

MARIN

COUNTYWIDE PLAN



ADOPTED NOVEMBER 6, 2007

Marin Countywide Plan

**Adopted by the
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The mission of the County of Marin is to provide excellent services that support healthy, safe and sustainable communities; preserve Marin's unique environmental heritage; and encourage meaningful participation in the governance of the County for all.



STRATEGIC PLANNING GOALS

The following strategic planning goals have also been adopted by the Marin County Board of Supervisors

COMMUNITY GOALS

- ◆ Healthy Communities
- ◆ Safe Communities
- ◆ Sustainable Communities
- ◆ Environmental Preservation
- ◆ Community Participation

ORGANIZATIONAL GOALS

- ◆ Excellent Customer Service
- ◆ Employer of Choice
- ◆ Effective Communication
- ◆ Managing for Results
- ◆ Financial Responsibility



THE COUNTYWIDE PLAN

What is the Countywide Plan?



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The Marin Countywide Plan guides the conservation and development of Marin County. California law requires every city and county in the state to prepare and adopt a comprehensive long-range general plan for the physical development of the jurisdiction. While the law establishes specific requirements for the contents of the general plan, within that framework each community has the latitude to design its own future. Through extensive public participation, individual residents and representatives of many organizations have contributed to the creation of this document.



INTRODUCTION

Marin County has long maintained a tradition of environmental planning balanced with the recognition of the essential linkages between land use, transportation, and the need for affordable housing. The first Countywide Plan, adopted in 1973, remains a visionary document.

In the Countywide Plan, the 606 square miles of land and water that make up Marin County are designated as an environmental unit consisting of regions called *corridors*. Each corridor is based on specific geographical and environmental characteristics and natural boundaries formed by north- and south-running ridges (see Map 1-2). In the 1973 Plan, the following three environmental corridors were designated:

The Coastal Recreation Corridor (renamed the Coastal Corridor in this update) is adjacent to the Pacific Ocean and is primarily designated for federal parklands, recreational uses, agriculture, and the preservation of existing small coastal communities.



*“Planning is best done
in advance.”*

– Anonymous

The Inland Rural Corridor, in the central and northwestern part of the county, is primarily designated for agriculture and compatible uses, and for preservation of existing small communities.

The City-Centered Corridor, along Highway 101 in the eastern part of the county near San Francisco and San Pablo bays, is primarily designated for urban development and for protection of environmental resources. This corridor is divided into six planning areas generally based on watersheds.

The environmental features that focus development within the City-Centered Corridor have been updated and clarified as depicted in Maps 3-1a and 3-1b.

For over 30 years, these geographic designations have been widely recognized as the organizing principle of the Countywide Plan and have been modified only slightly in the course of three updates of the Plan. In this update of the Plan, the following fourth environmental corridor has been designated:

The Baylands Corridor, encompassing lands along the shoreline of San Francisco, San Pablo, and Richardson bays, provides heightened recognition of the unique environmental characteristics of this area and the need to protect its important resources. The area generally contains marshes, tidelands, and diked lands that were once wetlands or part of the bays, and adjacent, largely undeveloped uplands.



INTRODUCTION

History

The Countywide Plan, first adopted in 1973, was revised twice before the current update. The first update was adopted in 1982 and the second in 1994.

The 1973 Plan established the three environmental corridors. The Plan also focused on balancing environmental protection with the needs of present and future residents for housing, jobs, and recreation, and on the need for transportation options to reduce dependence on automobile use. Freeways and sprawling major development projects were proposed for pristine West Marin prior to adoption of the first Countywide Plan.

The public process culminating in the adoption of the Plan began a tradition of cooperation and coordination between the County and the 11 cities and towns. The public body that reviewed and commented on the Plan included elected officials, planning commissioners, and community members representing all the cities and towns as well as the County. This was a plan for the whole county, not just the unincorporated area.

The 1982 Plan, which was reviewed by a committee composed of elected officials from all 12 jurisdictions in the county, identified urban service areas around cities as suitable for annexation because urban levels of service could be provided in these locations. Recognizing funding limitations, the Plan included modest increases in transportation service and encouraged less costly transportation solutions, such as carpooling. The 1982 Plan also focused on energy conservation and the use of renewable energy sources. In 1993, the Countywide Planning Agency was formed by a joint powers agreement among all the cities/towns and Marin County to address planning and development issues of countywide concern, and to review and comment on the Countywide Plan as well as the general plans of the cities and towns.

The 1994 Plan was a comprehensive update using the newly available technologies of geographic information system (GIS) and transportation modeling to identify development potential and transportation capacity. Parcel-specific maps of land use designations were created. The 1994 Plan included an Agriculture Element and a Parks and Recreation Element. An Economic Commission was established to provide advice on economic issues and to write an Economic Element.

In 2007, the scope of the Countywide Plan has been revised to reflect the theme of planning sustainable communities and to recognize the adoption of Marin County government's first strategic plan in 2001, which sought to achieve excellence in public service. This latest version has also been enlarged to include such social equity and cultural issues as public health, environmental justice, child care, the economy, and arts and culture. This update also benefited from widespread community input resulting from a series of public outreach and working group meetings, as well as public access to the Countywide Plan website, prior to drafting Plan revisions.



“When one tugs at a single thing in nature, he finds it attached to the rest of the world.”

– John Muir



INTRODUCTION

Framework: Planning Sustainable Communities

Guiding Principles

To begin the current Countywide Plan update process, a working group of local residents was convened to help prepare guiding principles. The efforts of this group resulted in the formation of the principles listed below. To show the linkage between these principles and the goals throughout the Countywide Plan, a figure is included at the end of each section.

Planning Sustainable Communities is the overarching theme of the Marin Countywide Plan. Marin County government is committed to lead by example, promote public participation, and work in community partnerships to protect the natural systems that support life and improve our quality of life.

To design a sustainable future, we* will strive to accomplish the following:

1. Link equity, economy, and the environment locally, regionally, and globally.

We will improve the vitality of our community, economy, and environment. We will seek innovations that provide multiple benefits.

2. Minimize the use of finite resources, and use all resources efficiently and effectively.

We will reduce overall and individual consumption, and reuse and recycle resources. We will reduce waste by optimizing the full life cycle of products and processes.

3. Reduce the use and minimize the release of hazardous materials.

We will continue to make progress toward eliminating the release of substances that cause damage to natural systems. We will use a precautionary approach to prevent environmentally caused diseases.

4. Reduce greenhouse gas emissions that contribute to global warming.

We will join other communities addressing climate change by lowering our greenhouse gas emissions. We will increase the use of renewable resources which do not have a negative impact on the earth's climate.

5. Preserve our natural assets.

We will continue to protect and restore open space, wilderness, and damaged ecosystems, and enhance habitats for biodiversity.

*“We” refers to the larger Marin community, including County government, other governmental bodies, local residents, businesses, employees, and visitors.



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6. **Protect our agricultural assets.**

We will protect agricultural lands and work to maintain our agricultural heritage. We will support the production and marketing of healthy, fresh, locally grown food.

7. **Provide efficient and effective transportation.**

We will expand our public transportation system to better connect jobs, housing, schools, shopping, and recreational facilities. We will provide affordable and convenient transportation alternatives that reduce our dependence on single occupancy vehicles, conserve resources, improve air quality, and reduce traffic congestion.

8. **Supply housing affordable to the full range of our members of the workforce and diverse community.**



We will provide and maintain well-designed, energy efficient, diverse housing close to job centers, shopping, and transportation links. We will pursue innovative opportunities to finance senior, workforce, and special needs housing, promote infill development, and reuse and redevelop underused sites.

“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”

– Margaret Mead

9. **Foster businesses that create economic, environmental, and social benefits.**

We will support locally owned businesses and retain, expand, and attract a diversity of businesses that meet the needs of our residents and strengthen our economic base. We will partner with local employers to address transportation and housing needs.

10. **Educate and prepare our workforce and residents.**

We will make high-quality education, workforce preparation, and lifelong learning opportunities available to all sectors of our community. We will help all children succeed in schools, participate in civic affairs, acquire and retain meaningful employment, and achieve economic independence.

11. **Cultivate ethnic, cultural, and socioeconomic diversity.**

We will honor our past, celebrate our cultural diversity, and respect human dignity. We will build vibrant communities, and foster programs to maintain, share, and appreciate our cultural differences and similarities.

12. **Support public health, safety, and social justice.**

We will live in healthy, safe communities and provide equal access to amenities and services. We will particularly protect and nurture our children, our elders, and the more vulnerable members of our community.

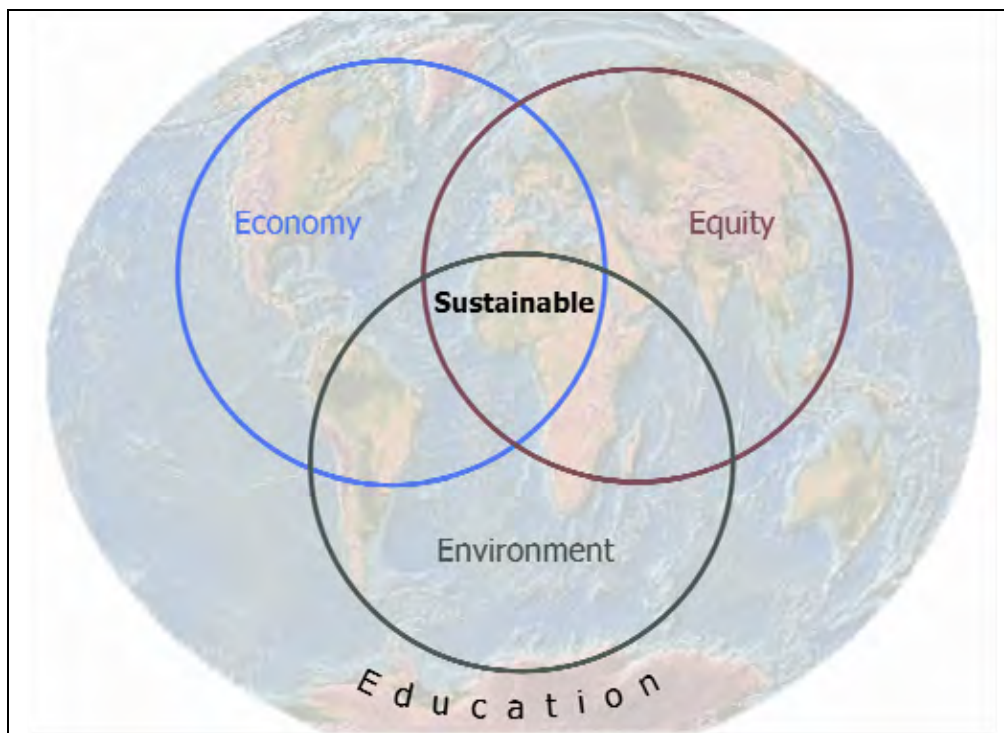


INTRODUCTION

What Is Sustainability?

For the purpose of the Countywide Plan, *sustainability* is defined as aligning our built environment and socioeconomic activities with the natural systems that support life. In the long run, sustainability means adapting human activities to the constraints and opportunities of nature. Central to this definition is meeting the needs of both the present and the future.

The symbol below is a graphic representation of a sustainable community. Each ring represents one of the Three E's: the environment, the economy, and social equity. Each of these rings is connected to, and dependent upon, the others.



During the late 1970s and early 1980s, a number of independent scientists, activists, and other policy makers worldwide began working on responses to problems where issues of the environment were linked with human development. They began to use the term *sustainability* to describe the goal of joining economic prosperity with ecological health.

In 1987, the United Nations' World Commission on Environment and Development released a report, *Our Common Future*, which brought the term *sustainability* into widespread use. In defining sustainability, the United Nations' World Commission offered these five key concepts:



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- ◆ The needs of the future must not be sacrificed to the demands of the present.
- ◆ Humanity’s economic future is linked to the integrity of natural systems.
- ◆ The present world system is not sustainable because it is not meeting the needs of many, especially the poor.
- ◆ Protecting the environment is impossible unless we improve the economic prospects of the earth’s poorest peoples.
- ◆ We must act to preserve as many options as possible for future generations, since they have the right to determine their own needs for themselves.

The American Planning Association identified the following four objectives in planning for sustainability:

1. Reduce dependence upon fossil fuels, extracted underground metals, and minerals.
2. Reduce dependence on chemicals and other manufactured substances that can accumulate in nature.
3. Reduce dependence on activities that harm life-sustaining ecosystems.
4. Meet the hierarchy of present and future human needs fairly and efficiently.



“We did not inherit the land from our fathers. We are borrowing it from our children.”

– Amish proverb

Why Plan Sustainable Communities?

Current trends have demonstrated the need for planning healthy, safe, and sustainable communities. One trend is the increasing impact of greenhouse gases on the world’s climate. Another trend is the decreasing supply of resources that support life.

The Role of Science

Achieving and maintaining sustainability requires keeping up with science. At times, land use and other public policy decisions operate within an institutional framework that does not reflect current scientific information. This is understandable, as cutting edge science is always on the move. For example, the multiple causes and effects of climate change, described below, are now well established, and current land use decision making needs to reflect the link between fossil fuel consumption and sea level rise.

Keeping up with science is an underlying principle of this Plan. Toward that end, employing evidence-based strategies combined with up-to-date scientific knowledge will provide sound guidelines for taking care of the land, our communities, and the generations that will follow us.

