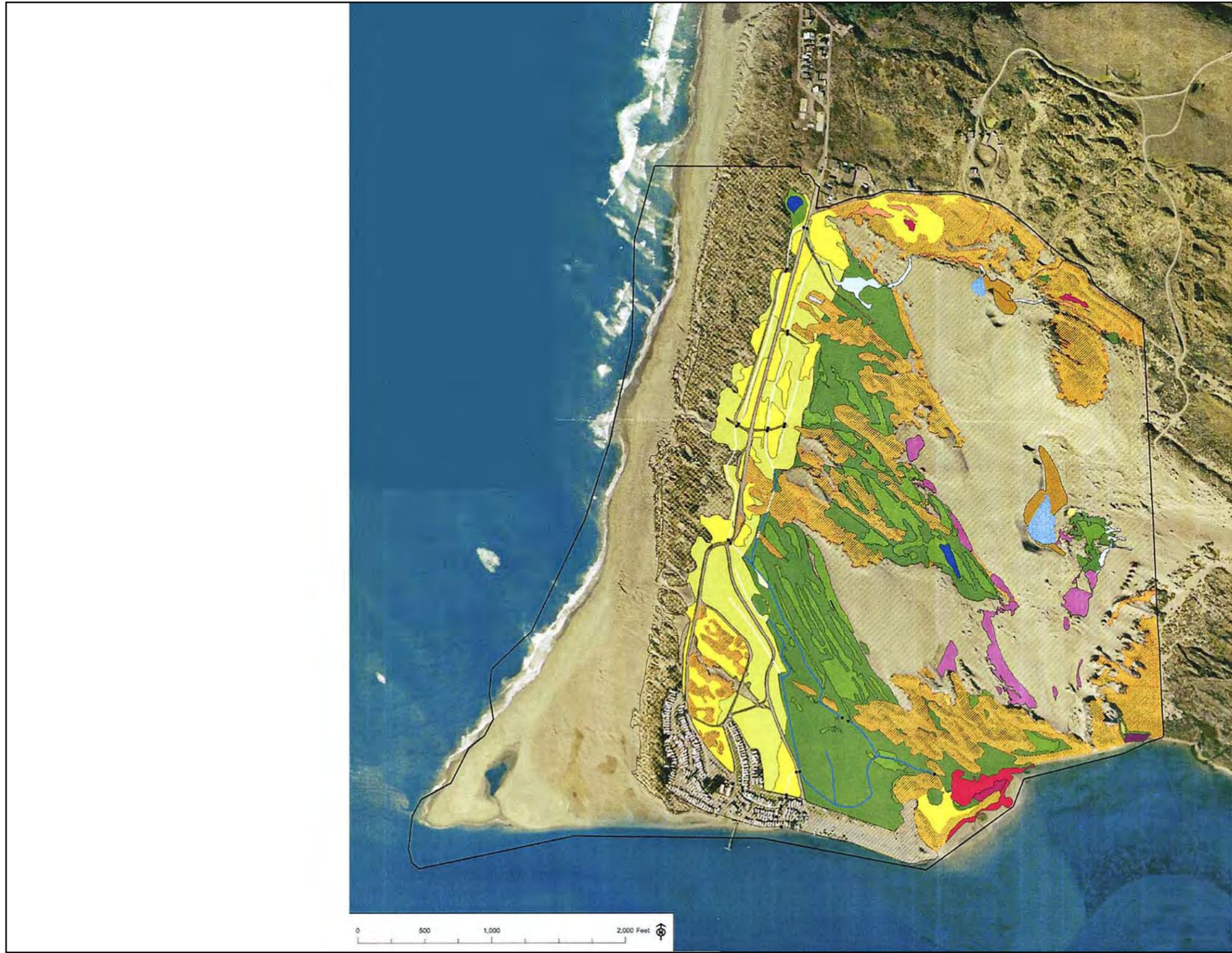
Site grading or other activities during the construction of the proposed project could result in the loss of or disturbance to wetlands and other waters of the United States. Because of the potential for the project to result in loss of or disturbance to wetlands protected by USACE, DFG, Coastal Act, and local and regional plans, this would be a significant impact.

Impact 4.13-4: Impacts to Special-Status Wildlife. Implementation of the project could result in disturbance or removal of coastal dunes, coastal scrub, and wet meadow habitats that could provide habitat for California red-legged frog, Myrtle's silverspot butterfly, Ricksecker's water scavenger beetle, Pacific sand bear scarab beetle, globose dune beetle, sandy beach tiger beetle, Marin elfin butterfly, and Point Reyes blue butterfly. This would be a potentially significant impact.

Western snowy plover is a federal listed threatened species and a state species of special concern. Designated critical habitat for the western snowy plover is located along Dillon Beach on the project site. The western snowy plover has not been observed nesting at Dillon Beach (or Lawson's Landing) in recent years, but substantial numbers spend the winter there. The project would not change or otherwise modify designated critical habitat at Dillon Beach and its foredunes. Nor would the project result in an increase in use of these habitats by people. Therefore, impacts to western snowy plover would be less than significant.

The California red-legged frog is a federal listed threatened species and a state species of concern. Watersheds within and adjacent to Tomales Bay are included in Critical Habitat Unit 12 as designated by USFWS in 2000. The project site appears to be located within the northern tip of this critical habitat unit. Red-legged frogs were identified on the project site in 2002. Construction of project components in the wet meadow on the project site could result in temporary disturbance to the aquatic and upland habitat suitable for red-legged frogs. If individuals are present in these habitats at the time of construction, they may become stranded or may be injured during excavation or grading for restroom and shower facilities, water faucets, and similar project components. Because there is potential for direct take of red-legged frogs during construction activities, and critical habitat for red-legged frogs would be modified, impacts to California red-legged frogs would be potentially significant.

Implementation of the project could result in disturbance or removal of coastal dunes, coastal scrub, and wet meadow habitats that could provide habitat for Myrtle's silverspot butterfly, Ricksecker's water scavenger beetle, Pacific sand bear scarab beetle, globose dune beetle, sandy beach tiger beetle, Marin elfin butterfly, and Point Reyes blue butterfly. Myrtle's silverspot butterfly, federally listed as ~~threatened~~ ~~endangered~~, is the only federal or state listed invertebrate species with potential to occur on the project site. Although relatively little is known about the biology of these seven invertebrates or their status and distribution on the project site, modification of their habitats through implementation of the proposed project could have a substantial adverse effect on these federally listed species, because of the adverse effects on their habitats. This impact would be potentially significant.



- Legend**
- ▬ Limits of Study
 - Culvert
- Vegetation communities and non-vegetated habitats organized based on HBG CCC wetlands determination
- Significant Wetlands**
- Brackish Marsh
 - ▨ Coast Estuarine Community
 - Ditch Overflow Area
 - Drainage Blowout (unvegetated)
 - Recently Formed Dune Hollows (unvegetated)
 - Saturated to Inundated Emergent Marsh (inundation period 1 week to 4 months)
 - Hillside Swale Wetlands
 - Northern Coastal Salt Marsh
 - Nondegraded Dune Slack
 - Perennial Pond
 - Quarry Pond
 - Willows
 - Ditch
- Less Significant Wetlands**
- Degraded Dune Slack
 - Lolium Grass Upland
 - Ditch
- Uplands**
- Central Dune Scrub
 - ▨ Foredunes
 - ▨ Moving Dune
 - Quarry
 - Pennisetum Grassland
 - ▨ Developed
 - ▬ Roads

This map, any oral communications, the completion of any biological or wetland studies, and/or filing of a GDP are made under protest and are in no way intended to waive any legal or equitable arguments Lawson's Landing may have.

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Source: Monk and Associates 2007

Locations of Significant and Less Significant Wetland Habitats

CUMULATIVE IMPACTS

Impact 4.13-5: Cumulative Impacts to Sensitive Habitats, Including Coastal Wetlands. The proposed project could contribute to cumulatively significant impacts on sensitive habitats and wetlands in the coastal zone. Northern coastal dune systems are locally and regionally rare and development in sensitive habitats within these systems presents a significant cumulative contribution to impacts on sensitive habitats. The project could also result in the direct fill of seasonal wetlands. Further, the project would increase the number of facilities at the site, which would support and continue baseline camping activities that occur in onsite wetlands. Therefore, the project would contribute to cumulatively considerable and significant wetland impacts.

Implementation of the project could result in the removal, disturbance, or degradation of sensitive habitats on the project site, including coastal dunes, coastal salt marsh, central dune scrub, riparian habitat, meadows and seeps, and wetlands. These habitats are considered sensitive habitats by DFG and receive protection under the California Fish and Game Code. Development in these sensitive habitats is also discouraged by local and regional policies and ordinances including the LCP and the Dillon Beach Community Plan. Northern coastal dune systems are not regionally abundant. This project and other development projects proposed for the coastal zone could, therefore, contribute to significant cumulative impacts related to sensitive habitats.

The project could result in the direct fill of seasonal wetlands. Mitigation recommended for the project (Mitigation Measure 4.13-3) would reduce the project's impact to a less-than-significant level. However, the project would construct new facilities that would support the continuation of existing camping activities within onsite wetlands and as a result would contribute to a significant and adverse cumulative condition. This would be a significant cumulative impact and the project's continuation of the adverse baseline would be cumulatively considerable.

Impact 4.13-6: Cumulative Impacts to Special-Status Species. The proposed project could contribute to cumulatively significant impacts on special-status plant and wildlife species. The project could reduce the number or restrict the range of endangered, rare, or threatened plant and invertebrate species and the federally threatened California red-legged frog. This would present a *significant* project and cumulative impact on special-status species.

The project could result in the disturbance or removal of special-status plant species and their associated habitat, and could reduce the number or restrict the range of endangered, rare, or threatened species. This project and other development projects proposed for the coastal zone could, therefore, contribute to significant cumulative impacts related to special-status plant species.

Implementation of the project could result in disturbance or removal of coastal dunes, coastal scrub, and wet meadow habitats that could provide habitat for California red-legged frog, Myrtle's silverspot butterfly, Ricksecker's water scavenger beetle, Pacific sand bear scarab beetle, globose dune beetle, sandy beach tiger beetle, Marin elfin butterfly, and Point Reyes blue butterfly. California red-legged frog [is federally listed as threatened](#); ~~and~~ Myrtle's silverspot butterfly [is](#) ~~are both~~ federally listed as [endangered](#)~~threatened~~. This project could reduce the number or restrict the range of these two federally threatened species, and therefore, could contribute to significant cumulative impacts related to special-status wildlife.

4.13.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.13-1: Impacts on Sensitive Habitats. Since release of the Draft EIR for public review, the applicants further evaluated the feasibility of constructing the wastewater treatment system in the northern portion of the project site. As a result of the feasibility analysis, the applicant has agreed to relocate the wastewater treatment facility to the northern portion of the project site outside of on-site sand dunes.

~~Lawson's Landing shall implement the following measures to reduce potential impacts on sensitive habitats:~~

- ~~▶The proposed wastewater treatment system shall be relocated to an alternate site where potential impacts to sensitive habitats and special status species would be avoided or reduced. Areas with fewer environmental constraints are identified in Exhibit 6-1 and are generally located in the northern portion of the project site.~~
- ~~▶Implement Mitigation Measure 4.6-1, which requires construction of an alternate treatment system or relocation of the wastewater treatment system to non-sand dune areas.~~
- ~~▶If vegetation is required to stabilize the area proposed for the leachfield, species native to the project site and surrounding area shall be used. Approval of the species used shall be obtained from the County before installation.~~

Mitigation Measure 4.13-2: Impacts on Special-Status Plants. Lawson's Landing shall implement the following measures to reduce potential impacts on special-status plant species:

- (a) Before the initiation of any ground-disturbing or vegetation-clearing activities, the project applicant shall retain a qualified botanist to conduct pre-construction, focused surveys to confirm the location of potentially suitable habitats in the area of construction disturbance that would be indirectly or directly affected by project implementation for the special-status plants listed in Table 4.13-1, with special attention given to the four species that are presently or historically known to occur on the project site. For plants that require active dunes, this would include the entire dune system. The botanist shall conduct surveys for these special-status plant species at the appropriate time of year when the target species would be in flower and therefore clearly identifiable (i.e., blooming periods). Surveys shall be conducted following the DFG-approved protocol for surveying for special-status plant species.
- (b) If no special-status plants are found during pre-construction, focused surveys, the botanist shall document the findings in a letter report to the project applicant and the appropriate regulatory agencies, and no further mitigation will be required.
- (c) If special-status plants are found during pre-construction, focused surveys and the populations can be avoided, they shall be clearly marked in the field by a qualified botanist for avoidance during construction activities. If the populations cannot be avoided, consultations with DFG and/or USFWS shall be required depending on the listing status of the plant. Through consultations, appropriate mitigation measures will be developed and implemented. Appropriate measures may include the creation of off-site populations through seed collection or transplanting, preservation and enhancement of existing populations, or restoration or creation of

suitable habitat in sufficient quantities to compensate for the impact. The project applicant shall implement all mitigation measures determined necessary during this consultation.

Mitigation Measure 4.13-3: Impacts to ~~Coastal and Section 404~~ Jurisdictional Wetlands. The following measures are designed to avoid impacts on coastal and Section 404 wetlands and other waters of the United States:

- (a) Before the project design is finalized, a qualified biologist shall conduct a Section 404 jurisdictional delineation of waters of the United States (if one is not already prepared and verified), including wetlands, for any areas of project impact outside of the survey area for the existing verified wetland delineation from March 5, 2003. In addition, the project applicant or a qualified biologist shall conduct a delineation of wetlands, as defined by the California Coastal Act of 1976.
- (b) The project applicant or a qualified biologist shall contact DFG to determine whether streambed alterations would occur to drainage features as defined under Section 1602 of the California Fish and Game Code. If this is the case, the project applicant shall obtain a streambed alteration agreement from DFG for any proposed modifications of the features.
- (c) Based on the verified delineation, the project applicant shall avoid disturbance or fill of the protected coastal wetlands, which would also lead to avoidance of Section 404 wetlands and other waters of the United States, for any uses not authorized by the CCA for wetland fill.
- (d) All jurisdiction wetlands shall be protected from impacts associated with implementation of the proposed project by a minimum 100-foot buffer. In some cases, such as when a special-status species requires habitat adjacent to a wetland for part of its life cycle, buffers greater than 100 feet may be necessary. Precise buffer width will be based upon consultation between the project applicant and the California Coastal Commission (CCC). Prior to beginning implementation of the proposed project, the project applicant shall submit a wetland avoidance plan to CCC for approval. The avoidance plan shall include a map that clearly demarcates jurisdiction waters and the buffer area. Based on CCC guidance for establishing buffer, it is ~~This will~~ likely ~~that~~ require relocation of some proposed facilities (e.g., trails, restrooms) will be required outside ~~the a 100-foot~~ buffer areas ~~from onsite wetlands in less environmentally constrained areas as shown in Exhibit 6-1.~~
- ~~(d) For those wetlands and other waters of the United States that cannot be avoided during construction, authorization for fill of wetlands and alteration of waters of the United States for uses authorized for fill under the CCA, shall be secured from USACE via the Section 404 permitting process before project construction. Compensatory mitigation required for the Section 404 permit shall be implemented.~~
- (ee) For wWetlands and other waters of the United States filled for uses that are authorized under the CCA, ~~the project applicant~~ shall be replaced, restored, or enhanced so that ~~the acreage of jurisdictional habitat to be removed on there is a~~ “no net loss” ~~basis~~ in accordance with USACE, DFG, and ~~the~~ LCP requirements. The project applicant shall secure the following permits and regulatory approvals, as necessary, and implement all permit conditions before beginning implementation of the proposed project:
 - 1. Authorization for fill of jurisdictional waters of the United States shall be secured the CWA Section 404 permitting process. Timing for compliance with the specific conditions of the 404 permit shall be per condition specified by the USACE in a mitigation monitoring plan that must

be included with the Section 404 permit application. USACE typically require that mitigation monitoring plans included proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of jurisdictional wetlands functions and values in the project vicinity. The wetland creation section of the habitat mitigation and monitoring plan shall include the following: target areas for creation; a complete biological assessment of the existing resources on the target areas; performance standards for success that will illustrate that the compensation ratios are met; and a monitoring plan including schedule and annual report format. Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the CCC may be immitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.

2. Prior to construction in any areas containing wetland features, the project applicant shall obtain water quality certification pursuant to Section 401 of the Clean Water Act for the project. Any measures required as part of the issuance of water quality certification shall be implemented.
3. The project applicant shall obtain a Streambed Alteration Agreement under Section 1600 et seq. of the California Fish and Game Code for impacts to Waters of the State as defined under Section 1602 of the California Fish and Game Code.
4. The project applicant shall file a report of waste discharge with the Regional Water Quality Control Board for activities affecting waters of the state.

