

Marin Countywide Plan

Board of Supervisors Hearing Draft October 2007

Marin County Board of Supervisors

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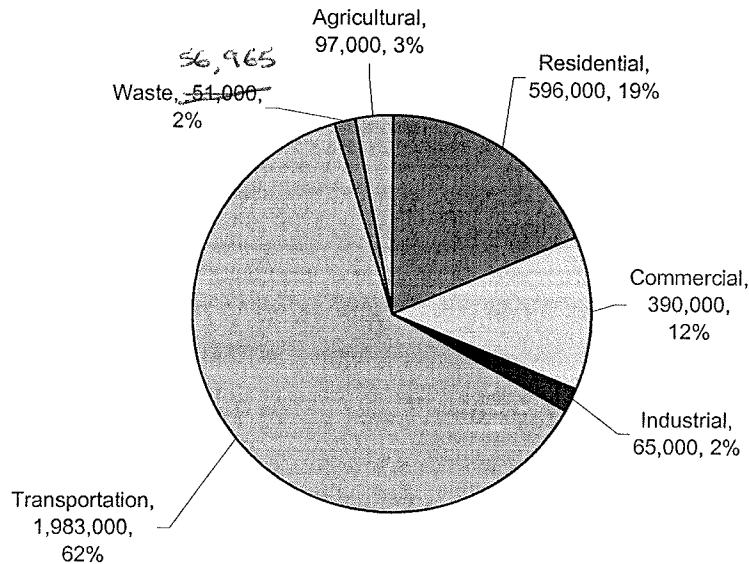
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INTRODUCTION

Figure I-2 Countywide Greenhouse Gas Emissions*, 2005



*Tons eCO₂ and percent by sector.
Source: 2007 Marin County CDA.

Resource Use

Research about ecological sustainability increasingly indicates that the worldwide use of resources is exceeding the earth's capacity to renew them. This is driven largely by energy and materials consumption in the United States and other industrialized nations, and, more recently, by increased levels in developing nations. *The Living Planet Report*, issued in 2004 by the World Wildlife Fund, describes how in the past 30 years human demand on natural resources has increased 160 percent while the health of natural systems (as measured by loss of wild species populations) has declined 40 percent.



"In today's world . . . we need to be sensitive to the concerns of others. . . . No one can afford to think in purely local terms."

—Kofi Annan



NATURAL SYSTEMS & AGRICULTURE ELEMENT

protected species such as the Tiburon mariposa lily, the Tiburon Indian paintbrush, and the Marin western flax.

Not all special-status species receive adequate protection. The Department of Fish and Game Natural Diversity Data Base does not closely monitor at least 35 species reported locally that meet special-status criteria, and mapping is limited to known occurrences and does not identify all areas in which special-status species are present. Regulatory standards are generally not available to define appropriate development setbacks necessary to protect sensitive resources, requiring site-specific protective measures.

Natural communities, habitats, and corridors essential to wildlife health and movement and plant dispersal are vulnerable. Intensive development and inadequate buffers threaten streams, shorelines, wetlands, and protected open space lands. Riparian corridors, marshlands, and wetlands can be altered by filling, draining, removal of vegetative cover, and other modifications, eliminating their habitat values and functions. Wetlands and other sensitive resources can also be indirectly affected by development as a result of water quality degradation, lighting, introduction and spread of invasive exotic species, and increased activity of humans and pets.

Oak woodlands are threatened by Sudden Oak Death, development, and poor land management. Since its initial detection in the mid-1990s in Blithedale Canyon in Mill Valley, Sudden Oak Death (see Map 2-6, Sudden Oak Death) has had a major impact on native habitats in Marin. The pathogen believed to be a major cause of Sudden Oak Death, *Phytophthora ramorum*, is known to affect at least 31 species of plants. Studies of the cause and treatment of this disease, and management of woodlands to reduce the fire hazard posed by dead trees while still protecting habitat for special-status species and other wildlife, are all necessary in addressing the impacts of this disease. Oak woodland and savannah are also threatened by development. Indiscriminate development and poor land management practices, such as removal of native tree cover, filling of creeks and wetlands, and use of pesticides and herbicides, can contribute to further degradation of woodlands and other vital native habitat.

Development is encroaching on baylands and limiting the potential for restoration of historic diked and tidal areas. Major opportunities for preservation and enhancement of the baylands ecosystem in Marin exist north of Point San Pedro where a wide, continuous band of diked and tidal marsh stretches along the shores of China Camp State Park north to San Antonio Creek and along the Gallinas and Novato creek corridors. Threatened marshland complexes also fringe the Corte Madera shoreline and the west end of Richardson Bay.

Future development may further impact public lands where it is proximate to sensitive habitat on public lands. Inappropriate development could, for example, fragment habitat or negatively impact adjacent sites. The Countywide Plan establishes or reaffirms policies that protect natural resources on and adjacent to public lands. For instance, the Ridge and Upland Greenbelt, Wetlands Conservation Area, Streamside Conservation Area, and Baylands policies all strive to limit impacts on sensitive sites and, by extension, public lands adjacent to them.



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- BIO-1.8 Restrict Use of Herbicides, Insecticides, and Similar Materials.** Encourage the use of integrated pest management and organic practices to manage pests with the least possible hazard to the environment. Restrict the use of insecticides, herbicides, or any toxic chemical substance in sensitive habitats, except when an emergency has been declared; the habitat itself is threatened; a substantial risk to public health and safety exists, including maintenance for flood control; or when such use is authorized pursuant to a permit issued by the agricultural commissioner. Encourage nontoxic strategies for pest control, such as habitat management using physical and biological controls, as an alternative to chemical treatment, and allow use of toxic chemical substances only after other approaches have been tried and determined unsuccessful. Continue to implement the Integrated Pest Management ordinance for county-related operations.
- BIO-1.9 Control Spread of Non-Native Invasive Animal Species.** Work with landowners, the Marin County Open Space District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the National Invasive Species Council, Point Reyes National Seashore, and other agencies and organizations to control and prevent the spread of non-native, invasive animal species. Species of particular concern include: introduced red fox (*Vulpes vulpes*), Chinese mitten crab (*Eriocheir sinensis*), bullfrog (*Rana catesbeiana*), and wild boar (*Sus scrofa*), among others. Wild turkey (*Meleagris gallopavo*) is also a non-native species of increasing abundance and concern in the County, which requires careful management to prevent adverse impacts on native habitat.

Why is this important?

Sustaining native habitat secures essential habitat for special-status species and protects the remaining sensitive natural communities, wetlands, and other important biological resources in the county.

Environment: An estimated 47% of the county has been developed with urban, suburban residential, and agricultural uses, and anticipated future development continues to threaten the remaining native habitat and associated biodiversity. Adequate protection and effective management is essential to sustaining the health of the remaining natural areas.

Economy: Preserving and enhancing native habitat contributes to healthy working and living conditions, provides a continuing draw for tourism and recreational industries, and stimulates related economic investment opportunities.

Equity: Sustainable and diverse native habitat benefits the human population by contributing to healthy living conditions, providing a place for outdoor recreation and enjoyment, helping to clean water by filtering urban pollutants, stabilizing hillside slopes, and preserving environmental beauty and diversity for present and future generations.



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Policies

BIO-3.1

Protect Wetlands. Require development to avoid wetland areas so that the existing wetlands and upland buffers are preserved and opportunities for enhancement are retained (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). Establish a Wetland Conservation Area (WCA) for jurisdictional wetlands to be retained, which includes the protected wetland and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. Larger setback standards may apply to wetlands supporting special-status species or associated with riparian systems and baylands under tidal influence, given the importance of protecting the larger ecosystems for these habitat types as called for under Stream Conservation and Baylands Conservation policies defined in Policy BIO-4.1 and BIO-5.1, respectively. Regardless of parcel size, a site assessment is required either where incursion into a WCA is proposed or where full compliance with all WCA criteria would not be met. Employ the following criteria when evaluating development projects that may impact wetland areas (see Figure 2-1):

City-Centered Corridor:

- ◆ For parcels more than 2 acres in size, a minimum 100-foot development setback from wetlands is required.
- ◆ For parcels between 2 and 0.5 acres in size, a minimum 50-foot development setback from wetlands is required.
- ◆ For parcels less than 0.5 acres in size, a minimum 20-foot development setback from wetlands is required. The developed portion(s) of parcels (less than 0.5 acres in size) located behind an existing authorized flood control levee or dike are not subject to a development setback.
- ◆ Regardless of parcel size, an additional buffer may be required based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, *Require Site Assessment*.

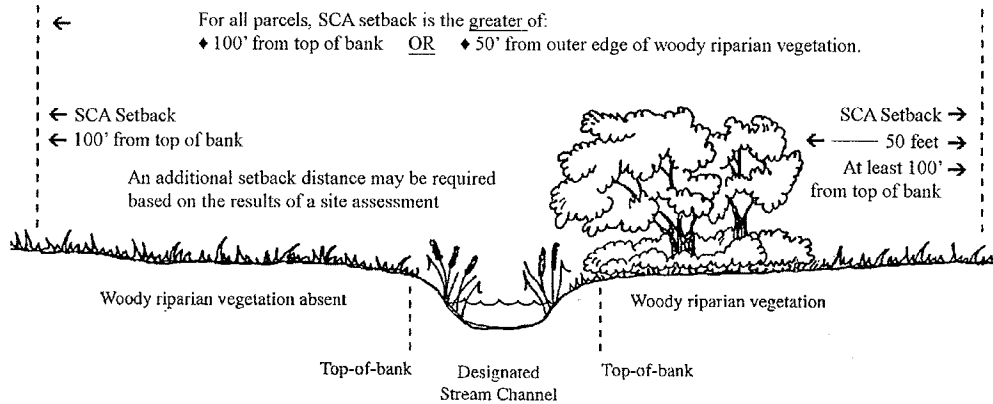
Coastal, Inland Rural, and Baylands Corridors:

- ◆ For all parcels, provide a minimum 100-foot development setback from wetlands (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). An additional buffer may be required, based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, *Require Site Assessment*.



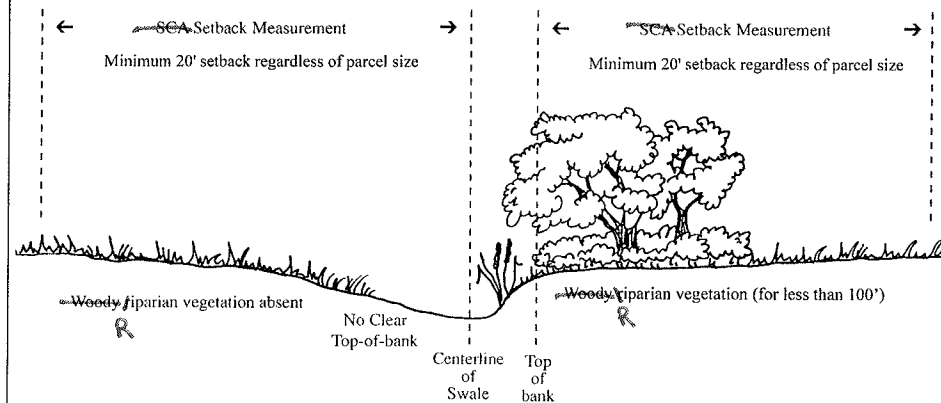
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Coastal, Inland Rural, and Baylands Corridors



- ♦ For all parcels, minimum setback distance is 50 feet from outer edge of woody riparian vegetation but no less than 100 feet from top of bank, unless an exception is allowed because parcel falls entirely within SCA, or development outside SCA is either infeasible or would have greater impacts.
- ♦ An additional setback distance may be required, based on the results of a site assessment, if such an assessment is determined to be necessary.
- ♦ Regardless of parcel size, a site assessment is required where incursion into an SCA is proposed and where full compliance with all SCA criteria would not be met.

Setback Measurement for Ephemeral Streams Not Otherwise Subject to SCA Setbacks



An ephemeral stream is subject to the SCA setbacks if it (a) supports riparian vegetation for a length of 100 feet or more, and/or (b) supports special status species and/or a sensitive natural community type (such as native grasslands).



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PFS-2.p in the Public Facilities and Services Section of the Built Environment Element.)

- WR-2.d** *Continue Alternative Septic/Waste System Monitoring.* Establish a Septic/Waste Alternatives Maintenance and Inspection Program to ensure the proper installation, maintenance and use of alternative septic systems. Work with manufacturers, suppliers and installers to provide guidelines for approvable alternative septic/waste systems.
- WR-2.e** *Continue Providing High-Priority Inspections.* Continue providing no-cost inspections of on-site wastewater systems if funds are available and make improvement recommendations to decrease impacts of high-priority systems near waterways.
- WR-2.f** *Continue Alternative Septic System Monitoring.* Conduct alternative septic system inspections and participate in manufacturer feedback regarding efficacy of the systems.
- WR-2.g** *Inspect Septage Haulers.* Review reports from septage haulers and assure compliance with health and safety requirements.
- WR-2.h** *Pursue Establishment of Marshall Additional County Service Areas.* ~~Pursue eEstablishment of a Marshall County Service Area~~ to relocate septic systems away from Tomales Bay, and to ~~instigate establish~~ septic monitoring of on-site septic systems in a risk based, comprehensive and cost effective manner. The proposed boundary of the County Service Area should include the entire East Shore planning area. Additional County Service Areas should include the rural communities of Tomales and Nicasio. In addition to wastewater services, County service areas should provide water supply services.
- WR-2.i** *Establish a Septic Inspection, Monitoring and Maintenance District.* Establish a countywide Septic Inspection, Monitoring and Maintenance District that would include all or portions of unincorporated areas with septic systems. Modify applicable codes to enable the inspection and monitoring of on-site septic systems in a risk-based, comprehensive and cost effective way. Establishment requires a petition or election to put the district in place.
- WR-2.j** *Continue Public Outreach Regarding Toxic Chemical Use.* Continue to educate homeowners, the public, businesses, and agricultural operators about toxicity issues related to use of pesticides, cleaning agents, and other commonly used chemicals through the Marin County Stormwater Pollution Prevention Program.
- WR-2.k** *Establish Educational Partnerships to Protect Water Quality.* Initiate discussions with the Regional Water Quality Control Board, Marin Resource Conservation District, University of California Cooperative Extension, Natural Resources Conservation Service, Marin County Stormwater Pollution Prevention Program, watershed groups, the public, stakeholders and other interested parties to develop and implement public education programs and provide technical assistance to find alternatives and minimize



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pretreatment drip dispersal septic systems, graywater systems, composting toilets, waterless urinals, and other techniques – and community systems to help reduce the potential for contaminants to pollute water bodies and create human health hazards. Continue to allow carefully monitored demonstration projects for experimental systems to ensure consistency with local public health protection standards. Revise the appropriate codes to permit technologies and practices that prove safe and effective. (Also see Program PFS-2.p in the Public Facilities and Services Section of the Built Environment Element.)

- WR-2.d *Continue Alternative Septic/Waste System Monitoring.* Establish a Septic/Waste Alternatives Maintenance and Inspection Program to ensure the proper installation, maintenance, and use of alternative septic systems. Work with manufacturers, suppliers, and installers to provide guidelines for approvable alternative septic/waste systems.
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- WR-2.g *Inspect Septage Haulers.* Review reports from septage haulers, and ensure compliance with health and safety requirements.
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- WR-2.k *Establish Educational Partnerships to Protect Water Quality.* Initiate discussions with the Regional Water Quality Control Board, Marin Resource Conservation District, University of California Cooperative Extension, Natural Resources Conservation



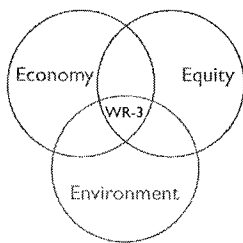
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agencies to educate boaters and other recreational groups regarding proper management and disposal of human waste.

- WR-2.l** *Implement County Ordinances.* Continue to implement County ordinances addressing nonpoint source pollution, erosion and sediment control, and surface runoff pollution control plans to ensure that project related and cumulative impacts to water quality standards are minimized or avoided through conditions of project approval as required by the ordinances.
- WR-2.m** *Non-Toxic Building Materials Standards.* Consider adoption of standards for non-toxic exterior building materials to reduce the potential of toxics entering stormwater.
- WR-2.n** *Implement Least Toxic Methods for Maintenance and Pest Control.* Utilize Integrated Pest Management (IPM) practices for County facilities. Develop a maintenance program for all County facilities that specifies least toxic methods. Minimize the need for toxic materials by designing and constructing facilities and landscaping to be durable, easily maintained and pest resistant.
- WR-2.o** *Establish a Groundwater Monitoring Program for Unincorporated County Areas.* Establish a countywide groundwater monitoring program that would include all or portions of unincorporated areas that use groundwater. Conduct periodic water level measuring and water quality sampling with regular reporting (at least annual) to the Board of Supervisors.