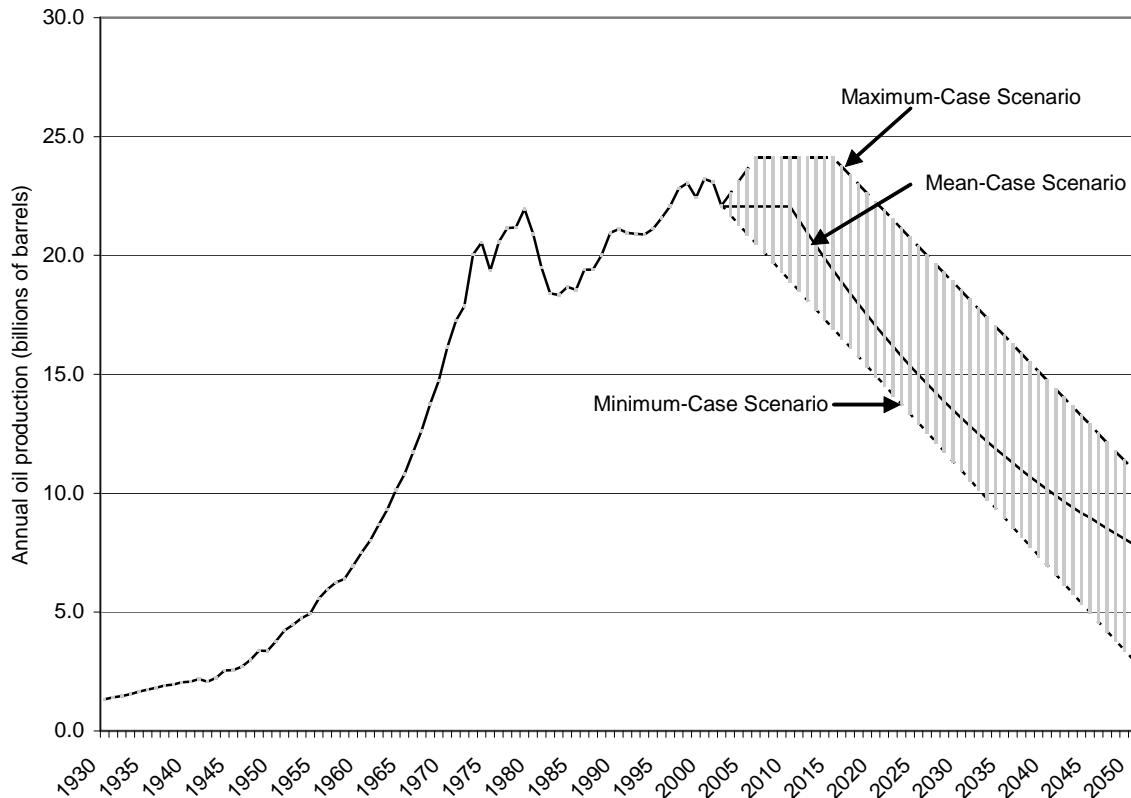
Climate Change

Much of our built environment is now powered by fossil fuels. Fossil fuel use creates the greenhouse gases that contribute to global warming. Increasing consequences of global warming raise concerns about the need to reduce the use of fossil fuels. On average, climate models suggest about a three-degree rise in global temperature over the next 50 to 100 years.



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**Figure 1-1 Global Oil Production 1930–2050:
Maximum-, Minimum-, and Mean-Case Scenarios**



Source: 2004 C. J. Campbell; Marin County CDA.

As Figure 1-1 depicts, oil production is projected to begin a rapid decline sometime before 2020. This, combined with the negative impact of fossil fuel use on the climate, prompts the need to shift away from the use of fossil fuel.

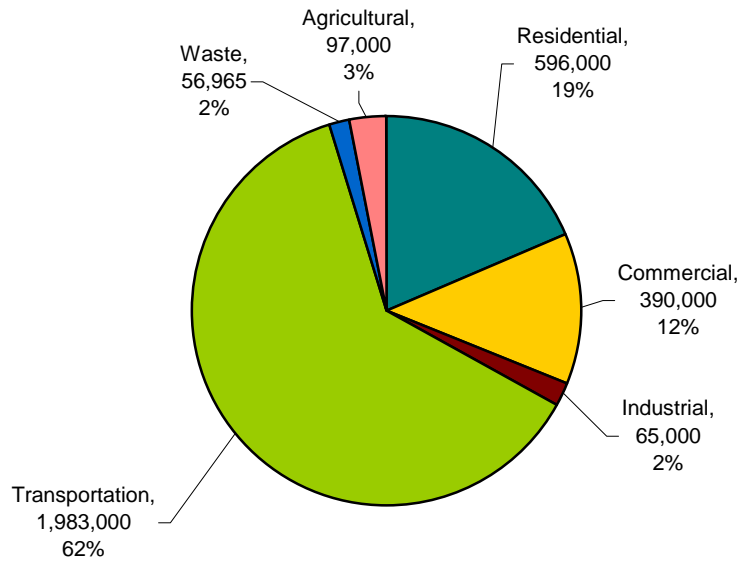
The impact of global warming is compounded by a decreasing resource base. Water, forests, and productive farmland are diminishing. Social inequities mount along with competition for natural resources. Equitably providing the means for prosperity, while also improving environmental quality, is a core challenge.

Figure 1-2 illustrates the distribution of greenhouse gas emissions countywide by sector. This information is useful for developing policies and programs to reduce Marin's contribution to greenhouse gases.



INTRODUCTION

Figure 1-2 Countywide Greenhouse Gas Emissions, 2005



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.



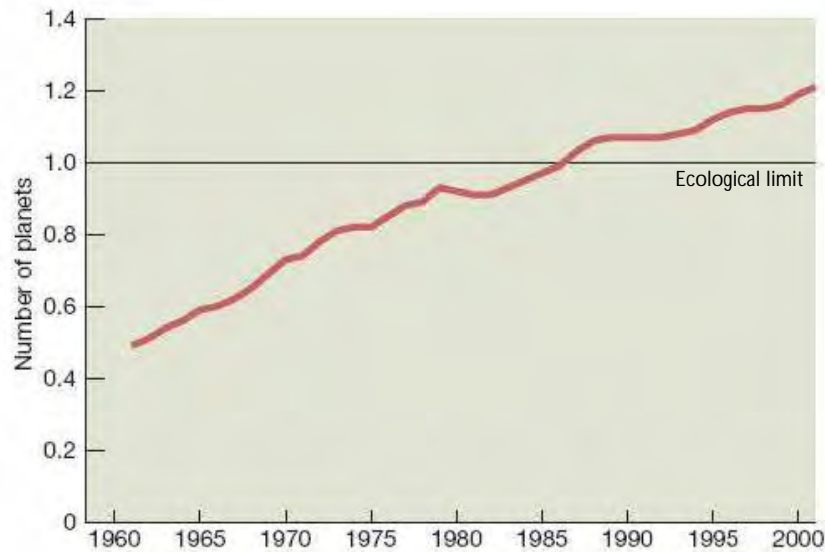
"In today's world . . . we need to be sensitive to the concerns of others. . . . No one can afford to think in purely local terms."

— Kofi Annan



INTRODUCTION

Figure 1-3 Humanity's Ecological Footprint



Source: 2004 World Wide Fund for Nature.



To learn more about the ecological footprint, go to www.footprintnetwork.org/ or www.redefiningprogress.org.

The *ecological footprint* measures the use of natural resources against the planet's actual biocapacity and its ability to supply these resources. It can be calculated for individuals, regions, countries, or the entire earth and is expressed as the number of *global acres* (acres with world average biological productivity) that it takes to support one person. Given the current global population, about 4.5 global acres are available to support each individual on earth. When humanity's footprint exceeds the amount of biocapacity, an overuse of natural capital occurs. Figure 1-3 shows that since the mid-1980s, humanity's demand for ecological resources has exceeded the earth's supply each year.



"Plans are the dreams of the wise."

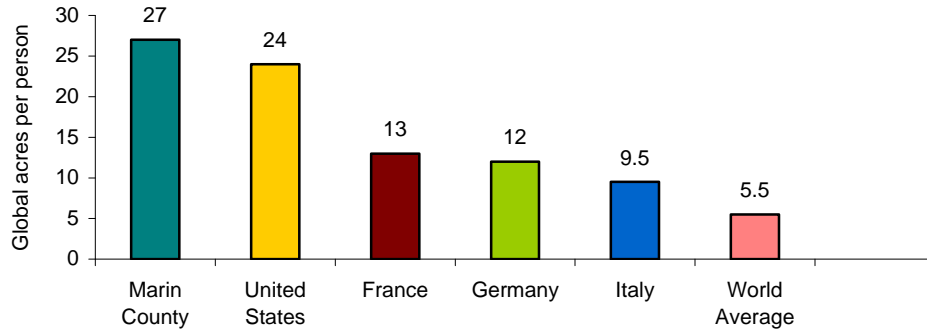
— German proverb

For example, as Figure 1-4 illustrates, the average American uses 24 global acres per capita, while the average Marin resident requires 27 global acres. Other western democracies, such as France, Germany, and Italy, have footprints of 13, 12, and 9.5 global acres per person, respectively.



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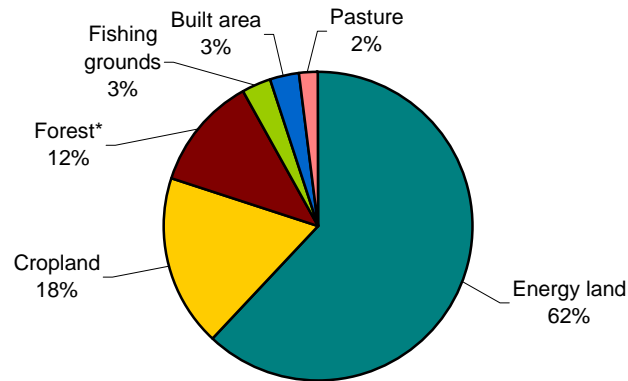
Figure 1-4 Ecological Footprint Comparison



Sources: *Redefining Progress*, Sustainable Sonoma County, World Wide Fund for Nature.

Figure 1-5 shows the breakdown of Marin County’s footprint by the type of area used. The largest component is “energy land,” the area of unharvested forest required to absorb the carbon dioxide that is produced when burning fossil fuels.

Figure 1-5 Ecological Footprint of Marin County, 2004



Source: 2004 *Redefining Progress*.

*Forest here refers to the area of forest harvested for timber and fuel wood purposes.



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Figure 1-6 shows the amount of land required by Marin's footprint. The inner circle in this figure shows the amount of land that would be required if Marin residents had the same footprint as residents of Italy. Figure 1-7 shows the number of earths that would be required if everyone in the world had the footprint of a selected Bay Area county.

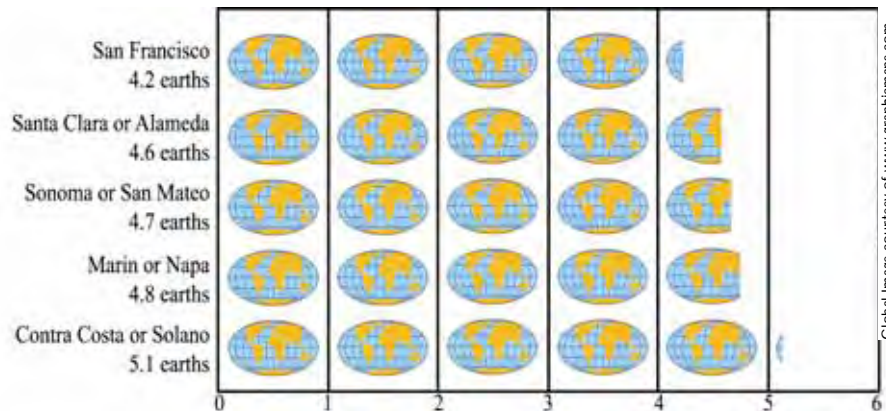
Figure 1-6 Footprint Land Requirements





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Figure 1-7 Number of Earths Required If the World Population Footprint Equaled a Bay Area County



Planning sustainable communities is of global importance, as distant decisions can affect the health of natural systems and consequently human well-being even in faraway places. Furthermore, the carrying capacity of an ecosystem, city, or bioregion is also affected by land use planning and human resource consumption.

How Can We Plan Sustainable Communities?

Marin County is a major contributor to the Bay Area’s regional open space and agricultural greenbelt, and the Countywide Plan establishes land use policies intended to provide a balanced mix of jobs and housing. A strategic infill approach that supports affordable housing for members of the workforce at selected mixed-use locations near existing jobs and transit, along with an emphasis on green building and business practices, offers Marin communities a way to carry out the Three E’s of sustainability (environment, economy, and social equity).



“We cannot direct the wind, but we can adjust the sails.”

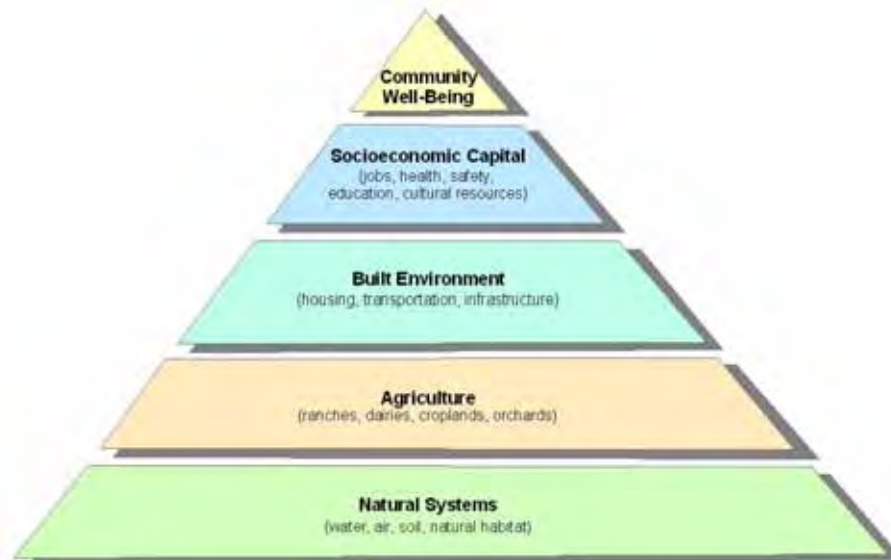
— Anonymous

During the development of this Plan, a conceptual framework designed by the economist Herman Daly was considered that integrates natural systems, social systems, and human aspirations, illustrated as a pyramid. As modified below to more closely correlate to the organization of the Countywide Plan, the pyramid has a foundation consisting of natural systems, such as water, air, soil, and natural habitats that support life. The illustration depicts the mutually supportive relationship of natural and built environments that, along with economic and social capital, provide the means to achieve individual and community well-being.



INTRODUCTION

Framework for Sustainability



Daly's conceptual framework has three principles:

1. Renewable resources (such as groundwater, soil, and fish) should not be used faster than they regenerate.
2. Nonrenewable resources (such as minerals and fossil fuels) should not be used faster than renewable substitutes for them can be put into place.
3. Pollution and waste should not be emitted faster than natural systems can absorb, recycle, or render them harmless.

To accomplish these, it will be necessary to make significant changes in the way communities process and consume resources, a shift sometimes referred to as an “ecological U-turn.” Toward this end, it is intended that the nonbinding targets listed in Plan implementation sections will be periodically monitored and reevaluated during future Countywide Plan updates throughout the 21st century.