~~Habitat restoration, enhancement, and/or replacement shall be at a location and by methods agreeable to USACE, DFG, and the LCP. Disturbance or loss of wetlands under jurisdiction of the California Coastal Commission (CCC) may be immitigable; the project applicant shall therefore reposition affected project components to a location(s) agreeable to CCC and in areas less environmentally constrained as shown in Exhibit 6-1.~~

Mitigation Measure 4.13-4: Impacts to Special-Status Wildlife. The following measures are designed to minimize and mitigate impacts on special-status wildlife:

California Red-legged Frog

The following measures would avoid impacts to or reduce impacts to California red-legged frogs to a less-than-significant level:

- (a) Red-legged frogs are known and have been documented to occur on the project site (Monk and Associates 2002). Before construction of any project facilities, and as a follow-up to the habitat assessment conducted in May 2002 by Monk and Associates, a qualified biologist shall conduct a pre-construction, habitat survey in accordance with the methods outlined in *Guidance on Site Assessment and Field Surveys for California Red-legged Frogs* (USFWS 1997).
- (b) The results of the red-legged frog pre-construction habitat survey shall be summarized in a report to be provided to the USFWS Ecological Services Division, Sacramento Field Office. This report shall also include additional information related to survey as described under USFWS protocol (USFWS 1997). Construction disturbance to red-legged frog habitat shall be avoided to the extent feasible. If all habitat area cannot be avoided, disturbance shall be minimized.

(b)

(c) If USFWS determines that implementation of the proposed project could result in take, the project proponent shall consult with USFWS under Section 7 or Section 10 to determine a future course of action, including whether incidental take authorization is needed. Through consultation and negotiations with USFWS, appropriate mitigation and avoidance measures shall be determined and required to be implemented for the take authorizations. These mitigation measures would typically include, but not be limited to, preservation or replacement of upland and aquatic habitat at a minimum 1:1 ratio, as well as avoidance and minimization measures (e.g., preconstruction surveys, seasonal construction restrictions, etc.) to reduce the potential for take of California red-legged frog.

(e)

Special-status invertebrates

The following measures would reduce impacts to special-status invertebrates to a less-than-significant level:

- (a) Before the project design is finalized, the project applicant shall hire a qualified biologist to conduct focused surveys for special-status invertebrates on the project site.
- (b) If no special-status invertebrates are identified on the project site, no further mitigation for special-status invertebrates is required.
- (c) If special-status invertebrates are identified on the project site, the project applicant shall attempt to minimize disturbance to occupied habitat to the maximum extent feasible. If occupied habitat for Myrtle's silverspot butterfly cannot be avoided, consultations with USFWS under Section 7 or Section 10 to determine a future course of action, including whether incidental take authorization is needed, shall be required. Through consultation and negotiations with USFWS, appropriate mitigation measures shall be determined and required to be implemented for the take authorizations. These mitigation measures would typically include, but not be limited to, preservation or replacement of suitable habitat at a minimum 1:1 ratio, as well as avoidance and minimization measures (e.g., preconstruction surveys, seasonal construction restrictions, etc.) to reduce the potential for take of Myrtle's silverspot butterfly.

(e)

CUMULATIVE MITIGATION MEASURES

Cumulative Mitigation Measure 4.13-5: Reduction of Cumulatively Considerable Wetlands Impacts. Implementation of Mitigation Measures 4.13-3 would reduce project-related impacts special-status plants and wildlife to less-than-significant levels. However, adverse cumulative baseline conditions (e.g., camping in wetlands) would continue with the project. Because adverse camping activities ~~were~~ were part of baseline, no other feasible mitigation is available to reduce this impact. Therefore, this impact would remain significant and unavoidable. These mitigation measures would eliminate the project's contribution to cumulative impacts related to these issues.

Cumulative Mitigation Measure 4.13-6: Reduction of Cumulatively Considerable Sensitive Species Impacts. Implementation of Mitigation Measures 4.13-2 and 4.13-4 would reduce project-related impacts special-status plants and wildlife to less-than-significant levels. These mitigation measures would eliminate the project's contribution to cumulative impacts related to these issues.

4.13.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The applicant's agreement to relocate the wastewater treatment facility to the northern portion of the project site outside of on-site sand dunes would reduce all potentially significant impacts to sensitive habitats (see Impact 4.13-1). ~~Implementation of Mitigation Measure 4.13-1(a), relocation of the wastewater treatment system to a less sensitive site, and compliance~~ Compliance with Mitigation Measures 4.13-2 and 4.13-4 would reduce project-related impacts on sensitive habitats to a less-than-significant level. However, no additional feasible mitigation is available to reduce cumulative adverse baseline wetlands impacts to a less-than-significant level. Therefore, cumulative wetland impacts (Cumulative Impact 4.13-5) would remain significant and unavoidable. Implementation of Mitigation Measures 4.13-2 and 4.13-4 would reduce impacts on special-status plants and wildlife to less-than-significant levels.

Table 4.13-1 Special-Status Plant and Lichen Species with Potential to Occur at Lawson's Landing							
Species	Listing Status			Habitat	Distribution	Flowering Period	Potential for Occurrence in Study Area
	Fed.	State	CNPS				
Pink sand-verbena <i>Abronia umbellata</i> ssp. <i>breviflora</i>	SLC	--	1B	Coastal dunes	Extant in Del Norte, Humboldt, Mendocino, Marin Counties and Oregon; extirpated in Sonoma County	June-October	Low. Potential suitable habitat present. Known from ~6 mi. south of study area.
Blasdale's bent grass <i>Agrostis blasdalei</i>	SC	--	1B	Coastal bluff scrub, coastal dunes, and coastal prairie	Mendocino, Marin, Santa Cruz, Sonoma Counties	May-July	Low. Potential suitable habitat present.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	SC	--	1B	Cismontane woodland, valley and foothill grassland	Alameda, Contra Costa, Colusa, Lake, Marin, Napa, Santa Cruz, San Mateo, and Sonoma Counties	March-June	Low. Potential suitable habitat present.
Point Reyes blennosperma <i>Blennosperma nanun</i> var. <i>robustum</i>	SC	CR	1B	Coastal prairie, coastal scrub	Endemic to Marin and Mendocino Counties	February-April	Low. Known from ~1.5 mi. southeast of study area.
Bolander's reed grass <i>Calamagrostis bolanderi</i>	--	--	1B	Bogs and fens, broadleaved upland forest, closed-cone coniferous forest, coastal scrub, meadows and seeps, marshes and swamps, North Coast coniferous forest	Humboldt, Mendocino, Sonoma, and Marin Counties	May-August	Low. Potential suitable habitat present.
Coastal bluff morning-glory <i>Calystegia purpurata</i> ssp. <i>saxicola</i>	SLC	--	1B	Coastal dunes and coastal scrub	Mendocino, Marin, Sonoma Counties	May-August	Low. Potential suitable habitat present.
Swamp harebell <i>Campanula californica</i>	SC	--	1B	Bogs and fens, freshwater marshes and swamps, mesic sites in closed-cone coniferous forest, coastal prairie, meadows and North Coast coniferous forest	Extant in Mendocino, Marin, and Sonoma Counties; extirpated in Santa Cruz County	June-October	Low. Known from ~6 mi. south of project site.
Humboldt Bay owl's-clover <i>Castilleja ambigua</i> ssp. <i>humboldtiensis</i>	--	--	1B	Coastal salt marshes and swamps	Humboldt, Mendocino, and Marin Counties	April-August	Low. Potential suitable habitat present.

Table 4.13-1 Special-Status Plant and Lichen Species with Potential to Occur at Lawson's Landing							
Species	Listing Status			Habitat	Distribution	Flowering Period	Potential for Occurrence in Study Area
	Fed.	State	CNPS				
Mt. Vision ceanothus <i>Ceanothus gloriosus</i> var. <i>porrectus</i>	SC	--	1B	Close-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland	Marin County	February-May	Low. No suitable habitat in study area (M&A 2002).
San Francisco bay spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	SC	--	1B	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub; sandy soils	Extant in Marin, Santa Clara [?], San Francisco, San Mateo, Sonoma Counties; extirpated in Alameda County	April-August	Present in study area.
Woolly-headed spineflower <i>Chorizanthe cuspidata</i> var. <i>villosa</i>	SC	--	1B	Coastal dunes, coastal prairie, coastal scrub; sandy soils	Marin and Sonoma Counties	May-August	Present in study area.
Franciscan thistle <i>Cirsium andrewsii</i>	SC	--	1B	Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub; mesic sites, sometimes serpentinite substrate	Extant in Contra Costa, Marin, San Francisco, Sonoma [?] Counties; extirpated in San Mateo County	March-July	Low. Potential suitable habitat present.
Raiche's red ribbons <i>Clarkia concinna</i> ssp. <i>Raichei</i>	SC	--	1B	Coastal bluff scrub	Marin County	April-May	Known only from one occurrence near Tomales
Point Reyes bird's-beak <i>Cordylanthus maritimus</i> ssp. <i>palustris</i>	SC	--	1B	Coastal salt marshes and swamps	Extant in Humboldt, Marin, Sonoma Counties, and Oregon; extirpated in Alameda, Santa Clara, and San Mateo Counties	June-October	Present in study area.
Baker's larkspur <i>Delphinium bakeri</i>	FE	CR	1B	Coastal scrub, valley and foothill grassland	Extant in Marin County; extirpated in Sonoma County	March-May	Low. Known ~3 mi. east of study area.
Yellow larkspur <i>Delphinium luteum</i>	FE	CR	1B	Chaparral, coastal prairie, coastal scrub; rocky sites	Marin and Sonoma Counties	March-May	Low. Habitat in study area not suitable.

Table 4.13-1 Special-Status Plant and Lichen Species with Potential to Occur at Lawson's Landing							
Species	Listing Status			Habitat	Distribution	Flowering Period	Potential for Occurrence in Study Area
	Fed.	State	CNPS				
Western leatherwood <i>Dirca occidentalis</i>	SLC	--	1B	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest and woodland; mesic slopes of rocky hills	Sonoma County	January-April	Low. Suitable habitat not present in study area.
Marin checker lily <i>Fritillaria lanceolata</i> var. <i>tristulis</i>	SC	--	1B	Coastal bluff scrub, coastal scrub, coastal prairie	Endemic to Marin County	February-April	Low. Potential suitable habitat present.
Fragrant fritillary <i>Fritillaria liliacea</i>	SC	--	1B	Coastal scrub, valley and foothill grassland, coastal prairie	Alameda, Contra Costa, Marin, Monterey, San Benito, Santa Clara, San Francisco, San Mateo, Solano, and Sonoma Counties	February-April	Low. Very little suitable habitat present.
Dune gilia <i>Gilia capitata</i> ssp. <i>chamissonis</i>	SC	--	1B	Coastal dunes, coastal scrub	Marin, San Francisco, Sonoma Counties	April-July	Low. Potential suitable habitat present.
Woolly-headed gilia <i>Gilia capitata</i> ssp. <i>tomentosa</i>	SC	--	1B	Coastal bluff scrub; rocky outcrops	Marin and Sonoma [?] Counties	May-July	Low. Potential suitable habitat present.
Dark-eyed gilia <i>Gilia millefoliata</i>	SLC	--	1B	Coastal dunes, coastal strand	Extant in Del Norte, Humboldt, Mendocino, Marin, Sonoma Counties and Oregon; extirpated in San Francisco County	April-July	Low. Potential suitable habitat present.
Hayfield tarplant <i>Hemizonia congesta</i> ssp. <i>leucocephala</i>	--	--	3	Coastal scrub, valley and foothill grassland	Mendocino, Marin, Sonoma Counties	April-October	Low. Potential suitable habitat present.

Table 4.13-1 Special-Status Plant and Lichen Species with Potential to Occur at Lawson's Landing							
Species	Listing Status			Habitat	Distribution	Flowering Period	Potential for Occurrence in Study Area
	Fed.	State	CNPS				
Short-leaved evax <i>Hesperevax sparsiflora</i> var. <i>brevifolia</i>	--	--	2	Sandy sites in coastal bluff scrub, coastal dunes	Extant in Humboldt, Mendocino, Marin, Santa Cruz, Sonoma Counties, and Oregon; extirpated in San Francisco County	March-June	Low. Potential suitable habitat present.
Kellog's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>	SC	--	1B	Closed-cone coniferous forest, coastal scrub, chaparral	Marin County	April-September	Low. Habitat in study area not suitable.
Point Reyes horkelia <i>Horkelia marinensis</i>	--	--	1B	Coastal dunes, coastal prairie, coastal scrub; sandy substrates	Mendocino, Marin, Santa Cruz, San Mateo Counties	May-September	Low. Potential suitable habitat present.
Perennial goldfields <i>Lasthenia macrantha</i> ssp. <i>macrantha</i>	SLC	--	1B	Coastal bluff scrub, coastal dunes, coastal scrub	Mendocino, Marin, San Luis Obispo, San Mateo, Sonoma Counties	January-November	Low. Potential suitable habitat present.
Beach layia <i>Layia carnosa</i>	FE	CE	1B	Coastal dunes	Humboldt, Monterey, Marin, Santa Barbara, and San Francisco	March-July	Low. Potential suitable habitat present.
Rose linanthus <i>Linanthus rosaceus</i>	SC	--	1B	Coastal bluff scrub	Marin, San Francisco, San Mateo, and Sonoma Counties	April-June	Low. Potential suitable habitat present.
Tidestrom's lupine <i>Lupinus tidestromii</i>	FE	CE	1B	Coastal dunes	Monterey, Marin, Sonoma Counties	April-June	Present near the Landing entrance (Wesco 1994)
Marsh microseris <i>Microseris paludosa</i>	--	--	1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland	Mendocino, Monterey, Marin, Santa Cruz, San Francisco, San Luis Obispo, San Mateo, and Sonoma Counties	April-June	Low. Potential suitable habitat present.

**Table 4.13-1
Special-Status Plant and Lichen Species with Potential to Occur at Lawson's Landing**

Species	Listing Status			Habitat	Distribution	Flowering Period	Potential for Occurrence in Study Area
	Fed.	State	CNPS				
Robust monardella <i>Monardella villosa</i> ssp. <i>globosa</i>	SC	--	1B	Broadleaved upland forest, chaparral, cismontane woodland, valley and foothill grassland	Alameda, Contra Costa, Humboldt, Lake, Mendocino, Napa, San Mateo, and Sonoma Counties	June-July	Low. Known from ~7 mi. northeast of study area.
North Coast phacelia <i>Phacelia insularis</i> var. <i>continentis</i>	SC	--	1B	Coastal bluff scrub, coastal dunes	Mendocino and Marin Counties	March-May	Low. Known from site ~8 mi. south of study area.
Marin knotweed <i>Polygonum marinense</i>	SLC	--	3	Coastal salt or brackish marshes and swamps	Marin, Napa, Solano, Sonoma Counties	April-October	Low. Known from 2 sites ~3 mi. north and ~3 mi. south of project site.
Point Reyes checkerbloom <i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	SLC	--	1B	Coastal freshwater marshes and swamps	Mendocino, Marin, Sonoma Counties	April-September	Low. Known ~7 mi. south of study area.
Thamnolia lichen <i>Thamnolia vermicularis</i>	--	*	--	Chaparral, valley and foothill grassland	Marin county	--	Low. Potential suitable habitat present.
Showy Indian clover <i>Trifolium amoenum</i>	FE	--	1B	Coastal bluff scrub, valley and foothill grassland; sometimes serpentinite substrate	Extant in Marin, Sonoma [?] Counties; extirpated in Alameda, Napa, Santa Clara, Solano Counties	April-June	Known from Oceana Marin, ~0.25 mi. north of study area.
San Francisco owl's-clover <i>Triphysaria floribunda</i>	SC	--	1B	Coastal prairie, valley and foothill grassland	Marin, San Francisco, and San Mateo	April-June	Low. Potential suitable habitat present.

Federal: U.S. Fish and Wildlife Service

FE Federal Endangered
SC Federal Species of Concern
SLC Species of Local Concern

CNPS: California Native Plant Society

1B Plants rare, threatened, or endangered in California and elsewhere
2 Plants rare, threatened, or endangered in California, but more common elsewhere
3 More information about this plant is needed

State: California Department of Fish and Game

CE State Endangered
CR California Rare

Sources: CNDDB 2004, EDAW 2004

4.14 SCHOOLS

The following section addresses the potential impacts to schools from project implementation. This section describes the existing school services available in the project area, the project's effects on the provision of school services, and provides mitigation measures for any identified significant impacts.

4.14.1 EXISTING CONDITIONS

The Shoreline Unified School District (SUSD) provides educational services for the rural West Marin communities along Bodega Bay and Tomales Bay for kindergarten through twelfth grade. SUSD currently operates seven schools, including four elementary schools (Bodega Bay, Inverness, Tomales, and West Marin), one high school (Tomales), one continuation high school (Shoreline Continuation), and one independent study school (Shoreline Independent Study School) where students are taught at home. Enrollment in the SUSD is approximately 708 students (SUSD 2003). Tomales elementary and high schools serve kindergarten through twelfth grade students in the project area.

Table 4.14-1 identifies the 2002-2003 school year enrollment for SUSD. On a district-wide level, SUSD operates at approximately 72% of capacity. SUSD currently staffs teachers for grades four through twelve at a ratio of 22 students for every 1 teacher. SUSD participates in the State's Class Size Reduction program for kindergarten through third grade and averages a class size for these grades of 16 students for every 1 teacher.