What Are the Desired Outcomes?

Goal WR-3



Adequate Water for Wildlife and Humans. Ensure that the available supply of surface and ground water is used responsibly, so that the needs of both wildlife and human populations are met.

Policies

WR-3.1 Conserve Water and Develop New Sustainable Sources. Reduce the waste of potable water through efficient technologies, conservation efforts, design and management practices, and by better matching the source and quality of water to the user's needs.

- WR-3.2 Mitigate Water Demand in New Development.** Assess and mitigate the impacts of new development on potable water supplies and water available for wildlife.



Potable Water. Because of the hilly terrain and dry climate in Marin, providing clean water to county residents requires a large amount of energy. The water consumed each year by a family of four in Marin has an energy footprint larger than half a football field.

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WR-3.b

Support and Integrate Water District Conservation Efforts. Assist the efforts of the water districts to reduce waste and increase reuse through integrated planning of programs and complementary land use and building regulations. Assess and remove barriers to integrated water planning, and mitigate the demand for water in new development. Assess the degree of demand hardening. (Also see policies and programs under Goals AG-1 in the Agriculture and Food Section of this Element, and PFS-2 in the Public Facilities and Services Section of the Built Environment Element).

of water and wastewater



NATURAL SYSTEMS & AGRICULTURE ELEMENT

Programs	Responsibility	Potential Funding	Priority	Time Frame
WR-1.d – Coordinate Watershed Efforts.	MCSTOPP, Agricultural Commissioner UCCE-FA	Existing budget and may require additional grants or revenues*	High	Ongoing
WR-1.e – Require Restoration of Degraded Areas.	CDA, Agricultural Commissioner, Resource Protection Agencies	Existing budget	High	Ongoing
WR-1.f – Require Stream Restoration Projects.	CDA, Resource Protection Agencies	Existing budget	High	Ongoing
WR-2.a – Participate in Updating Standards.	RWQCB, MCSTOPP, CDA	Existing budget	High	Ongoing
WR-2.b – Integrate Bay Area Stormwater Management Agencies Association (BASMAA) Stormwater Quality Protection Guidelines into Permitting Requirements for All Development and Construction Activities.	CDA, MCSTOPP	Existing budget	Medium	Ongoing
WR-2.c – Research and Implement Safe and Effective Alternative Waste Options.	CDA, RWQCB	Existing budget	Medium	Ongoing
WR-2.d – Continue Alternative Septic/Waste System Monitoring.	CDA	Existing budget and may require additional grants or revenues*	High	Med. term
WR-2.e – Continue Providing High-Priority Inspections.	CDA	Acquire Additional Funding	High	Ongoing
WR-2.f – Continue Alternative Septic System Monitoring.	CDA	Existing budget	Medium	Ongoing
WR-2.g – Inspect Septage Haulers.	CDA	Will require additional grants or other revenue*	Low	Ongoing
WR-2.h – Pursue/Continue Establishment of Marshall County Service Area.	CDA, CAO	Assessments and may require additional grants or revenues*	High	Ongoing
WR-2.i – Establish a Septic Inspection, Monitoring and Maintenance District.	EHS, CAO	Assessments and may require additional grants or revenues*	High	Ongoing

*Note: timeframes revised from Immediate (0-1yrs) To: (0-1 yrs)
 short-term (1-3yrs) (1-4 yrs)
 med-term (3-5yrs) (4-7 yrs)
 long-term (over 5yrs) (over 7 yrs)



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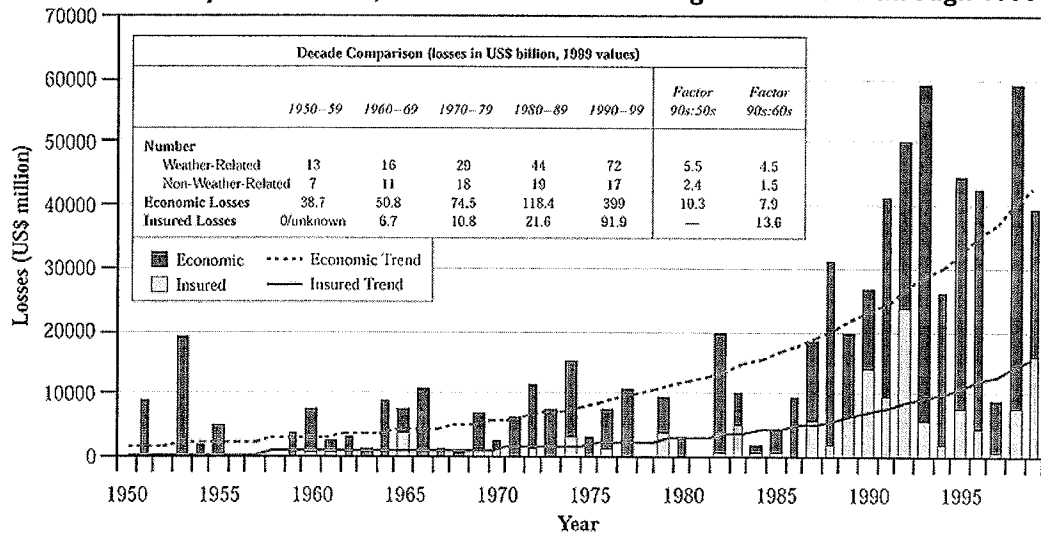
Programs	Responsibility	Potential Funding	Priority	Time Frame
WR-2.j - Continue Public Outreach Regarding Toxic Chemical Use.	DPW	Will require additional grants or other revenue ²	TBD	Long term
WR-2.k - Establish Educational Partnerships to Protect Water Quality.	DPW (MCSTOPP) UCCE-FA	Will require additional grants or other revenue ²	TBD	Long term
WR-2.l - Implement County Ordinances.	MCSTOPP, cities and towns	MCSTOPP funds, city and town funds	High	Ongoing
WR-2.m - Nontoxic Building Materials Standards.	CDA	Existing budget, and may require additional grants or revenues ²	Medium	Med. term
WR-2.n - Implement Least Toxic Methods for Maintenance and Pest Control.	DPW, Parks, Agricultural Commissioner	Existing budget, and may require additional grants or revenues ²	High	Ongoing
WR-2.o - Establish a Groundwater Monitoring Program for Unincorporated County Areas.	CDA, water districts	will require additional grants or revenue	Medium	Med. term
WR-3.a - Support Water Conservation Efforts.	Water districts, CDA, Agricultural Commissioner, UCCE-FA	Existing budget, and may require additional grants or revenues ²	High	Ongoing
WR-3.b - Support and Integrate Water District Conservation Efforts.	Water districts, CDA	Existing budget, and may require additional grants or revenues ²	Medium	Ongoing

UCCE-FA: University of California Cooperative Extension, FA: Farm Advisor



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Figure 2-12
Cost to Society of Insurable, Weather-Related Damages from 1950 through 1999



Source: International Panel on Climate Change, 2001.

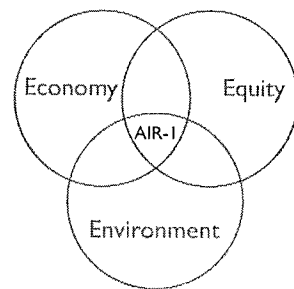
What are the desired outcomes?

GOAL AIR-I

Improved Regional Air Quality. Promote planning and programs that result in the reduction of airborne pollutants measured within the county and the Bay Area.

Policies

- AIR-1.1** **Coordinate Planning and Evaluation Efforts.** Coordinate air quality planning efforts with local, regional, and State agencies, and evaluate the air quality impacts of proposed plans and development projects.
- AIR-1.2** **Meet Air Quality Standards.** Seek to attain or exceed the more stringent of federal or State Ambient Air Quality Standards for each measured pollutant (Figure 2-13).
- AIR-1.3** **Require Mitigation of Air Quality Impacts.** Require projects that generate potentially significant levels of air pollutants, such as quarry, landfill operations, or large construction projects, to incorporate best available air quality mitigation in the project design.





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Economy: Trails are enjoyed on foot, bicycle, and horse. These activities make substantial contributions to Marin's economy. For example, in the fall of 2000, there were almost 3,400 horses in Marin County and an estimated 4,400 equestrians. Equestrian activity had a direct economic impact in Marin amounting to \$97.1 million in 2000. When indirect effects were taken into account, the contribution of equestrian activity to the total Marin County economy was \$155 million. (Source: Carlos A. Benito and Kathleen R. Sundin, *Economic and Social Value of Marin County Equestrian Activities*, Sonoma State University Economics Department, July 2001.)

Equity: Access to open space enhances the public's appreciation of and respect for these lands and their resources, especially when visitors are provided with informative interpretive materials and programs. The Open Space District's interpretive naturalist program offers nearly 100 interpretive outings annually. The outings are free and occur on other federal, State, and district and other local park and open space lands in Marin.

How will results be achieved?

Implementing Programs

- TRL-1.a ***Maintain Marin Countywide Plan Trails Maps.*** Periodically update maps that show existing and proposed public trails throughout the county. The maps should
- ◆ use distinctive symbols to indicate whether a trail is existing or proposed;
 - ◆ be developed with state-of-the art technology; and
 - ◆ include trails owned or managed by local, State, and federal agencies.
- TRL-1.b ***Designate Trail Use Consistent with Agency Missions.*** Develop criteria to determine public use of trails consistent with each agency's mission and policies.
- TRL-1.c ***Obtain Lawful Public Access Across Private Lands.*** Strive to secure public access rights to proposed public trails crossing private land.
- TRL-1.d ***Establish Regional Trail Connections.*** Strive to complete regional trail systems in Marin County, including the Bay Area Ridge Trail, the San Francisco Bay Trail, and the California State Coastal Trail.
- TRL-1.e ***Explore Funding for Trail Acquisition.*** Consider developing or supporting legislation to assist trail acquisition. Consider public and private funding sources, including private endowments and bequests.
- TRL-1.f ***Prioritize Trails for Acquisition.*** Agencies should strive to identify their respective trail acquisition priorities and work collaboratively to acquire trails of mutual interest.
- TRL-1.g ***Evaluate Proposed Development for Trail Impacts.*** Review development proposals for consistency with the Marin Countywide Trails Plan and/or local community plan(s). Encourage project sponsors to grant trail easements and/or improve trails on lands traversed by proposed trail connections shown on the adopted Marin Countywide



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Agricultural Review Board should also be requested to periodically review and evaluate the effectiveness of the Agricultural Production and Stewardship Plan program.

- AG-1.c ***Encourage Merger of Parcels on Lands Protected by Agricultural Conservation Easements.*** Agricultural conservation easements should include, but not be limited to, merger of contiguously owned agricultural lands where proper findings can be made.
- AG-1.d ***Standardize Conservation Easements.*** Modify the format for agricultural conservation easements accepted and held by the County to match that of the Marin Agricultural Land Trust to ensure that County agricultural conservation easements meet current industry standards.
- AG-1.e ***Facilitate Land Conservation Contracts.*** Encourage agricultural landowners to contract with the County on a voluntary basis through Williamson Act and Farmland Security Zone procedures to restrict the use of their land in exchange for taxation of the land based on agricultural use. Strengthen future Williamson Act contracts by prohibiting subdivision of the land for the duration of these contracts.
- AG-1.f ***Review the TDR Program.*** Evaluate the potential for an expanded Transfer of Development Rights program to achieve effective protection of agricultural lands and the viability of existing agricultural operations. The Community Development Agency in collaboration with the Marin Agricultural Land Trust will seek funding to prepare a feasibility study to include, but not be limited to, the following:
- Evaluate the potential for donor and receiver sites within the unincorporated county, as well as consider the feasibility of potential receiver sites within cities and towns in Marin.
 - Identify possible criteria for identifying donor and receiver sites and recommend procedures for the resale and transfer of purchased residential development rights.
 - Evaluate the feasibility of the Marin Agricultural Land Trust or another nonprofit entity to administer or participate in an expanded program.
 - The feasibility study should be prepared by qualified consultants with expertise in developing and implementing TDR programs.
- AG-1.g ***Revise Agricultural Zoning Districts.*** Modify existing agricultural zoning districts to create a more uniform approach to preservation of agricultural lands, development standards, and allowance of ancillary and compatible non-agricultural uses, and to limit incompatible non-agricultural commercial uses. The principal use of agriculturally zoned land shall be agricultural production, with non-agricultural uses limited to necessary residential uses and compatible ancillary uses that enhance farm income.
- Consolidate suitable agricultural lands in the Inland Rural Corridor into a strengthened agricultural zoning district similar to the Agricultural Production Zoning District, and

The above information may also be developed in conjunction with the processing of a TDR project pursuant to the Marin County Development Code.

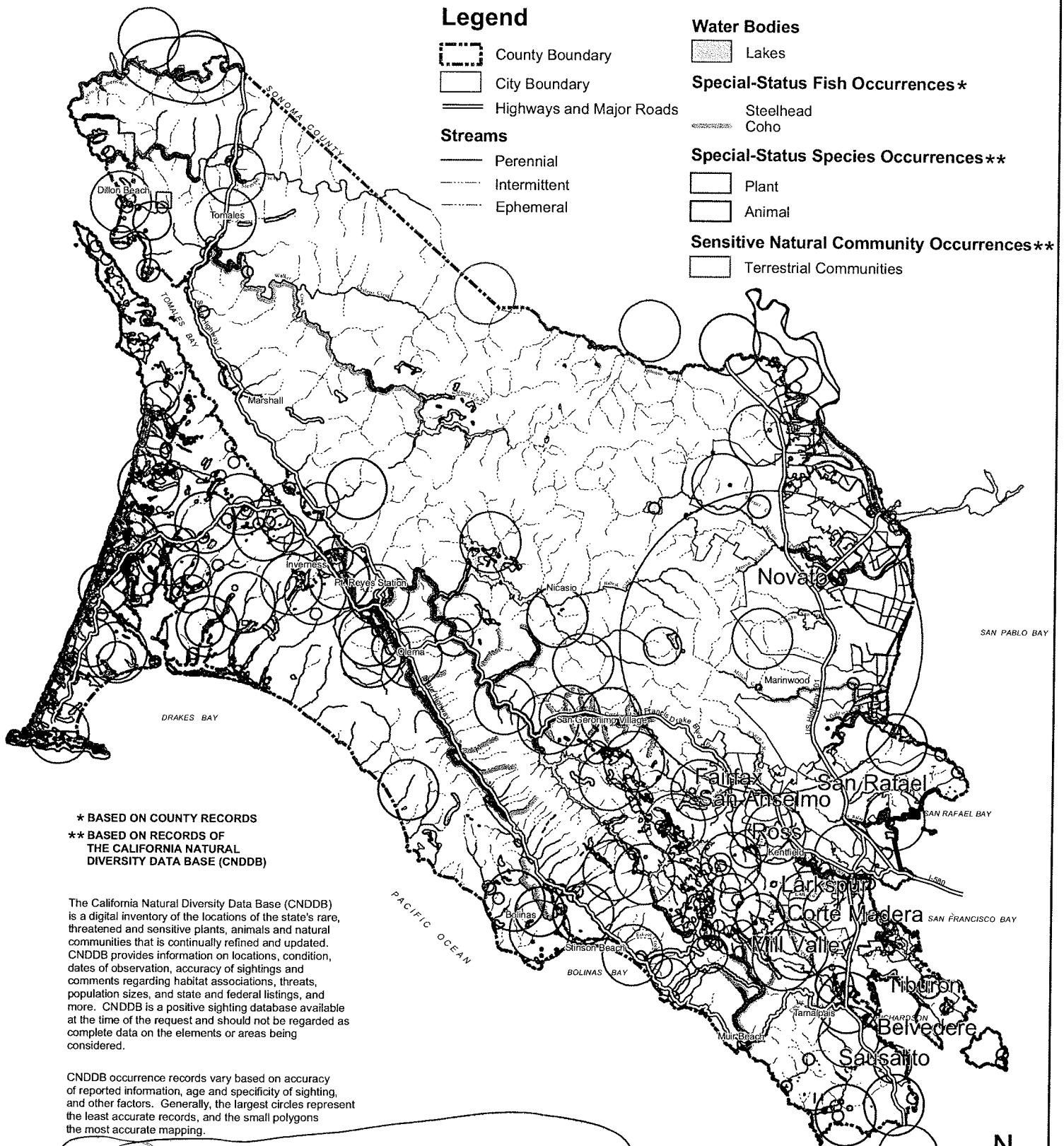


MARIN COUNTYWIDE PLAN

Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-1.e – Facilitate Land Conservation Contracts.	CDA, Assessor's Office	Existing budget	Low	Med. term
→ AG-1.f – Review the TDR Program.	CDA	Existing budget and may require additional grants or revenues ²	Low Medium	Med. Short
AG-1.g – Revise Agricultural Zoning Districts.	CDA	Existing budget and may require additional grants or revenues ²	High	Med. term
AG-1.h – Assess ARP Zoning.	CDA	Existing budget and may require additional grants or revenues ²	Medium	Long term
AG-1.i – Assess Density in Agricultural Districts.	CDA	Existing budget	Medium	Long term
AG-1.j – Uphold Right-to-Farm Ordinance.	CDA or Agricultural Commissioner	Existing budget	High	Ongoing
AG-1.k – Define Non-Agricultural Ancillary Uses.	CDA, UCCE-FA	Existing budget	High	Immediate
AG-1.l – Preserve Agricultural Lands and Uses.	CDA, Assessor's Office, MALT	Existing budget	High	Ongoing
AG-1.m – Encourage Agricultural Leasing.	CDA or Agricultural Commissioner, UCCE-FA	Existing budget	High	Ongoing
AG-1.n – Standardize Sustainable Agricultural Indicators.	Agricultural Commissioner, UCCE-FA	Existing budget	High	Med. term
AG-1.o – Map Important Soils.	NRCS, CDA, UCCE-FA, Agricultural Commissioner	Existing budget and may require additional grants or revenues ²	High	Immediate
AG-1.p – Evaluate Small-Scale Water Development.	Agricultural Commissioner, UCCE-FA, Water Districts, RCD	Existing budget and may require additional grants or revenues ²	Medium	Med. term
AG-1.q – Support Irrigation Alternatives.	Agricultural Commissioner, UCCE-FA, Water Districts, RCD	Existing budget and may require additional grants or revenues ²	Medium	Long term
AG-1.r – Provide Agricultural Industry Support.	Agricultural Commissioner, UCCE-FA	Will require additional grants or revenues ²	Medium	Long term