The **precautionary principle**, another conceptual framework considered during the preparation of the Plan, carries the sense of foresight and preparation, and is the common-sense idea behind many adages: “Be careful.” “Better safe than sorry.” “Look before you leap.” “First, do no harm.” Historically, many environmentally harmful activities were stopped only after they resulted in environmental degradation or serious harm to many people. The precautionary principle is an approach characterized by minimizing or eliminating potential hazards at the onset of an activity instead of the approach that determines an “acceptable level of harm.” In addition, the precautionary principle utilizes full cost accounting to assess the potential costs and benefits of a given activity or product.



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The California Office of Planning and Research has also published General Plan Guidelines that include information regarding sustainable development. The Countywide Plan has been prepared consistent with these guidelines.

Countywide Goals

Countywide goals reflect core community values and identify what fundamental outcomes are desired. Although these overarching goals are not quantifiable or time dependent, implementation of the policies and programs of the Countywide Plan is intended to assist the larger Marin community in achieving the following:

- ◆ **A Preserved and Restored Natural Environment.** Marin watersheds, natural habitats, wildlife corridors, and open space will be protected, restored, and enhanced.
- ◆ **A Sustainable Agricultural Community.** Marin’s working agricultural landscapes will be protected, and the agricultural community will remain viable and successfully produce and market a variety of healthy foods and products.
- ◆ **A High-Quality Built Environment.** Marin’s community character, the architectural heritage of its downtowns and residential neighborhoods, and the vibrancy of its business and commercial centers will be preserved and enhanced.
- ◆ **More-Affordable Housing.** Marin’s members of the workforce, the elderly, and special needs groups will have increased opportunities to live in well-designed, socially and economically diverse affordable housing strategically located in mixed-use sites near employment or public transportation.
- ◆ **Less Traffic Congestion.** Marin community members will have access to flexible work schedules, carpools, and additional transportation choices for pedestrians, bicyclists, and transit users that reduce traffic congestion.
- ◆ **A Vibrant Economy.** Marin’s targeted businesses will be clean, be prosperous, meet local residents’ and regional needs, and provide equal access to meaningful employment, fair compensation, and a safe, decent workplace.
- ◆ **A Reduced Ecological Footprint.** Marin residents and businesses will increasingly use renewable energy, fuel efficient transportation choices, and green building and business practices similar to the level of Western Europe.
- ◆ **Collaboration and Partnerships.** Marin public agencies, private organizations, and regional partners will reach across jurisdictional boundaries to collaboratively plan for and meet community needs.
- ◆ **A Healthy and Safe Lifestyle.** Marin residents will have access to a proper diet, health care, and opportunities to exercise, and the community will maintain very low tobacco, alcohol, drug abuse, and crime rates.



“The world will not evolve past its current state of crisis by using the same thinking that created the situation.”

– Albert Einstein



INTRODUCTION

- ◆ **A Creative, Diverse, and Just Community.** Marin will celebrate artistic expression, educational achievement, and cultural diversity, and will nurture and support services to assist the more vulnerable members of the community.
- ◆ **A Community Safe from Climate Change.** Marin will be a leader in averting and adapting to all aspects of climate change.

User Guide

How Is the Countywide Plan Organized?

While the basic components of a general plan are established by the requirements of California State planning law, the organization of the document is left to local discretion. The law states that each city



“A hundred years after we are gone and forgotten, those who never heard of us will be living with the results of our actions.”

– Oliver Wendell Holmes

and county must adopt a general plan that includes the following seven sections or elements: conservation, open space, safety, land use, housing, circulation, and noise. A city or county may also adopt optional elements. State law establishes that each element is of equal importance and that the elements must be consistent with one another.

This edition reorganizes the Countywide Plan into three sections. Most legally required general plan topics have been incorporated into the Natural Systems and Agriculture and Built Environment elements of this Plan, while most optional subjects have been concentrated in the Socioeconomic Element.

The Natural Systems and Agriculture Element focuses on nature and life support systems, including

- ◆ **biological resources**, including special-status species, sensitive natural communities, wetlands, riparian habitat, and the Baylands Corridor (addresses contents for the Conservation Element)
- ◆ **water resources**, including watersheds, hydrology, flooding, and water conservation (addresses contents for Conservation, Safety, and Land Use elements)
- ◆ **environmental hazards** from seismic activity, landslides, and fires (addresses contents for Safety Element)
- ◆ **open space** (addresses contents for Open Space Element)
- ◆ **trails** (addresses contents for Open Space Element)
- ◆ **agriculture and food** (addresses contents for Open Space and Conservation elements)

The Built Environment Element principally addresses villages, towns, and construction-related activities, including

- ◆ **community development** (addresses contents for Land Use Element)
- ◆ **community design**
- ◆ **energy and green building**



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- ◆ **mineral resources** (addresses contents for Conservation Element)
- ◆ **housing** (implements portions of the County's Housing Element)
- ◆ **transportation** (addresses contents for Circulation Element)
- ◆ **noise** (addresses contents for Noise Element)
- ◆ **public facilities and services** (addresses contents for Circulation Element)
- ◆ **planning areas** (addresses contents for Land Use Element)

The **Socioeconomic Element** focuses on people and what they do for each other, including

- ◆ **the economy**
- ◆ **child care**
- ◆ **public safety** (addresses contents for Safety Element)
- ◆ **community participation**
- ◆ **diversity**
- ◆ **education**
- ◆ **environmental justice**
- ◆ **public health**
- ◆ **arts and culture**
- ◆ **historical and archaeological resources**
- ◆ **parks and recreation** (addresses contents for Open Space Element)

Basic Building Blocks of the Plan

The Plan includes background information and key trends, as well as goals, policies, programs, and diagrams and maps. These components represent the development policies, diagrams and maps, objectives, principles, standards, and plan proposals called for in California's planning law.

Goal: An expression of community values and desired outcomes – a sought-after end state that is not quantifiable or time dependent. A graphic displays which of the Three E's (environment, economy, and social equity) are benefited by the goal as indicated within the overlapping circles.

Why is this important?
Goals are evaluated for their environmental, economic, and social equity benefits.



Policy: A statement derived from a goal that represents the jurisdiction's adopted position and guides action by decision-making bodies.

Program: A specific implementation measure to carry out goals and policies of the Countywide Plan.

Diagram: A graphic representation of the Plan's policies. While the Plan's land use diagrams and maps are not as specific as zoning maps, they do provide guidance about the appropriate uses of each parcel of land within the County's jurisdiction.

Each Element of the Plan is organized to answer the following questions:



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- ◆ What are the desired outcomes? These discussions lay out the Plan's goals and policies.
- ◆ Why is it important? These discussions focus on how specific goals and policies in the Plan promote the Three E's of sustainability – environment, economy, and social equity.
- ◆ How will results be achieved? These discussions describe the Plan's programs (specific implementation measures).
- ◆ How will success be measured? The Plan includes *indicators*, *benchmarks*, and *targets* to help measure and evaluate progress in achieving goals and promoting related policies (indicators, benchmarks, and targets are discussed in more detail later in this section of the Plan).

Sidebars: Sidebars have been included throughout the Plan to highlight related information. In some cases, the sidebars contain information about ecological footprint impacts, as indicated with a footprint symbol:



Technical-Background Reports and Other Supporting Documents

Preparation of the Countywide Plan involved developing a series of technical-background reports. These included the following:

- ◆ 2005 Congestion Management Program
- ◆ Agriculture
- ◆ Air Quality
- ◆ Archaeology
- ◆ Biology
- ◆ Community Facilities
- ◆ Energy
- ◆ Flooding
- ◆ Geology
- ◆ Hydrology and Water Quality
- ◆ Noise
- ◆ Marin County Targeted Industries Study Final Report and Supplement
- ◆ Parks and Recreation
- ◆ Trails
- ◆ Transportation
- ◆ Watershed Management Plan

While these reports provided a basis for drafting the Countywide Plan, they are not part of the Plan.

Similarly, the Plan at times refers to various other documents produced and/or adopted by Marin County. These documents are also not a part of the Plan.



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How to Read the Countywide Plan

The following principles govern how the Marin Countywide Plan should be read, interpreted, and implemented.

Relationships between the Plan’s various goals and policies. In California, the general plan is often characterized as being a community’s “constitution” for development and conservation. A general plan is called upon to address a range of diverse, sometimes divergent, public interests. A city or county enjoys broad discretion to weigh and balance competing interests in formulating general-plan policies.

All general plans, including this one, must address a host of concerns within a consistent, well-integrated policy framework. In implementing the Plan, it is the task of the Board of Supervisors (or its delegates) to make policy determinations in a manner that promotes the overall goals of the Plan and the public welfare, in accordance with existing resources, staffing, and priorities. Policy and program implementation will require reasonable and thoughtful consideration of other Plan policies. Such implementation decisions will come up on a case-by-case basis as the Board, Planning Commission, County staff, and others work to effectively implement the entire Plan.

Another overall principle to guide the reading, interpretation, and implementation of the Plan is that none of its provisions will be interpreted by the County in a manner that violates state or federal law. For example, Policy CD-5.2 (“Assign financial responsibility for growth”) requires new development to pay for its fair share of the cost of public facilities. This policy will be implemented subject to applicable legal standards. In reading every provision of the Plan, one should infer that it is limited by the principle, “to the extent legally permitted.”

Effect of headings and titles. The Plan’s policies and programs are typically accompanied by a heading or title. These are provided for convenience only. To the degree that these headings or titles conflict with the text they accompany, the text shall govern.

Plan Implementation

As described above, the Countywide Plan includes specific implementation measures or *programs*. The following principles guide Plan implementation.

- ◆ Implementation can take time, especially when needed resources are limited and required for more than one program.
- ◆ Because implementation can take time, the Board of Supervisors and those to whom the Board delegates, may need to prioritize programs. The Plan contemplates this ongoing process as part of Marin County’s policy-making function.
- ◆ While the Plan identifies specific programs, implementation measures may be adjusted over time based on new information, changing circumstances, and evaluation of their effectiveness, so long as they remain consistent with the intent of the Plan.



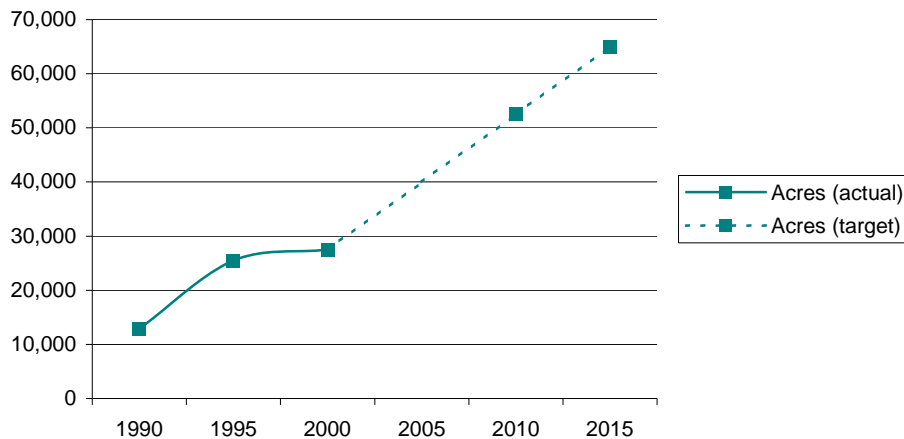
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Indicators, Benchmarks, and Targets

A frequent criticism of general plans and their implementation is that there is insufficient feedback to know whether progress is being made in meeting the plan’s goals and promoting its policies. The Countywide Plan takes several important, innovative steps in addressing this concern by incorporating *indicators, benchmarks, and targets*. These are nonbinding informational tools to monitor progress. This process will provide an opportunity to consider the need for new or revised Countywide Plan strategies or implementation measures. In addition to Countywide Plan monitoring, these metrics are intended to go beyond the scope of the Plan and track progress in Marin in a variety of areas.

Measuring progress is important to determining the effectiveness of any plan. An *indicator* is a measurement that assists in demonstrating movement toward or away from Plan goals and policies. Proposed indicators have been crafted to be understandable, representative, and relevant. *Benchmarks* establish a “starting point” – the state of an indicator as of a particular point in time (for example, the year 2000). A *target* is a quantifiable outcome that provides a framework for measuring progress.

Figure 1-8 Marin Agricultural Land Trust Easements



Source: 2003 Marin Agricultural Land Trust.

It is important to note that by adopting indicators, benchmarks, and targets, which are not required to be included in a general plan, Marin County does not intend to establish additional general plan goals and policies. Rather, the intent is to establish a feedback loop that will help to monitor progress in meeting the various goals and policies of the Countywide Plan and will need to be periodically reviewed and updated. Because the indicators, benchmarks, and targets are intended only as an aid in implementation of the General Plan and are not policies or programs of the General Plan, they are included in the plan only for convenience and updates will not be considered amendments to the General Plan. Furthermore, progress towards reaching these targets is not the sole responsibility of Marin County government and will, in many circumstances, require federal or State participation as well



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as a countywide collaboration among local governments, residents, businesses and other affected parties.

The following are examples of indicators, benchmarks, and targets:

Indicator	Benchmark	Target
Acres preserved with agricultural easements.	28,377 acres preserved in 2000.	Increase by: 25,000 acres by 2010 12,500 additional acres by 2015.

Implementation Charts

The Countywide Plan contains implementation charts that identify responsibilities, potential funding, priorities, and estimated time frames for carrying out proposed programs.

In some cases, implementation of the Plan will occur through revisions to other land use plans and regulations. For example, the Countywide Plan will be implemented through revisions to the County’s Development Code including, but not limited to, consideration of the following:

- ◆ modified stream conservation zoning standards for developed properties
- ◆ a uniform agricultural zoning district that resembles the current C-APZ district
- ◆ the definition of agriculture
- ◆ home-size limitations on agricultural and other lands
- ◆ increased energy efficiency standards
- ◆ community-based design and parking standards
- ◆ enhanced linkages between jobs, housing, and transportation

Land Use Categories

The Countywide Plan establishes and maps land uses according to the following categories:

Agriculture

Agriculture and Conservation Land Use Categories

Agriculture and Conservation land use categories (AGC 1-3) are established for land with resource values for both agricultural production and wetlands and wildlife habitat. These lands may also have physical constraints, such as heavily wooded hillsides that limit their potential for agricultural production, and deserve protection on the basis of their habitat and visual resource values. Historically, 60 acres has been the minimum parcel size for most agricultural and resource conservation lands in the county.