School Name	Grade Levels	Current Enrollment	Student Capacity	% of Capacity	Remaining Capacity
Bodega Bay Elementary	K–2	40	65	62	25
Inverness Elementary	K–1	51	60	85	9
West Marin Elementary	K–8	140	270	52	130
Tomales Elementary	K–8	247	270	91	23
Tomales High School	9–12	214	300	71	86
Shoreline Continuation ¹	9–12	9	20	45	11
Shoreline Independent Study ²	9–12	7	—	—	—
Total		708	985	72%	284¹
¹ Does not include Shoreline Independent Study ² At-home study Source: SUSD 2003					

Schools in SUSD share the services of a psychologist, nurse, and speech therapist provided by the Marin County Office of Education. In addition, special funding provides for a resource specialist and a program for Special Day and limited English-speaking students. The schools offer Title I, bilingual classes (K-12), independent study, and a seminar program for gifted and talented (GATE) students. District school bus transportation to and from the schools is also provided.

Enrollment within the SUSD has remained relatively stable because of the lack of new development within its service area. As a result of this slow rate of growth, the SUSD is not experiencing any

overcrowding on a district-wide basis. None of the schools within the SUSD are currently overcrowded and none of the facilities are in need of maintenance and repair (Rosenthal, pers. comm., 2004). Bonds and ballot measures have typically provided the funding for new construction and the general fund provides the funding for the maintenance of school facilities. Marin County voters [living in the Shoreline district](#) passed a ~~District-Qualified Special Parcel-Tax~~ [Assessment for Educational Programs](#) (Measure A) ~~bond measure~~ in the November 2000 election that [extended an existing parcel tax. The tax provides funding for to maintain existing school programs and improve the quality of education; to provide funds to buy updated textbooks and materials for math, reading, and writing courses; and to enhance critical computer science, library, and arts programs \(Smart Voter 2007\).](#) ~~the modernization of school buildings within the district. Measure A specifically funds the expansion of educational materials for art, science, industrial arts, technology, music, and library resources.~~ These improvements have been completed and continue to be implemented on each campus.

4.14.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would result in a significant impact on school services if the project would:

- ▶ result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, or the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios or other performance objectives.

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994), the project would result in significant impacts related to school services if it would:

- ▶ require additional school capacity or facilities.

PROJECT IMPACTS

Impact 4.14-1: Increased Demand for School Services. The project would result in a minor increase in demand for school services within the SUSD. Because the SUSD has available capacity within the district and would be able to accommodate students generated by the project, the project would result in *less-than-significant* impacts on school capacity and facilities.

The SUSD uses a student generation rate of 0.8 per bedroom after the first bedroom (master bedroom) for new housing units. For planning purposes, SUSD assumes that one-bedroom housing units would not generate any school-age children because a large percentage of houses in the District are considered “second homes” (Rosenthal, pers. comm., 2004).

The project would involve constructing two new residences on the project site. One residence, approximately 2,834 square feet, would be occupied by property owner and one residence, approximately 1,504 square feet, would be occupied by an employee. The total number of bedrooms has not been determined for these new residences. However, for purposes of this analysis, it is assumed that the owner’s residence would incorporate a maximum of 4 bedrooms and the employee’s residence would incorporate a maximum of 3 bedrooms based on the square footage for each residence. Based on the SUSD student generation rate of 0.8 per bedroom after the first bedroom, the project would generate an

estimated 4 students. These potential students would attend either the elementary school or high school in Tomales depending upon their age.

Bonds and ballot measures typically provide the funding for the construction of school facilities (Rosenthal, pers. comm., 2004). In addition, California government code section 17620 authorizes school districts to levy a fee, charge, dedication, or other requirement against any construction in their boundaries for the purpose of funding the construction or reconstruction of school facilities. The fee, charge, dedication, or other requirement may be applied to construction of new residential, commercial, and industrial construction. The maximum fee amount that school districts can assess is limited by statutes provided in Section 65995 of the California government code.

Although the project would increase the demand for school services, SUSD has existing school facility capacity to accommodate students generated by the project. Therefore, the project's impacts to school services would be less than significant.

CUMULATIVE IMPACTS

Impact 4.14-2: Cumulative Increase in Demand for School Services. Cumulative development, including the project, would result in increased demand for school services. This demand would not exceed the capabilities and capacity of SUSD to provide school services. This would be a *less-than-significant* impact.

Cumulative development, including reasonably foreseeable future projects, is expected to result in an increase in the demand for school services. Cumulative projects in the area of the proposed project that would generate students (i.e., residential component) in the SUSD include an approved residential development at Point Reyes Station known as the Point Reyes Affordable Housing Project (Marin County 2004). It is anticipated that SUSD could adequately accommodate school service demands from the cumulative development.

The Point Reyes Affordable Housing Project would construct ~~8~~⁷ single family housing units and ~~28~~²⁷ multi-family housing units at Point Reyes Station which is located south of the project site. Of these housing units, 13 units would include 3 bedrooms, 11 units would include 2 bedrooms, and 12 units would include 1 bedroom units (Marin County 2001). Using the SUSD generation rate of 0.8 students per bedroom after the first bedroom, the Point Reyes Affordable Housing Project would generate approximately 30 students.

Cumulative development, including the project, would increase the overall number of new students in the SUSD by approximately 34. It is assumed that these students would not all attend the same grade nor the same school but would attend the closest elementary school or high school in SUSD. Based on the assumption that students would be distributed amongst elementary and high schools, students generated by cumulative development would not exceed the capacity of any school in SUSD. Therefore, the project would not result in a significant contribution to a cumulative school impact.

4.14.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.14-1: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Cumulative Mitigation Measure 4.14-2: No mitigation measures are required.

4.14.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant project or cumulative impacts to school services would result from implementation of the project. No mitigation is required.

4.15 POLICE, FIRE, AND EMERGENCY SERVICES

This section describes existing police and fire protection services in the project vicinity and the impacts of the project on these services. The information presented in this section is based on a site visit as well as consultation with representatives of the County Sheriff's and Fire Departments. The Dillon Beach Community Plan (1989) and the Community Facilities Element of the Marin Countywide Plan (1994) are also used to describe existing police and fire protection services.

4.15.1 EXISTING CONDITIONS

POLICE SERVICES

Regional Setting

Police protection services, including crime prevention and law enforcement responsibilities, are provided to unincorporated areas of Marin County by the County Sheriff's Department. The Sheriff's Department has a staff of 202 sworn deputies and 115 law enforcement professionals and is divided into the administrative and support services, detention services, and field services bureaus (Marin County 2003a).

Level of service can be measured using two criteria. The first criterion is the ratio of sheriff's deputies to number of residents. The County Sheriff's Department does not use a specific deputy-to-citizen ratio for staffing purposes in West Marin County (Ginnodo, pers. comm., 2003). The other criterion is response time, the amount of time that elapses between the time a call is made and the time the first officer responds to the call. Incorporated cities in Marin County have their own standards for response times; however, the rural conditions and unpredictable weather make it difficult to establish a response-time standard.

Local Setting

The closest sheriff's substation to Lawson's Landing is located at 101 4th Street in Point Reyes Station approximately 24 miles south of the project site. The substation's service area covers approximately 309 square miles and extends from Muir Beach on the south to the Sonoma County line on the north, and from Big Rock in the Nicasio Valley area on the east to the Pacific Ocean on the west. The sheriff's substation in Point Reyes Station is staffed by one lieutenant, one sergeant, and 10 deputies distributed between two shifts, with two deputies on duty at all times. Although there is no specific deputy-to-citizen staffing ratio at Point Reyes Station, the substation's minimum staffing level is generally seven deputies from 11 p.m. to 7 a.m., eight deputies from 7 a.m. to 7 p.m., and nine deputies from 7 p.m. to 11 p.m. The substation has mutual-assistance arrangements with other substations in Marin County, with the Sonoma County Sheriff's Department, and with the California Highway Patrol (CHP). The substation also occasionally receives assistance from the federal park rangers located at Point Reyes National Seashore (Ginnodo, pers. comm., 2003).

Average response times from Point Reyes Station to the project area is 25 to 35 minutes depending on traffic and the urgency of the call (Davis, pers. comm., 2003; Ginnodo, pers. comm., 2003). However, response time in West Marin County can vary considerably, particularly at night or when the weather is foggy. The worst-case scenario might result in a 40-minute response time. If deputies from the Point Reyes Station substation are out of position for an emergency run to Tomales or Dillon Beach, a deputy from the U.S. Highway 101 corridor would respond or mutual assistance would be requested from the Sonoma County Sheriff's Department or the CHP (Ginnodo, pers. comm., 2003). In general, the number of calls received during the summer, especially on the weekends, is slightly higher than other times of the year.

Approximately 200 (or 5%) of the more than 4,050 calls received by the Point Reyes sheriff's substation in 2002 came either from the project site or from elsewhere in Dillon Beach (Medina, pers. comm., 2003). Typical calls received by the department from Lawson's Landing are for minor thefts from campgrounds by other campers and for disturbances related to excessive alcohol consumption. Lawson's Landing has a private contract with the Sheriff's Department to provide a deputy and patrol car on the grounds on Friday and Saturday nights from 7 p.m. to 3 a.m. from April through September (Davis, pers. comm., 2003).

FIRE AND EMERGENCY SERVICES

Regional Setting

The Marin County Fire Department (MCFD) and 16 fire protection districts provide fire protection services in Marin County. The County Fire Department is headquartered in the community of Woodacre and under contract with the State of California to provide fire prevention, fire suppression, and emergency medical services to the unincorporated areas of Marin County that lie in the California Department of Forestry and Fire Protection's designated State Responsibility Area (SRA). Portions of West Marin, including San Geronimo Valley, Point Reyes Station, Olema, and Tomales are located in the SRA (Marin County 1994).

Section 4102 of the Public Resources Code (PRC) defines "state responsibility areas" as those areas of the state for which the State has the financial responsibility of preventing and suppressing fires. Under PRC Sections 4125 and 4126, these areas roughly correspond to vegetated lands that have watershed value.

Local Setting

The project site is located in the service district of the Marin County Fire Department. The closest fire station to the project site is the department's Tomales Fire Station in the community of Tomales approximately 3.5 miles east of Lawson's Landing at 599 Dillon Beach Road. Its service area covers Tomales, Dillon Beach, Marshall, and Chileno Valley. The Tomales Fire Station provides mutual fire protection service to the Sonoma County communities of Bodega Bay, Two Rock, and Valley Ford, and to the U.S. Coast Guard Training Center located at the Sonoma County/Marin County line near Two Rock.

The Tomales station has three fire engines, a water tender, and a utility vehicle. This station is staffed 24 hours a day with six full-time permanent firefighters who work 24-hour shifts, 10 shifts per month. There are two firefighters on duty on any given day. In addition, Tomales is the only fire station in Marin County that uses volunteers to supplement permanent staff at the station (Marin County 2003b). Nine volunteers work at the Tomales Fire Station, four of whom work in the town of Tomales and two seasonal firefighters join the full-time staff during the summer.

The average response time from the Tomales Fire Station to Lawson's Landing varies between 7 to 9 minutes. Response time remains constant within the seasons. The County Fire Department reports that about 20 to 30 of the estimated approximately 175 calls (14%) the Tomales station responds to in a given year are related to activities on the project site. Medical assistance calls are most typical, while once or twice a year the fire department will respond when a campfire has spread to a sand dune (Brown, pers. comm., 2003). The station is staffed with a paramedic and with lifesaving Advanced Life Support equipment. When needed, an ambulance responds from Bodega Bay which is approximately 12 minutes north of the project site. In accordance with County standards, if the response time and/or transport time to the hospital exceeds 20 minutes, a helicopter is sent to transport the victim to the hospital. If a victim at Lawson's Landing required transportation by helicopter, a helicopter would be dispatched from the Sonoma County Airport which is approximately 8 minutes away by air (Brown, pers. comm., 2003).

Redwood Empire Helicopter maintains a helicopter staffed by paramedics that is stationed at Sonoma County Airport. The project sponsor designated a helicopter landing area within the main meadow area of Sand Point where the topography is generally flat and free from obstructions.

Under the Insurance Services Office (ISO) rating system, fire service is rated on a 1-to-10 scale, from best to worst, based on an evaluation of available staffing, communications, equipment, and water supply. The ISO ratings are used in determining fire insurance premiums for communities based on the level of fire protection afforded. According to County Fire Department staff, the project site has an ISO rating of 9 ([Brown, pers. comm., 2003](#)). This equates to the existing ~~staffing facilities and practices~~ at the Tomales station being adequate to ~~respond to 90%~~ [meet only the minimum requirements to provide fire protection services of the calls in its service area \(Brown, pers. comm., 2003\) \(ISO 2007\)](#).

REGULATORY BACKGROUND

Marin County Goals and Policies

Several goals and policies related to police and fire services are included in the Environmental Hazards Element of the Countywide Plan (1994). For a discussion of these goals and policies, please refer to Section 4.2, “Land Use Plans and Policy Consistency.”

On November 10, 1992, the County Board of Supervisors adopted an ordinance requiring the installation of automatic sprinklers in all new structures in the county and most structures undergoing a substantial remodel (Marin County 1994).

Pursuant to the Uniform Fire Code, Lawson’s Landing is subject to a fire flow requirement of 10,000 gallons per minute (gpm). Currently, the project site complies with this fire flow requirement (Brown, pers. comm., 2003).

Dillon Beach Community Plan

Several policies related to fire services are included in the Dillon Beach Community Plan (1989). For a discussion of these policies, please refer to Section 4.2, “Land Use Plans and Policy Consistency.”

4.15.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would have a significant impact on police and fire services if it would result in the need for new or physically altered law enforcement or fire protection facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives.

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994), the project would have a significant impact related to police or fire services if it would require additional police/sheriff or fire staffing, facilities, or equipment to maintain an acceptable level of service (e.g., response time, rating, other) or service ratios.

An analysis of the project’s consistency with County goals and policies, including those related to police and fire services, is included in Section 4.2, “Land Use Plans and Policy Consistency.”

PROJECT IMPACTS

Impact 4.15-1: Potential Increase in Demand for Police and Fire Services. With implementation the project, the number of people accessing the site for recreational purposes would be unchanged from existing conditions. Any increase in demand for services from either the County Sheriff's Department or the County Fire Department would be negligible and would not adversely affect the ability of these agencies to respond to an emergency call. This would be a *less-than-significant* impact.

The project would create a small increase in the number of residents in the two new residences on the project site. The project would not increase the number of campsites, travel trailers, or day-use vehicles allowed on the property. The project is anticipated to result in a negligible increase in the number of calls for emergency service. This increase would not be expected to adversely affect the ability of the police and fire department to respond to an emergency. The project would result in less-than-significant impacts on police and fire protection services.

Impact 4.15-2: Improved Fire Flow. The addition of three fire hydrants connected to a new 100,000-gallon water storage tank would result in an increase in fire flow and fire suppression facilities onsite and would increase the ability of the County Fire Department to quickly extinguish any fires that might break out in the project site. This would be a *beneficial* impact of the project.

Under the project, three new fire hydrants would be added along Lawson's Landing Road. In accordance with County Fire Department request, these hydrants would be connected to a new 100,000-gallon water storage tank located near the existing 35,000-gallon water storage tank in the northeastern area of the main meadow (Brown, pers. comm., 2003). The individual hydrants would be located at the gatehouse, near the dump station, and 100 feet west of the corner of the relocated boathouse. The addition of these fire hydrants would provide additional fire flow connection points thus improving the ability of the County Fire Department to quickly extinguish any fires that might break out on the project site. This would be a beneficial impact of the project.

Impact 4.15-3: Change in Police, Fire, and Emergency Vehicle Accessibility. Because the expansion of the entrance to Lawson's Landing would improve access to the site, Sand Haul Road would provide sufficient emergency vehicle secondary access, and suitable access would be available for emergency helicopter landings, the project would result in overall improvements to emergency vehicle accessibility. This would be a *beneficial* impact.

With implementation of the project, the entrance to Lawson's Landing would be improved and expanded to provide three inbound and one outbound vehicle lanes. This improvement is expected to alleviate the congestion that currently occurs along Cliff Street during periods of heavy usage, particularly during summer and holiday weekends. The resulting decrease in congestion would provide better access to the project site by police and fire vehicles during congested periods. Mitigation Measure 4.8-4 requires that Sand Haul Road be improved for access by emergency vehicles and the public. Staff at the police and fire departments indicated that Sand Hill Road would adequately serve as a secondary access point for emergency vehicles (Brown, pers. comm., 2003 and Davis, pers. comm., 2003). Regarding emergency helicopter landings, the project would not substantially change facilities within the main meadow area such that it would prevent emergency helicopter landings. While new restroom facilities would be provided in the main meadow, these facilities are few in number and would not occupy large areas. Substantial open areas would remain and would be suitable for emergency helicopter landings, should the need arise.

CUMULATIVE IMPACTS

Impact 4.15-4: Cumulative Impacts on Police Services. Cumulative development, including the project, would result in increased demand for police protection services and over time could result in the need for additional staff and/or equipment. Cumulative projects on a project-by-project basis are required to mitigate any significant individual project impacts to police protection services. Furthermore, increased tax revenues from cumulative development would provide funding for the hiring of additional staff and purchasing of equipment necessary to accommodate other cumulative growth. This would be a *less-than-significant* impact.