²Completion of this task is dependent on acquiring additional funding. Consequently, funding availability could lengthen or shorten the time frame and ultimate implementation of this program.

MAP 2-2 SPECIAL-STATUS SPECIES AND SENSITIVE NATURAL COMMUNITIES



Add link: <http://nrm.dfg.ca.gov/cnddb/default.aspx>

SOURCE: Modified from California Department of Fish & Game California Natural Diversity Data Base. Additional information available at: www.dfg.ca.gov

0 1 2 4 6 8 Miles

THIS MAP WAS DEVELOPED FOR GENERAL PLAN PURPOSES. THE COUNTY OF MARIN IS NOT RESPONSIBLE OR LIABLE FOR USE OF THIS MAP BEYOND ITS INTENDED PURPOSE.

Date: February 5, 2007

File: CNDDDB_2-2.mxd



BUILT ENVIRONMENT ELEMENT

3.3 Framework

The Vision: In the 21st century Marin will be a place where lifestyle and sustainable development practice will actually decrease traffic congestion and dependence on fossil fuels, while design practices will enhance the appearance and character of each community. Residents will be able to live close to public transit and to the places they go for work, shopping, education, and recreation. Local roadways will not be gridlocked, and neighborhoods and commercial centers will have easy access to multimodal transportation options.

Buildings will be constructed with environmentally friendly materials and will be heated, cooled, and powered by renewable energy. Housing choices will be more affordable to the full range of the workforce, families, individuals, elderly, and minorities. Housing opportunities will include mixed-use villages in downtowns, above parking lots, in commercial areas, and near community gathering places and transit. Land use patterns and sensitive community design will continue to foster a strong sense of place and pride. Marin County will be a leader in sustainability and local cities and towns will embrace similar sustainable development strategies.

Topics in the Built Environment Element include the following:

Community Development (see Section 3.4): This section of the Countywide Plan addresses coordination of planning, service provision, and growth management with local jurisdictions and regional, State, and federal agencies. It includes land use designations and allowable types, densities, and intensities of development in all unincorporated areas of the county.

Community Design (see Section 3.5): Much of the development in the last 30 years has consisted of low density, single family houses not within easy walking distance of shops, schools, or parks, and of low density, single-use office and retail buildings surrounded by parking lots. With the high cost of land and growing concern about traffic and air quality, a clear need has emerged for more compact urban pedestrian-oriented development. This section encourages making neighborhoods walkable by designing streets with the needs of pedestrians and bicyclists in mind, and through mixed-use and infill development. Preservation of views, as well as visual quality and design issues are also addressed.

Energy and Green Building (see Section 3.6): The manner in which the built environment is designed, constructed, and operated has a significant impact on energy use. Built environment design decisions of every scale — region, city, neighborhood, block, street, and building — determine the rate at which people use energy in their daily lives. Marin's energy future, addressed in this section, includes actions to reduce energy and resource consumption, increase the use of energy efficient design and green building materials, obtain funding for energy conserving projects, and increase public education about the need to conserve and recycle resources.

Mineral Resources (see Section 3.7): State regulations require counties to preserve mineral resource sites and ensure that nearby land uses are compatible with extraction. The underlying rationale — that construction materials should come from sites close to consumer markets — supports the reduction of some transportation impacts associated with imports. The volume of



BUILT ENVIRONMENT ELEMENT

Figure 3-1 Land Use and Demographic Data for Marin County

Note: The Countywide Plan does not include projections that estimate the time by which a certain level of development is projected to occur. Instead, tables of statistics are presented for the county as a whole and for each of seven planning areas: these tables identify four benchmarks by which to measure trends: the 1980, 1990, and 2000 U.S. Census counts of population, households, employed residents, and jobs. They also include a projection of development that could occur if land vacant in 2004 were fully developed according to the zoning designations of city and County general plans.

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population				281,949
	222,592	230,096	247,289	<u>279,972</u>
Households				119,542
	88,723	95,006	100,650	<u>118,728</u>
Average Household Size	2.43	2.33	2.34	2.35 <u>2.36</u>
Employed Residents				173,937
	118,569	127,759	140,955	<u>166,667</u>
Jobs				162,714
	77,853	101,060	122,960	<u>151,566</u>
Employed Residents/Job	1.52	1.26	1.15	1.07 <u>1.09</u>
Land Use				
Housing Units				121,847
	92,647	99,757	104,990	<u>120,755</u>
Cities and Towns	67,420	73,914	77,585	89,132
Unincorporated Area				32,715
	25,227	25,843	27,405	<u>31,623</u>
Commercial/Industrial sq. ft.				49,873,083
	<i>Census</i>	29,570,756	33,965,509	<u>49,602,570</u>
Cities and Towns	<i>Data Not</i>	26,938,825	30,853,636	45,431,753
Unincorporated Area				4,441,330
	<i>Available</i>	2,631,931	3,111,873	<u>4,158,800</u>

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.

Figure 3-2 Marin County Demographics

Population/Demographics

Population growth in the county between 1990 and 2000 was low, with 17,193 people and 5,644 households added to the county's population. County population could increase to nearly 283,100



BUILT ENVIRONMENT ELEMENT

Economy: Coordinating strategic decisions among communities is an effective way to determine the most appropriate locations for businesses, housing, and transportation.

Equity: A broader view of planning is necessary to sufficiently address public health, social services, and other quality of life issues in Marin.

How Will Results Be Achieved?

Implementing Programs

- CD-4.a** *Update Community Plans with a Watershed-Protection Approach.* Revise existing community plans in accordance with an approved work program to maintain consistency with the land use plan and programs of the Countywide Plan. Emphasis should also be placed on the need to consider and protect the health of watersheds when making site-specific land use decisions (see Map Set 3-37, Land Use Policy Maps in the Planning Areas Section). These updated community plans should also evaluate and refine the locations of the Ridge and Upland Greenbelt areas and address bicycle and pedestrian circulation as needed.
- CD-4.b** *Coordinate with Local Jurisdictions.* Work with cities and towns, districts and the City-County Planning Committee to ensure that their plans are consistent with Countywide Plan policies and programs, to update population and employment projections used to estimate service and capital project needs, and to address key issues that require joint planning, such as the shared use of indicator-based software that tracks air and water quality, energy, transportation and other critical concerns.
- CD-4.c** *Coordinate with Adjacent Jurisdictions.* Provide comments as feasible on the general plan updates or proposed major development projects and participate in cooperative transportation and land use planning efforts with nearby jurisdictions; and seek comments from neighboring jurisdictions on the Marin Countywide Plan and other County planning efforts.
- CD-4.d** *Coordinate with State and Federal Authorities.* Collaborate with the National Park Service, the State Department of Parks and Recreation, and other appropriate agencies during review of development proposed for property within or adjacent to State or federal lands within and adjacent to Marin County.
- CD-4.e** *Initiate Periodic City-County Meetings.* Collaborate with representatives from each of the cities and towns, such as officials and planning staff, to initiate periodic meetings to provide a forum to jointly discuss and monitor issues of mutual concern (such as traffic, more efficient provision of services, jobs/housing balance, and affordable housing opportunities) and find potential policy solutions to those issues.
- CD-4.f** *Establish a City-County Planning Committee.* Consult with the cities and towns to consider establishing a committee consisting of representatives and staff from the cities, towns, and the County to:

proposed City-County Planning Committee



MARIN COUNTYWIDE PLAN

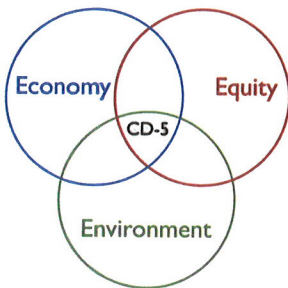
- a. collaborate on housing, transportation, land use, and sustainability issues;
- b. evaluate and monitor the cumulative impacts of planning and development;
- c. provide a forum for the sharing of ideas, information, resources, and best approaches for Marin; and
- d. pursue funding opportunities for planning efforts on topics of mutual interest.

CD-4.g

Consider Additional Community Plans for Unincorporated Areas. Propose development of additional community plans for unincorporated neighborhoods, such as Santa Venetia and Muir Woods Park, to be considered by the Board of Supervisors when reviewing Community Development Agency work program priorities. Community Plans should focus on needs and concerns specific to particular neighborhoods, such as design issues, home size (see DES-4.c), affordable housing sites, hazards, and evacuation routes. (See also CD-4.a *Update Community Plans with a Watershed-Protection Approach*.)

What are the desired outcomes?

GOAL CD-5



Effective Growth Management. Manage growth so that transportation, water, sewer, wastewater facilities, fire protection, and other infrastructure components remain adequate.

Policies

CD-5.1 Assign Financial Responsibility for Growth. Require new development to pay its fair share of the cost of public facilities, services and infrastructure, including but not limited to transportation, incremental water supply, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and police protection, and parks and recreation. Allow for individual affordable housing projects to be exempted from the full cost of impact fees, subject to meeting specified criteria.

CD-5.2

Correlate Development and Infrastructure. For health, safety and general welfare, new development should occur only when adequate infrastructure is available, consistent with the following findings:

- a. Project-related traffic will not cause the level of service established in the circulation element to be exceeded (see TR-1.e).
- b. Any circulation improvements or programs needed to maintain the established level of service standard have been programmed and funding has been committed.
- c. Environmental review of needed circulation improvement projects or programs has been completed.
- d. The time frame for completion of the needed circulation improvements or programs will not cause the established level of service standard to be exceeded.



BUILT ENVIRONMENT ELEMENT

Environment: Planning ahead for infrastructure required for new development will ensure that environmental impacts are considered and mitigated.

Economy: Direct property loss due to fires is estimated at \$8.6 billion annually in the U.S. As local governments plan for and maintain adequate fire, water and sewer systems, as well as roadway and transportation services, it is necessary for new development to pay the incremental costs of expanding infrastructure capacity, such as new water development or expansion of wastewater facilities, to protect people and property.

Equity: Every year more than 5,000 people die in fires in the U.S. and over 25,000 are injured. Fire protection, transportation, water, and sewer wastewater facilities are essential to the public health and safety of all Marin communities.

How Will Results Be Achieved?

Implementing Programs

- CD-5.a** Review and Correlate Countywide Growth and Infrastructure. Work with the proposed City-County Committee or a similar collaborative venue (to be established pursuant to Program CD-4.f) to review countywide growth, planned land use and traffic and service capacity. As warranted by the monitoring information, encourage all jurisdictions to amend their respective general plans and zoning from allowing “theoretical full buildout” of non-residential uses to allowing “realistic buildout” to ensure correlation of planned land uses with traffic capacity and the capacity of all essential public services.
- CD-5.b** *Develop Highway 101 Corridor Specific Plans.* Work with the proposed City-County Planning Committee and the cities and towns of Marin to formulate Specific or Master Plans along the 101 Corridor that identify and plan for appropriate sites for higher-intensity, transit-oriented development, including mixed-use projects. (See Programs CD-2.a, CD-2.d, DES-2.a, DES-2.c, DES-3.a, and HS-3.n through HS-3.t.)
- CD-5.c** *Maintain Traffic Levels of Service.* Cooperate through the proposed City-County Planning Committee to coordinate the pace of development with the provision of alternative transportation system capacity. Modify land use designations, provide capital improvements and transit services as necessary to maintain traffic level of service standards for Highway 101 and other routes of regional significance.
- CD-5.d** *Coordinate with Water and Sanitary Districts.* Work with cities and towns through the proposed City-County Planning Committee to communicate regularly with water and wastewater service providers regarding development activities, growth projections and capacity issues.
- CD-5.e** *Limit Density for Areas Without Water and Sewer Connections.* Calculate density at the lowest end of the Countywide Plan designation range for subdivisions proposed in areas without public water and/or sewer service. Densities for housing units, affordable



MARIN COUNTYWIDE PLAN

- CD-5.e *Limit Density for Areas Without Water and Sewer Connections.* Calculate density at the lowest end of the Countywide Plan designation range for subdivisions proposed in areas without public water and/or sewer service. Densities for housing units, affordable to very low and low income residents that are capable of providing adequate water and/or sewer services, may be considered on a case by case basis.
- CD-5.f *Redefine Countywide Planning Functions.* Consider redefining the functions of the currently inactive Countywide Planning Agency to include a housing action team, energy conservation, countywide revenue ^{structure} sharing, review of major development projects for traffic impacts, balancing the jobs/housing ratio and sharing land use planning and monitoring software programs.
- CD-5.g *Consider Transfer of Development Rights.* In concert with city and town governments, consider creating a program that would enable transfer of development rights from bayfront or ridge and upland greenbelt areas to medium and higher intensity centers in existing communities, in compliance with site-specific development and design standards tailored to parcels designated for receiving increases in density. (See Program AG-1.f)
- CD-5.h *Require Development to Meet Performance Standards.* Amend the Development Code to include level of service and other performance standards for public facilities, services, and infrastructure. Require development proposals to provide fiscal impact analyses that estimate resulting costs and/or benefits to local government and propose methods to finance any new or expanded facilities needed.
- CD-5.i *Charge New Development for Urban Services.* Amend appropriate codes to require new projects to pay for the infrastructure and services they necessitate, including through private financing or assessment districts (such as County Service Areas). Allow exceptions and/or full or partial waivers for affordable housing developments that meet specified criteria. (See Public Facilities and Services section.)
- CD-5.j *Exempt Affordable Housing Developments.* Prepare criteria by which affordable housing projects targeting low and very low income households can be exempted from paying the full cost of impact fees.
- CD-5.k *Monitor Growth and Circulation.* At least every five years review the unincorporated County's growth, planned land use, traffic capacity, funded traffic improvements, traffic mitigation list and traffic fees. Assess growth assumptions and modify land use and circulation policies as needed to ensure adequate circulation capacity to serve development.
- CD-5.l *Provide Adequate Infrastructure Capacity.* Plan the circulation system and public infrastructure and services to provide capacity for the unincorporated County's realistic buildout.
- CD-5.m *Development Review.* Ensure that policy provisions are evaluated and implemented through the development and environmental review processes. If required by statute or



BUILT ENVIRONMENT ELEMENT

Environment: The Bay Area, although it accounts for only 4% of California's acreage, is home to 36% of the state's total number of federally listed endangered and threatened species. Implementation of the Countywide Plan sections, such as Biological Resources, Water Resources, and Agriculture and Food, can benefit the environment, for example, by enhancing native habitat and biodiversity, ensuring clean water supplies, and preserving agricultural lands.