Agricultural Land Use Categories

Agricultural land use categories (AG 1-3) are established to preserve and protect a variety of agricultural uses, and to enable the potential for agricultural production and diversification. Historically, 60 acres has been the minimum parcel size for most agricultural lands in the county.



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Residential

Residential development categories are established at a full range of densities, with an emphasis on providing more affordable housing.

Very Low Density Residential

Very low density residential land use categories (Single-Family 1-2 with minimum lot sizes of 5 to 60 acres) are designated for single-family residential development on large properties in rural areas where public services are very limited or nonexistent, and on properties where physical hazards and/or natural resources significantly restrict development.

Rural/Residential

Rural/residential density land use categories (Single-Family 3-4 and Planned Residential with minimum lot sizes of 20,000 square feet to 10 acres) are established for single-family residential development in areas where public services are limited and on properties where physical hazards and/or natural resources may restrict development.

Low Density Residential

Low density residential land use categories (Single-Family 5-6 and Multi-Family 2 with minimum lot sizes of 10,000–20,000 square feet or less) are established for single-family and multi-family residential development in areas where some public urban services are available and where properties are not typically constrained.

Low to Medium Density Residential

Low to medium density residential land use categories (Multi-Family 3 and 3.5 allowing 5 to 16 units per acre) are established where moderate density and multi-family residential development can be accommodated in areas that are accessible to a range of urban services near major streets, public transit, and neighborhood shopping facilities.

Medium to High Density Residential

Medium to high density residential land use categories (Multi-Family 4 and 4.5 allowing 11 to 45 units per acre) are established within the City-Centered Corridor in communities where multi-family development can be accommodated with easy access to a full range of urban services at locations near major arterials, public transit, and community and regional shopping facilities.

Commercial and Mixed Use

The following land use categories are established for general, office, neighborhood and recreational commercial, and industrial uses. Mixed-use developments that incorporate residential units on commercial properties are encouraged to provide on-site housing for employees and other residents, and to contribute to fair share housing needs. Accordingly, residential uses may be permitted in all of the following commercial land use categories:



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General Commercial/Mixed Use

The General Commercial land use category is established to allow for a wide variety of commercial uses, including retail and service businesses, professional offices, and restaurants, as well as moderate to high density mixed-use residential development.

Office Commercial/Mixed Use

The Office Commercial land use category is established to encourage a mixture of professional, administrative, and medical office uses, as well as medium to high density mixed-use residential development, where appropriate. Employee- and resident-serving retail and service businesses may also be permitted within this category.

Neighborhood Commercial/Mixed Use

The Neighborhood Commercial land use category is established to encourage smaller-scale retail and neighborhood-serving office and service uses, and mixed-use development oriented toward pedestrians and located in close proximity to residential neighborhoods.

Recreational Commercial

The Recreational Commercial land use category is established for resorts, lodging facilities, restaurants, and privately owned recreational facilities, such as golf courses and recreational boat marinas. Housing for employees or very low and low income households may also be permitted.

Industrial

The Industrial land use category is established for industrial uses such as warehouses, storage, laboratories, retail sales, mine processing, light manufacturing, and administrative offices. Housing for employees or very low and low income households may also be permitted.

Planned Designation

The Planned Designation land use category is established and includes the following subcategories: Planned Designation – Agricultural and Environmental Resource Area (PD–Agricultural and Environmental Resource Area), and Planned Designation – Reclamation Area (PD–Reclamation Area). This land use category enables the planning of reuse projects at major opportunity sites. In order to provide a forum for comprehensive community-based planning, projects in this land use category are subject to approval of a specific or master plan and consistency with the Countywide Plan, including policies promoting affordable housing, and innovative, environmentally friendly, transit-oriented and energy efficient designs.

Public, Quasi-Public, and Open Space

The Public, Quasi-Public, and Open Space land use categories are established for both public and quasi-public institutional purposes, including open space, schools, hospitals, cemeteries, government facilities, correctional facilities, power distribution facilities, sanitary landfills, and water facilities. The Public category is established for land owned by a governmental agency and used as a



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public institution. The Quasi-Public category is established for land owned by a non-governmental agency that is used as an institution serving the public. Lands in public ownership for open space purposes, such as recreation, and watershed and habitat protection and management, are designated open space. In addition, private lands may be designated open space when subject to deed restrictions or other agreements limiting them to open space and compatible uses. Lands designated as public or quasi-public facilities may be combined with another land use.



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Marin County is known for its distinctive natural setting and environmental and agricultural heritage. Surrounded on three sides by water, Marin encompasses abundant environmental resources beautiful and rich in diversity, as well as working agricultural landscapes. From the quality of the air we breathe, the water we drink, and the food we eat, to the outdoors where we relax and rejuvenate, we depend on nature to provide for us. A responsibility to understand and protect the environment and agriculture is a fundamental component of this Element of the Countywide Plan. Reinforcing the critical role of watershed planning is an overarching concern.



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Watershed functions, water quality, riparian habitat, wetlands, and baylands are all addressed in the Natural Systems and Agriculture Element. The topics addressed in this Element are interrelated, as are all the components of natural systems. Issues that threaten Marin County's biodiversity—such as water quality degradation, invasive flora, non-native animal species, habitat fragmentation, and loss of sensitive biological resources as a result of land conversion and development—are also threats to agriculture and food production. How we treat streams, marshes, and wetlands not only affects the plants and animals that depend on these aquatic habitats, but also creates flood-related and other impacts in low-lying areas.

Below are the topics covered in this portion of the Countywide Plan:

- ◆ Biological Resources
- ◆ Water Resources
- ◆ Environmental Hazards
- ◆ Atmosphere and Climate
- ◆ Open Space
- ◆ Trails
- ◆ Agriculture and Food

Topics related to naturally occurring environmental hazards are located in this Element, while hazardous materials issues are discussed under Public Safety in the Socioeconomic Element. Issues pertaining to environmental justice, public health, historic and archaeological resources, and parks and recreation are addressed in the Socioeconomic Element.

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2.2 Key Trends and Issues

Biological Resources



Preservation of large parts of Marin County has served to protect important biological resources and the biodiversity of the region. Nevertheless, future development may threaten sensitive resources in Marin and contribute to further fragmentation of natural areas. In 2001, Marin ranked 17th among the 58 California counties in the number of special-status species documented here, indicating both an opportunity for preservation and a continued threat to sensitive resources. In fact, Lagunitas Creek supports the most important remnant population of federally endangered wild coho salmon from California's central coast. Despite positive efforts to protect and restore habitat, native biodiversity is still at risk. Factors contributing to these risks, such as the continued loss of habitat, fragmentation of natural areas, inadequate management of open space lands, potential for catastrophic wildfires, and invasion by exotic species, all pose significant threats to native plants and animals. Other risks and concerns include obstruction of wildlife movement corridors, filling of wetlands, and loss of oak woodlands to disease.

"Trend is not destiny."

– Rene Dubois

Water Resources

Providing adequate water for human use while supporting habitat for fish, other aquatic species, and terrestrial wildlife is very important and an increasingly difficult challenge. Water demand among Marin residents has risen while fish populations have declined. Human impacts are adversely affecting water quality. Urbanization increases the rate of storm runoff to local creeks. Excess runoff scours creeks and causes habitat loss.

Environmental Hazards

Marin's spectacular coastline, high ridges, and variety of landscapes have been influenced by natural phenomena such as earthquakes, wildfires, and flooding. These same phenomena can also significantly impact the built environment and human activity. The epicenter of the 1906 earthquake was near Olema on the San Andreas Fault. Massive wildfires occurred on Mount Tamalpais in 1929 and Mount Vision in 1995. Significant flooding has occurred throughout the county on various occasions during periods of sustained, heavy rainfall and high tides. Infrequent but significant events, as well as a multitude of more frequent smaller events throughout the county, are part of the natural process and are expected. While these events can have beneficial effects on the natural environment, they can also result in catastrophic and costly devastation when structures and human activities are in their path.

Atmosphere and Climate

Transportation and energy production are among the activities associated with the combustion of fossil fuels that is increasing the amounts and concentrations of greenhouse gases (carbon dioxide, methane, nitrogen oxide) in the atmosphere that contribute to global warming. The U.S. Environmental



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Protection Agency estimates that by 2100 carbon dioxide concentrations could be up to three times higher than current levels. Much of the air pollution in Marin results from motor vehicle use, and many private automobile trips cover short distances, which tends to concentrate emissions in certain areas.

Open Space

The County Open Space District manages and protects ridgelines, baylands, and other environmentally sensitive lands. Open space lands also accommodate low-impact recreational uses. Most of the district budget goes toward managing open space, leaving little for land acquisition. The district relies increasingly on conservation or open space easements from private landowners to extend its preservation efforts. Parks and recreation services and their facilities are discussed in the Socioeconomic Element.

Trails

The Marin trail system is widely recognized as one of the best anywhere, and Marin has become a trail recreation destination. Demand by hikers, road and mountain bicyclists, and equestrians is increasing, as is commercial use, such as organized hiking, dog walking, and nature interpretation. Trail use also is rising among sports enthusiasts. Increased activity on trails has led to conflicts among users and with neighbors, especially regarding parking and private property issues. Parks and recreation services and their facilities are discussed in the Socioeconomic Element.

Agriculture and Food

Nearly one-fourth of Marin's agricultural land has been permanently protected from subdivision and development, but working ranches are increasingly threatened by the prospect of conversion to single-family residential estates. The majority of local agricultural operations are only marginally profitable. Major issues facing local agriculture include the high cost of land, regulation by multiple agencies, and difficulty recruiting younger generations to work in agriculture. Many local operations have begun diversifying to increase their viability, producing row crops and value-added products such as cheese, butter, organic foods, and grass-fed beef. Although agriculture is not technically considered a "natural system," most ranchers and farmers in Marin conduct agricultural activities in a manner compatible with the natural environment.



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2.3 Framework

The Vision

The 21st century in Marin will include a restored natural environment that supports a rich array of native plants and animals, and provides for human needs. Residents and visitors will enjoy clean air and water. Native habitat and essential corridors for wildlife movement and plant dispersal will be protected. Watershed function will improve with enhancements to water infiltration, preservation of stream-flow capacity and riparian vegetation, and restoration of stream corridors, marshlands, and other natural wetlands.

Local agricultural heritage will be celebrated. Local farmers and ranchers will provide an increase in healthy food, much of which will be grown, processed, and consumed in the San Francisco Bay Area, enhancing food security and agricultural viability while shrinking our ecological footprint and reducing the costs associated with food transport. Expanded agricultural uses will provide needed products for county and regional residents, while protecting important biological resources.

Topics in the Natural Systems and Agriculture Element include the following:

Biological Resources (see Section 2.4): Marin is home to a wide variety of plants and animals, as well as a number of unique natural communities and highly sensitive biological and wetland resources. Protecting and restoring native habitat are the most effective methods of preserving plant and animal diversity.

Water Resources (see Section 2.5): Watersheds are dynamic systems that transport water, sediments, and nutrients from ridgetops to watercourses, and perform many vital water quality and storage functions along the way. Preserving and improving water and watershed quality depends on maintaining equilibrium between inflow and consumption, and avoiding human alterations that can diminish natural functions.

Environmental Hazards (see Section 2.6): Environmental conditions can threaten habitat, wildlife, the built environment, and human life. Since Marin is in a seismically active area, ground shaking from earthquakes is a major potential hazard, as are wildland fires and flooding. Countywide Plan policies and programs are proposed to minimize the impact of hazards related to these natural phenomena.

Atmosphere and Climate (see Section 2.7): Marin's relatively good air quality is compromised by high concentrations of ozone caused by vehicle traffic, and localized high volumes of particulate matter caused by construction activities, wood burning, off-road travel, and agricultural operations. Scientists generally concur that the earth's climate is changing through a buildup of gases that trap heat in the atmosphere. With the uncertainty about location, rate, and magnitude of possible climate-changing impacts, it is more important than ever to take steps to improve air quality and minimize greenhouse gas emissions.

Open Space (see Section 2.8): Public open space contributes significantly to the way people think and feel about Marin. Open lands are managed primarily for resource preservation, and secondarily for



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lower-impact recreational uses such as hiking, horseback riding, and mountain biking. Preserving natural resources while providing access to open space lands poses an ongoing challenge.

Trails (see Section 2.9): Marin County has approximately 639 miles of public trails. The countywide trail system connects environmentally important areas (such as bayland, coastal, and ridgeland areas), parks and open space, and greenbelts between urban areas. Preserving existing trails, acquiring new rights-of-way, minimizing environmental impacts, and balancing access and property rights remain key issues in managing local trails.

Agriculture and Food (see Section 2.10): The viability of Marin farms and ranches is threatened by a combination of low profit margins and pressure to convert agricultural lands to single-family estates. Access to locally and responsibly grown, healthy food requires successful protection of agricultural land, support for local farmers and ranchers, and efforts to promote diversification of local products.



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Clapper rail.

2.4 Biological Resources

Background

Marin is home to a number of diverse and important natural communities, from coastal marine environments to bay marshlands and mudflats, riparian habitats, and an upland mosaic of forests, woodlands, grasslands, and chaparral (see Map 2-1, Vegetation). Detailed information and maps of these ecosystems, their associated sensitive biological and wetland resources, and a summary of resource-protection regulations can be found in the *Biological and Wetland Protection Technical Background Report* (see the Introduction, “Technical Background Reports and Other Supporting Documents”).



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Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. (See Figure 5-1, Special-Status Animal Species Known or Suspected from Marin County, and Figure 5-2, Special-Status Plant Species Known or Suspected from Marin County.)



Occurrences of special-status species are known throughout Marin (see Map 2-2). More than 90 special-status plant and animal species in Marin are monitored by the California Department of Fish and Game, and at least another 35 species that meet special-status criteria have been reported locally. The Community Development Agency maintains a current list of special-status species in Marin.

Human activity has had major adverse effects on the health and sustainability of these natural communities. Since the mid-19th century, grazing, logging, agriculture, road building, and development have markedly altered the natural landscape. This section of the Countywide Plan contains policies intended to preserve native habitat and protect sensitive resources through appropriate land use practices, and restoration and enhancement efforts. Sensitive resources include jurisdictional wetlands, occurrences of special-status species, occurrences of sensitive natural communities, wildlife nurseries and nesting areas, and wildlife movement corridors. Specific programs seek preservation of special-status species, sensitive natural communities, important wildlife habitat and movement corridors, wetlands, riparian habitats, coastal dunes, and baylands. The Water Resources Section of this Element contains related policies and programs.