Cumulative development in the Marin County Sheriff's Department service area is expected to result in increased demand for police protection services. Projects in the area of the project include an approved commercial and industrial development near Nicasio, an approved residential development at Point Reyes Station, a mixed-use development under construction near San Geronimo and near Sleepy Hollow, and a commercial development under review near Olema (PROPDEV 38, Marin County Comm. Dev., 05/04). These cumulative projects, including the project, are all located in the service area of the western substation located in Point Reyes Station. Although the cumulative development would increase demand for police services and could result in the need for additional staff and/or equipment, increased tax revenues from the cumulative development would allow for the hiring of additional staff or purchasing of additional equipment to accommodate the increased demand. Cumulative projects are required to mitigate for any significant police protection impacts on a project-by-project basis as part of the environmental impact analysis for each of the cumulative projects. Because the project would not in itself generate a substantial demand for police protection services (as discussed in Impact 4.15-1) and because the other cumulative projects are required to address their individual impacts on police protection services, the project's contribution to cumulative police protection services impacts would be less than significant.

Impact 4.15-5: Cumulative Impacts on Fire and Emergency Services. Cumulative development, including the project, would result in increased demand for fire protection and emergency services and over time could result in the need for additional staff and/or equipment. Cumulative projects on a project-by-project basis are required to mitigate any significant individual project impacts to fire protection and emergency services. Furthermore, increased tax revenues from cumulative development would provide funding for the hiring of additional staff and purchasing of equipment necessary to accommodate other cumulative growth. This would be a *less-than-significant* impact.

Cumulative development, including the project and reasonably foreseeable future projects, is expected to result in increased demand for fire protection and emergency services. Projects in the area of the project include an approved commercial and industrial development near Nicasio, an approved residential development at Point Reyes Station, a mixed-use development under construction near San Geronimo and near Sleepy Hollow, and a commercial development under review near Olema (PROPDEV 38, Marin County Comm. Dev., 05/04). These cumulative projects, including the project, are all located in the service area of the MCFD. The MCFD attempts to maintain existing emergency response times to ensure that the provision of fire protection services remains adequate as population increases over time with new development. The specific number of staff and amount of equipment needed to maintain existing service levels depends upon the type and location of future development. Cumulative development increases the demand for fire protection and emergency services and over time could result in the need for additional staff and/or equipment. Increased tax revenues generated by the cumulative projects would provide the funding necessary for the provision of additional staff and/or equipment to accommodate other cumulative growth in the MCFD service area. In addition, the Marin County Board of Supervisors adopted an ordinance on November 10, 1992 that requires the installation of automatic sprinklers in all

new structures in the county. This ordinance assists in mitigating the impact of cumulative development on the MCFD. The project's contribution to cumulative fire protection and emergency services impacts would be less than significant. Because the project would not in itself generate a substantial demand for fire protection and emergency services (as discussed in Impact 4.15-1) and because the other cumulative projects are required to address their individual impacts on police protection services, the project's contribution to cumulative fire protection services impacts would be less than significant.

4.15.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.15-1: No mitigation measures are required.

Mitigation Measure 4.15-2: No mitigation measures are required.

Mitigation Measure 4.15-3: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.15-4: No mitigation measures are required.

Mitigation Measure 4.15-5: No mitigation measures are required.

4.15.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to police and fire services would be less than significant.

4.16 ENERGY CONSUMPTION

This section addresses the issues related to energy consumption as a result of implementation of the project. This section describes the existing energy sources and energy consumption by resource, discusses the project's energy consumption and effects on the availability of energy, and provides mitigation measures for any identified significant impacts. The information presented in this section is based on a site visit in April 2003, review of County environmental documents and general information about local weather conditions, and personal communications with local energy providers.

4.16.1 EXISTING CONDITIONS

EXISTING ONSITE ENERGY SOURCES AND CONSUMPTION

Electricity

The project site is located in the service area of Pacific Gas and Electric Company (PG&E), which provides electricity to portions of the site including the boathouse, restroom facilities, and owner and employee residences. The 233 travel trailers that reside at Sand Point on a year-round basis are not connected to an electricity source, but instead use propane for heating and electricity needs. Propane service and refills are available at the Lawson's Landing boathouse. In 2002, propane consumption at Lawson's Landing totaled approximately 7,170 gallons (Vogler, pers. comm., 2003).

A PG&E substation located in Cotati, approximately 10 miles east of the project site, serves the project site and surrounding project area. This substation serves coastal and inland areas bounded by State Route 116 in Sonoma County on the north, Tomales-Petaluma Road on the south, Petaluma Hill Road (east of Rohnert Park) on the east, and the Pacific Ocean on the west (Fong, pers. comm., 2003). Above ground power lines provide electricity to the boathouse, the restrooms, and the owner and employee residences. In 2002, electricity consumption at Lawson's Landing totaled approximately 355,721 kilowatt-hours (Vogler, pers. comm., 2003).

Gasoline and Diesel

Lawson's Landing operates a fuel bunker that stores gasoline and diesel fuel supplies. This fuel bunker is located near the pier at Sand Point. These supplies are used to serve boaters in Tomales Bay and recreational campers and day-use visitors. Lawson's Landing operates a fuel dock and fuel float from May through October with the fuel float apparatus pulled out of the water and stored on land during the rest of the year (State Water Resources Control Board 2003). Fuel from the tanker is pumped to the end of a fuel dock where boaters refuel their vessels. Fuel can also be directly pumped at the shoreline.

Solar Power

The onsite travel trailers use photovoltaic solar panels and propane to generate electrical power. Because of the unpredictable weather conditions at the project site and along coastal areas during the summer season where fog rolls in and remains for extended periods, solar power primarily serves as a supplement to other means of power generation (i.e., propane) for the travel trailers.

Wind Power

Tomales Bay is known by windsurfers for having the strongest winds in the San Francisco Bay area. Unlike other places in the region, winds typically begin to blow in late morning and build throughout the

day often from the west-northwest (iWindsurf.com 2003). During a site visit in April 2003, several recreational vehicles parked along the seawall at Tomales Bay were observed using windbreaks. Although not presently used, wind power could be a potential source of energy generation at Lawson's Landing.

REGULATORY BACKGROUND

State of California

California Energy Efficiency Standards for Residential and Nonresidential Buildings

The California Energy Commission, created by the Legislature in 1974, is the state's primary energy policy and planning agency. The commission's responsibilities include promoting energy efficiency through appliance and building standards, developing energy technologies, and supporting renewable energy. The commission's role also includes overseeing funding programs that support public interest energy research; advancing energy science and technology through research, development and demonstration; and providing market support to existing, new and emerging renewable technologies (California Energy Commission 2003).

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6, of the California Code of Regulations) were established in 1978 as part of the California Building Standards Code in response to a legislative mandate to reduce California's energy consumption. The standards are updated regularly with the most recent update to the standards, as adopted by the California Energy Commission, going into effect in June 2001 (California Energy Commission 2001). The California Energy Commission recently adopted new 2005 standards which will become effective on October 1, 2005 (California Energy Commission 2004). Title 24 standards require that new construction implement a variety of energy conservation measures such as ceiling, wall, and concrete slab insulation; vapor barriers; weatherstripping on doors and windows; closeable doors on fireplaces; insulated heating and cooling ducts; water heater insulation blankets; and certified energy efficient appliances.

Title 24 applies to most of the travel trailers located at Sand Point even in the absence of a County-approved master plan because their presence at Lawson's Landing was permitted by the California Department of Housing and Community Development. Travel trailers constructed after 1978 would be required to comply with the Title 24 standards.

Marin County

Building Energy Efficient Structures Today Program

The County's Building Energy Efficient Structures Today (BEST) Program was developed by the Community Development Agency and adopted by the County Board of Supervisors on October 16, 2001. Administered through the County's Building and Planning Divisions, this program exists to enhance energy efficiency and conservation in residential, commercial, and community facilities. The program offers an energy efficient building incentive program, expedited permit processing, technical assistance, training, and a resource library (Marin County 2003a). In addition, an energy efficiency rebate program was offered through January 2003 and additional rebates could become available again the future. The BEST program's energy efficient building incentive features a waiver of the Title 24 energy fee, fast-track permit processing, and waiving of design review and an over-the-counter permit for most solar installations for existing buildings. To qualify, a project must exceed Title 24 requirements by 10%, meet certain criteria based on project category, or install an onsite renewable energy system that produces at least 75% of the annual energy use for the building and site amenities (Marin County 2002a).

One major component of the BEST program is the Single Family Dwelling Energy Efficiency Ordinance (Ordinance 3356). On October 22, 2002, the County Board of Supervisors adopted new energy code requirements for single-family homes in the County's unincorporated area that are larger than 3,500 square feet (sf). Ordinance 3356 applies to dwellings for which a building permit had not been applied for and accepted as complete by the Building Division before January 1, 2003, or received Design Review approval before October 22, 2002. Ordinance 3356 attempts to reduce the annual and peak energy consumption of large homes and to ensure that new single-family homes larger than 3,500 sf do not exceed the energy use of the Title 24 standards of the equivalent home designed at 3,500 sf.

Based on the Climate Zone and size (total conditioned floor area) of a single family house, a building must first meet the Title 24 standard energy budget and then exceed it by the specified amount using any combination of the following credits: (1) any building or appliance energy efficiency measures that receive credit in the Title 24 energy code; (2) a solar photovoltaic system defined in the ordinance; and/or (3) renewable and other energy credits defined in the ordinance (Marin County 2003b).

Partnership with the Million Solar Roofs Initiative

The U.S. Department of Energy's Million Solar Roofs Initiative aims to encourage the installation of solar energy systems on a million buildings in the United States by 2010. The initiative concentrates on solar electric systems (photovoltaics) that produce energy from sunlight and on solar thermal systems that produce heat for domestic hot water, space heating, or heating swimming pools. In 2002, the Marin County Board of Supervisors signed a resolution to become a partner in the Million Solar Roofs Initiative and pledged to see at least 600 solar energy systems installed by 2010 (Marin County 2002b).

Goals and Policies

Several goals and policies related to energy consumption are included in the Environmental Quality and Housing Elements of the Countywide Plan (1994). For a discussion of these goals and policies, please refer to Section 4.2, "Land Use Plans and Policy Consistency."

4.16.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

The Initial Study Checklist, Appendix G of the State CEQA Guidelines, provides that a project would result in a significant impact on energy consumption if it would:

- ▶ result in increased demand for existing emergency services or power or natural gas facilities beyond their current capacity.

Based on Appendix N of the Marin County Environmental Impact Review Guidelines (1994), the project would result in a significant impact related to energy consumption if it would:

- ▶ not propose the use of energy, oil, or natural gas in an efficient manner;
- ▶ encourage activities that would result in the use of large amounts of energy, oil, or natural gas;
- ▶ result in energy needs exceeding the energy supplier's capacity with existing or planned supplies; or
- ▶ require the development of new energy resources.

An analysis of the project's consistency with County goals and policies, including those related to energy consumption, is included in Section 4.2, "Land Use Plans and Policy Consistency."

PROJECT IMPACTS

Impact 4.16-1: Potential for Long-Term Increases in Energy Consumption. The project would not substantially increase the demand for energy resources at this site. This would be a *less-than-significant* impact.

The project would construct a new owner's residence and a new employee mobile home south of Dillon Beach Road and along Lawson's Landing Road, respectively. New lighting facilities would be provided to restroom facilities in the meadow area of the project site and at South Ranch. These proposed facilities are not anticipated to substantially increase energy demands (i.e., electricity, propane, gasoline) at the site. Further, other facilities and uses at the site (i.e., travel trailers, day use, and sand quarry activities) would be unchanged from existing conditions and, therefore, would not result in increased energy demands.

With implementation of the project, the project sponsors would cease pumping fuel at the end of the fuel dock in Tomales Bay and would cease to provide diesel gasoline. Fuel would continue to be available at the fuel tanker in the pier area at Sand Point. Discontinued use of the fuel dock would likely decrease the quantity of fuel consumed at the site because boaters in Tomales Bay would no longer be able to refuel while their vessel is launched. Instead, boaters would need to pull their vessel from the water and refuel at the shoreline fuel tanker.

The power pole is located behind the existing boathouse would be relocated when the boathouse is reconstructed onsite. PG&E may require the installation of heavier gauge wire on the existing power poles; however, no additional power poles would need to be installed at the site. Furthermore, staff of PG&E indicated that they would be able to accommodate the project's electricity demands (Fong, pers. comm., 2003).

Because the project would not substantially increase the consumption of energy resources at the site and local energy suppliers could accommodate the small increase in demand, this would be a less-than-significant impact.

Impact 4.16-2: Temporary Increase in Energy Consumption Associated with Construction. Consumption of electricity and gasoline during construction activities is anticipated to be minimal and would not result in local energy demand exceeding the capacity of PG&E and gasoline/diesel fuel suppliers. For these reasons and because of the temporary nature of construction activities, this impact would be *less than significant*.

The project would require construction of project facilities in various areas of the project site as proposed master plan facilities are constructed. Construction of the master plan facilities would take place in stages over a period of up to 10 years. Consumption of electricity and gasoline associated with construction activities is expected to be minimal and is not anticipated to result in local energy demand exceeding the capacity of PG&E and gasoline/diesel fuel suppliers. Construction activities are not anticipated to result in an inefficient use of energy because construction contractors would supply their own gasoline and diesel fuel and would conserve the use of their supplies to minimize costs to the project. For these reasons and because of the temporary nature of construction activities, this impact would be less than significant.

Impact 4.16-3: Potential for Inconsistency with Marin County BEST Program. The project would be consistent with the Marin County BEST Program because project facilities (i.e., new owner's residence and new employee mobile home) would be designed to meet the provisions of the BEST Program's energy efficient building incentive. This impact would be *less than significant*.

With implementation of the project, one new owner's residence (approximately 2,834 are conditioned sf plus an approximate 735 sf basement/garage) and one new employee mobile home (approximately 1,504 are conditioned sf plus an approximate 400 sf garage) would be constructed on the project site. These structures would be designed to meet the provisions of the BEST Program's energy efficient building incentive. The project would be exempt from compliance with Marin County's Single Family Dwelling Efficiency Ordinance (Ordinance 3356) because it would construct housing smaller than the 3,500 sf threshold. The project would be considered consistent with the Marin County BEST Program. This impact would be less than significant.

CUMULATIVE IMPACTS

Impact 4.16-4: Cumulative Impacts Related to Energy Consumption. Cumulative development, including the project, would result in increased demand for energy resources. This demand would not exceed the capacity of PG&E's electricity system or substantially impair PG&E's ability to provide electricity. Nor would this demand exceed the capacity of gasoline and natural gas suppliers. This would be a *less-than-significant* impact.

Cumulative development, including reasonably foreseeable future projects, is expected to result in an increase in the demand for energy sources. Cumulative projects in the area of the project include an approved commercial and industrial development near Nicasio, an approved residential development at Point Reyes Station, a mixed-use development under construction near San Geronimo and near Sleepy Hollow, and a commercial development under review near Olema (Marin County 2004). It is anticipated that local energy resources could adequately accommodate demands of cumulative development.

Multiple communities share in acquiring and using the various energy resources available including electricity, oil, and natural gas. The cumulative projects and the proposed project obtain their share of energy resources as part of the larger community. The project along with other development projects in the area would be insignificant in regards to energy consumption of the local area and the region. As such, implementation of cumulative development would not substantially increase the demand for additional energy resources or result in exceeding the capacity of local energy suppliers. Therefore, the project's cumulative energy consumption impact would be less than significant.

4.16.3 MITIGATION MEASURES

PROJECT MITIGATION MEASURES

Mitigation Measure 4.16-1: No mitigation measures are required.

Mitigation Measure 4.16-2: No mitigation measures are required.

Mitigation Measure 4.16-3: No mitigation measures are required.

CUMULATIVE MITIGATION MEASURES

Mitigation Measure 4.16-4: No mitigation measures are required.

4.16.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant project or cumulative impacts to energy resources would result from implementation of the project. No mitigation is required.

5 OTHER CEQA-MANDATED SECTIONS

5.1 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

CEQA Section 21100(b)(2) states that an EIR shall include a detailed statement setting forth “[i]n a separate section ... [a]ny significant effect on the environment that cannot be avoided if the project is implemented.” Accordingly, this section provides a summary of significant environmental impacts of the project that cannot be mitigated to less-than-significant levels.

The project would contribute in 3 significant unavoidable cumulative baseline environmental impacts. Impact summaries are presented below.

Impact 4.6-11: Cumulative Geologic Impacts. The project’s geologic impacts would be site-specific. Because of the physical separation of the cumulative projects and the low likelihood of geologic instability, the project would neither be affected by, nor would it affect, other planned or proposed development in the project vicinity. However, the project would increase the number of facilities (e.g., restrooms) that would support and would continue camping activities at the site. These activities would be located in tsunami and fault hazard areas within the project site. This would be a *significant* cumulative geologic and hazard impact. Because these activities are part of the baseline, no feasible mitigation is available to reduce this impact to a less-than-significant level. This would be a cumulatively significant and unavoidable impact.