Economy: Implementation of the Countywide Plan sections, such as Economy, Transportation, and Education, can benefit the economy, for example, by establishing and maintaining a diverse and sustainable local economy, providing for the safe and efficient movement of people and goods, and ensuring the availability of ample educational opportunities.

Equity: In 2000, nearly 10% of Marin's population was either homeless or at risk of becoming homeless. In 2002, there were more than 4,500 children in Marin under the age of three competing for just over 1,000 childcare spaces. Implementation of the Countywide Plan sections such as Housing, Childcare, and Community Participation can benefit social equity, for example, by providing a range of housing options, increasing the number of childcare facilities, and encouraging broad and diverse participation in County planning efforts and local decision-making.

How Will Results Be Achieved?

Implementing Programs.

- CD-7.a *Stakeholder Cooperation.* Work with local governments, ~~a newly constituted~~ City-County Planning Committee, developers, design professionals, and interest groups to carry out a common evaluation and monitoring system that is accessible to all parties and capable of being supported by shared resources.
- CD-7.b *Technical Stewardship.* Establish a core group of stakeholders and staff to maintain and operate the evaluation and monitoring system, with leadership from the Community Development Agency.
- CD-7.c *Data Development.* Continue to improve the extent and quality of data required for an evaluation and monitoring system, particularly demographic, land-use, transportation, and environmental data used by geographic information systems and related modeling technologies.



MARIN COUNTYWIDE PLAN

Program	Responsibility	Potential Funding	Priority	Time Frame
CD-4.f - Establish a City-County Planning Committee.	CDA	Will require additional grants or revenues*	Medium	Long term
CD-4.g - Consider Additional Community Plans for Unincorporated Areas.	CDA	Existing budget	Medium	Med. term Ongoing
CD-5.a - Review and Correlate Countywide Growth and Infrastructure.	CWPA, CDA, Marin cities and towns	Will require additional grants or revenues*	Medium	Med. term
CD-5.b - Develop Highway 101 Corridor Specific Plan.	CDA	Existing budget, MCE, and will require additional grants or revenues*	High	Ongoing
CD-5.c - Maintain Traffic Levels of Service.	TAM*, CWPA, CDA	Existing budget and may require additional grants or revenues*	High	Med. term
CD-5.d - Coordinate with Water and Sanitary Districts.	CWPA, CDA	Existing budget	High	Med. term
CD-5.e - Limit Density for Areas Without Water and Sewer Connections.	CDA	Existing budget	High	Immediate
CD-5.f - Redefine Countywide Planning Functions.	CDA	Existing budget	High	Ongoing
CD-5.g - Consider Transfer of Development Rights.	CDA, CWPA, Marin Cities and Towns	Existing budget	Medium	Long term
CD-5.h - Require Development to Meet Performance Standards.	CDA, Marin Cities and Towns	Existing budget	Medium	Long term
CD-5.i - Charge New Development for Urban Services.	CDA	Existing budget and may require additional grants or revenues*	Medium	Ongoing
CD-5.j - Exempt Affordable Housing Developments.	CDA, DPW, Water and Sewer Districts	Existing budget and may require additional grants or revenues*	Medium	Med. term

*Note - timeframes modified to:
 Immediate (0-1 years)
 Short term (1-4 years)
 Med. term (4-7 years)
 Long term (over 7 years)

* Transportation Authority of Marin (TAM).

← Global change



MARIN COUNTYWIDE PLAN



"Using zoning laws, neighborhood planning, tax incentives, and any other means available to scatter workplaces throughout the city. Prohibit large concentrations of work, without family life around them. Prohibit large concentrations of family life, without workplaces around them."

— Christopher Alexander, Sara Ishikawa, and Murray Silverstein,
A Pattern Language: Towns Buildings, Construction

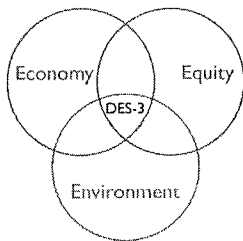
DES-2.c *Allow Mixed Use in Commercial Districts.*

Amend the Development Code to allow residential and mixed-use development in commercial zoning districts, including through infill development and redevelopment of surface parking lots and employing techniques such as those listed in Program DES-2.a. (See other Community Development, Housing, and Transportation programs.)

DES-2.d *Require Parking "Cash-Out" Program.* Require new office developments with more than 50 parking spaces to offer a Parking "Cash-Out" Program. Consider the feasibility of a parking cash-out program for other new developments located in the City-Centered corridor.

What are the desired outcomes?

GOAL DES-3



New Development in Built Areas. New construction should occur in a compact form in developed locations whenever feasible.

Policy

DES-3.1 Promote Infill. Encourage the development of vacant and underutilized parcels consistent with neighborhood character.

DES-3.2 Promote Green Spaces. Encourage the creation of high-quality community plazas, squares, greens, commons, community and neighborhood parks, and rooftop gardens.



BUILT ENVIRONMENT ELEMENT

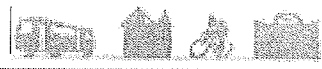
Program Implementation

The following table summarizes responsibilities, potential funding priorities and estimated time frames for proposed implementation programs. Program implementation within the estimated time frame[†] will be dependent upon the availability of adequate funding and staff resources.

Figure 3-10
Design Program Implementation

Program	Responsibility	Potential Funding	Goal <i>Priority</i>	Timeframe
DES-1.a - Add Design Components to Community Plans.	CDA	Will require additional grants or revenues*	High	Long term
DES-1.b - Assist City Design Efforts.	CDA	Existing budget and may require additional grants or revenues*	High	Ongoing
DES-1.c - Regulate Urban and Rural Design.	CDA	Existing budget	Medium	Med. term
DES-1.d - Reduce Wood Waste and Encourage Reuse of Urban Lumber.	Marin Releaf	Grants	Low	Med. term
DES-1.e - Expand Design Guidelines	CDA	Existing budget	Medium	Med. term
DES-1.f - Rural Sign Regulation.	CDA	Existing budget and may require additional grants or revenues*	Low	Long term
DES-1.g - Hold Remodels to the Same Standards as New Housing.	CDA	Existing budget	High	Ongoing
DES-1.h - Lighting Design Guidelines.	CDA	Existing budget and may require additional grants or revenues*	Low	Long term
DES-2.a - Designate Target Nodes.	TAM, CDA, Marin Cities and Towns	Existing budget and may require additional grants or revenues*	Medium	Med. term
DES-2.b - Define Flexible-Use Building Types.	CDA	Existing budget and may require additional grants or revenues*	Medium	Med. term
DES-2.c - Allow Mixed Use in Commercial Districts.	CDA	Existing budget and may require additional grants or revenues*	High	Short term

[†] Time frames include: Immediate (0-1 years); Short term (1-⁴ years); Med. term (3-⁴⁻⁷ years); Long term (⁷over 5 years); and Ongoing. *Global change*



BUILT ENVIRONMENT ELEMENT

Program	Responsibility	Potential Funding	Goal <i>Priority</i>	Timeframe
DES-2.d - Require Parking "Cash-Out" Program.	CDA, DPW	Existing budget	High	Short term
DES-3.a - Encourage Mixed Use Projects.	CDA	Existing budget and may require additional grants or revenues*	High	Short term
DES-3.b - Adopt Design Guidelines.	CDA	Existing budget	High	Immediate
DES-3.c - Prohibit Gated Developments.	CDA	Existing budget and may require additional grants or revenues*	Medium	Med. term
DES-3.d - Identify Public Green Space Potential.	CDA, MCOSP	Existing budget and may require additional grants or revenues*	Low	Ongoing
DES-3.e - Encourage Small-Scale Green Spaces.	CDA	Existing budget and may require additional grants or revenues*	Low	Ongoing
DES-4.a - Protect Key Public Views.	CDA	Existing budget and may require additional grants or revenues*	Medium	Long term
DES-4.b - Minimize Visual Impacts of Public Facilities.	CDA	Existing budget	Medium	Long term
DES-4.c - Regulate Mass and Scale.	CDA	Existing budget	High	Ongoing
DES-4.d - Protect Views of Hillsides.	CDA	Existing budget and may require additional grants or revenues*	High	Ongoing to Med. term
DES-4.e - Protect Views of Ridge and Upland Greenbelt Areas.	CDA	Existing budget and may require additional grants or revenues*	High	Med. term
DES-4.f - Participate in the California Scenic Highway Program.	TAM, CWPA, CDA	Existing budget and may require additional grants or revenues*	Medium	Long term
DES-5.a - Adopt Streetscape Design Standards.	CDA	Existing budget	Medium	Long term
DES-5.b - Refine Parking Area Standards.	CDA, DPW	Will require additional grants or revenues*	High	Short term

* Completion of this task is dependent on acquiring additional funding. Consequently, funding availability could lengthen or shorten the timeframe and ultimate implementation of this program.



BUILT ENVIRONMENT ELEMENT

transfer to a San Francisco bound ferry. The planned routes in Marin County are shown on the transit corridors maps.

The San Francisco Bay Area Water Transit Authority (WTA) is a regional agency authorized by the State of California to operate a comprehensive San Francisco Bay Area public water transit system. The existing ferry routes are shown on the transit corridors maps. ~~The proposed ferry expansion will add new routes plus improve service on the existing ferry systems, and will add new passenger ferries to the existing fleet, increase ferry patronage, drawing the majority of its riders from cars.~~

Key Trends and Issues

Is traffic congestion in Marin getting worse?

- ◆ People walk and ride bicycles less in the USA. Worldwide, the United States ranks as the first-world country with the lowest percentage of people who walk and bicycle for transportation. In the year 2000, biking and walking trips comprised only 6% of all daily trips in the United States, compared with 10% in Marin County², 12% in Canada, 16% in England, 34% in Switzerland and Germany, 39% in Sweden, and 46% in the Netherlands³. In general, 10.9% of Marin residents walk and ride bicycles as a form of transportation.⁴
- ◆ County residents are making more automobile trips than ever. Residents made more than 750,000 daily trips in 1998, up more than 10% in 10 years, outpacing growth in employment and households. About 80% of those trips were made within the county. The number of daily trips per household has also increased steadily since 1990 and is projected to continue doing so (Figure 3-29).



"The simple social intercourse created when people rub shoulders in public is one of the most essential kinds of social 'glue' in society."

Christopher Alexander, Sara Ishikawa, and Murray Silverstein,
A Pattern of Language: Towns Buildings, Construction
(Oxford, 1977)

Although a new ferry terminal accross the Petaluma River and the Sonoma county line is being studied, WTA service is not contemplated for Marin. Instead ferries in the county are operated by the Golden Gate Bridge, Highway and Transportation District. Golden Gate ferric travel between San Francisco and Larkspur and Sausalito. Expansion of the services is dependent on securing operating and capital funding

² 2000 Marin Traffic Model.

³ John Pucher, Rutgers University, 1995. Due to modal splits, differences in trip definition, survey methodology, and urban area boundaries, the information is approximate and is shown for comparative purposes only.

⁴ Metropolitan Transportation Commission, 2000 Household Transportation Survey.



MARIN COUNTYWIDE PLAN



Energy efficiency is doing the same or more work with less energy. Examples include energy efficient lights, motors, and refrigerators that use less energy for the same or greater output.

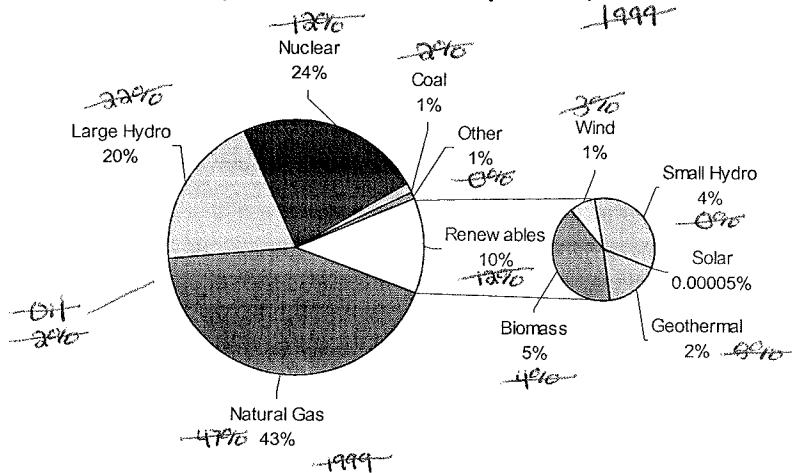
Energy conservation means reducing energy waste. Examples include turning lights, heating, and motors off when not needed.

in previous years. Investing in energy efficiency, renewable energy, and green building will reduce our ecological footprint, minimize our emission of greenhouse gases, reduce impacts on health and the environment, increase the reliability of our energy supply, reduce water use, stabilize prices, create high-quality jobs, and help keep millions of dollars annually in our local economy.

Local government policies and programs can contribute to a more sustainable future by

- ◆ increasing energy efficiency and conservation;
- ◆ prioritizing renewable resources and local production; and
- ◆ promoting green building design and materials.

Figure 3-11 PG&E Electricity Sources, 2005*



Source: 2006 California Energy Commission

*This graph is for PG&E's entire service territory, which includes 13 million customers. Much of Marin's electricity comes from geothermal plants in the nearby Geysers region.

Green building is a whole-systems approach to design and construction that seeks to protect the environment, conserve resources, create healthier air quality, and save money. Green building practices include better siting and design that take advantage of passive solar, cross ventilation, energy and water efficiency, renewable energy, recycling and reusing building materials, and using materials that protect natural resources. Green buildings also save money by reducing energy and water costs, increasing worker productivity and providing healthier indoor air.



BUILT ENVIRONMENT ELEMENT

Figure 3-32
Composition of All Vehicle Trips on the Marin Roadway Network
(Traffic—A.M. Peak Hour)

Marin to Marin	50%
External to Marin	22%
Marin to External	20%
Through Marin	8%

Source: 2000 Marin Traffic Model

Why don't more people ride bikes or transit?

- ◆ Many people refrain from riding bikes due to safety and convenience issues. In 2003, biking and walking trips comprised 5%⁶ of all commute trips in Marin County. Workers and school-age children would be more willing to bike and walk to work destinations and schools if safe bicycle and pedestrian routes and convenient facilities were provided.
- ◆ Convenience, frequency and reliability of service, and distance to transit stops are key factors that impact transit use. Transit ridership levels on routes between Marin County and San Francisco, which have a relatively high frequency of buses and reliable service, comprise 25% of all commute trips, while intra-county trips between Marin communities account for less than 5% of the transit commute share.
- ◆ Expanding local and express bus service could increase ridership. Ridership and the demand for paratransit services consistent with the Americans with Disabilities Act are expected to increase over the next 20 years. By improving the frequency of local express bus service, linking major residential and activity centers, expanding routes between communities, and tailoring community service routes (such as Whistlestop Wheels) to meet the needs of each community, transit ridership could potentially increase.
- ◆ Demand for paratransit services is increasing. In the last five years there has been a 30% increase in paratransit demand.
- ◆ Plans to expand regional transit services, such as rail and ferry, are being considered. The Sonoma-Marín Area Rail Transit (SMART) system is proposed to run from Cloverdale to Larkspur (or relocated to San Quentin) on a railroad right-of-way already in public ownership. A continuous bicycle and pedestrian multi-use pathway is planned to generally follow within the proposed SMART Corridor Alignment, providing for a north-south bikeway. Rail stations are planned to become intermodal hubs with convenient connections to local bus service, bicycle and pedestrian facilities, and park-and-ride lots. The Water Transit Authority is amending its master plan to consider long-term demand and services to Marin and Sonoma Counties.

Will traffic levels of service (LOS) be adequate in Marin?

- ◆ Level of Service is used to describe the balance of travel demand and capacity in our existing transportation system. The County Congestion Management Program is designed to ensure

Lowercase

developed by TAM,

⁶ RIDES' Commute Profile 2003.