Resource Protection

Federal and State laws regulate wetlands, stream channels, and plant and animal species vulnerable to change or threatened with extinction. The jurisdiction, resource management practices, and code enforcement activities of the federal and State regulatory agencies vary depending on the specific sensitive resource. Wetlands and special-status plants and animals listed as “endangered” or “threatened” receive the highest protection (see Map 2-2, Special-Status Species and Sensitive Natural Communities, shown for illustrative purposes only). Other plant and animal species that are not listed are still considered vulnerable enough to be recognized as special-status species (see Figure 5-1, Special-Status Animal Species Known or Suspected from Marin County) located in the Appendix of this Plan. In addition, a number of unique natural communities (*sensitive natural communities*) are recognized by the California Department of Fish and Game because of their scarcity and continued loss as a result of development.

The County development review process typically requires a site assessment by qualified professionals to confirm whether any sensitive resources could be



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affected, and to identify measures necessary to protect those resources and mitigate potential impacts. Detailed surveys are necessary where there is a potential for occurrence of sensitive resources. Consultation and permit authorization from regulatory agencies may be required where proposed development would affect essential habitat for listed special-status species or jurisdictional wetlands, although avoidance is the preferred mitigation whenever feasible. Enactment of local ordinances also serves to regulate potential loss of sensitive resources and establishes standards for protection and mitigation.

The continued loss of oak woodland, oak savannah, and other native woodland habitat through their conversion to primarily urban uses resulted in the adoption of the County Native Tree Preservation and Protection Ordinance in 1999. This regulates the removal of native trees and is intended to use local regulations to protect sensitive resources. This ordinance broadened the protection of native tree species not previously addressed by tree protection development standards and findings being applied through the discretionary permit review process. While this ordinance does serve to partially illustrate the opportunity to regulate sensitive biological resources on the local level, it should be amended and additional guidelines should be adopted to address a greater number of factors that contribute to woodland preservation and its relationship to wildlife habitat.

Effectively implementing resource protection policies and regulations is dependent in part upon the availability of accurate mapping and an understanding of the value of the remaining natural habitat. Expanding and improving the County's mapping of wetlands, streams, and vegetation types will assist in identifying potential impacts early in the development review process. Conveying this information to the public will also allow property owners and developers to be responsive to resource protection policies and standards in the design of their projects.

Wetlands

Wetlands (see Map 2-3, Wetlands/Streams) are considered important natural resources because of their



Sensitive natural communities are natural community types that are considered particularly rare or threatened by the California Natural Diversity Data Base of the California Department of Fish and Game. Sensitive natural community types in Marin include, but are not limited to, coastal and valley freshwater marsh, freshwater seep and spring, riparian forest and woodland, coastal brackish marsh, coastal terrace prairie, central dune scrub, coastal bluff scrub, northern coastal salt marsh, northern maritime chaparral, northern vernal pool, serpentine bunchgrass, valley needlegrass grasslands, old-growth redwood and Douglas fir forests, and deciduous woodlands dominated by valley oaks or Oregon white oak.



Wetlands are areas periodically or permanently inundated by surface or groundwater that support vegetation adapted to life in saturated soil, and are delineated based on hydrology, soils, and vegetation. Jurisdictional wetlands and unvegetated other waters are regulated by the U.S. Army Corps of Engineers and the Regional Water Quality Control Board. Certain wetlands, streams, and waters are also regulated by the California Department of Fish and Game under the Streambed Alteration Agreement program.



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Wetlands are protected for their high inherent value to fish and wildlife, their role as storage areas for storm and floodwaters, and their water recharge, filtration, and purification functions (see Map 2-3, Wetlands/Streams). They provide essential habitat for aquatic invertebrates, amphibians, and fish; are important for large numbers of bird and mammal species; and are an important source of drinking water for terrestrial species. Characteristic wetland types in Marin include coastal saltmarsh, brackish marsh, freshwater marsh, the lower channel slopes of streams and riparian habitat, seasonal wetlands, vernal pools, and freshwater seeps and springs.

high inherent value to fish and wildlife, their role as storage areas for storm and floodwaters, and their water recharge, filtration, and purification functions. They provide essential habitat for aquatic invertebrates, amphibians, and fish; they are important for large numbers of bird and mammal species; and freshwater wetlands are an important source of drinking water for terrestrial species.

Proposed modifications to wetlands are regulated through a complex jurisdictional and permitting process of State and federal agencies, depending on the type, location, and functions and values of the existing wetlands. In general, loss or modifications to wetlands must be avoided given the difficulty and questionable success of re-creating wetlands, and the length of time required to replace habitat lost as a result of development. At a minimum, project applicants must demonstrate compliance with State and federal wetlands regulations. Additional County requirements may apply where necessary to protect sensitive habitat values and other functions.

Marin County places a high priority on protecting and enhancing existing wetlands, and relies upon restoration or replacement as secondary measures where complete avoidance of wetlands cannot be accomplished. Additional and more precise mitigation criteria should be developed to establish a clear and consistent approach to preserving wetlands. Policies for wetlands protection also serve to prioritize land for restoration and open space acquisition.



Riparian Habitat. Riparian habitats are transitional zones between land and fresh water that occur along freshwater watercourses including perennial and intermittent streams, lakes, springs, and other bodies of fresh water. Riparian habitat is distinguished by characteristic woody vegetation, a variety of important ecological functions, and generally high wildlife habitat values.

Riparian Habitat

Streams convey, filter, and store sediment and nutrients. Their floodplains are important for recharge of groundwater aquifers and flood prevention. They also provide critical wildlife movement corridors between important habitats for both aquatic and terrestrial species. Ephemeral channels are important for maintaining healthy watersheds. Perennial and intermittent streams provide more permanent aquatic habitat and serve as fish migration, spawning, and rearing habitat (see Map 2-4, Watersheds with Streams and Observed Steelhead Trout and Coho Salmon). Riparian vegetation is essential to



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proper functioning of stream systems and is a critical component of high-quality fish habitat. Woody vegetation provides shade that keeps water temperatures within tolerable ranges for fish and other aquatic organisms, stabilizes streambanks and floodplains, provides protective cover for wildlife, and contributes debris to stream channels for fish habitat structure. Herbaceous vegetation helps stabilize streambanks, and filters and traps sediments and pollutants.

The continued health and restoration of streams and riparian resources has become an increasingly important policy objective with the designation of the coho salmon and steelhead trout as special-status species by the State and federal governments. Stream Conservation Area policies were strengthened with the adoption of zoning regulations that expand and refine the applicability of stream setback requirements for development projects that have the potential for harming riparian vegetation and water quality. Additional development review procedures and standards are established or recommended in policies for stream conservation as an ongoing effort to create a well-balanced regulatory approach to protecting these important resources. Policies for riparian protections also serve to prioritize land for restoration and open space acquisition.

Baylands

Baylands ecosystems vital to the health of San Pablo, San Francisco, and Tomales bays have undergone tremendous change, as historical tidal areas were diked for agricultural use, marshes filled and drained for development, and channels dredged and straightened for navigation. The baylands ecosystem consists of the baylands themselves, together with a buffer on the remaining undeveloped uplands and the open waters of the deep bay and channels. The remaining agricultural baylands, used primarily for dryland farming and livestock grazing, support grassland cover and provide important winter habitat for shorebirds and waterfowl attracted to wet season ponding in fields.

The Baylands Corridor was established to protect important baylands and large adjacent undeveloped uplands along the San Pablo and San Francisco bays (see Maps 2-5a and 2-5b, Baylands Corridor). The Baylands Corridor reinforces and refines the current Bayfront Conservation Zone, protecting important tidelands and adjacent undeveloped uplands within the City-Centered Corridor (see Introduction, Map 1-2, Environmental Corridors). The Baylands Corridor encompasses much of the current Bayfront Conservation Zone along the entire shoreline of San Francisco Bay and San Pablo Bay, comprising most of the Tidelands Subzone, the Diked Bay Marshland and Agricultural Subzone, and the



Baylands, areas between historic high and low tide elevations, form a complex ecosystem of aquatic and upland habitats. The baylands ecosystem in Marin forms a varied pattern of open water, tidal marshes and mudflats, rocky shoreline, seasonal wetlands, and adjacent uplands.



The 1999 *Baylands Ecosystem Habitat Goals* at www.abag.ca.gov/bayarea/sfep contains information on the San Francisco Estuary baylands ecosystem and on key habitats, and recommendations for Marin County.



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A number of State and federal agencies have regulatory authority over sensitive resources, including jurisdictional wetlands and waters, certain special-status species, and coastal areas. These agencies include the following

- ♦ **California Department of Fish and Game** (www.dfg.ca.gov)
- ♦ **California Coastal Commission** (www.coastalconservancy.ca.gov)
- ♦ **Regional Water Quality Control Board** (www.waterboards.ca.gov/sanfranciscobay)
- ♦ **U.S. Fish and Wildlife Service** (www.fws.gov)
- ♦ **National Marine (NOAA) Fisheries Service** (www.nmfs.noaa.gov)
- ♦ **U.S. Army Corps of Engineers** (www.usace.army.mil/inet/functions/cw/cecwo/reg/)

Shoreline Subzone, as defined in the 1994 Countywide Plan. Modifications have been made to boundaries of the current Bayfront Conservation Zone, where appropriate and to provide for more consistent mapping criteria. Establishment of a Baylands Corridor along Tomales Bay may be considered during the update of the Marin County Local Coastal Program. Policies for the Baylands Corridor also serve to prioritize land for restoration and open space acquisition.

Key Trends and Issues

Are sensitive biological resources adequately protected?

A number of sensitive natural communities and species are becoming increasingly rare. These include, but are not limited to, bay marshlands and associated protected species such as the salt marsh harvest mouse, the California clapper rail, and Point Reyes's bird's beak; riparian corridors and associated protected species such as steelhead trout, coho salmon, the California red-legged frog, and California freshwater shrimp; and serpentine grasslands and associated 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.



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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 Manzanita and western shorelines 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.

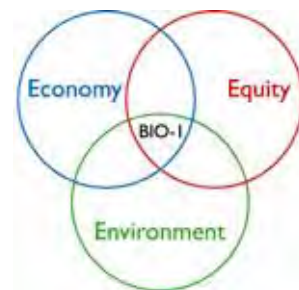
What Are the Desired Outcomes?

GOAL BIO-1

Enhanced Native Habitat and Biodiversity. Effectively manage and enhance native habitat, maintain viable native plant and animal populations, and provide for improved biodiversity throughout the County.

Policies

- BIO-1.1** **Protect Wetlands, Habitat for Special-Status Species, Sensitive Natural Communities, and Important Wildlife Nursery Areas and Movement Corridors.** Protect sensitive biological resources, wetlands, migratory species of the Pacific flyway, and wildlife movement corridors through careful environmental review of proposed development applications, including consideration of cumulative impacts, participation in comprehensive habitat management programs with other local and





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*“Look deep into nature,
and then you will understand
everything better.”*

– Albert Einstein

resource agencies, and continued acquisition and management of open space lands that provide for permanent protection of important natural habitats.

BIO-1.2 Acquire Habitat. Continue to acquire areas containing sensitive resources for use as permanent open space, and encourage and support public and private partnerships formed to acquire and manage important natural habitat areas, such as baylands, wetlands, coastal shorelines, wildlife corridors, and other lands linking permanently protected open space lands.

BIO-1.3 Protect Woodlands, Forests, and Tree Resources. Protect large native trees, trees with historical importance; oak woodlands; healthy and safe eucalyptus groves that support colonies of monarch butterflies, colonial nesting birds, or known raptor sites; and forest habitats. Prevent the untimely removal of trees through implementation of standards in the Development Code and the Native Tree Preservation and Protection Ordinance. Encourage other local agencies to adopt tree preservation ordinances to protect native trees and woodlands, regardless of whether they are located in urban or undeveloped areas. See also Policy SV-1.7.

BIO-1.4 Support Vegetation and Wildlife Disease Management Programs. Support agency programs and proven methods to limit the impacts of Sudden Oak Death syndrome and any other diseases harmful to native vegetation and wildlife in Marin County, while addressing any potential adverse effects on sensitive resources.



*“Thoreau suggested that every
community should have its
patch of woods where people
could refresh themselves. His
notion of Nature as having
healing powers has now the
force of revealed truth.”*

– Wallace Stegner, *Where the
Bluebird Sings to the Lemonade
Springs*, 1992

BIO-1.5 Promote Use of Native Plant Species.

Encourage use of a variety of native or compatible non-native, non-invasive plant species indigenous to the site vicinity as part of project landscaping to improve wildlife habitat values.

BIO-1.6 Control Spread of Invasive Exotic Plants.

Prohibit use of invasive species in required landscaping as part of the discretionary review of proposed development. Work with landowners, landscapers, the Marin County Open Space District, nurseries, and the multi-agency Weed Management Area to remove and prevent the spread of highly invasive and noxious weeds. Invasive plants are those plants listed in the State’s Noxious Weed List, the California Invasive Plant Council’s list of “Exotic Pest Plants of Greatest Ecological Concern in California,” and other priority species identified by the agricultural commissioner and California Department of Agriculture. Species of particular concern include the following:



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barbed goatgrass (*Aegilops triuncialis*), giant reed (*Arundo donax*), Italian thistle (*Carduus pycnocephalus*), distaff thistle (*Carthamus lanatus*), purple starthistle (*Centaurea calcitrapa*), yellow starthistle (*Centaurea solstitialis*), pampas grass (*Cortaderia selloana*), Scotch broom (*Cytisus scoparius*), Cape ivy (*Delairea odorata*), oblong spurge (*Euphorbia oblongata*), fennel (*Foeniculum vulgare*), French broom (*Genista monspessulana*), salt-water cord grass (*Spartina alternifolia*), Spanish broom (*Spartium junceum*), medusahead (*Taeniatherum caput-medusae*), gorse (*Ulex europaeus*), and periwinkle (*Vinca major*), among others.

- BIO-1.7 Remove Invasive Exotic Plants.** Require the removal of invasive exotic species, to the extent feasible, when considering applicable measures in discretionary permit approvals for development projects unrelated to agriculture, and include monitoring to prevent re-establishment in managed areas.
- 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 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, and it 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.