Impact 4.6-12: Cumulative Dune Impacts. The project in combination with cumulative projects would result in cumulative development of Tomales Bay shoreline areas, which could result in significant cumulative impacts related to dune systems as a whole in the region. Further, the project would result in the continuation of recreational activities at the site which would contribute to the degradation of onsite sand dunes. These activities create an existing adverse baseline condition to which the project contribution would result in a *significant* cumulative dune impact. Implementation of Mitigation Measure 4.6-1 would relocate the proposed wastewater treatment system to a non-sand dune location. However, existing recreational activities in onsite sand dunes are part of the baseline, and as a result no feasible mitigation is available to reduce this impact to a less-than-significant level. This would be a cumulatively significant and unavoidable impact.

Impact 4.13-5: Cumulative Impacts to Sensitive Habitats, Including Coastal Wetlands. The proposed project could contribute to cumulatively significant impacts on sensitive habitats and wetlands in the coastal zone. Northern coastal dune systems are locally and regionally rare and development in sensitive habitats within these systems presents a significant cumulative contribution to impacts on sensitive habitats. The project could also result in the direct fill of seasonal wetlands. Further, the project would increase the number of facilities at the site, which would support and continue baseline camping activities that occur in onsite wetlands. Therefore, the project would contribute to cumulatively considerable and significant wetland impacts. Because these activities are part of the baseline, no feasible mitigation is available to reduce this impact to a less-than-significant level. This would be a cumulatively significant and unavoidable impact.

5.2 GROWTH-INDUCING IMPACTS

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report. CEQA Guidelines Section 15126(g) states that a project is growth-

inducing if it could “foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” Included in the definition are projects that would remove obstacles to population growth. Examples of growth-inducing actions include developing water, wastewater, fire, or other types of service areas in previously unserved areas, extending transportation routes into previously undeveloped areas, and establishing major new employment opportunities.

The project would not foster substantial economic growth beyond its existing economic influence on the area. Although the project would improve existing services and infrastructure at the project site, the proposed improvements would not change the land uses associated with the project site and would not increase intensity of use at the site.

The project would generate short-term employment opportunities associated with construction of the proposed site improvements. However, these employment opportunities would exist only during the construction phase of the project.

The project would not foster substantial population growth in the surrounding area because it would not remove barriers to substantial population growth nor create a new attraction for adding residents to the project vicinity. All site improvements would be used for onsite uses only. The project would not increase the number of visitors allowed onsite above the current limits. Because the project would neither substantially foster growth nor remove obstacles to substantial growth, significant growth-inducing impacts are not be anticipated.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Section 21100(b)(2) states that an EIR shall include a detailed statement setting forth “[i]n a separate section ... [a]ny significant effect on the environment that would be irreversible if the project is implemented.” However, a discussion of significant irreversible environmental effects need only be included in EIRs for three types of projects as listed in CEQA Section 21100.1. Specifically, CEQA Section 21100.1(a) requires that a discussion of significant irreversible environmental effects be included in an EIR prepared in connection with “[t]he adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency.” Because the project is a master plan proposed for adoption by Marin County, a discussion of significant irreversible environmental changes is provided in this section.

State CEQA Guidelines Section 15126.2(c) provides the following guidelines for analyzing the significant irreversible environmental changes of a project:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Any new development would increase the demand for non-renewable natural resources (e.g., petroleum, natural gas); however, the proposed new housing units are not of sufficient size to consume resources at a substantially increased rate. Given that less-than-significant project level impacts related to the consumption of natural resources are anticipated, these potentially irreversible changes would not be considered significant.

6 ALTERNATIVES

6.1 INTRODUCTION TO ALTERNATIVE ANALYSIS

The analysis of alternatives is an important element of the EIR process. State CEQA Guidelines Section 15126.6(a) requires an evaluation of "... 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, and evaluate the comparative merits of the alternatives." The project objectives are stated in Section 3.5 (Project Objectives) of this EIR. Alternatives are used to determine whether or not a variation of the project would reduce, or eliminate, significant project impacts within the basic framework of the objectives. State CEQA Guidelines Section 15126.6(f) specifies that a range of alternatives is governed by the "rule of reason," requiring evaluation of only those alternatives "necessary to permit a reasoned choice." Further, an EIR "... need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (State CEQA Guidelines Section 15126.6(f)(3)).

State CEQA Guidelines Section 15126.6(e) requires that, among other alternatives, a "no project" alternative be evaluated in comparison to the project. State CEQA Guidelines Section 15126.6(e)(2) requires that the no project analysis "discuss the existing conditions ... as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." Accordingly, two no project alternatives are analyzed in this EIR: a Continued Existing Conditions Alternative based on the continuation of existing conditions; and a Modified No Project Alternative where existing uses would continue and the County would implement enforcement actions for all non-permitted or non-conformance uses at the site.

Other alternatives considered and evaluated below consist of the Reduced Project Alternative, Reconfigured Uses Alternative, Mitigated Alternative, Mixed Use Alternative, and Offsite Alternative. Descriptions of the project alternatives are provided below. These alternatives were identified based on their ability to reduce the project's significant and potentially significant impacts. In addition, because the project would not result in any significant and unavoidable project impacts, alternatives were identified that would reduce adverse baseline conditions at the project site to which the project would contribute cumulatively as a result of continuing operations at the site. Baseline conditions are those environmental conditions present at the time the NOP was published for the EIR. In the case of the project, existing land uses at the project site contribute to known adverse environmental conditions, including wetland impacts associated with recreational activities, tsunami hazards, fault hazards, and traffic congestion along Cliff Street. Therefore, alternatives were considered that would reduce cumulative adverse baseline conditions at the site.

Potential environmental impacts for each alternative are provided in comparison to the project. The advantages and disadvantages of each alternative, compared to the project, are presented. Any significant environmental impacts created exclusively by an alternative are also identified. Mitigation measures are included to reduce any significant impacts created exclusively by the Mitigated Alternative to the extent feasible. Table 6-1 provides a summary of the project alternatives analyzed and their environmental advantages and disadvantages.

6.2 SUMMARY OF ENVIRONMENTAL CONSTRAINTS

The purpose of this section is to summarize the site-specific environmental constraints, as identified and discussed in Chapter 4 (Environmental Setting, Environmental Impacts, Cumulative Impacts, and Mitigation Measures) of this Draft EIR. These site-specific environmental constraints, if not avoided

through either project design or mitigation, could result in significant or potentially significant environmental impacts. Accordingly, the site-specific environmental constraints, as presented in Exhibit 6-1 are used to identify onsite alternatives to the project that are capable of avoiding or reducing significant or potentially significant impacts of the project.

As presented in Exhibit 6-1, potential site-specific environmental constraints include the presence of foredunes, sensitive biological resources including wetlands and sensitive species, tsunami run-up zone, potential cultural resources, existing dune blowouts, San Andreas Fault, noise-sensitive areas, farmland of local importance, water wells, and areas subject to flooding. These environmental constraints and their effect on the range of alternatives considered in this EIR are discussed below.

As discussed in Section 4.13, “Biological Resources,” construction of site improvements (e.g., wastewater conveyance lines, restrooms, trails, boathouse), including dune stabilization, could result in substantial effects on sensitive habitats through direct removal, disturbance, or degradation of these habitats. In addition, construction could result in disturbance and removal of jurisdictional wetlands and construction activities in the wet meadow area could disturb aquatic and upland habitat suitable for special-status wildlife, including red-legged frogs. Wetland fill for recreational purposes is not authorized under the California Coastal Act, and is inconsistent with a number of County policies. In addition, the Local Coastal Program (LCP) Unit II requires avoidance of development within 100 feet of wetlands to the maximum extent feasible. Existing baseline camping activities also result in adverse impacts to onsite wetlands resulting in a significant cumulative wetland impact because the project’s continuation of existing camping activities and increase in facilities to support those activities would be a cumulatively considerable contribution. Accordingly, reduction of baseline camping activities and potential wetland fill, sand dune, sensitive species impacts were considered in determining the EIR’s alternatives.

As discussed in Section 4.6, “Geology and Soils,” active areas of foredunes are located along the western edge of the project site. Depending on the siting of proposed pedestrian trails, the local prevailing winds in combination with pedestrian trails that are oriented in a northwest-southeast direction could result in the formation of dune blowouts. The proposed leachfield lies within areas of actively moving sand dunes of high instability in the interior portion of the project site. Construction of the leachfield in this area would require that the western edge of the sand dunes supporting the leachfield be stabilized, which could adversely affect the natural migration of the sand dune system. The San Andreas Fault crosses through the Sand Point area of the project site. Construction of new facilities and structures within the area of primary and secondary deformation could result in significant public safety impacts. Additionally, existing camping and recreational activities occur within a fault hazard zone, which when considered in conjunction with proposed increases in project facilities that would add to or support existing uses and facilities in a fault zone would result in a significant cumulative fault hazard impact. Areas of the project site closest to the coastline are located in a tsunami run-up zone and within areas subject to minimal flooding. Camping currently occurs within the tsunami run-up zone and the project would continue a significant cumulative tsunami hazard impact. Accordingly, reduction of baseline activities and potential seismic and hazard impacts were considered in determining the EIR’s alternatives.

As discussed in Section 4.5, “Hydrology and Water Quality,” construction-related ground disturbances could result in the discharge of contaminants to onsite stormwater, which could ultimately be discharged to Tomales Bay. In addition, runoff from isolated areas of the project site (i.e., boathouse) could carry contaminants to local waterways. Accordingly, potential adverse hydrology and water quality impacts were considered in determining the EIR’s alternatives.

**Table 6-1
Comparison of Alternatives to the Proposed Project**

Proposed Project	No Project Alternative	Modified No Project Alternative	Reduced Project Alternative	Reconfigured Uses Project Alternative	Mitigated Project Alternative	Mixed Use Project Alternative
Description						
<ul style="list-style-type: none"> <input type="checkbox"/> New wastewater treatment facility <input type="checkbox"/> New restrooms <input type="checkbox"/> Consolidation of main meadow parcels <input type="checkbox"/> Relocation of boathouse <input type="checkbox"/> 2 new water storage tanks <input type="checkbox"/> 5 new fire hydrants <input type="checkbox"/> Formal pedestrian trail system in foredunes <input type="checkbox"/> Proactive environmental education program <input type="checkbox"/> Expansion of gate house 	<ul style="list-style-type: none"> <input type="checkbox"/> No new development at the site <input type="checkbox"/> Continuation of existing operational conditions <input type="checkbox"/> Continued use of existing septic systems <input type="checkbox"/> No County enforcement actions would be undertaken to rectify non-authorized and non-conforming uses at the site. 	<ul style="list-style-type: none"> <input type="checkbox"/> No new development at the site. <input type="checkbox"/> Continuation of existing operational conditions <input type="checkbox"/> Continued use of existing septic systems <input type="checkbox"/> County enforcement actions would be taken for unauthorized and non-conforming land uses 	<ul style="list-style-type: none"> <input type="checkbox"/> No construction in main meadow <input type="checkbox"/> New wastewater treatment facility in a non-sand dune location <input type="checkbox"/> Consolidation of main meadow parcels <input type="checkbox"/> Relocation of boathouse <input type="checkbox"/> Proactive environmental education program <input type="checkbox"/> Expansion of gatehouse <input type="checkbox"/> Reduce <u>by 1/3 the</u> number of campsites to 750<u>677</u>, trailers to 105<u>155</u>, and day users to 150<u>133</u> Reduced sand quarry operations 	<ul style="list-style-type: none"> <input type="checkbox"/> New wastewater treatment facility in a non-sand dune location <input type="checkbox"/> New restrooms <input type="checkbox"/> Consolidation of main meadow parcels <input type="checkbox"/> Relocation of boathouse outside zone of secondary deformation <input type="checkbox"/> 2 new water storage tanks <input type="checkbox"/> 5 new fire hydrants <input type="checkbox"/> Formalize pedestrian trail system <input type="checkbox"/> Proactive environmental education program <input type="checkbox"/> Expansion of gate house <input type="checkbox"/> Restricted cattle grazing <input type="checkbox"/> Relocated sand quarry operations 	<ul style="list-style-type: none"> <input type="checkbox"/> New wastewater treatment facility in a non-sand dune location <input type="checkbox"/> No construction within 100-feet of onsite wetlands <input type="checkbox"/> Consolidation of main meadow parcels <input type="checkbox"/> Relocation of boathouse <input type="checkbox"/> 2 new water storage tanks <input type="checkbox"/> 5 new fire hydrants <input type="checkbox"/> Formalize pedestrian trail system <input type="checkbox"/> Proactive environmental education program <input type="checkbox"/> Expansion of gate house <input type="checkbox"/> <u>Reduced number of campsites to 750</u> 	<ul style="list-style-type: none"> <input type="checkbox"/> Increase in number of day users to 400 <input type="checkbox"/> Reduced number of campsites (500) <input type="checkbox"/> Agricultural and sand quarrying activities would continue <input type="checkbox"/> Reduced number of travel trailers (116) <input type="checkbox"/> Removal of boathouse and pier facilities <input type="checkbox"/> Increased sand quarry activities <input type="checkbox"/> Development of gas station/market/restaurant <input type="checkbox"/> Development of hotel/motel (100 room/100 seat)
Results of Analysis						
<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Meets all project objectives <input type="checkbox"/> Formal recognition of existing land uses <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Fill of coastal wetlands <input type="checkbox"/> Construction in sensitive sand dune habitats <input type="checkbox"/> Potential infeasibility of wastewater treatment system because of dune instability <input type="checkbox"/> Inconsistent with County policies related to coastal wetlands and sand dunes 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Avoids project-related impacts to coastal wetlands and sand dunes <input type="checkbox"/> Avoids potentially significant impacts to cultural resources. <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Does not meet project objectives <input type="checkbox"/> Greater seismic, stormwater quality, and emergency access impacts <input type="checkbox"/> No formal recognition of existing land uses by County 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Avoids project-related impacts to coastal wetlands and sand dunes <input type="checkbox"/> Avoids potentially significant impacts to cultural resources <input type="checkbox"/> All existing land uses would be consistent with County policies^A <input type="checkbox"/> Existing land uses would be formally recognized by the County^A <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Does not meet project objectives <input type="checkbox"/> Greater seismic hazard, stormwater quality, and traffic impacts <input type="checkbox"/> No formal recognition of existing land uses by County^B 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Less water supply, air quality, flood hazard, and policy consistency impacts <input type="checkbox"/> Formal recognition of existing land uses <input type="checkbox"/> Reduce adverse baseline tsunami, fault hazard, and wetland impacts <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Would meet most but not all of project objectives 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Reduced seismic hazard impacts <input type="checkbox"/> Formal recognition of existing land uses <input type="checkbox"/> Reduced baseline impacts to onsite sand dunes, fault hazards, and tsunami hazards <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Increases fill of coastal wetlands on-site 	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Avoids project-related impacts to coastal wetlands and sensitive sand dune habitats <input type="checkbox"/> Reduced baseline impacts to onsite wetlands <input type="checkbox"/> Reduced baseline impacts to traffic congestion along Cliff Street <input type="checkbox"/> Meets all project objectives <input type="checkbox"/> Formal recognition of existing land uses <p><u>Disadvantages</u></p> <p>None</p>	<p><u>Advantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Increased grazing and sand quarry operations <input type="checkbox"/> New gas station/hotel uses <input type="checkbox"/> Reduce baseline impacts to wetlands <p><u>Disadvantages</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Does not meet project objectives <input type="checkbox"/> Greater visual, hydrology and water quality, water supply, wastewater treatment and disposal, visual resources, geology and soils, air quality, transportation and biological impacts
Conclusions						
<ul style="list-style-type: none"> <input type="checkbox"/> Not environmentally superior <input type="checkbox"/> Meets all project objectives 	<ul style="list-style-type: none"> <input type="checkbox"/> Not environmentally superior <input type="checkbox"/> Does not meet project objectives 	<ul style="list-style-type: none"> <input type="checkbox"/> Not environmentally superior <input type="checkbox"/> Does not meet project objectives 	<ul style="list-style-type: none"> <input type="checkbox"/> Environmentally superior to project and all alternatives <input type="checkbox"/> Meets all project objectives 	<ul style="list-style-type: none"> <input type="checkbox"/> Environmental Tradeoffs compared to project <input type="checkbox"/> Meets all project objectives 	<ul style="list-style-type: none"> <input type="checkbox"/> Environmentally superior to project <input type="checkbox"/> Meets all project objectives<u>Retains all onsite recreational uses</u> 	<ul style="list-style-type: none"> <input type="checkbox"/> Not environmentally superior <input type="checkbox"/> Does not meet project objectives<u>Meets most project objectives</u>
<p>A If compliance with County enforcement actions occurs</p> <p>B If the project applicant does not comply with County enforcement actions</p>						



LEGEND

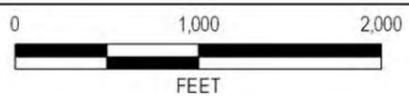
- * Known Spineflower Occurrence
- Water Wells
- Potential Cultural Resource
- ★ Known Point Reyes Bird's Beak Occurrence
- Possible Primary Zone of Deformation
- Possible Secondary Zone of Deformation
- Other Waters of the United States
- Noise Sensitive Areas
- Project Boundary
- Known CA Red-legged Frog Occurrence
- Farmland of Local Importance
- Western Snowy Plover Critical Habitat
- Known Tidestrom's Lupine Occurrence
- Seasonal Wetland
- Tidal Wetland
- New Facilities
- Least Constrained Areas
- Least Stable Sand Dunes
- Intermediately Stable Sand Dunes
- Most Stable Sand Dunes
- Foredunes
- Dune Blowouts
- Tsunami Run-Up Zone
- Maximum Inundation

Sources: Wesco 1992, Image taken in 2000, FMMP 2002, Pacific Watershed Associates 2004, FEMA Q3 Flood data 1996, EDAW 2007

Environmental Constraints

Lawson's Landing Master Plan Draft EIR

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As discussed in Section 4.12, “Cultural Resources,” one previously identified archaeological site is known to be located in the vicinity of the proposed leachfield. A new archaeological site (EDAW-1) was identified in the main meadow. In addition, human remains have been found during previous field surveys at the project site. Accordingly, potential adverse effects to known archaeological resources were considered in determining the EIR’s alternatives.