BUILT ENVIRONMENT ELEMENT

that roadways operate at the minimum countywide standard of Vehicle LOS D or better for urban and suburban arterials including highways that serve as arterials (e.g., State Route 1, State Route 131) and LOS E or better for Highway 101, Interstate 580, and State Route 37. The following map and figures show the definition of level of service for unsignalized and signalized roads, a map of monitored roadways in Marin County and their existing level of service (Map 3-7 Monitored Roadway Locations for Level of Service, and Figures 3-33 through 3-36).

The purpose of establishing a Vehicle LOS standard is to: 1) conform to the objectives of the Congestion Management Program; 2) prioritize transportation system improvements; and 3) guide the amount, timing, and location of new development. New development is expected to contribute to achieving the LOS standards by providing transportation improvements, and/or paying fees, and/or participating in Travel Demand Management programs. ~~Annual~~ monitoring and reporting of the LOS standard to determine compliance occurs in September of each year. Conformance with the standard is required unless a deficiency plan is adopted. If conformance is not achieved or a deficiency plan is not in place, a jurisdiction may risk losing an increment in its gasoline tax subvention program and having projects not be included in the Regional Transportation Improvement Program.

Biennial
even
numbered

Figure 3-33
Intersection Level of Service Definitions: Signalized Intersections

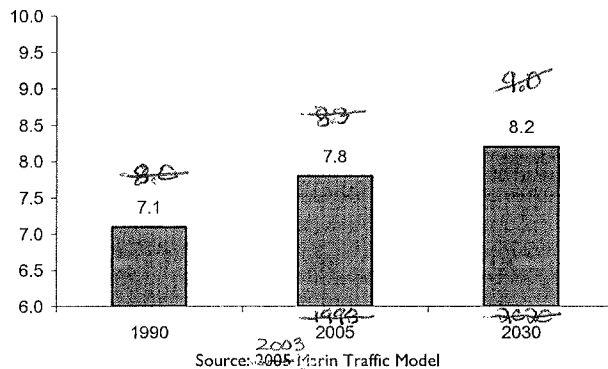
LOS	Vehicle Delay (seconds)	Description
A	0 - 5	Free Flow/Insignificant Delay: No approach area is fully utilized by traffic.
B	5.1 - 15	Stable Operation/Minimal Delay: An approach area may be fully utilized. Some drivers feel restricted.
C	15.1 - 25	Stable Operation/Acceptable Delay: Approach areas are fully utilized. Most drivers feel restricted.
D	25.1 - 40	Approaching Unstable Operation/Tolerable Delay: Drivers may have to wait through more than one red signal. Queues may develop but dissipate rapidly.
E	40.1 - 60	Unstable Operation/Significant Unacceptable Delay: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form.
F	> 60	Forced Flow/Excessive Delay: Jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Source: Highway Capacity Manual Third Edition



BUILT ENVIRONMENT ELEMENT

Figure 3-29
Total Average Daily Trips per Household in Marin



- ◆ **Most people in Marin drive alone.** In 2003, 66%⁵ of Marin commuters traveled alone. Vehicles in carpool lanes saved an average of 14 minutes on the southbound morning commute and 3 minutes on the northbound afternoon commute.
- ◆ **Fuel consumption and transportation costs are high and increasing.** Fuel consumption is increasing at a higher rate than the rate of population growth due to more frequent driving by residents, vehicles with low fuel economy, traffic congestion, and long distance commuting. With higher fuel consumption come increased tailpipe emissions and reduced air quality.
- ◆ **Jurisdictions are increasingly being required to be “self-help.”** State and federal transportation funds are not sufficient to meet our transportation needs nor are they reliable. State and federal gas taxes are not indexed to inflation, resulting in diminished funds, and some transportation funds are being diverted to other programs. State and federal transportation grants pay the lion’s share of most local transportation projects and to receive a grant, a city/town or county typically must provide 10-50% of a local project’s cost (matching funds). Self-help counties with guaranteed matching funds for the local portion of transportation projects are awarded more grants, thus increasing the value of tax dollars.

Where are drivers going?

- ◆ **Most trips start from home, go to one place, and return home.** According to the 2001 Nationwide Personal Transportation Survey, 40% of all trips in the United States cover two miles or less. Only 30% of trips in Marin reach multiple destinations. More than half of Marin residents making a commute trip travel to jobs in Marin County, while 28% of work trips made by residents are to San Francisco (Figures 3-30, 3-31 and 3-32). Recreational travel to the

⁵ RIDES’ Commute Profile 2003.



BUILT ENVIRONMENT ELEMENT

Figure 3-34
Intersection Level of Service Definitions: Stop Sign Controlled

LOS	Vehicle Delay (seconds)	Description
A	<10	Little or no delay.
B	>10-20	Short traffic delay.
C	>20-35	Average traffic delay.
D	>35-55	Long traffic delay.
E	>55-80	Very long traffic delays.
F	>80	Excessive traffic delays.

Source: Highway Capacity Manual Third Edition

Figure 3-35 Roadway Segment Level of Service Definitions

LOS	Volume to Capacity (V/C)(1) Ratio		Description
	Freeways	Arterials	
A	0.00 - 0.35	0.00 - 0.60	Conditions of free flow. Speed is controlled by driver's desires, speed limits or physical roadway conditions, not other vehicles.
B	0.36 - 0.54	0.61 - 0.70	Conditions of stable flow. Operating speeds beginning to be restricted, but little or no restrictions on maneuverability.
C	0.55 - 0.77	0.71 - 0.80	Conditions of stable flow. Speeds and maneuverability somewhat restricted. Occasional back-ups behind left-turning vehicles at intersections.
D	0.78 - 0.93	0.81 - 0.90	Conditions approach unstable flow. Tolerable speeds can be maintained but temporary restrictions may cause extensive delays. Speeds may decline to as low as 40% of free flow speeds. Little freedom to maneuver; comfort and convenience low.
E	0.94 - 1.00	0.91 - 1.00	Unstable flow with stoppages of momentary duration. Average travel speeds decline to one-third the free flow speeds or lower, and traffic volumes approach capacity. Maneuverability severely limited.
F	>1.00	>1.00	Forced flow conditions. Stoppages for long periods, and low operating speeds (stop-and-go). Traffic volumes essentially at capacity over the entire hour.

Source: 2003 Performance Measures Monitoring Report; Highway Capacity Manual, Third Edition

(1) The ratio of the actual number of vehicles on a roadway (volume) versus the number of vehicles the roadway is designed to accommodate (capacity) in any given hour.

now maintained by TAM
In order to analyze the impacts of land-use decisions made by local jurisdictions on the regional transportation system (both highways and transit) the County ~~has built and maintains~~ a countywide computer model with land use and transportation network information provided by the planning departments of each local government in Marin County. At a minimum, the County conducts a ~~biannual~~ run of the countywide model to track roadway LOS changes made from land use decisions. ~~biennial~~



BUILT ENVIRONMENT ELEMENT

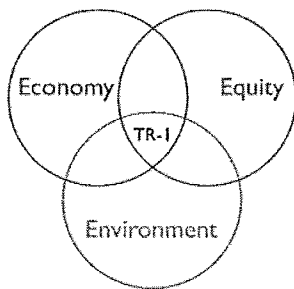
Roadway segments that operated at a lower LOS than the standard in 1991 are “grandfathered” and allowed to continue to operate at a lower LOS standard level until such time as they are improved or the traffic load is diverted. In its decision to grandfather the LOS facilities, the Transportation Authority of Marin (TAM) has recommended an improvement plan be developed to address congestion on U.S. 101 and for grandfathered segments of other roadways. According to the ~~2003~~²⁰⁰⁷ CMP, there are no road segments currently operating worse than the LOS standard that are not already grandfathered.

Transportation System
Monitoring Report,

Goals, Policies, and Implementation Programs

What Are the Desired Outcomes?

Goal TR-1



Safe and Efficient Movement of People and Goods. Provide a range of transportation options that meets the needs of residents, businesses, and travelers.

Policies

TR-1.1 Manage Travel Demand. Improve the operating efficiency of the transportation system by reducing vehicle travel demand and provide opportunities for other modes of travel. Before funding transportation improvements consider alternatives—such as Transportation Demand Management (TDM)—and prioritize projects that will reduce fossil fuel use and reduce single-occupancy vehicle trips.



“It is not possible to avoid the need for high speed roads in modern society; but it is essential to place them and build them in such a way that they do not destroy communities or countryside.”

Christopher Alexander, Sara Ishikawa, and Murray Silverstein,
A Pattern of Language, Towns Buildings, Construction
(Oxford, 1977)

TR-1.2 Maintain Service Standards. Establish level of service standards for vehicles on streets and highways and performance standards for transit (see Map 3-8, Roadway Network of Marin County), bicycles, pedestrians, and other modes of transportation.

TR-1.3 Pursue Needed Funding. Seek necessary support to provide improvements called for in the *Transportation Vision* and Transportation Authority of Marin’s expenditure plan, maintain service levels at established standards, and meet multi-modal objectives.

TR-1.4 Share the Costs for Improvements. Require new development to pay or otherwise improve its fair share of the transportation system impacts.

TR-1.5 Require Necessary Transportation Improvements. Require necessary transportation improvements to be in place, or otherwise guaranteed to result in their timely



BUILT ENVIRONMENT ELEMENT

TR-1.c *Promote Transportation Alternatives.* Work with local, State, and federal governments, businesses, schools, seniors, and environmental groups to encourage use of transit, vanpools, carpools, car sharing, bicycles, and walking, including providing incentives to employers, commuters, and recreational users to support these transportation alternatives.

TR-1.d *Coordinate with Local Agencies.* Work with the City-County Planning Committee, Department of Public Works, Transportation Authority of Marin, Metropolitan Transportation Commission, and other Bay Area counties, to coordinate transportation system planning, including updating the County Congestion Management Program and the Capital Improvement Program to prioritize the projects that will meet the goals of the County *Transportation Vision*.



"Except where traffic densities are very high or very low, lay out pedestrian paths at right angles to roads, not along them, so that the paths gradually begin to form a second network, distinct from the road system, and orthogonal to it. This can be done quite gradually even if you put in one path at a time, but always put them in the middle of the block so that they run across roads."

Christopher Alexander, Sara Ishikawa, and Murray Silverstein,
*A Pattern of Language: Towns
Buildings, Construction*
(Oxford, 1977)

TR-1.e *Uphold Vehicle Level of Service Standards.* Uphold peak-hour vehicle Level of Service standard LOS D or better for urban and suburban arterials and LOS E or better for freeways and rural expressways⁷. Only the Congestion Management Program specified roadway and highway segments operating at a lower LOS than the standard in 1991 are "grandfathered" and may continue to operate at the lower LOS standard until such time as the roads are improved or the traffic load or demand is reduced or diverted. An improvement plan should be developed for Highway 101 and the grandfathered roadway segments to address existing deficiencies. Unless determined to be infeasible, alternatives which reduce fossil fuels and single occupancy vehicle use should be considered a priority over infrastructure improvements such as road widening.

New development shall be restricted to the low end of the applicable residential density/commercial floor area ratio range where the LOS standards will be exceeded at any intersection or road segment or worsened on any grandfathered segment. Densities higher than the low end of the applicable residential density/commercial floor area ratio may be considered for the following:

- ◆ Development that qualifies as Housing Overlay Projects in accordance with Policy CD-2.3, *Establish a Housing Overlay Designation*, and Program CD-2.d, *Implement the Housing Overlay Designation*.
- ◆ Mixed use projects developed in accordance with Policy CD-8.7.
- ◆ Second units developed pursuant to state law.
- ◆ New housing units affordable to very low and low income households.

⁷ 2003 Marin County Congestion Management Program.

2007 Draft C.M.P.

TR-1.c *Promote Transportation Alternatives.* Work with local, State, and federal governments, businesses, schools, seniors, and environmental groups to encourage use of transit, vanpools, carpools, car sharing, bicycles, and walking, including providing incentives to employers, commuters, and recreational users to support these transportation alternatives.

TR-1.d *Coordinate with Local Agencies.* Work with the ^{Proposed} City-County Planning Committee, Department of Public Works, Transportation Authority of Marin, Metropolitan Transportation Commission, and other Bay Area counties, to coordinate transportation system planning, including updating the County Congestion Management Program and the Capital Improvement Program to prioritize the projects that will meet the goals of the County *Transportation Vision*.



"Except where traffic densities are very high or very low, lay out pedestrian paths at right angles to roads, not along them, so that the paths gradually begin to form a second network, distinct from the road system, and orthogonal to it. This can be done quite gradually even if you put in one path at a time, but always put them in the middle of the block so that they run across roads."

Christopher Alexander, Sara Ishikawa, and Murray Silverstein,
A Pattern of Language, Towns Buildings, Construction
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- ◆ Mixed use projects developed in accordance with Policy CD-8.7.
- ◆ Second units developed pursuant to state law.
- ◆ New housing units affordable to very low and low income households.

⁷ 2003 Marin County Congestion Management Program.

2007



BUILT ENVIRONMENT ELEMENT

Figure 3-36 Monitored Roadway Locations for Weekday, p.m. Peak Level of Service
(See Map 3-7.)

#	Roadway Segment	Direction	Peak Hour Volume	No of Lanes	Volume Per Lane	Type	Capacity	V/C	LOS	# of Vehicles above Standard
1	Shoreline Highway (State Route 1), from Flamingo Road to Sonoma County line	NB	104	1	104	II	1400	0.07	A	
		SB	113	1	113	II	1400	0.08	A	
2 *	U.S. 101, from State Route 37 to Sonoma County Line	NB	4003	2	2002	I	2000	1.00	F	-2
		SB	2238	2	1119	I	2000	0.56	C	
3	Novato Blvd, from San Marin Dr/Sutro Ave to Wilson Avenue	NB	323	1	323	II	800	0.40	A	
		SB	416	1	416	II	800	0.52	A	
4	South Novato Blvd, from U.S. 101 to Novato Blvd	NB	387	1	387	II	800	0.48	A	
		SB	485	1	485	II	800	0.61	B	
5	State Route 37, from Sonoma County Line to U.S. 101	EB	2355	2	1178	I	2000	0.59	C	
		WB	991	2	496	I	2000	0.25	A	
6 *	Bel Marin Keys, from Arroyo San Jose to U.S. 101	EB	517	2	259	II	800	0.32	A	
		WB	1249	2	625	II	800	0.78	C	
7 *	U.S. 101, from N. San Pedro Road to SR 37	NB	4672	3	1557	I	2000	0.78	D	
		NB HOV	945	1	945	I	2000	0.47	B	
		SB	7177	4	1794	I	2000	0.90	D	
8 *	U.S. 101, from Mission Ave to N. San Pedro Road	NB	7399	4	1850	I	2000	0.92	D	
		SB	6314	3	2105	I	2000	1.05	F	-105
9 *	Sir Francis Drake Blvd, from Red Hill Ave to Butterfield Rd	EB	1210	2	605	II	960	0.63	B	
		WB	1903	2	952	II	960	0.99	E	-88
10	Red Hill Ave, from Ross Valley Drive to Sir Francis Drake Blvd	EB	1477	2	739	II	1200	0.62	B	
		WB	1956	2	978	II	1200	0.82	D	
11 *	U.S. 101, from Interstate 580 to Mission Ave	NB	6520	3	2173	I	2000	1.09	F	-173
		SB	6764	3	2255	I	2000	1.13	F	-255
12 *	Sir Francis Drake Blvd, from U.S. 101 to College Ave	EB	1307	2	654	II	1200	0.54	A	
		WB	1917	2	959	II	1200	0.80	C	
13 *	U.S. 101, from Tiburon Blvd (SR 131) to Interstate 580	NB	6606	3	2202	I	2000	1.10	F	-202
		SB	4889	3	1630	I	2000	0.81	D	
14 *	Interstate 580, from U.S. 101 to Sir Francis Drake Blvd	EB	2084	1	2084	I	1400	1.49	F	-684
		WB	1185	1	1185	I	1250	0.95	E	
15	Interstate 580, from Sir Francis Drake Blvd to Contra Costa County Line	EB	3793	2	1897	I	2000	0.95	E	
		WB	2356	2	1178	I	2000	0.59	C	
16 *	E. Sir Francis Drake Blvd, from Interstate 580 to U.S. 101	EB	1974	2	987	II	960	1.03	F	123
		WB	2144	3	715	II	960	0.74	C	
17 *	U.S. 101, from Shoreline Highway (SR 1) to Tiburon Blvd (SR 131)	NB	5450	3	1817	I	2000	0.91	D	
		NB HOV	1101	1	1101	I	2000	0.55	C	
		SB	5744	4	1436	I	2000	0.72	C	
18	Tiburon Blvd (State Route 131), from Main Street to U.S. 101	EB	1262	2	631	II	960	0.66	B	
		WB	1459	2	730	II	960	0.76	C	
19 *	Shoreline Highway (State Route 1), from U.S. 101 to Flamingo Road	NB	615	1	615	II	800	0.77	C	
		SB	475	1	475	II	800	0.59	A	
20	Bridgeway Blvd, Alexander Avenue, and Sausalito Lateral Rd, from U.S. 101 to U.S. 101	NB	1393	2	697	II	960	0.73	C	
		SB	1480	2	740	II	960	0.77	C	
21	U.S. 101, from San Francisco County Line to Shoreline Highway (SR 1)	NB	5527	4	1382	I	2000	0.69	C	
		SB	3801	4	950	I	2000	0.48	B	
22 *	Sir Francis Drake Blvd, from Butterfield Rd to State Route 1	EB	630	1	630	II	960	0.66	B	
		WB	1004	1	1004	II	960	1.05	F	-140
23 *	Sir Francis Drake Blvd, from College Ave to Red Hill Ave	EB	939	1	939	II	960	0.98	E	-75
		WB	1116	1	1116	II	960	1.16	F	-252
24	Novato Blvd, from Wilson Avenue to Diablo Ave	NB	673	1	673	II	960	0.70	C	
		SB	768	1	768	II	960	0.80	D	

Notes: (monitoring done September, 2003, p.m. peak, weekday)

* Grandfathered segment not subject to deficiency plan

Source: DKS Associates, 2003

MARIN COUNTYWIDE PLAN

Transportation

3-155

MARIN COUNTYWIDE PLAN

Transportation

3-155

(old chart)



BUILT ENVIRONMENT ELEMENT

Figure 3-36 Monitored Roadway Locations for Weekday, p.m. Peak Level of Service
(See Map 3-7.)