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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.

How will results be achieved?

Implementing Programs

BIO-1.a *Map Natural Communities.* Work with other agencies to complete GIS mapping of vegetation, wetlands, and streams in the county according to the National Vegetation Classification system, consistent with methodology used to map vegetation in the Golden Gate National Recreation Area and Point Reyes National Seashore.

BIO-1.b *Develop Habitat Monitoring Programs.* Using countywide GIS mapping of natural communities and other information sources, work with other agencies to develop a program to monitor trends in habitat loss, protection, and restoration. Establish cumulative thresholds for habitat loss for particularly vulnerable natural communities and use as a basis for modifying standards for mitigation.



“All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. . . . The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.”

— Aldo Leopold (1886-1948), *A Sand County Almanac*, 1949

BIO-1.c *Maintain a Natural Resource Information Program.* Provide interested public, the cities/towns in the county, and landowners with up-to-date information on sensitive ecological resources and regulations enacted to protect these resources, to accurately assess the potential impacts of proposed development on species and habitat diversity, determine when additional detailed site environmental assessment is necessary, provide information on invasive exotic species control, and monitor development trends and habitat management activities. The Natural Resource Program should contain the following:

1. Up-to-date information on verified sightings of special-status species and sensitive natural communities compiled by the California Natural Diversity Data Base, California Department of Fish and Game, Non-Game Heritage Division.



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2. Reports and agency recovery programs for special-status species and sensitive natural communities, and related information summarizing regulations.
3. Up-to-date information from the U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fisheries, and California Department of Fish and Game, including lists of special-status species and their current status and lists of terrestrial natural communities and sensitive natural communities.
4. Available recovery plans for listed special-status species, mapping of critical habitat areas, and sightings and inventories of migratory species; reports, sightings, and recovery programs from credible, local sources such as the PRBO Conservation Science, California Native Plant Society, and Marin Audubon Society.
5. Biological reports completed as part of environmental review of proposed development projects and other studies, including information shared with cities and towns and districts within Marin County.
6. Lists of appropriate and inappropriate plant species for use in developing landscape plans to ensure that invasive exotic plants, plants with high water requirements, and, in fire hazard areas, species that are highly flammable, are excluded.
7. Summarized information for use by landowners addressing habitat protection and management of sensitive resources. This may include a list of references to existing and ongoing information sources pertaining to natural resource management, and production of brochures summarizing setback standards, appropriate and inappropriate lands use practices, and desired management programs.



“In the end, our society will be defined not only by what we create, but by what we refuse to destroy.”

— John C. Sawhill (1936-2000),
President, the Nature Conservancy, 1990-2000

BIO-1.d

Reevaluate County Native Tree Preservation and Protection Ordinance #3291.

Consider expanding existing provisions along with establishing a complementary education and outreach program to ensure woodland conservation and management, not simply protection of individual trees. Factors to address in the reevaluation include preserving stands or groups of trees, identifying and promoting representative species and a diversity of age classes, minimizing fragmentation and providing linkages and corridors, protecting and enhancing other components of forest and woodlands such as



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understory species and associated wildlife, and providing for sustainable regeneration through natural processes.

- BIO-1.e** *Protect Against Vegetation and Wildlife Diseases.* Participate in developing public information programs and regulations addressing diseases, and in publicizing management practices to control their spread. Manage hazardous vegetation affected by Sudden Oak Death syndrome according to standards set by the California Oak Mortality Task Force.
- BIO-1.f** *Prepare Appropriate Landscape Lists.* Prepare lists of appropriate native and non-native landscape species that are not invasive plants, have habitat value, have low-water requirements, and, for high hazard areas of the county, have low flammability. Prepare a second set of lists of plant species to avoid that are highly flammable, inappropriate water-thirsty plants, or undesirable invasive exotic species for property owner use in developing new or enhancing existing landscaping. Require applicants for discretionary approval with parcels that share all or part of a boundary with publicly owned open space to develop landscape plans that fully conform to the lists of appropriate plants. Prepare lists with input from the California Department of Fish and Game, agricultural commissioner, University of California Cooperative Extension, California Native Plant Society, Marin Municipal Water District, National Park Service, and other appropriate sources to verify suitability.
- BIO-1.g** *Expand Education, Outreach, and Regulatory Programs Regarding Control of Invasive Exotic Species.* Continue to work with the Marin/Sonoma Weed Management Area to promote the control and management of invasive exotic plant species. As part of the Natural Resource Information Program, provide interested public and landowners with information on invasive exotic species control and management, including up-to-date lists of invasive exotic plant and animal species of concern in Marin County, and links to other agencies and organizations involved in monitoring their status, such as the California Department of Fish and Game, U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration Fisheries, the National Invasive Species Council, and the California Invasive Plant Council. Explore the feasibility of creating an ordinance that prohibits the sale of selected invasive exotic plant species of particular threat to natural habitat in Marin County, such as Scotch broom and French broom.
- BIO-1.h** *Encourage Community Forest Programs.* Work with volunteer organizations and Marin cities and towns to encourage the creation of comprehensive, long-term community forestry programs in recognition of the multiple benefits that trees provide to our health, our communities, and the environment.



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What Are the Desired Outcomes?

GOAL BIO-2

Protection of Sensitive Biological Resources. Require identification of sensitive biological resources and commitment to adequate protection and mitigation, and monitor development trends and resource preservation efforts.



Policies

BIO-2.1 Include Resource Preservation in Environmental Review. Require environmental review pursuant to CEQA of development applications to assess the impact of proposed development on native species and habitat diversity, particularly special-status species, sensitive natural communities, wetlands, and important wildlife nursery areas and movement corridors. Require adequate mitigation measures for ensuring the protection of any sensitive resources and achieving “no net loss” of sensitive habitat acreage, values, and function.

BIO-2.2 Limit Development Impacts. Restrict or modify proposed development in areas that contain essential habitat for special-status species, sensitive natural communities, wetlands, baylands and coastal habitat, and riparian habitats, as necessary to ensure the continued health and survival of these species and sensitive areas. Development projects should preferably be modified to avoid impacts on sensitive resources, or to adequately mitigate impacts by providing on-site or (as a lowest priority) off-site replacement at a higher ratio.

BIO-2.3 Preserve Ecotones. Condition or modify development permits to ensure that *ecotones*, or natural transitions between habitat types, are preserved and enhanced because of their importance to wildlife. Ecotones of particular concern include those along the margins of riparian corridors, baylands and marshlands, vernal pools, and woodlands and forests where they transition to grasslands and other habitat types.



“Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity.”
– Aldo Leopold

BIO-2.4 Protect Wildlife Nursery Areas and Movement Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits, including consideration of cumulative impacts. Features of particular importance to wildlife for movement may include riparian corridors, shorelines of the coast and bay, and ridgelines. Linkages and corridors shall be provided that connect sensitive habitat areas such as woodlands, forests, wetlands, and



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essential habitat for special-status species, including an assessment of cumulative impacts.

- BIO-2.5** **Restrict Disturbance in Sensitive Habitat During Nesting Season.** Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.
- BIO-2.6** **Identify Opportunities for Safe Wildlife Movement.** Ensure that existing stream channels and riparian corridors continue to provide for wildlife movement at roadway crossings, preferably through the use of bridges, or through over-sized culverts, while maintaining or restoring a natural channel bottom. Consider the need for wildlife movement in designing and expanding major roadways and other barriers in the county. Of particular concern is the possible widening of Highway 101 north of Novato to the county line, where maintenance of movement opportunities for terrestrial wildlife between the undeveloped habitat on Mount Burdell and the marshlands along the Petaluma River is critical.
- BIO-2.7** **Protect Sensitive Coastal Habitat.** Protect coastal dunes, streams, and wetlands, and sensitive wildlife habitat from development in accordance with coastal resource management standards in the development code.
- BIO-2.8** **Coordinate with Trustee Agencies.** Consult with trustee agencies (the California Department of Fish and Game, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fisheries, U.S. Army Corps of Engineers, Environmental Protection Agency, Regional Water Quality Control Board, and Bay Conservation and Development Commission) during environmental review when special-status species, sensitive natural communities, or wetlands may be adversely affected.
- BIO-2.9** **Promote Early Consultation with Other Agencies.** Require applicants to consult with all agencies with review authority for projects in areas supporting wetlands and special-status species at the outset of project planning.

Why is this important?

The loss of critical, sensitive biological resources is well documented. To minimize further loss, it is necessary to identify remaining sensitive resources and their habitats to protect them from the impacts of development.

Environment: Marin County supports a high number of sensitive biological resources, because of both the wide diversity of habitats and their vulnerability to future threats. Over 120 plant and animal species



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and more than eight sensitive natural communities are monitored by the State because of their vulnerability. Continued monitoring is needed to fully understand ongoing threats and provide for adaptive management of essential habitat.

Economy: Protecting both sensitive resources and larger areas of surrounding natural habitat improves their long-term viability and the overall biodiversity of the region. Because many sensitive resources are highly regulated by State and federal agencies, leaving them in their natural state minimizes the need for costly mitigation and monitoring of replacement habitat.

Social Equity: Preserving essential habitat for sensitive resources provides additional opportunities for enjoyment of our natural resources, contributes to healthy living conditions, and provides opportunities for passive recreation and enjoyment for all.

How will results be achieved?

Implementing Programs

- BIO-2.a** ***Require Site Assessments.*** Require site assessment by a qualified professional for development applications that may adversely affect sensitive biological or wetland resources, including jurisdictional wetlands, occurrences of special-status species, occurrences of sensitive natural communities, and important wildlife nursery areas and movement corridors. The assessment should determine the presence or absence of any sensitive resources that could be affected by development, evaluate the potential impacts, and identify measures for protecting the resource and surrounding habitat. Require the assessment to be conducted by a qualified professional paid for by the applicant. Unless waived, the qualified professional should be hired directly by Marin County.
- BIO-2.b** ***Conduct Habitat Connectivity Assessment.*** Conduct a comprehensive assessment of habitat fragmentation and connectivity loss in coordination with resource agencies, landowners, and interested public. Develop recommendations for policies to protect essential habitat corridors and linkages, and to restore and improve opportunities for native plant and animal dispersal. Protection could include acquisition as open space in fee title, permanent preservation and management under a conservation easement, or other suitable methods. Important factors that should be considered as part of the assessment include the following: locations of sensitive resources such as special-status species and wetlands; methods to eliminate obstructions along streams that currently limit the functions and values of riparian corridors; effects of intensive development, major roadways, and fencing on plant and animal dispersal; and the need to protect and enhance linkages between baylands and undeveloped uplands through the eastern part of the county.
- BIO-2.c** ***Facilitate Agency Review.*** Coordinate County review with that of agencies with jurisdiction over proposed activities and areas, and require evidence of compliance with any necessary permits from federal and State agencies prior to issuance of County grading or building permits.



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- BIO-2.d** *Promote Early Agency Consultation.* Inform applicants upon initial contact with the County about other agencies that may have jurisdiction, and the policies and standards of those agencies that may regulate proposed development activities.
- BIO-2.e** *Participate in FishNet4C Program.* Continue to actively participate in the FishNet4C program and work cooperatively with participating agencies to implement recommendations to improve and restore aquatic habitat for listed anadromous fish species and other fishery resources.

What Are the Desired Outcomes?

GOAL BIO-3



Wetland Conservation. Require all feasible measures to avoid and minimize potential adverse impacts on existing wetlands and to encourage programs for restoration and enhancement of degraded wetlands.

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



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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*.

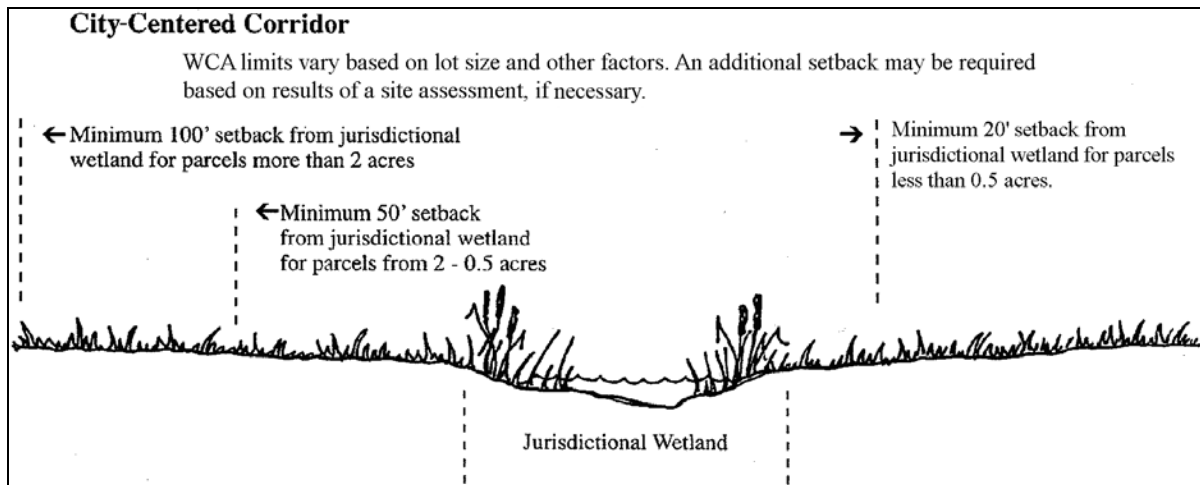
Exceptions to full compliance with the WCA setback standards may apply only in the following cases:

1. Parcel is already developed with an existing use, provided no unauthorized fill or other modifications to wetlands have occurred as part of ongoing use of the property.
2. Parcel is undeveloped and falls entirely within the WCA.
3. Parcel is undeveloped and potential impacts on water quality, wildlife habitat, or other sensitive resources would be greater as a result of development outside the WCA than development within the WCA, as determined by a site assessment.
4. Wetlands are avoided and a site assessment demonstrates that minimal incursion within the minimum WCA setback distance would not result in any significant adverse direct or indirect impacts on wetlands.