As discussed in Section 4.10, “Noise,” the project site includes and is surrounded by various noise sensitive receptors. Noise-sensitive receptors at or near the project site include existing single-family homes (including mobile homes) located at Sand Point, and single-family residences located immediately north of the project site along Cliff Street and in the town of Dillon Beach. These noise sensitive land uses were considered in determining the EIR’s alternatives.

As discussed in Section 4.11, “Land Use, Recreation, and Agriculture,” the project site and surrounding areas incorporate farmland of local importance. Farmland of local importance is defined by Marin County as land which is not irrigated, but is cultivated or has the potential for cultivation. The location of farmland of local importance was considered in determining the EIR’s alternatives.

6.3 NO PROJECT ALTERNATIVE – CONTINUED EXISTING CONDITIONS

6.3.1 DESCRIPTION

This No Project Alternative – Continued Existing Conditions assumes that existing conditions at the project site are continued for the foreseeable future. Thus, under this alternative, existing onsite recreational, agricultural, and sand quarrying activities at the project site would continue at existing operational levels: 233 recreational trailers, 1,000 campsites, 200 day users. The improvements associated with the project, such as the wastewater treatment facility, restrooms, roadway improvements, and new boat house would not be implemented. Growth in the area projected in the Marin Countywide Plan would continue with this alternative, but this alternative would not contribute to such cumulative development. This alternative would not foreclose any site development at a later date but assumes maintenance of the *status quo* for the foreseeable future. Because the County would not approve of the master plan for the project, the County would not formally authorize currently unauthorized or non-conforming land uses at the site (e.g., travel trailers). Because this alternative assumes maintenance of the status quo, no enforcement actions by the County would be undertaken by the County.

6.3.2 ENVIRONMENTAL ANALYSIS

LAND USE PLANS AND POLICY CONSISTENCY

This alternative would avoid the project’s inconsistency with relevant County policies pertaining to construction in onsite sand dunes and fill of coastal wetlands. However, these inconsistencies are mitigated to a less-than-significant level through mitigation recommended for the project. Because this alternative and the project would be consistent with relevant County policies regarding new development at the site, this alternative’s policy consistency impacts would be the same as the project.

WATER SUPPLY

This alternative would not result in the construction of new water storage tanks and fire hydrants, and would not provide additional fire flow capacity at the project site. Although these facilities would not be constructed, existing water supplies are adequate to serve existing uses and fire flow capacities currently meet the requirements of the Marin County Fire Department. Water supply impacts would be less-than-significant under this alternative and the project.

WASTEWATER TREATMENT AND DISPOSAL

This alternative would avoid potentially significant project impacts associated with wastewater treatment and disposal because a new wastewater treatment system would not be constructed in the onsite sand dunes. This alternative would continue to use existing onsite wastewater treatment facilities (i.e., septic tanks and leach lines) and there is no evidence at this time that these facilities have contributed to or resulted in a significant adverse water quality impact at the site. This alternative would avoid the project's potentially significant impacts related to the long-term operation of a reliable wastewater treatment facility. Wastewater treatment and disposal impacts would be less than the project under this alternative.

HYDROLOGY AND WATER QUALITY

This alternative would result in hydrologic conditions similar to what exists at the project site. Increases in the area of impermeable surfaces at the project site and associated increases in surface water runoff would not occur. This alternative would continue to use existing onsite wastewater treatment facilities (i.e., septic tanks and leach lines) and there is no evidence at this time that these facilities have contributed to or resulted in a significant adverse water quality impact at the site. Under this alternative, the boathouse and storage areas would not be relocated and no water quality facilities would be installed to treat stormwater that is generated in this area. Therefore, under this alternative, pollutants generated at the boathouse (e.g., fuels, lubricants) would continue to be conveyed in stormwater generated onsite and ultimately to Tomales Bay. Although this alternative would not change stormwater flows from existing conditions at the site and would not result in a significant adverse environmental change, this alternative could contribute a greater load of pollutants to Tomales Bay from onsite boathouse operations compared to the project and would not provide the environmental health benefits associated with the project. Therefore, this alternative would result in greater hydrology and water quality impacts compared to the project.

GEOLOGY AND SOILS

This alternative would avoid the project's potential impacts associated with liquefaction and expansive soil conditions because new construction would not occur. However, this alternative would continue existing activities and use existing facilities within tsunami run-up zones. This alternative would not result in the relocation of the existing boathouse and this facility would remain within the main fault zone of the San Andreas Fault. Therefore, this alternative would continue existing adverse geologic hazard condition. The main fault zone could have greater impacts to onsite structures compared to facilities located in the secondary zone of deformation such as the project because of its closer proximity to the fault trace and the area of potential ground displacement. Therefore, this alternative would result in greater project and cumulative seismic impacts compared to the project.

VISUAL RESOURCES AND NIGHTTIME LIGHTING

This alternative would not change facilities or land uses at the project site and as a result would not change views of the project site from on or offsite locations. No significant impacts to visual resources at the project would occur under this alternative or the project.

TRANSPORTATION AND CIRCULATION

This alternative would not alter the number of vehicles traveling in the vicinity of Dillon Beach and, therefore, would result in less-than-significant operational traffic impacts. This alternative would avoid the project's potentially significant construction-related traffic impacts because no construction would occur; however, the project's impacts would be temporary and would be reduced to a less-than-significant

level with mitigation. Under this alternative, no roadway improvements would be implemented at the project site, including improvements to the pull-outs along Dillon Beach Road, pavement and siting conditions along Sand Haul Road, corners along Cliff Street, and widening of the gatehouse entrance. Therefore, adverse baseline traffic conditions along Cliff Street would not be improved under this alternative. This alternative would not change roadway design conditions or operational traffic from existing conditions and would not result in a significant adverse environmental change. However, this alternative would only provide one emergency access evacuation route from the site because Sand Haul Road would not be improved, and this alternative would not result in any improvements that could alleviate adverse baseline traffic conditions along Cliff Street. Therefore, this alternative would result in greater traffic impacts compared to the project.

AIR QUALITY

Because this alternative would not involve construction of new facilities and operational conditions would be unchanged, it would avoid the project's potentially significant short-term construction and operational air quality impacts induced by these activities. Air quality impacts would be less under this alternative compared to the project.

NOISE

Because this alternative would not involve construction of new facilities and operational conditions would be unchanged, it would avoid the project's potentially significant short-term construction and operational noise impacts induced by these activities. Noise impacts would be less under this alternative compared to the project.

LAND USE, AGRICULTURE, AND RECREATION

This alternative would not change existing land uses at the project site and these land uses are consistent with existing County land use and zoning designations for the project site. Land use, recreation, and agricultural impacts would be less than significant under this alternative and the project.

CULTURAL RESOURCES

Because this alternative would not involve ground disturbing activities, it would avoid the project's potentially significant impacts to known and unidentified underground archaeological resources at the site. This alternative would result in less archaeological resource impacts than the project.

BIOLOGICAL RESOURCES

Because this alternative would not involve any construction or ground disturbance, it would avoid a change in impacts to biological resources. This alternative would avoid the project's less-than-significant (with mitigation) wetland fill and sensitive sand dune habitat impacts, and sensitive plant and wildlife species impacts. However, this alternative would continue existing adverse camping activities that occur in wetlands onsite. Nonetheless, because this alternative would not increase wetland disturbances above existing conditions, this alternative would result in less biological impacts than the project.

SCHOOLS

Because this alternative would not construct any new housing that would generate students within the Shoreline Unified School District, it would avoid the project's potential impacts to school services and facilities. However, impacts to school services and facilities would be less-than-significant under the project. Therefore, this alternative would result in summer school impacts as the project.

POLICE AND FIRE SERVICES

Because this alternative would not result in any land use changes, it would not increase the demand for police and/or fire services and no significant impacts to police and fire services would occur. Impacts to police and fire services would also be less than significant under the project.

6.3.3 CONCLUSIONS

The No Project Alternative-Continued Existing Conditions would not be environmentally superior to the project. While this alternative would avoid the project's less-than-significant (with mitigation) impacts related to fill of coastal wetlands and construction within onsite sand dune habitats, it would continue adverse cumulative impacts—associated with seismic hazards, stormwater quality from boathouse operations, and traffic congestion and emergency access. This alternative also would not meet some of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite. This alternative would not result in the approval of a master plan for the project site; therefore, existing unauthorized and non-conforming land uses would continue without formal recognition by the County. Further, this alternative would not improve existing water quality in underlying groundwater at the project site or beneficial health effects associated with new wastewater treatment facilities, because a wastewater treatment system would not be constructed and existing septic tanks at Sand Point would continue to be used.

6.4 MODIFIED NO PROJECT ALTERNATIVE

6.4.1 DESCRIPTION

Similar to the No Project Alternative-Continued Existing Conditions Alternative, the Modified No Project Alternative assumes that no changes to existing conditions at the project would occur. Thus, under this alternative, existing onsite recreational, agricultural, and sand quarrying activities would continue under current operational conditions. The improvements associated with the project, such as the wastewater treatment facility, restrooms, roadway improvements, and new boat house would not be implemented. Growth in the area projected in the Marin Countywide Plan would continue with this alternative, but this alternative would not contribute to such cumulative development. This alternative would not foreclose any site development at a later date, but assumes maintenance of the *status quo* for the foreseeable future.

Because some existing operations at the project site are not authorized (e.g., travel trailers) and some uses could be considered inconsistent with adopted County policies (e.g., camping in wetlands), this alternative assumes that enforcement actions would be taken by Marin County and other regulatory agencies to rectify any non-conforming activities. These enforcement actions would include sending notification to the project applicant of any and all non-conforming activities to request that the project applicant cease and desist such activities or rectify any non-conforming uses. Over time, non-conforming activities such as the recreational trailers and camping activities would be reduced and eliminated from the project site. Further, because of existing water quality concerns at the project site associated with use of septic tanks at Sand Point, replacement of non-conforming septic tanks or construction of an onsite wastewater treatment system for authorized land uses may be a requirement of enforcement actions. Existing sand quarry extraction operations would be reduced to comply with existing permitted extraction limitations.

At this time it is uncertain whether the project applicant could comply with County enforcement actions. While compliance with County enforcement actions would rectify any inconsistencies with County policies, it is too speculative to conclude whether and how that compliance would occur. Therefore, for

purposes of this analysis, the environmental impacts of this alternative would be essentially the same as the environmental impacts of the No Project Alternative-Continued Existing Conditions.

6.4.2 ENVIRONMENTAL ANALYSIS

Please refer to Section 6.4.1 for the discussion of environmental effects. This discussion also applies to the Modified No Project Alternative.

6.4.3 CONCLUSIONS

The Modified No Project Alternative (with or without compliance with County enforcement actions) would not be environmentally superior to the project. While this alternative would avoid the project's potentially significant (unless mitigated) impacts to coastal wetlands and sand dune habitats, it would result in new potentially significant impacts associated with seismic hazards, stormwater quality from the boathouse, and traffic congestion and emergency access impacts. This alternative could correct and reduce existing adverse baseline wetland, tsunami, sand dune, and fault hazard impacts. However, it is uncertain at this time whether enforcement actions would be adhered to. This alternative would not meet some of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite. If the project applicant complies with County enforcement actions, then existing issues associated with unauthorized and non-conforming uses would be resolved and the County would formally recognize all existing land uses at the project site. However, if compliance with County enforcement actions is not achieved, existing unauthorized and non-conforming land uses would continue without formal recognition by the County.

6.5 REDUCED PROJECT ALTERNATIVE

6.5.1 DESCRIPTION

The Reduced Project Alternative assumes that a reduced number of facilities would be constructed onsite and recreational activities at the site would also be reduced by one-third. This alternative would include the construction of a new wastewater treatment system in a non-sensitive location as identified in Exhibit 4.6-10, improvements to the existing gatehouse at the entrance and pullouts along Dillon Beach Road, relocation of the existing boathouse, and development of an environmental protection program. However, to avoid some of the project's significant and potentially significant environmental impacts or cumulative impacts associated with existing adverse baseline conditions, it would not include the construction of facilities (e.g. restrooms, water spigots) in the main meadow area of the project site, construction of a formal pedestrian trail system in the onsite foredunes, or construction of new residences. This alternative would also reduce (by one-third) the number of campsites allowed at the project site on a daily basis to 677 (two-thirds of existing campsites) the number of trailers to 155, and the allowable number of day users to 133. The majority of existing land uses at the project site would continue (e.g., recreational, agricultural), but recreational activities would occur at a reduced level (two-thirds of existing use levels), and existing sand quarry operations would be reduced to comply with existing extraction limitations. Implementation of this alternative would result in the approval of a master plan and authorization of existing and proposed land uses at the project site.

6.5.2 ENVIRONMENTAL ANALYSIS

LAND USE PLANS AND POLICY CONSISTENCY

This alternative would be consistent with policies related to construction in onsite wetlands and sand dune habitats because it would not construct a new wastewater system in the onsite sand dunes or facilities in the main meadow. The proposed wastewater treatment system would be constructed in a non-sensitive location as identified in Exhibit 4.6-10. Although this alternative would retain existing land uses at the site, some levels of existing land uses are either unauthorized (i.e., travel trailers), or could be considered inconsistent with relevant policies of the DBCP, the Marin Countywide Plan, and the LCP (e.g., camping in wetlands). However, with adoption of this alternative, these uses would be formally recognized by the County. Because this alternative would be consistent with relevant County policies regarding fill of coastal wetlands and construction in sand dunes, this alternative's policy consistency impacts would be the same as the project.

WATER SUPPLY

This alternative would not result in the construction of new water storage tanks and fire hydrants and would not provide additional fire flow capacity at the project site. Although these facilities would not be constructed, existing water supplies are adequate to serve existing uses and fire flow capacities currently meet the requirements of the Marin County Fire Department. This alternative would reduce the number campsites allowed on a daily basis, which would result in a decrease in onsite water demands and a corresponding decrease in groundwater pumping at the site. These impacts would be less-than-significant with the project. Overall, this alternative would result in less water supply impacts.

WASTEWATER TREATMENT AND DISPOSAL

Because this alternative would construct a new wastewater treatment facility in a mitigated location (as identified in Exhibit 4.6-10) that would serve a reduced number of onsite travel trailers and facilities, wastewater treatment and disposal impacts would be less under this alternative.

HYDROLOGY AND WATER QUALITY

This alternative would result in the construction of a reduced number of project facilities compared to the project and, therefore, would result in a corresponding reduction in the area of new impermeable surfaces. As a result, stormwater volumes generated under this alternative would be reduced. However, stormwater impacts under the project would be less-than-significant. Because this alternative would construct a wastewater treatment system in a mitigated location, it would result in the same hydrology and water quality impacts as the project and these impacts would be less-than-significant. This alternative would result in the reconstruction of the existing boathouse, which could result in the contribution of pollutants to onsite stormwater. Implementation of water quality mitigation measures recommended for the project would reduce this impact to a less-than-significant level. Because of the reduced development at the site, hydrology and water quality impacts would be less than the project under this alternative.

GEOLOGY AND SOILS

This alternative would have the same potential for impacts associated with seismic and liquefiable soil conditions at the project site because this alternative would result in the relocation of the boathouse to the secondary zone of deformation of the San Andres Fault and in an area susceptible to liquefaction. Mitigation recommended for the project, would reduce these impacts to a less-than-significant level. This alternative would reduce cumulative flood and tsunami hazard impacts at the project site because it would

reduce the number of structures (i.e., no restroom facilities) located within areas subject to minimal flooding (i.e., meadow areas of the site) and it would reduce the number of campsites that could be established in the main meadow area. Further, impacts from baseline sand quarrying activities would be reduced because extraction volumes would be reduced to comply with permitted extraction amounts. Overall, this alternative would result in less geologic hazards impacts than the project.

VISUAL RESOURCES AND NIGHTTIME LIGHTING

This alternative would result in the construction of many of the same facilities in the same location as the project and no significant visual impacts would occur. Although the restrooms and water storage tanks would not be constructed, these facilities would not be visible from coastal areas of the project site and would not result in significant visual impacts at the project site. This alternative would result in the construction of the same lighting sources as the project; therefore, nighttime lighting impacts would be same as the project and would be less-than-significant overall.