#	Segment	Direction	Peak Hour Volume	No of Lanes	Volume Per Lane	Type	Capacity	V/C	LOS	# of Vehicles above Standard
Non-Grandfathered, Satisfactory										
1	Shoreline Highway (State Route 1), from Sir Francis Drake Blvd. to Pt. Reyes Station	NB	124	1	124	II	800	0.16	A	
3	Novato Blvd., from San Marin Dr./Sutro Ave. to Wilson Ave.	NB	346	1	346	II	800	0.43	A	
4	South Novato Blvd., from U.S. 101 to Novato Blvd.	NB	475	1	475	II	800	0.59	A	
5	State Route 37, from Sonoma County Line to U.S. 101	EB	2302	2	1151	I	2000	0.58	C	
10	Red Hill Ave., from Sir Francis Drake Blvd. to Hildale Dr.	WB	1804	2	902	II	1200	0.75	C	
15	Interstate 580, from west of Sir Francis Drake Blvd. to Contra Costa Co. Line	WB	2634	2	1317	I	2000	0.66	C	
		EB	3271	2	1636	I	2000	0.82	D	
18	Tiburon Blvd. (State Route 131), from U.S. 101 to Strawberry Drive	EB	1449	2	725	II	960	0.75	C	
20	Bridgeway Blvd., from U.S. 101 to U.S. 101	NB	1258	2	629	II	960	0.66	B	
21	U.S. 101, from San Francisco County Line to Shoreline Highway (SR1)	NB	5486	4	1372	I	2000	0.69	C	
		SB	3575	4	894	I	2000	0.45	B	
24	Novato Blvd., from Wilson Ave. to Diablo Ave.	NB	912	1	912	II	960	0.95	E ¹	
Grandfathered, Satisfactory										
2	U.S. 101, from Atherton Ave. to Sonoma County Line	NB	3664	2	1832	I	2000	0.92	D	
6	Bel Marin Keys, from U.S. 101 to Commercial Blvd.	WB	1253	2	627	II	800	0.78	C	
7	U.S. 101, from N. San Pedro Road to State Route 37	NB	7748	4	1937	I	2000	0.97	E	
12	Sir Francis Drake Blvd., from College Ave to Wolfe Grade	WB	1547	2	774	II	1200	0.64	B	
16	E. Sir Francis Drake Blvd., from U.S. 101 to Larkspur Landing Cir	EB	1446	2	723	II	960	0.75	C	
Grandfathered, Improvement Plan Recommended										
8	U.S. 101, from Mission Ave to N. San Pedro Rd.	NB	8602	4	2151	I	2000	1.08	F	-151
9	Sir Francis Drake Blvd., from San Anselmo Ave. to Red Hill Ave.	EB	1880	2	940	II	960	0.98	E	
11	U.S. 101, from Interstate 580 to Mission Ave.	NB	6530	3	2177	I	2000	1.09	F	-177
13	U.S. 101, from Tiburon Blvd. (SR 131) to Interstate 580	NB	6214	3	2071	I	2000	1.04	F	-71
14	Interstate 580, from Sir Francis Drake Blvd. To Bellam Blvd.	EB	1941	1	1941	I	1400	1.39	F	-541
17	U.S. 101, from Shoreline Highway (SR 1) to Tiburon Blvd. (SR 131)	NB	7078	3	2359	I	2000	1.18	F	-359
19	Shoreline Highway (State Route 1), from Northern Ave. to Almonte Blvd.	NB	842	1	842	II	800	1.05	F	-42
22	Sir Francis Drake Blvd., from Butterfield Rd. to State Route 1	EB	910	1	910	II	960	0.95	E	
23	Sir Francis Drake Blvd., from College Ave to Toussin Ave.	EB	1120	1	1120	II	960	1.17	F	-160

¹ More detailed intersection level analysis indicates Level of Service D (acceptable).

Source: Wilbur Smith Associates (2005)

updated
— (New chart) —

Determine Appropriate Mitigation. Work with the Transportation Authority of Marin to monitor the traffic impacts of development and identify mitigation requirements for proposed development that would cause a drop below adopted LOS, including transportation system improvements (See Maps 3-6a and 3-6b), impact fees, Transportation Demand Management strategies, direct support of alternative travel modes, or redesign of the development projects for transportation improvements. Amend the Development Code to incorporate those requirements. Require the preparation of a traffic impact analysis report to identify impacts and mitigation measures for projects that may result in significant traffic impacts. The following transportation improvements are fully funded and/or under construction and require no further evaluation:

- ◆ New overcrossing at the Redwood Landfill
- ◆ ~~New HOV gap closure project on U.S. 101 both north and southbound~~ Close the HOV gap on U.S. 101 both north and southbound from Lucky Drive to North San Pedro Road, including a Class I bike/ped facility over Puerto Suello Hill, and a dual lane exit to I-580 Eastbound
- ◆ ~~Reconfigure U.S. 101/Sir Francis Drake interchange~~ Widen Sir Francis Drake Boulevard Westbound from Larkspur Landing Circle to the southbound U.S. 101 onramp
- ◆ New northbound auxiliary lane on U.S. 101 from State Route 37 off-ramp to South Novato Boulevard off-ramp
- ◆ I-580 interchange improvements: West I-580 to south U.S. 101 and West I-580 to north U.S. 101 to 2nd Street, including improvements at the Bellam Boulevard ramps and surrounding bike/ped facilities
- ◆ Widen southbound U.S. 101 off-ramp at Tiburon Boulevard/East Blithedale and improve the traffic distribution at the ramp terminus with East Blithedale

The following proposed transportation system improvements are not fully funded but have the potential to reduce regional and project-related traffic impacts. Before implementation, these improvements must be further evaluated in accordance with Policy TR-1.5 Require Necessary Transportation Improvements.

- ◆ ~~Widen U.S. 101 from four to six lanes to include an HOV lane in each direction from Novato to Petaluma~~
- ◆ ~~Improve Atherton Avenue at U.S. 101 interchange~~
- ◆ ~~New northbound auxiliary lane on U.S. 101 from State Route 37 off-ramp to South Novato Boulevard off-ramp~~
- ◆ ~~New northbound auxiliary lane from Nave Road onramp to State Route 37~~
- ◆ ~~New traveler information system along I-580, U.S. 101, and State Route 37~~
- ◆ ~~New southbound auxiliary lane from Miller Creek Road to the truck scales~~ Manuel T. Freitas Parkway
- ◆ ~~Improve U.S. 101/Lucas Valley Road interchange~~
- ◆ ~~Add a new southbound auxiliary lane on U.S. 101 from Manuel T. Freitas Parkway to the North San Pedro Road exit~~
- ◆ ~~I-580 interchange improvements: West I-580 to south U.S. 101 and West I-580 to north U.S. 101 to 2nd Street~~
- ◆ Improve Lucky Drive access to/from U.S. 101
- ◆ Reconfigure U.S. 101/Sir Francis Drake interchange
- ◆ ~~New southbound auxiliary lane on U.S. 101 from Andersen Drive to Sir Francis Drake Boulevard~~ Add new multi-modal facilities accessing the Larkspur Ferry Terminal

- ◆ ~~Add a northbound auxiliary lane on U.S. 101 from Paradise Drive to Lucky Drive~~ Improve Lucky Drive access to/from U.S. 101
- ◆ Improve access to transit facilities from Greenbrae interchange to Tamalpais Drive
- ◆ ~~Widen Sir Francis Drake Boulevard from the Larkspur Ferry terminal to Andersen Drive~~
- ◆ ~~Improve U.S. 101 / Tamalpais interchange operations from Greenbrae interchange to Tamalpais Drive~~
- ◆ ~~Widen Tiburon Boulevard overcrossing to six lanes (divided with dual southbound ramps) from U.S. 101 to Strawberry Drive~~
- ◆ ~~Widen off-ramp and other interchange improvements at U.S. 101 / Tiburon interchange~~
- ◆ Improve Tiburon Boulevard overcrossing including consideration of additional lanes, more offramp and onramp capacity, accommodation of bicyclists and pedestrians, and better access to bus transit stops in the interchange.
- ◆ ~~Widen and improve signals on State Route 1 between Flamingo Road and U.S. 101, including replacement of Tennessee Valley (Coyote Creek) bridge~~ Work to lessen traffic congestion on State Route 1 west of U.S. 101, looking at feasible traffic mitigation through Tam Junction.
- ◆ ~~Access management for State Route 1 from U.S. 101 to Stinson Beach and Tennessee Valley Road for access to the Golden Gate, Mt. Tamalpais and Stinson Beach Recreation areas~~
- ◆ Consider expansion of rRegional express bus operations on U.S. 101 from Santa Rosa to San Rafael / San Francisco to include local bus service to the regional bus-stops and bus transfer facilities along the U.S. 101 corridor
- ◆ Consider the addition of a higher capacity bus transfer facility in the southern Marin area from Sir Francis Drake Boulevard southward along U.S. 101
- ◆ Secure permanent funding for the Muir Woods Shuttle operating between the U.S. 101/State Route 1 interchange and Muir Woods National Monument. Consider the addition of information supply facilities, such as kiosks, to provide information on the shuttle operation
- ◆ ~~Operational improvements to~~ Widen Sir Francis Drake Boulevard between Bon Air Road and Wolfe Grade
- ◆ Consider expansion of Expand I-580 from two to three lanes in the westbound direction from the Richmond Bridge to Sir Francis Boulevard as long as traffic impacts downstream are adequately addressed
- ◆ Improve Miller Creek Road and Las Gallinas intersection as needed
- ◆ Improve Miller Creek Road and U.S. 101 interchange as needed
- ◆ Widen Lucas Valley Road from Las Gallinas Avenue to Los Gatos

The following projects are subject to local city coordination and approval:

- ◆ As needed, widen South Novato Boulevard from U.S. 101 to Sunset
- ◆ Add a right turn lane to the northbound Grand Avenue approach at Second Street and Grand Avenue intersection
- ◆ Add a westbound through lane on Third Street at the intersection of Third and Grand Avenue

⁷ The City of San Rafael has a peak hour parking program that provides some relief.



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- TR-2.h** *Encourage Innovative Bicycle Lane Design.* Encourage the incorporation of innovative design concepts in the development of bicycle lane projects. Where feasible consider using techniques and ideas employed in other communities throughout Europe and the U.S.A., such as: colored bike lanes, signage, lighting, and other safety features.
- TR-2.i** *Renovate Tunnels along the Planned North-South Bikeway into Multi-Use Pathways.* Support reopening the California Park Hill Tunnel and, if feasible, reopening the Alto Tunnel as key connections in the bicycle and pedestrian network system. The California Park Hill Tunnel provides a key multi-modal connection between the San Rafael Transit Center and Larkspur Landing Ferry terminal, both major transit hubs. The Alto Tunnel provides a direct, nearly-level link between Mill Valley and Corte Madera.
- TR-2.j** *Ensure Safe Routes to Schools.* As funding permits, continue to work with local school districts to ensure that children have safe walking and bicycling routes to schools, and incorporate projects needed to support the Safe Routes to Schools program into the County Capital Improvement Program. Continue the Marin County Safe Routes to Schools encouragement and education program, which provides bicycle and pedestrian safety training, events, contests, law enforcement, and the identification of potential bicycle and pedestrian transportation improvements.
- TR-2.k** *Consider Pedestrian Needs.* Work with local cities and towns to ensure that traffic signals are timed to allow safe and comfortable pedestrian crossing. Work with Caltrans to improve pedestrian access to freeway bus pads along Highway 101. Work with local communities, Transportation Authority of Marin, school districts, and Safe Routes to Schools to continue the countywide school crossing guard program.
- TR-2.l** *Consider Non-motorized Access in Transportation Projects.* Include safe and convenient bicycle and pedestrian access, where feasible, in all transportation improvement projects. Request that Caltrans and the Federal Highway Administration provide separated, safe and secure bicycle and pedestrian access as part of any roadway or interchange improvement work and that access for pedestrians and bicyclists be available during construction. Continue to implement the Department of Public Works policy on routine accommodation. While the County does not have authority to plan or maintain bicycle facilities located in other jurisdictions, it may be appropriate for the Transportation Authority of Marin (TAM) or similar entity or collaboration to assume this responsibility.
- TR-2.m** *Explore Funding Options.* Continue to apply for regional, State and federal grants for bicycle and pedestrian infrastructure projects. Consider using general fund monies, state gas tax subventions, sales tax funds, and development exactions/impact fees to provide bicycle and pedestrian facilities, as well as Safe Routes to School programs.
- TR-2.n** *Implement Nonmotorized Pilot Transportation Program.* Carry out the Nonmotorized Transportation Pilot Program through construction of adopted Pilot projects and initiation of adopted Pilot education and outreach programs. Continue participation in

for the County's schools providing a required planning basis for the Measure A-financed safe pathways administered by TAM

TAM's program to produce

TAM and

TAM managed

to maintain and expand the Measure A funded school



BUILT ENVIRONMENT ELEMENT

Indicators	Benchmarks	Targets
Public transportation ridership share of modal split for county government employees.	5.5% (bus) in 2002.	Increase public transportation ridership by 2010 and then again by 2015.
Percent clean fuel buses.	0 in 2000 (131 of 195 by 2004).	Increase the number clean fuel busses by 2010 and increase them again by 2015.

* Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.

Program Implementation

The following table summarizes responsibilities, potential funding priorities, and estimated time frames for proposed implementation programs. Program implementation within the estimated time frame¹ will be dependent upon the availability of adequate funding and staff resources.

Figure 3-38
Transportation Program Implementation

Program	Responsibility	Potential Funding	Priority	Time frame
TR-1.a - Support Alternate Work Schedules.	DPW, TAM	Will require additional grants or other revenue ²	TBD	Long term
TR-1.b - Allow Live-Work Arrangements.	CDA	Existing budget and may require additional grants or revenues ¹	Medium	Ongoing
TR-1.c - Promote Transportation Alternatives.	DPW, TAM, MT <u>M.C.T.O</u>	Will require additional grants or other revenue ¹	TBD	Long term
TR-1.d - Coordinate with Local Agencies.	DPW, TAM, MT <u>M.C.T.O</u>	General fund, TAM budget, grants, transportation sales tax	Low	Ongoing
TR-1.e - Uphold Vehicle Level of Service Standards.	DPW, TAM	General fund, TAM budget	N/A	Completed
TR-1.f - Analyze Multi-Modal Performance.	DPW, TAM, MT <u>M.C.T.O</u>	Will require additional grants or other revenue ¹	TBD	Long term
TR-1.g - Determine Appropriate Mitigation.	(1) DPW, TAM – monitor traffic (2) CDA – update Development Code	(1) General fund, TAM budget (2) General fund	(1)Low (2)Medium	(1)Ongoing (2) Short term

¹Time frames include: Immediate (0-1 years); Short term (1-⁴/₇ years); Med. term (⁴⁻⁷/₈₋₅ years); Long term (⁷/_{over 5} years); and Ongoing.