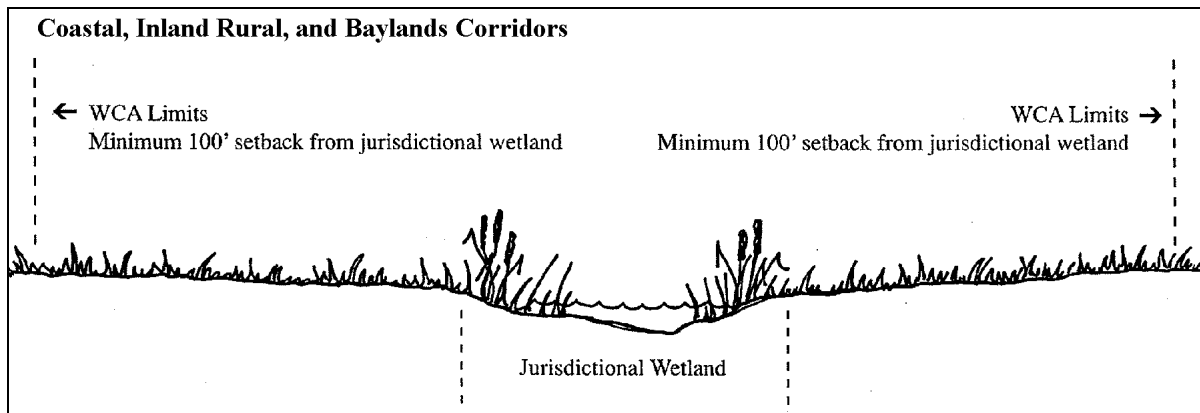


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Figure 2-1 Typical Cross-Sections of Wetland Conservation Areas



- ◆ Minimum setback distance of 100 feet from jurisdictional wetlands for parcels more than 2 acres.
- ◆ Minimum setback distance of 50 feet from jurisdictional wetlands for parcels between 2 and 0.5 acres.
- ◆ Minimum setback distance of 20 feet for parcels less than 0.5 acres in size.
- ◆ An additional setback distance 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*.
- ◆ 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.



- ◆ Minimum setback distance of 100 feet from edge of jurisdictional wetlands regardless of parcel size, unless an exception is allowed because parcel falls entirely within WCA or development outside WCA is either infeasible or would have greater impact.
- ◆ An additional setback distance 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*.
- ◆ 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.



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BIO-3.2 **Require Thorough Mitigation.** Where avoidance of wetlands is not possible, require provision of replacement habitat on-site through restoration and/or habitat creation at a minimum ratio of 2 acres for each acre lost (2:1 replacement ratio) for on-site mitigation and a minimum 3:1 replacement ratio for off-site mitigation. Mitigation wetlands should be of the same type as those lost and provide habitat for the species that use the existing wetland. Mitigation should also be required for incursion within the minimum WCA setback/transition zone.

Why is this important?

An estimated 90% of all wetlands in the nation have been eliminated by filling and dredging. Net losses could continue to occur unless wetlands are accurately mapped and protected, and efforts are made to effectively restore and enhance degraded wetlands.

Environment: Wetlands are both highly productive and sensitive resources biologically, supporting a great diversity of plant and animal species, providing essential habitat for a high number of special-status species and migratory birds and fish, and serving critical water purification and groundwater recharge functions. Development setbacks are necessary around wetlands to provide a buffer to prevent disturbance of important wildlife habitat, and to filter sediments and pollutants from disturbed areas and urban runoff.

Economy: Maintaining and enhancing wetlands serves to protect the long-term health of the county, and consequently makes it a desirable location for business and commerce. Protecting the natural water filtration and recharge functions of wetlands serves to reduce the costs of flood damage, water pollution, and water supply redistribution.

Equity: Protecting and restoring natural wetlands provides improved habitat for both wildlife and humans.

How will results be achieved?

Implementing Programs

BIO-3.a ***Adopt Wetland Conservation Area Ordinance.*** Prepare and adopt an ordinance to refine wetland standards pursuant to WCA polices. Setback distances and buffer criteria for smaller developed parcels within the City-Centered Corridor should allow flexibility based on site constraints, opportunities for avoidance, presence of sensitive biological resources, and options for alternative mitigation. As part of the new ordinance, consider including incentives to reduce the extent of existing development within a WCA, or improve conditions that may be impacting sensitive resources if the parcel is proposed for redevelopment.

BIO-3.b ***Comply with Regulations to Protect Wetlands.*** Continue to require development applications to include the submittal of a wetland delineation for sites with jurisdictional wetlands and to demonstrate compliance with these wetlands policies, standards, and criteria, and with State and federal regulations.

BIO-3.c ***Require Site Assessment.*** Require development applications to include the submittal of a site assessment prepared by a qualified professional where incursions into the WCA



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are proposed, or adverse impacts to wetlands resources may otherwise occur. The assessment should be considered in determining whether any adverse direct or indirect impacts on wetlands would occur as a result of the proposed development, whether wetlands criteria and standards are being met, and to identify measures necessary to mitigate any significant impacts. The site assessment may also serve as a basis for the County to apply restrictions in addition to those required by State and federal regulations. The site assessment shall be paid for by the applicant. Unless waived, the qualified professional shall be hired directly by Marin County.

BIO-3.d ***Prioritize Wetland Avoidance.*** Amend the Development Code to require development to avoid wetlands and transition zones. Where avoidance of wetlands is not possible, require the provision of replacement habitat on-site through restoration and/or habitat creation, provided that no net loss of wetland area, wetland function, and habitat values occurs. On-site wetlands mitigation shall be provided at a minimum ratio of 2 acres for each acre lost (2:1 replacement ratio). Allow off-site wetland mitigation only when an applicant has demonstrated that no net loss of wetland area, wetland functions, and wetland values would occur, and that on-site mitigation is not possible. In those rare instances when on-site wetlands loss is unavoidable and on-site replacement is infeasible, require that a minimum of 3 acres be provided through mitigation for each acre lost (3:1 replacement ratio), preferably of the same habitat type as the wetland area that would be lost. The mitigation site should be close to the site of loss so that the mitigation wetland would provide habitat for the species that use the existing wetlands.

BIO-3.e ***Establish Clear Mitigation Criteria.*** Amend the Development Code to incorporate wetland impact mitigations measures that accomplish the following objectives:

- a. No net losses shall occur in wetland acreage, functions, or values. This should include both direct impacts on wetlands and essential buffers, and consideration of potential indirect effects of development due to changes in available surface water and nonpoint water quality degradation. Detailed review of the adequacy of a proposed mitigation plan shall be performed as part of environmental review of the proposed development project to allow for a thorough evaluation of the anticipated loss, as well as the replacement acreage, functions, and values.
- b. Mitigation shall be implemented prior to and/or concurrently with the project activity causing the potential adverse impact to minimize any short-term loss and modification to wetlands.
- c. An area of adjacent upland habitat shall be protected to provide an adequate buffer for wetland functions and values. Development shall be set back the minimum distance specified in Policy BIO-3.1 to create this buffer, unless an exception is allowed and appropriate mitigation is provided where necessary, pursuant to Policy BIO-3.2.
- d. Mitigation sites shall be permanently protected and managed for open space and wildlife habitat purposes.



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- e. Restoration of wetlands is preferred to creation of new replacement wetlands, due to the greater likelihood of success.
- f. Mitigation projects must to the extent feasible minimize the need for ongoing maintenance and operational manipulation (dredging, artificial water-level controls, etc.) to ensure long-term success. Self-sustaining projects with minimal maintenance requirements are encouraged.
- g. All plans to mitigate or minimize adverse impacts to wetland environments shall include provisions to monitor the success of the restoration project. The measures taken to avoid adverse impacts may be modified if the original plans prove unsuccessful. Performance bonds shall be required for all mitigation plans involving habitat creation or enhancement, including the cost of five years of post-completion monitoring.
- h. Mitigation must be commensurate with adverse impacts of the wetland alteration and consist of providing similar values and greater wetland acreage than those of the wetland area adversely affected. All restored or created wetlands shall be provided at the minimum replacement ratio specified in Program BIO-3.d and shall have the same or increased habitat values as the wetland proposed to be destroyed.

BIO-3.f ***Establish Criteria for Setbacks.*** Establish criteria to be used in the review of individual development applications for determining an adequate setback distance in upland habitat to protect resource values in the setback area and to serve as a buffer zone between development and wetland areas. Setbacks may contain significant resource values similar to those within wetlands. Setbacks should provide for minimum filtration functions to intercept sediments and prevent degradation of adjacent wetlands to be protected. The setbacks shall conform with distances specified in Policy BIO-3.1, with varied minimum setbacks in the City-Centered Corridor, and minimum 100-foot setback distances in the Coastal, Inland Rural, and Baylands corridors. Within the City-Centered Corridor, flexibility should be included in the criteria based on site constraints, opportunities to ensure the avoidance of sensitive wetlands and associated resources such as special-status species, and the feasibility of alternative mitigation options for already developed properties and exceptions for existing uses.

BIO-3.g ***Provide Landowner Education.*** Landowner education regarding the sensitivity of wetlands and adjacent upland buffer areas will be provided as part of the Natural Resource Information Program called for in Program BIO-1.c. An emphasis will be placed on educating owners of developed properties adjacent to wetlands where minimum upland setback distances are not provided. Information on regulations protecting wetlands and adjacent areas that may contain significant resource values should be available, together with general methods to minimize disturbance and improve habitat values. An updated list of regulatory agencies and their contact information should be maintained as part of the Natural Resource Information Program.

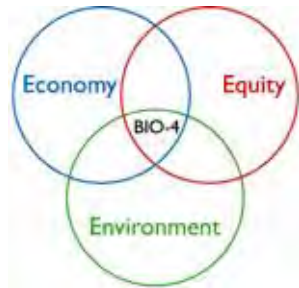


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BIO-3.h *Evaluate Wetlands Definitions.* Conduct a study to evaluate whether to continue to rely on the Army Corps of Engineers definition of wetlands outside of the Coastal Zone or to expand the use of the Coastal Zone (or “Cowardin”) definition to the entire county. The study should consider all of the following in developing a recommendation to the Board of Supervisors: (1) the effect of the expanded wetland definition when coupled with SCA and WCA requirements; (2) the extent of the geographic areas potentially affected by the expanded definition; (3) performance of wetland delineations for areas outside the Coastal Zone (in-house staff or consultants); (4) potential costs and workloads associated with delineations, administration, and appeals; (5) overall feasibility of implementation and enforcement responsibilities associated with an expanded definition; (6) benefits and challenges of a consistent definition throughout the county; (7) what percentage of wetlands would continue to be regulated by the Army Corps of Engineers; and (8) what percentage of cost could be paid for by the applicant.

What Are the Desired Outcomes?

GOAL BIO-4



Riparian Conservation. Protect and, where possible, restore the natural structure and function of riparian systems.

Policies

BIO-4.1 Restrict Land Use in Stream Conservation Areas. A *Stream Conservation Area* (SCA) is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect

significant resources that may be present and provides a transitional protection zone. Best management practices¹ shall be adhered to in all designated SCAs. Best management practices are also strongly encouraged in ephemeral streams not defined as SCAs.

Exceptions to full compliance with all SCA criteria and standards may be allowed only if the following is true:

1. A parcel falls entirely within the SCA; or
2. Development on the parcel entirely outside the SCA either is infeasible or would have greater impacts on water quality, wildlife habitat, other sensitive biological resources, or other environmental constraints than development within the SCA.

SCAs are designated along perennial, intermittent, and ephemeral streams as defined in the Countywide Plan Glossary. Regardless of parcel size, a site assessment is required where incursion into an SCA is proposed or where full compliance with all

¹Such as those outlined in *Start at the Source* and *Start at the Source Tools Handbook* (Bay Area Stormwater Managers Agencies Association).



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SCA criteria would not be met. An ephemeral stream is subject to the SCA policies 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, regardless of the extent of riparian vegetation associated with the stream. For those ephemeral streams that do not meet these criteria, a minimum 20-foot development setback should be required.

SCAs consist of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of both banks to the widths defined below (see Figure 2-2). The SCA encompasses any jurisdictional wetland or unvegetated other waters within the stream channel, together with the adjacent uplands, and supersedes setback standards defined for WCAs. Human-made flood control channels under tidal influence are subject to the Bayland Conservation policies. The following criteria shall be used to evaluate proposed development projects that may impact riparian areas:

City-Centered Corridor:

- ◆ For parcels more than 2 acres in size, provide a minimum 100-foot development setback on each side of the top of bank.
- ◆ For parcels between 2 and 0.5 acres in size, provide a minimum 50-foot development setback on each side of the top of bank.
- ◆ For parcels less than 0.5 acres in size, provide a minimum 20-foot development setback. 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. A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, *Require Site Assessment*.



Woody riparian vegetation includes plants that have tough, fibrous stems; vines; and branches covered with bark and composed largely of cellulose and lignin. Characteristic woody riparian species include willow, alder, box elder, big-leaf maple, cottonwood, dogwood, elderberry, elk clover, thimbleberry, and California blackberry, among others. See glossary for additional information on stream characteristics and definitions.



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Coastal, Inland Rural, and Baylands Corridors:

- ◆ For all parcels, provide a development setback on each side of the top of bank that is the greater of either (a) 50 feet landward from the outer edge of woody riparian vegetation associated with the stream or (b) 100 feet landward from the top of bank. An additional setback distance may be required based on the results of a site assessment. A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, *Require Site Assessment*. SCAs shall be measured as shown in Figure 2-2.

Allowable uses in SCAs in any corridor consist of the following, provided they conform to zoning and all relevant criteria and standards for SCAs:

- ◆ Existing permitted or legal nonconforming structures or improvements, their repair, and their retrofit within the existing footprint;
- ◆ Projects to improve fish and wildlife habitat;
- ◆ Driveway, road and utility crossings, if no other location is feasible;
- ◆ Water-monitoring installations;
- ◆ Passive recreation that does not significantly disturb native species;
- ◆ Necessary water supply and flood control projects that minimize impacts to stream function and to fish and wildlife habitat;
- ◆ Agricultural uses that do not result in any of the following:
 - a. The removal of woody riparian vegetation;
 - b. The installation of fencing within the SCA that prevents wildlife access to the riparian habitat within the SCA;
 - c. Animal confinement within the SCA; and
 - d. A substantial increase in sedimentation.

BIO-4.2 Comply with SCA Regulations. Implement established setback criteria for protection of SCAs through established discretionary permit review processes and/or through adoption of new ordinances. Environmental review shall be required where incursion into an SCA is proposed and a discretionary permit is required.

In determining whether allowable uses are compatible with SCA regulations, development applications shall not be permitted if the project does any of the following:

- ◆ Adversely alters hydraulic capacity;
- ◆ Causes a net loss in habitat acreage, value, or function;
- ◆ Degrades water quality.