TRANSPORTATION AND CIRCULATION

Traffic entering Lawson's Landing currently has the potential to queue at the entrance gate and create traffic congestion along Cliff Street during peak recreational periods. This alternative would construct the same transportation improvements (e.g., reconstruction of gatehouse, improvement of pull outs, widening of Cliff Street). This alternative would also reduce the daily operational vehicle trips to and from the site because of the reduction in onsite campsites. Because this alternative would improve roadway design conditions in the local area, while at the same time reducing the number operational vehicle trips, this alternative would result in less traffic and circulation impacts. Further, this alternative would reduce to a greater extent existing traffic congestion that occurs along Cliff Street because the number of vehicle trips would be reduced. However, the project's traffic and circulation impacts would be less-than-significant with implementation of recommended mitigation. Overall, this alternative would result in less transportation and circulation impacts compared to the project.

AIR QUALITY

This alternative would result in the construction new facilities on the project site; however, construction activities and associated construction-related air quality impacts would be reduced because a fewer number of facilities would be constructed. Operational impacts associated with this alternative would also be reduced because this alternative would decrease the number of operational vehicle trips to and from the project site because of the reduction in the number of allowable campsites. Overall, this alternative would result in less air quality impacts than the project.

NOISE

This alternative would result in the same construction-related impacts as the project because this alternative would result in the construction of new facilities and buildings onsite and these impacts would be less-than-significant with implementation of mitigation recommended for the project. Although this alternative would reduce the number of operational vehicle trips to and from the project site, this reduction would not likely result in a noticeable decrease in local roadway noise levels (i.e., 3 dBA) in the project vicinity because a reduction of roadway traffic volumes by 50% is typically required to achieve a noticeable decrease in operational noise levels. This alternative would only result in an approximate 33% reduction in operational vehicle trips and, therefore, would not result in a noticeable decrease in local roadway noise levels. Overall, this alternative would result in the same noise impacts as the project, which would be less than significant with mitigation.

LAND USE, AGRICULTURE, AND RECREATION

This alternative would not change existing land uses at the project site and these land uses are consistent with existing County land use and zoning designations for the project site. Land use, recreation, and agricultural impacts would be less than significant under this alternative and the project.

CULTURAL RESOURCES

Because this alternative would result in the construction of new facilities and ground-disturbing activities, this alternative would result in the same archaeological impacts as the project. Implementation of mitigation recommended for the project would reduce this alternative's archaeological impacts to a less-than-significant level.

BIOLOGICAL RESOURCES

This alternative would construct a new wastewater treatment facility in a non-sand dune location as identified in Exhibit 4.6-10 and, therefore, would avoid the project's less-than-significant (with mitigation) impacts associated with development in sensitive sand dune habitats. This alternative would also avoid some of the project's significant impacts associated with construction in onsite coastal wetlands because no facilities (i.e., restrooms, trails) that would be inconsistent with Coastal Act policies would be constructed in wetlands onsite. However, the project's impacts are reduced to a less-than-significant level with implementation of Mitigation Measure 4.13-3. Adverse cumulative baseline camping activities in onsite wetlands would also be reduced as a result of a reduction in the number of allowable campsites and day uses. Therefore, the biological impacts of this alternative would be less than the project.

SCHOOLS

This alternative would result in the same demand for school facilities and services because it would result in the construction of the same residences (i.e., one mobile home and one residence) on the project site. These impacts would be less-than-significant under this alternative and the project.

POLICE AND FIRE SERVICES

This alternative would likely decrease demands for police and/or fire services at the project site because it would reduce the number of campsites allowed at the project site on a daily basis. Police and fire service impacts would be less than the project, and the project's police and fire service impacts would be less than significant.

6.5.3 CONCLUSION

The Reduced Project Alternative would be environmentally superior to the project and to all other alternatives. It would have many of the same environmental impacts as the project, but it would reduce the project's less-than-significant and potentially significant (unless mitigated) sand dune, biological resources, water supply, air quality, and flood hazard impacts. It would also reduce the existing significant cumulative wetland, tsunami, sand dune, and fault hazard impacts. This alternative would also meet most, but not all, of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite.

6.6 RECONFIGURED USES ALTERNATIVE

6.6.1 DESCRIPTION

The Reconfigured Uses Alternative assumes that all proposed components of the Lawson's Landing Master Plan would be implemented; however, some facilities and structures would be relocated onsite to avoid the potentially significant and cumulative impacts of the project. This alternative assumes that the proposed wastewater treatment system would be relocated to a non-sand dune area as shown in Exhibit 4.6-10. In addition, the proposed boathouse would be relocated further to the east outside the zone of secondary deformation of the San Andreas Fault and outside onsite wetlands. Existing facilities (e.g., boathouse, laundry), trailers, and campsites would be relocated and would be clustered in the least constrained areas of the site. Proposed facilities (e.g., restrooms, water spigots) would be clustered in non-wetland areas in the northern portion of the main meadow. Cattle grazing currently occurring in the southernmost portion of the project site would be restricted to areas east and north of active sand dunes. This alternative would also result in relocation of sand extraction activities outside of the least stable sand dunes to dunes that are intermediately stable or stable (Exhibit 3-7). Sand Haul Road would also be improved to provide a secondary emergency access/evacuation route from the project site. All other project components would be implemented as described in the master plan. Implementation of this alternative would result in the approval of a master plan and authorization of existing and proposed land uses at the project site.

6.6.2 ENVIRONMENTAL ANALYSIS

LAND USE PLANS AND POLICY CONSISTENCY

Because this alternative would not result in the construction of facilities in onsite sand dunes and fill coastal wetlands onsite, it would not result in any inconsistencies with Marin County policies addressing the protection of these resources. Although this alternative would retain existing land uses at the site, some existing land uses are currently unauthorized (i.e., travel trailers), and could be considered inconsistent with relevant policies of the DBCP, the Marin Countywide Plan, and the LCP-II (e.g., camping in wetlands). Nonetheless, implementation of this alternative would formally recognize all existing onsite land uses. These onsite land uses are part of the baseline condition and this alternative would not result in a significant adverse environmental change. Overall, this alternative would result in the same policy consistency impacts as the project.

WATER SUPPLY

This alternative would result in same water supply impacts as the project because it would result in the construction of two new water storage tanks near existing water wells and fire hydrants within the main meadow. These facilities would provide additional fire flow capacity at the project site. Water supply impacts would be less than significant under this alternative and the project.

WASTEWATER TREATMENT AND DISPOSAL

Under this alternative a new wastewater treatment facility would be constructed in a non-sand dune location in the northern portion of the project site as identified on Exhibit 4.6-10. Construction of wastewater treatment facility in a non-sand dune location would eliminate the impacts to the natural mobility of onsite sand dunes because it would be located outside of all sand dunes. Therefore, stabilization of this sand dune would not be required under this alternative and no impacts to natural sand dune migration on the project site would occur. However, these impacts would be less than significant

with mitigation under the project. Therefore, this alternative would result in similar wastewater treatment and disposal impacts as the project.

HYDROLOGY AND WATER QUALITY

This alternative would result in the construction of the same number of project facilities and, therefore, would result in same increase in the area of new impermeable surfaces. As a result, stormwater volumes generated under this alternative would be the same. Because this alternative would construct a wastewater treatment system, it would result in the same hydrology and water quality impacts as the project and these impacts would be less-than-significant. This alternative would result in the reconstruction of the existing boathouse, which could result in the contribution of pollutants to onsite stormwater. Implementation of water quality mitigation measures recommended for the project would reduce this impact to a less-than-significant level. Overall, hydrology and water quality impacts under this alternative would be the same as the project and this alternative would provide the same water quality benefits as the project because a new wastewater treatment system would be constructed.

GEOLOGY AND SOILS

This alternative would avoid the project's potentially significant seismic hazard impact associated with relocation of the boathouse because this alternative would relocate the boathouse outside the zone of secondary deformation of the San Andreas Fault. However, this impact would be less than significant with mitigation under the project. However, cumulative tsunami hazard impacts would remain because facilities and hazards would remain in a tsunami inundation area. Further, this alternative would reduce the existing adverse baseline cumulative fault hazard impacts because the boathouse would be relocated. This alternative would result in some grading associated with improvements to Sand Haul Road; however, these improvements are not expected to result in significant geologic hazards impacts because the intent of these improvements is to improve hazardous conditions along this roadway. This alternative would reduce baseline impacts to onsite sand dunes because this alternative would relocate existing sand quarry operations to the most stable sand dune locations. All other geologic hazard impacts would be the same under this alternative. Overall, this alternative would result in less geologic hazard impacts than the project because it would reduce baseline impacts to onsite sand dunes through the relocation of sand quarry operations to the most stable sand dune locations and cumulative fault hazard impacts because the boathouse would be relocated outside the zone of secondary deformation.

VISUAL RESOURCES AND NIGHTTIME LIGHTING

This alternative would result in the construction of many of the same facilities in similar locations as the project. This alternative would result in the construction of the same lighting sources as the project. Visual resources impact would be less than significant under this alternative and the project.

TRANSPORTATION AND CIRCULATION

This alternative would result in the construction of the same transportation improvements as the project and would also improve Sand Haul Road to provide a secondary emergency access/evacuation point from the project site. Although, this alternative would avoid the project's potentially significant emergency access impact, this impact would be reduced to a less-than-significant level with implementation of recommended mitigation. Because existing land uses would not change and proposed land uses would be same, this alternative would generate the same operational vehicle trips as the project.

AIR QUALITY

Because this alternative would result in the construction of the same facilities on the project site, it would result in the same construction and operational air quality impacts as the project. These impacts would be less than significant with mitigation.

NOISE

Because this alternative would result in the construction of the same facilities on the project site, it would result in the same construction and operational noise impacts as the project. These impacts would be less than significant with mitigation.

LAND USE, AGRICULTURE, AND RECREATION

This alternative would not change the land uses at the project site and existing land uses are consistent with the County's land use and zoning designations for the project site. This would be a less-than-significant impact under this alternative and the project.

CULTURAL RESOURCES

Because this alternative would involve ground-disturbing activities associated with construction activities, this alternative would result in the same impacts to previously undiscovered archaeological resources at the site. This would be a less-than-significant impact with mitigation under this alternative and the project. This alternative could result in the discovery of cultural resources along Sand Haul Road and at the proposed wastewater treatment facility location; however it is expected that mitigation recommended for the project would adequately mitigate these impacts. This alternative would avoid the project's potentially significant impacts to known cultural resources near the proposed leachfield location east of Sand Point because this alternative would not construct a leachfield in this location. However, the project's impacts to known archaeological resources would be reduced to a less-than-significant level with implementation of recommended mitigation.

BIOLOGICAL RESOURCES

Because project facilities (e.g., restrooms, campsites) would be located outside of onsite wetlands, this alternative would result in the same less-than-significant (with mitigation) wetland impacts as the project. However, this alternative would reduce existing adverse baseline cumulative wetland impacts because all existing recreational activities would be relocated to least constrained areas onsite. Because the proposed boathouse would be located further to the east to avoid the secondary zone of deformation of the San Andreas Fault, it is likely that this facility would result in the fill of onsite wetlands, which would increase the amount of permanent fill compared to the project. However, because cattle grazing would be constrained to the northern and eastern portions of the project site, impacts to wetlands from grazing operations would be reduced. No impacts to sensitive sand dune habitats would occur because all proposed facilities would be located outside onsite sand dunes. Overall, this alternative would reduce some biological resource impacts because grazing activities would be restricted to the northern portion of the project site. However, this alternative would require greater amount of wetlands to be permanently filled for relocation of the boathouse, thus resulting in greater biological resource impacts than the project.

SCHOOLS

This alternative would result in the same demand for school facilities and services because it would result in the construction of the same residences (i.e., one mobile home and one residence) on the project site. These impacts would be less-than-significant under this alternative and the project.

POLICE AND FIRE SERVICES

This alternative would result in the same demand for police and/or fire services at the project site because it would continue existing operations at the site. Police and fire service impacts would be less than the project under this alternative and the project.

6.6.3 CONCLUSION

The Reconfigured Uses Alternative would present environmental tradeoffs compared to the project. While this alternative would reduce seismic hazard and baseline sand dune impacts, it would create the potential for grading, biology, and cultural resource effects at the proposed treatment plant site and for the improved emergency road similar to the project. This alternative would meet the majority of project objectives including implementing an environmental protection program, installing a wastewater treatment system, continuing low-cost public access to coastal areas, and providing improvements to recreational facilities onsite similar to the project.

6.7 MITIGATED PROJECT ALTERNATIVE

6.7.1 DESCRIPTION

During the initial stages of the environmental review for the project (i.e., NOP, public scoping meeting, and preparation of this Draft EIR), Marin County and the project sponsor were alerted to important issues concerning the project design. These issues mainly focus on the proposed location of the wastewater treatment system in onsite sand dunes and fill of coastal wetlands. The project includes the stabilization of an active portion of the sand dunes for the operation of a leachfield, which could adversely affect the natural movement and replenishment of sands at the site. Further, proposed facilities (e.g., restrooms, trails) could result in the fill of wetlands that are subject to Coastal Act jurisdiction. However, mitigation for the project's potentially significant impacts on sand dune morphology and coastal wetlands requires the relocation of the wastewater treatment facility to a non-sand dune location and relocation of other proposed facilities including foredune trails, restrooms, and water spigots outside of coastal wetlands. This alternative includes all mitigation recommended for the project as described below. With implementation of all project mitigation, all significant impacts except baseline cumulative impacts would be avoided.

The wastewater treatment system would be relocated to the northern portion of the project site as identified in Exhibit 4.6-10. Further, facilities proposed for the main meadow (e.g., trails, restrooms, water spigots) would be relocated a minimum of 100 feet outside of onsite wetlands. Site constraints would require that proposed facilities (e.g., restrooms, trails) be concentrated near the northern portion of the main meadow area near the gatehouse and on or adjacent to existing roadways onsite, or within the existing developed areas of Sand Point. No new restroom facilities would be constructed in the meadow area east of Sand Point. Because of site constraints, this alternative may result in the reduction in the number of restroom facilities constructed at the project site, which is consistent with the concept of centralizing campsites for this alternative.

This alternative would include all other features, elements, and mitigation measures recommended for the proposed master plan including continuation of recreational activities (233 trailers and 200 day users), continuation of agricultural activities, construction of new residences, relocation of the boathouse, connection of onsite travel trailers and facilities to a new wastewater treatment system, construction of two new water storage tanks, and implementation of an environmental education program at the site. Implementation of this alternative would also result in the approval of a master plan and authorization of existing and proposed land uses at the project site, which is consistent with the concept of reducing the number of authorized campsites for this alternative.

In addition to the above, this alternative would reduce by one-quarter the baseline level of camping activities currently allowed in the main meadow area to further reduce baseline project and cumulative impacts to onsite wetlands. Also, a reduced number of campsites would be consistent with the need to decrease the number of restrooms, as described previously. The number of allowable campsites would be reduced to 750 for the Mitigated Project Alternative.

6.7.2 ENVIRONMENTAL ANALYSIS

LAND USE PLANS AND POLICY CONSISTENCY

Because this alternative would avoid the fill of onsite coastal wetlands and the siting of facilities within 100 feet of onsite wetlands, it would be consistent with County policies protecting coastal wetlands. Further, because the proposed wastewater treatment system would be located outside of the onsite sand dunes, it would be consistent with County policies protecting sensitive sand dune habitats. Although this alternative would retain existing land uses at the site, some existing land uses are either unauthorized (i.e., travel trailers), or could be considered inconsistent with relevant policies of the DBCP, the Marin Countywide Plan, and the LCP (e.g., camping in wetlands). Nonetheless, these uses would not result in a significant adverse environmental change to the environment, and with implementation of this alternative, these land uses would be formally recognized by the County. This alternative's policy consistency impacts would be the same as the project.

WATER SUPPLY

This alternative would result in same water supply impacts as the project because it would result in the construction of two new water storage tanks near existing water wells and fire hydrants within the main meadow. These facilities would provide additional fire flow capacity at the project site. Water supply demands would be slightly reduced because of the reduction in the number of allowed campsites; however, these impacts would be less than significant with either the project or this alternative.

WASTEWATER TREATMENT AND DISPOSAL

Under this alternative a new wastewater treatment facility would be constructed in a non-sand dune location as identified on Exhibit 4.6-10. Conveyance pipelines would be constructed to connect the treatment facility to facilities within the main meadow (e.g., restrooms) and at Sand Point (e.g., travel trailers and boathouse). This alternative would result in less-than-significant wastewater treatment and disposal impacts and these impact would be less-than-significant with the project. Overall, this alternative would result in the same wastewater treatment and disposal impacts as the project.