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MARIN COUNTYWIDE PLAN

Program	Responsibility	Potential Funding	Priority	Time frame
TR-1.h - Add Transportation Policies to Community Plans.	CDA, DPW, M.T. <u>M.C.T.D</u>	Existing budget	Medium	Ongoing
TR-1.i - Adopt Flexible Parking Standards.	CDA, DPW, TAM	Existing budget, TLC/HIP fund,	High,	Short term
TR-1.j - Install Highway Improvements.	DPW, TAM	General fund, grants, traffic mitigation fees, transportation sales tax ²	High	Ongoing
TR-1.k - Update Transportation System Modeling.	DPW, TAM, M.T. <u>M.C.T.D</u>	General fund, TAM budget	Low	Ongoing
TR-1.l - Update Traffic Mitigation Fees.	DPW	General fund	Low	Ongoing
TR-1.m - Promote Regional Traffic Mitigation Fees.	DPW, TAM	Will require additional grants or other revenues ¹	TBD	Long term
TR-1.n - Obtain and Dedicate Transportation Funding.	DPW, TAM, M.T.	General fund, TAM budget	High	Ongoing
TR-1.o - Keep West Marin Rural.	DPW	General fund	High	Ongoing
TR-1.p - Limit Aviation Uses.	CDA, DPW	General fund	Medium	Ongoing
TR-1.q - Review Parking Requirements.	CDA, DPW	Existing budget	High	Ongoing
TR-1.r - Reduce Congestion on Grandfathered Road Segments.	TAM, M.T. <u>M.C.T.D</u>	Grants, transportation sales tax, will require additional grants or other revenue	Medium	Long term
TR-1.s - VMT Reduction Monitoring and Implementation Program.	TAM, DPW	Will require additional grants or other revenue ¹	Low <u>High</u>	Long term <u>Med term</u>
TR-2.a - Encourage Bicycling.	DPW, TAM, CDA, H&HS, M.T. <u>M.C.T.D</u>	Existing budget, grants, transportation sales tax ²	High	Ongoing
TR-2.b - Adopt Standards for Pedestrian and Bicycle Access.	CDA <u>M.C.T.D</u>	Existing budget	Medium	Medium term
TR-2.c - Support Bicycle Stations and Consider Attended Parking.	DPW, CDA, MCBC	General fund, grants, transportation sales tax ²	Medium	Ongoing
TR-2.d - Fund Projects.	DPW, TAM, M.T. <u>M.C.T.D</u>	General fund, grants, transportation sales tax ²	TBD	Ongoing



BUILT ENVIRONMENT ELEMENT

Program	Responsibility	Potential Funding	Priority	Time frame
TR-2.e - Prioritize Completion of the North-South and East-West Bikeways.	DPW, TAM, SMART, CalTrans, MCBC , Cities and Towns	Grants, transportation sales tax ² <i>general fund</i>	Medium	Long term
TR-2.f - Develop "Rails with Trails."	DPW, TAM, SMART, Cities and Towns	Will require additional grants or other revenue ¹	TBD	Long term
TR-2.g - Add Bicycle Lanes.	DPW, TAM	Will require additional grants or other revenue ¹	TBD	Long term
TR-2.h - Encourage Innovative Bicycle Lane Design.	DPW, TAM	General fund, grants, traffic mitigation fees, transportation sales tax ²	Medium	Ongoing
TR-2.i - Renovate Tunnels along the Planned North-South Bikeway into Multi-Use Pathways.	DPW, TAM	Federal funding and will require additional grants or other revenue ¹	TBD	Long term
TR-2.j - Ensure Safe Routes to Schools.	DPW, TAM, MCTD <i>M.C.T.D</i>	Transportation sales tax and will require additional grants or other revenue ¹	TBD	Long term
TR-2.k - Consider Pedestrian Needs.	DPW, TAM	Federal funding and will require additional grants or other revenue ¹	TBD	Long term
TR-2.l - Consider Non-motorized Access in Transportation Projects.	DPW, TAM	Will require additional grants or other revenue ¹	TBD	Long term
TR-2.m - Explore Funding Options.	DPW, TAM, MCTD <i>M.C.T.D</i>	General fund, grants, transportation sales tax ²	High	Ongoing
TR-2.n - Implement Non-Motorized Pilot Transportation Program.	DPW, TAM	TAM, Federal funding, transportation sales tax ² <i>state, and local</i>	TBD	Long term
TR-3.a - Increase Bus and Ferry Services.	Marin County Transit District, Golden Gate Bridge Transit District	Will require additional grants or other revenue ¹	TBD	Long term
TR-3.b - Provide Schedules and Shelters.	Marin County Transit District, Golden Gate Bridge Transit District	Will require additional grants or other revenue ¹	TBD	Long term
TR-3.c - Provide Reduced Cost Transit Passes.	Marin County Transit District	Grants, transportation sales tax ²	Medium	Ongoing
TR-3.d - Join in Regional Initiatives.	DPW, TAM, MCTD <i>M.C.T.D</i>	Will require additional grants or other revenue ¹	TBD	Long term



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Program	Responsibility	Potential Funding	Priority	Time frame
TR-3.e - Upgrade and Create Intermodal Hubs.	DPW, TAM, Marin County Transit District, Golden Gate Transit, Caltrans	Will require additional grants or other revenue ¹	TBD	Long term
TR-3.f - Promote Transit-Oriented Development.	CDA, DPW, TAM	General fund, TAM budget, TLC/HIP grants	Medium	Med. term
TR-3.g - Coordinate Paratransit.	Marin County Transit District, Golden Gate Bridge Transit District	Will require additional grants or other revenue ¹	TBD	Long term
TR-3.h - Implement a Traffic Reduction Program for Recreational Traffic to West Marin.	DPW, TAM, M.T. <u>M.C.T.O.</u>	Will require additional grants or other revenue ¹	Low	Long term
TR-4.a - Limit Project Impacts.	DPW, TAM	General fund, grants, traffic mitigation fees, transportation sales tax ²	Low	Ongoing
TR-4.b - Use Recycled and Resource Efficient Materials.	DPW, TAM	Will require additional grants or other revenue ¹	TBD	Long term
TR-4.c - Support Green Fuels.	CDA, DPW, M.T. <u>TAM</u>	Will require additional grants or other revenue ¹	TBD	Long term
TR-4.d - Encourage Zero and Low-Emissions Vehicle Use.	CDA, M.T. <u>TAM</u>	Existing budget	Medium	Ongoing

¹Completion of this task is dependent on acquiring additional funding. Consequently, funding availability could lengthen or shorten the time frame and ultimate implementation of this program.

²The Transportation Sales Tax (Measure A) was passed by voters in November, 2004.



BUILT ENVIRONMENT ELEMENT

- ◆ encouraging business rebates
- ◆ encouraging plumbing maintenance programs

- PFS-2.g** *Promote Xeriscaping and Native Plants.* Amend the Development Code to require site appropriate, drought-tolerant low water use, native landscaping and ultra-efficient irrigation systems where appropriate for all development applications and re-landscaping projects. For parcels adjacent to publicly managed open space, appropriate landscaping will also be non-invasive and have low flammability, and be prepared in strict conformance with the County's list of appropriate plants. Limit the amount of water intensive landscaping, particularly lawn area allowed, in order to reduce the amount of water needed for irrigation.
- PFS-2.h** *Promote Site Appropriate, Low-water Use and Drought Tolerant Native Plants in Public Facilities.* Restore and promote the native plants garden at the Civic Center, and the development of similar landscaping for all public facilities. Create a Landscaping Master plan for Public Facilities that specifies appropriate species, methods, and technologies for water-wise landscaping.
- PFS-2.i** *Promote Water Saving Irrigation.* Encourage use of irrigation technologies such as evapotranspiration systems – where real time weather data is transmitted to installed controllers to automate water needs – that save water, promote greater plant health, and reduce run-off. Encourage water agencies to conduct irrigation training workshops for homeowners and professionals.
- PFS-2.j** *Upgrade West Marin Systems.* ~~Encourage~~ Promote assistance to water service providers to upgrade the water delivery systems in West Marin to reduce the incidence of saltwater intrusion and leakage–by reviewing plans and initiating discussion among West Marin water providers of viable programs. The County should promote the upgrade and improvement of water supply development (e.g., wells), water treatment, water delivery and water storage facilities for the purpose of providing supplemental and backup water supplies for peaking and emergency purposes. Upgrade of water systems should be consistent with the Ahwahnee Principles for water supply that encourage a diverse water portfolio, matching of water supply with intended use, protection of natural systems and water resources, and evaluation of the multiple benefits of a water system upgrade program, among others.
- PFS-2.k** *Investigate Tomales Bay Groundwater.* Conduct a study of groundwater availability and water quality of the Tomales Bay watershed, including the Walker, Lagunitas, Stemple, and Olema Creek watersheds, and the aquifer bordering the Petaluma River, to determine the potential for using local groundwater to supplement drinking water supplies.
- PFS-2.l** *Reduce Energy Use from Water Facilities.* Work with water agencies on a joint effort to offer energy conserving and renewable power facilities (such as solar photovoltaic) to contribute energy back into the grid to offset energy used in water development and distribution.



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.35. Land shall be designated for *open space* and for *public facilities* or *single-family residential* at 1 to 7 units per acre.

PA-2.5 **Designate Land Use in Los Ranchitos.** Land use for Los Ranchitos shall include *single-family residential* at 1 unit per 1 to 5 acres, and *planned residential* at 1 unit per 1 to 10 acres.

St. Vincent's/Silveira

Background

St. Vincent's/Silveira area consists of approximately ~~1230~~ 1,110 acres east of Highway 101 in the unincorporated area of the County between the cities of San Rafael and Novato. The area includes two properties: the ~~880~~ 770-acre Catholic Youth Organization/St. Vincent's School for Boys and the ~~350~~ 340-acre Silveira Family ranch. The Silveira land has been held by the family for generations, and used mainly for dairy ranching since about 1900. The land known as St. Vincent's was gifted by Timothy Murphy (who received a large land grant from the Mexican government when California was under Mexican rule) to the Archdiocese upon his death. Around 1855, an orphanage and school began operation. Today, the school is run by the Catholic Youth Organization and provides shelter and services to disadvantaged and troubled boys. The school building is a California historical landmark, and is partly visible from Highway 101. Each property represents a distinct legacy in the history of Marin County.

The Marin Countywide Plan, first adopted in 1973, included the St. Vincent's/Silveira lands within the eastern City-Centered Corridor. This effectively designated them as an urban reserve area to be considered for suburban or urban development upon eventual annexation to the City of San Rafael. San Rafael and the County have conducted three planning studies for the properties, the most recent one completed in 2000. Each of these studies was premised on annexation to and development within the City of San Rafael. Furthermore, the City had indicated in their planning documents their intention of annexing the area. The 1994 Marin Countywide Plan also presumed annexation of these two parcels to, and development within, the City of San Rafael.

In 2003 the City Council of San Rafael decided not to annex the properties and submitted a request to the Local Agency Formation Commission (LAFCO) to remove these lands from the City's Sphere of Influence. In June 2006, LAFCO removed the properties from San Rafael's sphere of influence. The removal of the sites from San Rafael's sphere of influence means that the City no longer intends to annex the area and approve urban development on the sites. Since LAFCO approved this request from the City of San Rafael, these parcels remain in the unincorporated area of the County.

As discussed above, this area has special significance for Marin County for many reasons. These include the historical significance of the church, St. Vincent's School, and other buildings, visual and aesthetic appearance of the area, topography, archaeological resources, environmental resources, and the area's importance as a physical and visual separator between the cities of Novato and San Rafael (see Policy SV-2.1). It is important that planning for any development in this area take into consideration and respect the agricultural and historical legacies that exist in this area and preserve these legacies for future generations. These considerations, along with the location of much of these



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- ◆ Over 8.2 million square feet of commercial space is located in the planning area, of which over 96% is in the City of Novato.
- ◆ Construction of the Buck Institute was completed in 1999, which includes office and research space. Employee housing will be included in future phases.
- ◆ Redevelopment of Hamilton Field has resulted in near completion of all new residential units while construction of non-residential structures continues.
- ◆ A significant amount of bayfront lands have been protected as permanent open space through the acquisition of the Hamilton Army Airfield runways, lands around Bahia and Gness Field, and the former Bel Marin Keys Unit V residential development proposal.
- ◆ Novato Community Hospital completed its new facility.
- ◆ The 592,000-square foot Vintage Oaks shopping center was completed.
- ◆ Rush Creek, an 89-unit single-family subdivision, was completed.

Figure 3-51 Land Use and Demographic Data for the Novato Planning Area (PA #1)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population				62,800
	49,985	54,515	54,506	62,934
Households				24,817
	17,462	20,812	21,178	24,868
Average Household Size	2.86	2.62	2.57	2.37 2.53
Employed Residents				38,636
	25,658	30,538	32,043	36,601
Jobs				46,699
	13,783	18,230	27,879	44,944
Employed Residents/Job	1.86	1.68	1.15	0.83 0.75
Land Use				
Housing Units				25,313
	18,513	21,413	21,719	25,315
Novato	15,971	18,782	18,994	22,185
Unincorporated Area				3,128
	2,542	2,631	2,725	3,130
Commercial/Industrial sq. ft.				16,431,800
	<i>Census</i>	5,746,557	8,252,697	16,398,103
Cities and Towns	<i>Data Not</i>	5,371,404	7,943,377	15,924,611
Unincorporated Area				507,189
	<i>Available</i>	375,153	309,320	473,492

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.



BUILT ENVIRONMENT ELEMENT

- ◆ Nearly five million square feet of commercial space are located in the planning area, of which only 5% is in the unincorporated area.
- ◆ Rotary Valley, an 80-unit senior housing complex, was completed.
- ◆ Open space along Big Rock Ridge has been acquired in fee-title or by easement.

Figure 3-52 Land Use and Demographic Data for the Las Gallinas Planning Area (PA #2)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population	26,788	25,563	28,615	35,899 <u>34,673</u>
Households	9,732	10,254	11,687	15,678 <u>15,204</u>
Average Household Size	2.75	2.49	2.45	2.24 <u>2.21</u>
Employed Residents	14,239	16,778	16,157	22,145 <u>19,552</u>
Jobs	13,789	18,412	16,275	23,886 <u>20,736</u>
Employed Residents/Job	1.03	0.91	0.99	0.93 <u>0.94</u>
Land Use				
Housing Units	9,353	10,629	11,915	15,588 <u>15,193</u>
Cities and Towns	5,632	6,626	7,664	10,159
Unincorporated Area	3,721	4,003	4,251	5,429 <u>5,034</u>
Commercial/Industrial sq. ft.				6,944,589
	<i>Census</i>	4,345,725	4,937,881	<u>6,917,718</u>
Cities and Towns	<i>Data Not</i>	4,179,232	4,693,166	6,082,356
Unincorporated Area				862,233
	<i>Available</i>	166,493	244,715	<u>835,362</u>

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.

Planning Area Goals and Policies

The Las Gallinas Planning Area includes lands within the Baylands and City-Centered Corridors. The following land use maps graphically represent land use policies for the planning area:

Map #	Area Covered
2.1	Lucas Valley Environs
2.2	Lucas Valley
2.3	Marinwood
2.4	St. Vincent's/Silveira
2.5	Santa Venetia (two maps)



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- ◆ The number of jobs in the planning area increased 43.4% in twenty years, from 19,570 in 1980 to 24,136 in 1990 to 28,073 in 2000, resulting in a corresponding decrease in the number of employed residents per job, from 0.89 to 0.79.
- ◆ There were 15,913 housing units in the planning area in 2000, 629 of which were in the unincorporated area.
- ◆ Over 8.9 million square feet of commercial space is located in the planning area, of which 99.9% is in the City of San Rafael.
- ◆ Downtown San Rafael has been reinvigorated through rehabilitation of civic and commercial buildings and construction of housing and mixed-use projects.
- ◆ The Baypoint Lagoon residential project in the Canal area was completed.