HYDROLOGY AND WATER QUALITY

In general, this alternative would result in the construction of the same project facilities as the project and, therefore, would result in the same area of new impermeable surfaces. Stormwater volumes generated

under this alternative would be the same as the project. Hydrology and water quality impacts associated with this alternative would be the same as the project because the same facilities would be constructed onsite. Further, this alternative would result in the same health benefits as the project because a new wastewater treatment system would be constructed. This alternative would also result in the reconstruction of the existing boathouse, which could result in the contribution of pollutants to onsite stormwater. Implementation of water quality mitigation measures recommended for the project would reduce this impact to a less-than-significant level. Overall, this alternative would result in the same or comparable hydrology and water quality impacts as the project

GEOLOGY AND SOILS

Because this alternative would result in the construction of facilities (e.g., boathouse) in the same locations as the project with mitigation, this alternative would result in the same or comparable geologic hazard impacts (e.g., seismic and liquefaction). This alternative would result in the continuation of existing adverse cumulative fault and tsunami hazard impacts because facilities and trailers would be located within identified fault and tsunami hazard zones.

VISUAL RESOURCES AND NIGHTTIME LIGHTING

This alternative would result in the same project facilities in the same general location. Views of the proposed wastewater treatment system near the ranch complex from offsite locations would not be available because of the elevation of the site and intervening terrain and vegetation. This alternative would result in less-than-significant visual impacts and these impacts would be less-than-significant with the project.

TRANSPORTATION AND CIRCULATION

This alternative would result in the construction of the same transportation improvements as the project; however, baseline operational traffic trips would be reduced because the number of campsites would be reduced. Although the project would not result in any significant traffic impacts with mitigation, this alternative would reduce existing traffic congestion along Cliff Street because of the reduce operational vehicle trips. Therefore, transportation and circulation impacts under this alternative would be less than the project.

AIR QUALITY

Because this alternative would result in the construction of the same facilities on the project site, it would result in the same construction and operational air quality impacts as the project. These impacts would be less than significant with mitigation.

NOISE

Because this alternative would result in the construction of the same facilities on the project site, it would result in the same construction and operational noise impacts as the project. These impacts would be less than significant with mitigation.

LAND USE, AGRICULTURE, AND RECREATION

This alternative would not change the land uses at the project site and existing land uses are consistent with the County's land use and zoning designations for the project site. This would be a less-than-significant impact under this alternative and the project.

CULTURAL RESOURCES

Because this alternative would involve ground-disturbing activities associated with construction activities, this alternative would result in the same impacts to previously undiscovered archaeological resources at the site. This would be a less-than-significant impact with mitigation under this alternative and the project. This alternative would avoid the project's potentially significant impacts to known cultural resources near the proposed leachfield location because this alternative would not construct a leachfield in the onsite sand dunes. However, the project's impacts to known archaeological resources would be reduced to a less-than-significant level through the relocation of the wastewater treatment system and implementation of recommended cultural mitigation. Therefore, this alternative would result in the same cultural resources impacts as the project.

BIOLOGICAL RESOURCES

This alternative would avoid the project's significant impacts to onsite coastal wetlands because project facilities would be constructed in areas that provide a 100-foot minimum buffer from all wetlands. However, the project's impacts would be reduced to a less-than-significant level with mitigation. This alternative would also avoid the project's significant impacts to sensitive dune habitats because no construction or facilities would be located in the onsite sand dunes. However, the project's impacts would be reduced to a less-than-significant level with mitigation. Although not a significant environmental impact of the project, project and cumulative impacts to onsite wetlands would be reduced because the number of campsites would be decreased by 250, thereby reducing camping activities that now occur in onsite wetlands. Overall, this alternative would result in less biological impacts than the project.

SCHOOLS

This alternative would result in the same demands for school facilities and services because it would construct new residences at the site (i.e., mobile home and residence). These impacts would be less-than-significant under this alternative and the project.

POLICE AND FIRE SERVICES

This alternative would result in the same demands for police and fire services because it would continue existing recreational activities at the site at existing uses levels and would construct new residences at the site (i.e., mobile home and residence). These impacts would be less-than-significant under this alternative and the project.

6.7.3 CONCLUSION

The Mitigated Design Alternative would be environmentally superior to the project but would not fully avoid cumulative impacts with existing adverse baseline conditions. It would not result in any significant environmental impacts and would reduce baseline impacts to onsite wetlands and traffic congestion along Cliff Street. In addition, this alternative would meet most, ~~but not all~~ of the project objectives, including implementing an environmental protection program, installing a wastewater treatment system, continuing low-cost public access to coastal areas, and providing improvements to recreational facilities onsite. [However, this alternative would not support the current levels of recreational uses because of the reduced number of allowable campsites to 750.](#)

6.8 MIXED USE PROJECT ALTERNATIVE

6.8.1 DESCRIPTION

Under this alternative, the existing recreational activities at the project site would be changed. Day use activities would be increased to allow 400 day users (2 times the project) and the number of allowable campsites would be reduced to 500 (1/2 of the project). This alternative would also result in the removal of one-half of the travel trailers (117 travel trailers) from Sand Point (116 travel trailers would remain). The existing boathouse and pier facilities would also be eliminated. Cattle and sheep grazing would be restricted to less environmentally sensitive areas in the northern and eastern portion of the project site and would be intensified to the maximum carrying capacity of the grazing lands. One new residence would be constructed near the ranch complex in the northern portion of the project site and would support agricultural operations. Sand quarrying operations would be relocated to a more stable sand dune location and quarry operations would increase consistent with levels approved by the County. A market/gas station/restaurant would be constructed near the gatehouse entrance in an area located outside of onsite wetland and sand dune habitats (Exhibit 6-1). A small 100-room/100-conference seat hotel/motel would be constructed in the northeastern portion of the project site (Exhibit 6-1).

6.8.2 ENVIRONMENTAL ANALYSIS

LAND USE PLANS AND POLICY CONSISTENCY

This alternative would result in an overall reduction in onsite recreational land uses and would intensify existing sand quarrying and agricultural operations. These land uses would be consistent with relevant policies regulating land uses at the project site including policies of the Marin Countywide Plan, DBCP, and the LCP. Because recreational activities would be reduced (e.g., 115 travel trailers, 500 campsites), this alternative would decrease activities that could be considered inconsistent with relevant Marin Countywide, DBCP, and LCP policies (e.g., camping in wetlands). Nonetheless, these activities would not result in any significant environmental impacts because they are considered part of baseline conditions. This alternative would result in less-than-significant policy consistency impacts and these impacts would be less-than-significant with the project.

WATER SUPPLY

This alternative would not result in the construction of new water storage tanks and fire hydrants and would not provide additional fire flow capacity at the project site. Although these facilities would not be constructed, existing water supplies are adequate to serve existing uses and fire flow capacities currently meet the requirements of the Marin County Fire Department. Further, water demands and associated groundwater pumping would be reduced because of the reduction in recreational activities at the project site (e.g., 115 travel trailers, 500 campsites) and the removal of boating and pier facilities.

The hotel/motel and gas station/market/restaurant would result in new water demands. It is uncertain at this time whether existing water wells could adequately serve these facilities. It is likely that because of its close proximity to the main meadow and the reduction in water demands from onsite recreational activities that the existing water wells could serve the gas station/market/restaurant. However, new water facilities would likely be required for the hotel/motel located in the northern portion of the project site. It is uncertain whether water supplies exist to serve this land use. Because of this uncertainty, this alternative would result in a new significant water supply impact and the project's water supply impacts would be less than this alternative.

WASTEWATER TREATMENT AND DISPOSAL

Under this alternative the existing septic systems that serve 117 travel trailers at Sand Point would be properly abandoned and 116 travel trailers would be removed from the site. Although this alternative would continue wastewater treatment demands onsite (at a reduced level) a new wastewater treatment system would not be constructed and the public health benefits associated with the system would not be provided. Existing residences and remaining travel trailers at the site would continue to be served by existing individual onsite wastewater treatment systems. The gas station/market/restaurant and hotel/motel would require the construction of an onsite wastewater treatment system to serve these facilities or these facilities would be required to connect to an offsite treatment system (e.g. Oceana-Marin) the feasibility of which is uncertain at this time. Therefore, this alternative would result in a new potentially significant impact associated with the provision of a long-term reliable wastewater treatment system. It is likely that this impact would be reduced through the implementation of similar mitigation as the project requiring the construction of a wastewater treatment system in a non-sand dune location in the northern portion of the project site. Therefore, this alternative would result in similar wastewater treatment and disposal impacts as the project.

HYDROLOGY AND WATER QUALITY

This alternative would result in removal of structures (i.e., travel trailers) from the project site and would result in an increase in the permeable areas of the project site. As a result, this alternative would provide greater infiltration of stormwater to onsite soils and would result in a decrease in stormwater discharges to Tomales Bay. Although the boathouse and pier facilities would be removed, this alternative could increase potential contaminant discharges and hazardous material releases (e.g. diesel, gasoline) to onsite stormwater as a result of the construction of a gas station near the gatehouse entrance. Operation of a gas station could introduce organic chemical contaminants, including synthetic and volatile organic chemicals, into nearby water sources (e.g. Dillon Creek and Pacific Ocean) and stormwater runoff. This alternative would result in a new potentially significant hydrology and water quality impact and impacts to hydrology and water quality would be greater under this alternative compared to the project.

GEOLOGY AND SOILS

This alternative would not result in any potentially significant project impacts associated with seismic and liquefiable soil conditions at the project site because no new restroom facilities would be constructed in areas subject to liquefaction, flooding, and tsunami hazards. Cumulative tsunami and fault hazard impacts would also be reduced because of the reduce number of campsites. Further, this alternative would not operate the boathouse facility and would remove potential seismic hazards associated with occupation of this facility during business hours. This alternative would intensify sand quarrying operations and would locate these operations in the most stable sand dunes. Extraction of sand from these sand dunes would require the removal of vegetation from the face of the dune, which could potentially alter the stability of the dune. This would be a new potentially significant impact and this alternative would result in greater geologic hazards impacts than the project.

VISUAL RESOURCES AND NIGHTTIME LIGHTING

This alternative would result in the removal of 117 travel trailers at Sand Point. Removal of these trailers would reduce the development density of the site, which could be perceived as a visual improvement from offsite areas. The gas station/market/restaurant would be located near the gatehouse entrance and would be visible from on and offsite areas. Further, this facility would introduce a new source of nighttime light and glare in the local area, which could disrupt existing nighttime views of the project site. The hotel/motel would be located in the northern portion of the project site and would not be visible from

Dillon Beach, Sand Point, or the main meadow areas of the project site. However, like the gas station, this facility would be visible from surrounding offsite areas and would introduce a new source of nighttime lighting and glare to the surrounding area. Further, because of the undeveloped nature of the project site, construction the hotel/motel could significantly intensify land uses resulting in a substantial change in the visual character of the site. Although this alternative would reduce the visual impacts in the Sand Point area because of a reduced number of travel trailers, it could result in new potentially significant visual impacts associated with the hotel/motel and gas station/market/restaurant. Therefore, this alternative would result in greater visual impacts compared to the project.

TRANSPORTATION AND CIRCULATION

Under this alternative, operational traffic trips associated with recreational activities would likely be similar to the project. Although day use activities would increase, camping and travel trailer land uses would decrease resulting in recreational traffic tradeoffs. Operational traffic trips to and from the project site would increase as a result of this alternative because of the proposed gas station/market/restaurant and hotel/motel. These facilities would attract people from the surrounding community likely resulting in a substantial increase in the number of vehicle trips on local roadways. These trips would further exacerbate existing adverse traffic congestion along Cliff Street and Dillon Beach Road and could cause the operation of local roadways to degrade to unacceptable levels. This would be a new significant traffic impact and this alternative would result in greater transportation and circulation impacts than the project.

AIR QUALITY

This alternative would result in similar construction air quality impacts because new facilities (e.g., gas station, hotel) would be constructed at the project site and these construction activities would not generate air emissions that exceed BAAQMD thresholds. Operational impacts associated with recreational activities would be reduced because of the reduced number of campsites and recreational trailers. However, this alternative could result in the emission of toxic air contaminants as a result of operation of a new gas station. This would be a new potentially significant air quality impact and air quality impacts would be greater under this alternative.

NOISE

This alternative would result in construction noise impacts associated with construction of a gas station/market/restaurant and hotel/motel. Mitigation recommended for the project would reduce this impact to a less-than-significant level. Although operational traffic volumes would increase, it is unlikely that this increase would result in a substantial increase in ambient noise levels (e.g., doubling of roadway traffic volumes). Operational noise impacts associated with the gas station/market/restaurant and hotel/mote would not likely result in the exceedance of the County's noise ordinance because of the distance between these facilities and nearby sensitive receptors. Therefore, this alternative would result in less-than-significant noise impacts and these impacts would be less-than-significant with the project.

LAND USE, AGRICULTURE, AND RECREATION

This alternative would continue recreational uses at the site and would continue existing agricultural uses at the project site. Agricultural uses would be increased to the maximum carrying capacity of grazing lands and these activities are allowable under existing County land use plan and zoning designations for the site. Sand quarrying operations would be relocated and would be intensified consistent with conditional use permits for these activities. Therefore, this alternative would result in less-than-significant land use impacts and these impacts would be less than significant with implementation of the project.

CULTURAL RESOURCES

This alternative would involve minor ground disturbances associated with the construction activities which could involve potential impacts to unidentified underground archaeological and historic resources. Mitigation recommended for the project would reduce this impact to a less-than-significant level. This alternative would avoid the projects potentially significant impacts to known archaeological resources; however, these impacts would be reduced to a less-than-significant level with implementation of recommended mitigation.

BIOLOGICAL RESOURCES

The construction of the new owner's residence would be placed in an area outside wetlands and would not be in a location that would have adverse impacts to sensitive habitats or species. Agricultural activities (e.g., cattle grazing) would be restricted to the northern and eastern areas of the project site and baseline impacts to onsite wetlands would be reduced. Because of the reduced number of campsites, project and cumulative wetland impacts would be further reduced. However, this would be a less-than significant impact under the project. Sand quarry operations would be relocated to more stable sand dune location and intensified. The location of sand dune activities could result in adverse impacts to sensitive species and habitats. This would be a new significant impact. Therefore, this alternative would result in greater biological impacts.

SCHOOLS

This alternative would result in reduced demands for school facilities and services because it would result in the construction of only one residence the project site. School facilities and services impacts would be less than significant under this alternative and the project.

POLICE AND FIRE SERVICES

This alternative would result in comparable police and fire service impacts. While it would reduce police and fire demands as a result of the overall reduction in recreational land uses, it would increase demands associated with the gas station/market/restaurant and hotel/motel. Overall, this alternative would result in similar police and fire services impacts.

6.8.3 CONCLUSION

The Mixed Use Alternative would not be environmentally superior to the project or other alternatives. It would result in new potentially significant water supply, wastewater treatment and disposal, geology and soils, hydrology and water quality, air quality, and biological resources impacts from new facilities or increased uses onsite. ~~This alternative would not meet most~~ While it would meet the intention of most of the project objectives, ~~it would not~~ ~~including~~ implementing an environmental protection program, installing a wastewater treatment system, and providing improvements to recreational facilities onsite.

6.9 OFFSITE PROJECT ALTERNATIVE

6.9.1 DESCRIPTION

In determining whether alternative locations for the project need to be considered in an EIR, State CEQA Guidelines §15126.6(2) (A) provides:

The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

Most of the significant environmental effects of the project would be expected to occur regardless of the project's location. Exceptions include potentially significant impacts to known onsite archaeological resources. For this significant impact, however, mitigation is available to reduce this impact to a less-than-significant level, and an alternative location would not substantially lessen the level of significance after implementation of the mitigation measures.

In determining whether alternative locations for the project need to be considered in the EIR, State CEQA Guidelines §15126.6(2) (B) also states, "if the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR." With respect to assessing feasibility of alternatives, State CEQA Guidelines §15126.6(1) provides:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site.

To attain the basic objectives of the project, the project would need to be at Lawson's Landing (construction of wastewater treatment facility, improvements to recreational opportunities, continuation of agricultural activities including sand quarrying, and protection of sensitive wildlife species and sand dunes). These basic objectives would be difficult to achieve at a location outside of Lawson's Landing. Further, there are no sites within the region that are of sufficient size or location (i.e., along the Pacific coast) to accommodate a project that would not result in most, if not more, of the significant impacts that could occur with the project.

The Lawson's Landing site represents the only major land area in the Dillon Beach area that is capable of supporting the mix of uses that would meet the project objectives. Because the California coast incorporates very few private recreational facilities that provide similar types of recreational opportunities as those available at Lawson's Landing, the project site itself is unique and relocating the project to an offsite location would remove the unique recreational opportunities that currently exist.

Given the lack of properties available to meet project objectives, the use of an alternative site for implementation of the project would not be feasible. Accordingly, no further analysis of alternative sites is provided in this EIR in compliance with the State CEQA Guidelines.

6.10 ALTERNATIVES PREVIOUSLY CONSIDERED AND REJECTED

As discussed in Section 6.1 (Introduction to Alternatives Analysis), State CEQA Guidelines §15126.6(c) provides that an EIR "should also identify any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination." No such alternatives exist.

6.11 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Reduced Project Alternative would be environmentally superior to the project and to all other alternatives and would meet most, but not all, project objectives. This alternative would not result in any

significant environmental impacts and would reduce, but not to a less-than-significant level, existing baseline cumulative impacts to onsite wetlands, fault hazards, tsunami hazards, and traffic congestion along Cliff Street through a reduction in the number of campsites. All other elements of the master plan would be implemented under this alternative.