Figure 3-53 Land Use and Demographic Data for the San Rafael Basin Planning Area (PA #3)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population				50,050
	31,613	34,823	40,078	<u>50,341</u>
Households				19,494
	13,876	14,527	15,483	<u>19,616</u>
Average Household Size	2.28	2.40	2.59	2.66 2.21
Employed Residents				28,887
	17,323	18,611	22,083	<u>24,416</u>
Jobs				37,298
	19,570	24,136	28,073	<u>36,289</u>
Employed Residents/Job	0.89	0.77	0.79	0.77 0.67
Land Use				
Housing Units				20,124
	14,280	15,119	15,913	<u>20,249</u>
San Rafael	13,568	14,513	15,284	19,370
Unincorporated Area	712	606	629	754 879
Commercial/Industrial sq. ft.	<i>Census</i>	8,574,142	8,915,424	12,733,278
San Rafael	<i>Data Not</i>	8,563,165	8,904,447	12,707,797
Unincorporated Area	<i>Available</i>	10,977	10,977	25,481

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.

Note: Build out does not assume any units at Quarry.



BUILT ENVIRONMENT ELEMENT

Figure 3-54 Land Use and Demographic Data for the Upper Ross Valley Planning Area (PA #4)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population				28,884
	25,623	24,196	25,297	28,838
Households				12,110
	10,420	10,171	10,504	12,090
Average Household Size	2.46	2.38	2.41	2.38 2.39
Employed Residents				17,071
	13,500	13,687	14,459	17,208
Jobs				6,591
	4,355	6,065	7,033	5,550
Employed Residents/Job	3.10	2.26	2.06	2.59 3.10
Land Use				
Housing Units				11,504
	10,836	10,565	10,823	11,514
Upper Ross Valley	9,692	9,323	9,631	10,035
Unincorporated Area	1,144	1,242	1,192	1,469 1,479
Commercial/Industrial sq. ft.	<i>Census</i>	1,391,308	1,328,484	1,398,260
Upper Ross Valley	<i>Data Not</i>	1,316,993	1,296,664	1,351,433
Unincorporated Area	<i>Available</i>	74,315	31,820	46,817

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.

Planning Area Goals and Policies

The following land use maps graphically represent the land use policies for the Upper Ross Valley, which is wholly within the City-Centered Corridor:

Map #	Area Covered
4.1	Sleepy Hollow
4.2	West Fairfax
4.3	Southwest of Fairfax

What are the desired outcomes?

GOAL PA-4

Land Use Policies for the Upper Ross Valley Planning Area. The following policies shall guide the development of land in the unincorporated portions of the Upper Ross Valley Planning Area:



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Figure 3-55 Land Use and Demographic Data for the Lower Ross Valley Planning Area (PA #5)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population				<u>29,141</u>
	29,220	31,451	34,366	<u>28,839</u>
Households				<u>13,217</u>
	11,396	11,933	12,731	<u>13,116</u>
Average Household Size	2.56	2.64	2.70	2.25
Employed Residents				<u>17,522</u>
	14,313	15,768	16,585	<u>17,391</u>
Jobs				<u>22,599</u>
	12,991	20,589	22,674	<u>19,446</u>
Employed Residents/Job	1.10	0.77	0.73	<u>0.78</u> <u>0.89</u>
Land Use				
Housing Units				<u>14,279</u>
	11,693	12,394	13,168	<u>14,189</u>
Lower Ross Valley	8,884	9,683	10,263	11,051
Unincorporated Area	2,809	2,711	2,905	<u>2,228</u> <u>3,138</u>
Commercial/Industrial sq. ft.				<u>5,581,353</u>
	<i>Census</i>	4,602,495	4,962,780	<u>5,471,054</u>
Lower Ross Valley	<i>Data Not</i>	4,260,138	4,625,843	5,131,373
Unincorporated Area				<u>449,980</u>
	<i>Available</i>	342,357	336,937	<u>339,681</u>

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.

Note: Build out figures do not factor in San Quentin reuse

Planning Area Goals and Policies

Within the planning area the Kentfield/Greenbrae Community Plan (1987) and Kent Woodlands Land Use Policy Report (1995) govern land use within the Kentfield/Greenbrae area and Kent Woodlands, respectively. The following land use maps graphically represent land use policies for the planning area:

Map #	Area Covered
5.1	Kentfield (two maps)
5.2	Lucky Drive/Greenbrae Boardwalk
5.3	San Quentin



BUILT ENVIRONMENT ELEMENT

- ◆ Ridgeland above Marin City were acquired and included in the Golden Gate National Recreation Area.
- ◆ The 30-unit Braun Court housing project was completed including 16 affordable housing units.
- ◆ Tam Junction continues to be the gateway to west Marin and is impacted by visitor and recreational traffic.
- ◆ A master plan process is underway for portions of the Marin City Community Service District area for a new community center, commercial mixed-use residential project.

Figure 3-56
Land Use and Demographic Data for the Richardson Bay Planning Area (PA #6)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population				59,321
	47,983	47,755	52,094	<u>58,354</u>
Households				27,543
	21,508	22,491	24,106	<u>27,088</u>
Average Household Size	2.23	2.12	2.16	2.17
Employed Residents				39,297
	27,903	29,785	32,166	<u>39,120</u>
Jobs				20,189
	12,113	15,050	19,627	<u>19,073</u>
Employed Residents/Job	2.30	1.98	1.64	1.95 <u>2.05</u>
Land Use				
Housing Units				27,758
	22,405	23,542	25,092	<u>26,988</u>
Richardson Bay	13,673	14,976	15,749	16,332
Unincorporated Area				11,426
	8,732	8,566	9,343	<u>10,656</u>
Commercial/Industrial sq.ft.				5,469,160
	<i>Census</i>	4,120,406	4,458,075	<u>5,381,838</u>
Richardson Bay	<i>Data Not</i>	3,247,893	3,390,139	4,234,173
Unincorporated Area				1,234,987
	<i>Available</i>	872,513	1,067,936	<u>1,147,665</u>

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.



BUILT ENVIRONMENT ELEMENT

- ◆ Agricultural diversity and viability are improving through the production of value-added products such as cheese making, including Giacomini Ranch, the Straus Creamery, and Cowgirl Creamery.
- ◆ The Marin Agricultural Land Trust has preserved over 33,000 acres of agricultural lands through conservation easements since its inception in 1980.
- ◆ Gibson House in Bolinas has been rehabilitated to include eight affordable housing units. Additional units are under construction at the gas station.
- ◆ The 34-unit Pt. Reyes Affordable Housing project was completed.
- ◆ Stinson Beach has constructed a new community park and library.
- ◆ French Ranch, a 34-unit residential development, has been completed.
- ◆ The Big Rock Ranch phase of the Lucasfilm complex was completed.
- ◆ The Mount Vision Fire devastated a large area of Inverness and the Pt. Reyes National Seashore in 1995.

Figure 3-57
Land Use and Demographic Data for the West Marin Planning Area (PA #7)

Information Category	1980 Actual	1990 Actual	2000 Actual	Buildout
Demographics				
Population	11,356	11,793	12,334	15,854 15,993
Households	4,329	4,818	4,964	6,683 6,746
Average Household Size	2.62	2.45	2.48	2.33
Employed Residents	5,624	6,877	7,462	10,379
Jobs	1,252	1,358	1,409	5,452 5,528
Employed Residents/Job	4.49	5.06	5.30	1.90 1.87
Land Use				
Housing Units	5,657	6,095	6,360	7,281 7,307
Commercial/Industrial sq.ft.	<i>Census Data Not Available</i>	790,123	1,110,168	1,314,643 1,290,302

Sources: Census, Association of Bay Area Governments, Marin County Community Development Agency.

MAP 3-5 LOCATION OF MINERAL RESOURCE PRESERVATION SITES

State of California Designated Mineral Resources Sites

- 1 Ring Mountain, Tiburon
190 acres, Tiburon Peninsula. Contains rare, colorful and enigmatic metamorphic rock as well as many species of rare plants.
- 2 Novato Conglomerate-Black Point
Located in the city limits of Novato. Contains a thick accumulation of well-rounded pebbles, cobbles, and boulders in a well-cemented sandy matrix suitable for Portland Concrete Cement.
- 3 Novato Conglomerate-Black Point
Located in the city limits of Novato. Contains conglomerate.
- 4 Franciscan Complex Sandstone-San Pedro Hill
Located at the tip of the San Pedro Peninsula just outside San Rafael city limits. Contains PCC aggregate, rip rap, and shale.
- 5 Sonoma Volcanics Andesite-Burdell Mountain
50 acres. Located on the east side of Mount Burdell. Contains andesite suitable for asphaltic concrete aggregate or road base material. This site no longer contains sufficient mineral resources to meet the threshold requirement for a regionally significant deposit and the mineral Resource Preservation Policies no longer apply.
- 6 Franciscan Complex-Borelio Quarry
Located 3.5 miles north of Point Reyes Station. Contains sandstone, shale, greenstone, chert, and pillow lavas.
- 7 Franciscan Complex Serpentine-Bowman Canyon Quarry
Located on the southwest slope of Burdell Mountain. Contains serpentinite, dark green to grayish-green in color, suitable for subbase material after crushing. This site no longer contains sufficient mineral resources to meet the threshold requirement for a regionally significant deposit and the mineral Resource Preservation Policies no longer apply.
- 8 Sonoma Volcanics Andesite-Burdell Mountain Open Space Preserve
Located within Novato city limits. Contains hard, dense andesite suitable for asphaltic concrete aggregate. It is owned by the Marin County Open Space District. It is a management policy of the District to prohibit the collection or exploitation of minerals from its lands.

Main County Permitted Mineral Resource Sites

- 9 Nicasio Quarry
Located just north of Nicasio Square on a 6.4 acre portion of a 375 acre property. Formerly known as the Lafranchi Quarry. An open-face quarry in existence prior to 1973. The quarry is being mined primarily for greenstone as a source of aggregate for road base.
- 10 Lawson's Landing Quarry
An active sand quarry on open coastal dunes located 1/4 mile northeast of Dillon Beach. The quarry consists of two sites-23 acres and 16 acres-totalling 39 acres. *The brown sand is used for concrete, sealants, dairy barns, all-glassing materials, and golf courses. The quarry is currently undergoing reclamation.*
- 11 Martini Quarry
An idle quarry on 6.5 acres located 1 mile north of Fallon-Two Rock Road on Martini Road. Contains chert, commonly known as "red rock."
- 12 Reduced Landfill Quarry
50 acre site located approximately 4 miles north of Novato. Contains sandstone, shale, greenstone and chert, which are extracted for the exclusive application as cover material at the adjacent Redwood Landfill.

SOURCE: 1987, California State Department of Conservation Division of Mines and Geology
2004, Marin County Department of Public Works

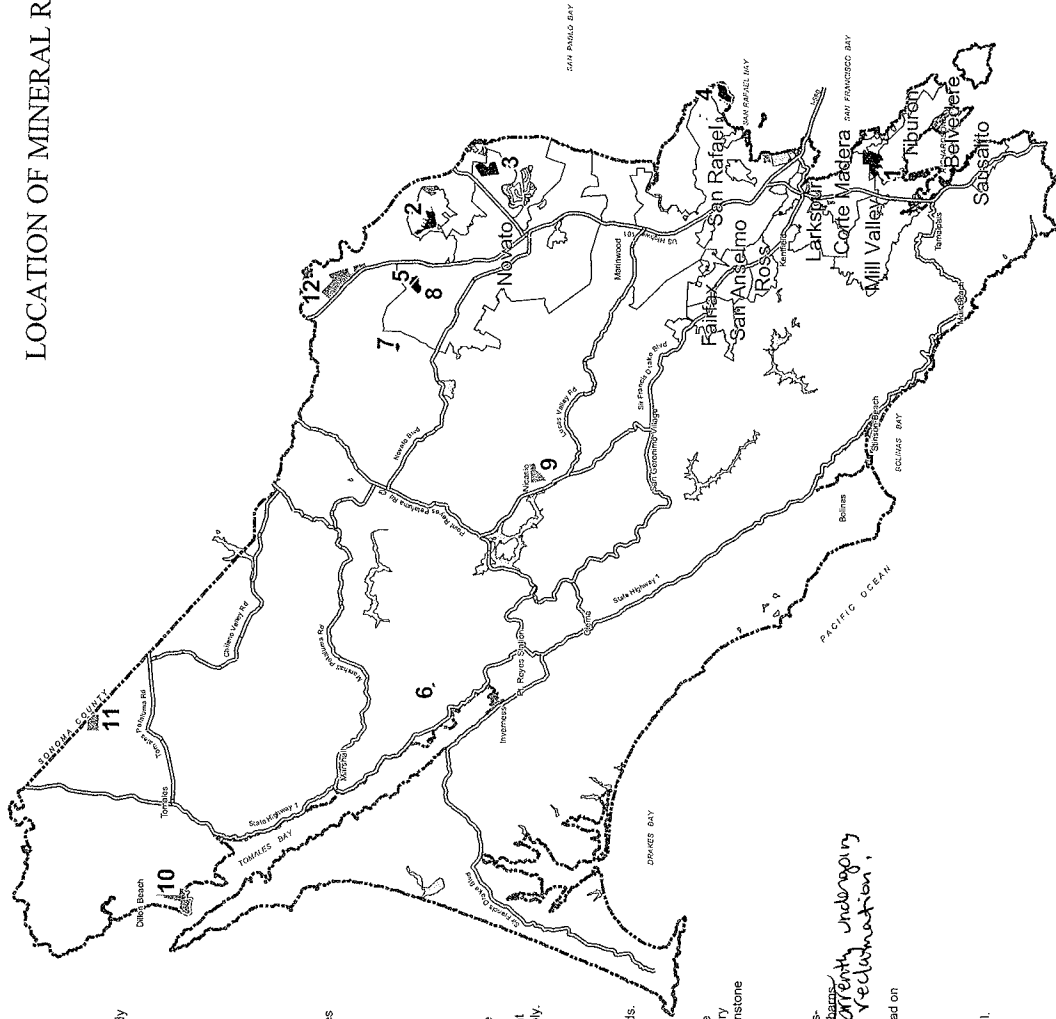
Legend

- County Boundary
- City Boundary
- Highways and Major Roads

- Water Bodies
- Lakes

Mineral Resource Preservation Sites

- State Designated Mineral Resource Preservation Sites
- Main County Permitted Mineral Resource Sites



0 1 2 4 6 8
Miles
THIS MAP WAS DEVELOPED FOR GENERAL PLANNING PURPOSES.
THE COUNTY OF MARIN IS NOT RESPONSIBLE OR LIABLE FOR
USE OF THIS MAP BEYOND ITS INTENDED PURPOSE.

Date: August 8, 2005 File: Mineral 3-5.mxd



SOCIOECONOMIC ELEMENT

Program	Responsibility	Potential Funding	Priority	Time Frame
PS-3.j - Develop Evacuation Plans.	OES, Local jurisdictions	Existing budget and may require additional grants or revenues*	High	Immediate
PS-3.k - Ensure Seismic Design Regulations.				
PS-4.a - Regulate Development Near Waste Sites.	CDA	Existing budget and may require additional grants or revenues*	Medium	Med. term
PS-4.b - Regulate Hazardous Material Use.	DPW	Existing budget and may require additional grants or revenues*	High	Ongoing
PS-4.c - Restrict Transport.	Federal Department of Transportation, California Highway Patrol, CalTrans	TBD	High	Ongoing
PS-4.d - Prepare for Hazardous Materials Incidents.	HazMat, JPA, DPW, OES	Existing budget, JPA contributions and may require additional grants or revenues*	High	Ongoing
PS-4.e - Precautionary Principle.	All County Departments	Existing budget and may require additional grants or revenues*	High	Ongoing
PS-4.f - Reduce Hazardous Materials on County Property.	DPW	Will require additional grants or other revenue*	TBD	Long term
PS-4.g - Promote Ecologically Friendly Products.	BOS, CDA, DPW, other applicable departments	Existing budget and may require additional grants or revenues*	High	Ongoing
PS-4.h - Hazardous Materials Education.	State, county & Local jurisdictions	will require additional grants or revenues	Medium	Med. Term
PS-4.i - Hazardous Materials Disposal.		will require additional grants or revenues	Medium	Med. Term

* Completion of this task is dependent on acquiring additional funding. Consequently, funding availability could lengthen or shorten the time frame and ultimate implementation of this program.

JPA, Novato
Sanitary District