BIO-4.3 Manage SCAs Effectively. Review proposed land divisions in SCAs to allow management of a stream by one property owner to the extent possible.

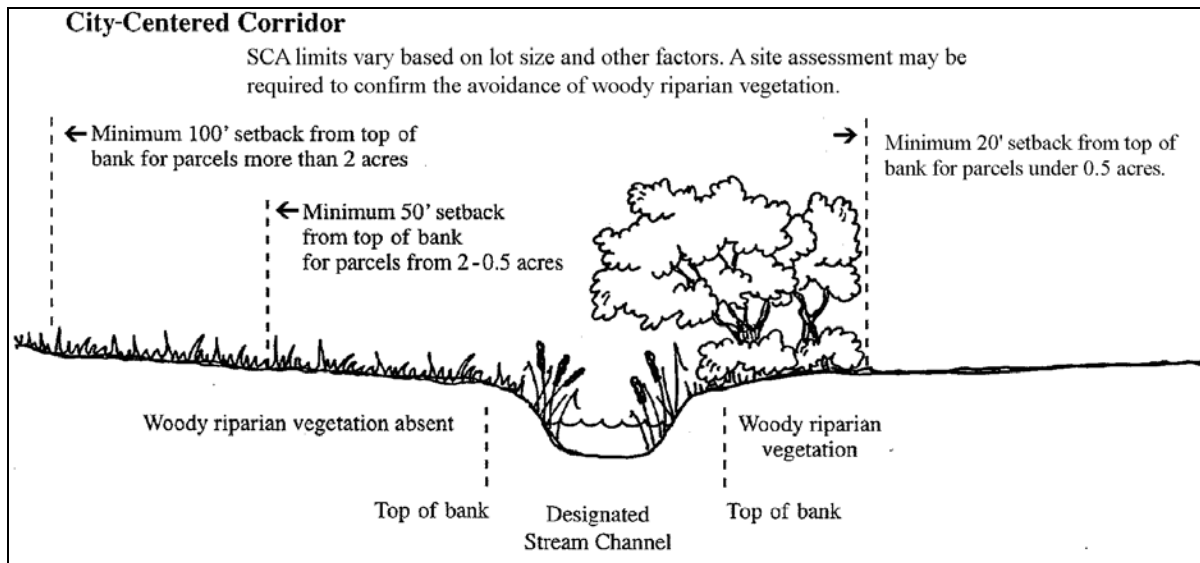


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BIO-4.4 Promote Natural Stream Channel Function. Retain and, where possible, restore the hydraulic capacity and natural functions of stream channels in SCAs. Discourage alteration of the bed or banks of the stream, including filling, grading, excavating, and installation of storm drains and culverts. When feasible, replace impervious surfaces with pervious surfaces. Protect and enhance fish habitat, including through retention of large woody debris, except in cases where removal is essential to protect against property damage or prevent safety hazards. In no case shall alterations that create barriers to fish migration be allowed on streams mapped as historically supporting salmonids. Alteration of natural channels within SCAs for flood control should be

designed and constructed in a manner that retains and protects the riparian vegetation, allows for sufficient capacity and natural channel migration, and allows for reestablishment of woody trees and shrubs without compromising the flood flow capacity where avoidance of existing riparian vegetation is not possible.

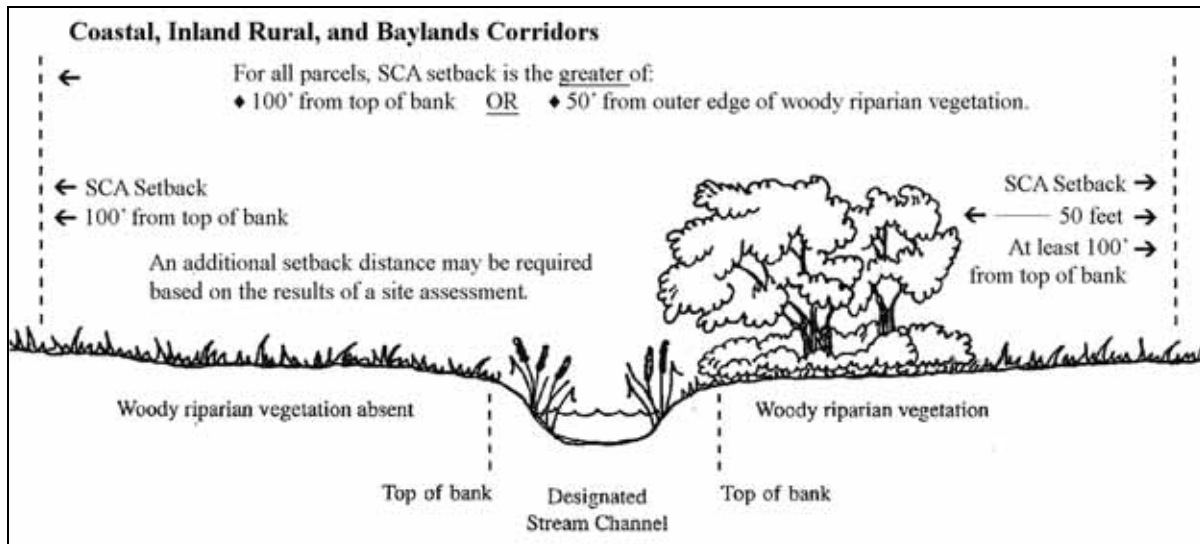
Figure 2-2
Typical Cross-Section of a Stream Conservation Zone



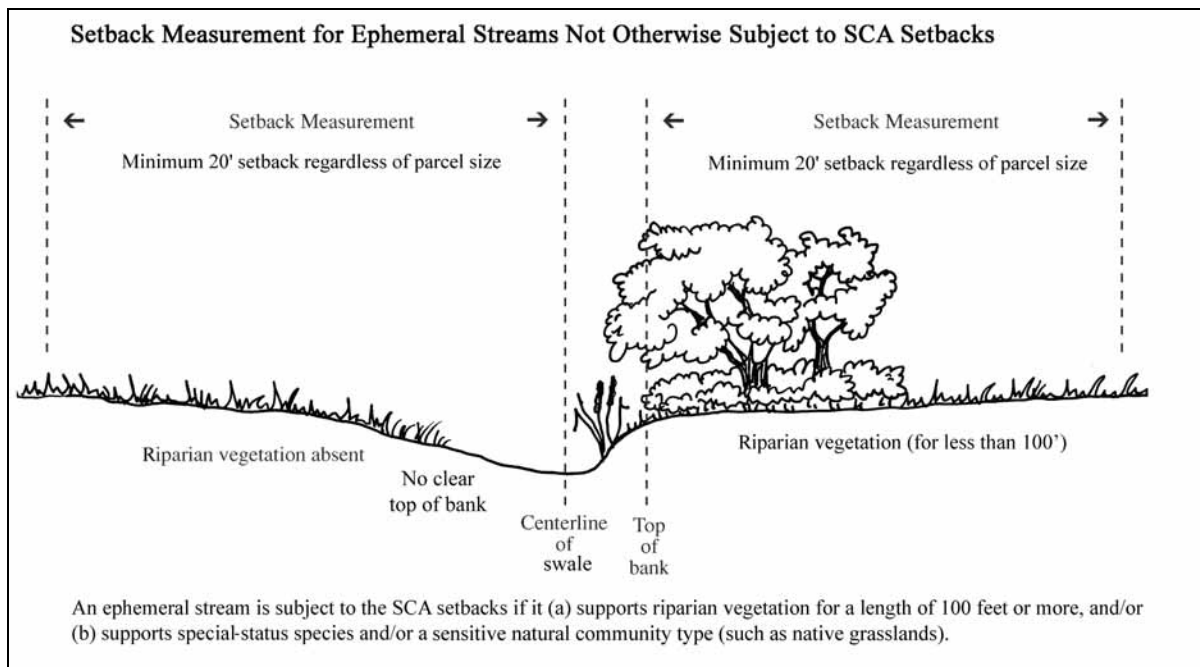
- ◆ Minimum setback distance of 100 feet from top of bank for parcels more than 2 acres.
- ◆ Minimum setback distance of 50 feet from top of bank for parcels between 2 and 0.5 acres.
- ◆ Minimum setback distance of 20 feet from top of bank for parcels less than 0.5 acres.
- ◆ A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, *Require Site Assessment*.
- ◆ 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.



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- ♦ 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.



- ♦ For all parcels, regardless of corridor, minimum setback distance is 20 feet.
- ♦ A site assessment is required where incursion into the setback is proposed.



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- BIO-4.5** **Restore and Stabilize Stream Channels.** Pursue stream restoration and appropriate channel redesign where sufficient right-of-way exists that includes the following: a hydraulic design, a channel plan form, a composite channel cross-section that incorporates low flow and bankfull channels, removal and control of invasive exotic plant species, and biotechnical bank stabilization methods to promote quick establishment of riparian trees and other native vegetation.
- BIO-4.6** **Control Exotic Vegetation.** Remove and replace invasive exotic plants with native plants as part of stream restoration projects and as a condition of site-specific development approval in an SCA, and include monitoring to prevent reestablishment.
- BIO-4.7** **Protect Riparian Vegetation.** Retain riparian vegetation for stabilization of streambanks and floodplains, moderating water temperatures, trapping and filtering sediments and other water pollutants, providing wildlife habitat, and aesthetic reasons.
- BIO-4.8** **Reclaim Damaged Portions of SCAs.** Restore damaged portions of SCAs to their natural state wherever possible, and reestablish as quickly as possible any herbaceous and woody vegetation that must be removed within an SCA, replicating the structure and species composition of indigenous native riparian vegetation.
- BIO-4.9** **Restore Culverted Streams.** Replace storm drains and culverts in SCAs with natural drainage and flood control channels wherever feasible. Reopening and restoring culverted reaches of natural drainages should be considered part of review of development applications on parcels containing historic natural drainages where sufficient land area is available to accommodate both the reopened drainage and project objectives. Detailed hydrologic analysis may be required to address possible erosion and flooding implications of reopening the culverted reach, and to make appropriate design recommendations. Incentives should be provided to landowners in restoring culverted, channelized, or degraded stream segments. Where culverts interfere with fish migration but replacement is not possible, modify culverts to allow unobstructed fish passage.
- BIO-4.10** **Promote Interagency Cooperation.** Work in close cooperation with flood control districts, water districts, and wildlife agencies in the design and choice of materials for construction and alterations within SCAs.
- BIO-4.11** **Promote Riparian Protection.** Support agencies, organizations, and programs in Marin County that protect, enhance, and restore riparian areas.
- BIO-4.12** **Support and Provide Riparian Education Efforts.** Educate the public and County staff about the values, functions, and importance of riparian areas. Landowner education regarding the sensitivity of riparian corridors will be provided as part of the Natural Resource Information Program called for in Program BIO-1.c. An emphasis will be placed on public outreach to owners of developed properties encompassing or adjacent to SCAs where minimum setback distances are not provided. Information on regulations protecting riparian corridors should be available, together with general



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methods to minimize disturbance and improve habitat values. An updated list of regulatory agencies and their contact information should be maintained as part of the Natural Resource Information Program.

- BIO-4.13 Provide Appropriate Access in SCAs.** Ensure that public access to publicly owned land within SCAs respects the environment, and prohibit access if it will degrade or destroy riparian habitat. Acquire public lands adjacent to streams where possible to make resources more accessible and usable for passive recreation, and to protect and enhance streamside habitat.
- BIO-4.14 Reduce Road Impacts in SCAs.** Locate new roads and roadfill slopes outside SCAs, except at stream crossings, and consolidate new road crossings wherever possible to minimize disturbance in the SCA. Require spoil from road construction to be deposited outside the SCA, and take special care to stabilize soil surfaces.
- BIO-4.15 Reduce Wet Weather Impacts.** Ensure that development work adjacent to and potentially affecting SCAs is not done during the wet weather or when water is flowing through streams, except for emergency repairs, and that disturbed soils are stabilized and replanted, and areas where woody vegetation has been removed are replanted with suitable species before the beginning of the rainy season.
- BIO-4.16 Regulate Channel and Flow Alteration.** Allow alteration of stream channels or reduction in flow volumes only after completion of environmental review, commitment to appropriate mitigation measures, and issuance of appropriate permits by jurisdictional agencies based on determination of adequate flows necessary to protect fish habitats, water quality, riparian vegetation, natural dynamics of stream functions, groundwater recharge areas, and downstream users.
- BIO-4.17 Continue Collaboration with the Marin Resource Conservation District.** Continue to collaborate with, support, and participate in programs provided by the Marin Resource Conservation District and the Natural Resource Conservation Service to encourage agricultural operators who conduct farm or ranch activities within a Streamside Conservation Area to minimize sedimentation and erosion to enhance habitat values.
- BIO-4.18 Promote the Use of Permeable Surfaces When Hardscapes Are Unavoidable in the SCA and WCA.** Permeable surfaces rather than impermeable surfaces shall be required wherever feasible in the SCA and WCA.
- BIO-4.19 Maintain Channel Stability.** Applicants for development projects may be required to prepare a hydraulic and/or geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. This assessment should be required where evidence that significant current or impending channel instability is present, such as documented channel bed incision, lateral erosion of banks (e.g., sloughing or landsliding), tree collapse due to streambank undermining and/or soil loss, or severe in-channel sedimentation, as determined by the County.



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Characteristics pertinent to channel stability would include hillslope erosion, bank erosion, excessive bed scour or sediment deposition, bed slope adjustments, lateral channel migration or bifurcation, channel capacity, and the condition of riparian vegetation. The hydraulic and/or geomorphic assessment shall include on-site channel or drainageway segments over which the applicant has control or access. In the event that project development would result in or further exacerbate existing channel instabilities, the applicant could either propose his/her own channel stabilization program subject to County approval or defer to the mitigations generated during the required environmental review for the project, which could include maintenance of peak flows at pre- and post-project levels, or less. Proposed stabilization measures shall anticipate project-related changes to the drainageway flow regime.

All project improvements should be designed to minimize flood hydrograph peak flow or flood volume increases into drainage courses. To this end, design features such as porous pavement, pavers, maximizing overall permeability, drainage infiltration, disconnected impervious surfaces, swales, bioretention, green roofs, etc., should be integrated into projects as appropriate.

For projects subject to discretionary review, the applicant may be required, as appropriate, to submit a pre-and post-project hydrology and hydraulic report detailing the amount of new impervious surface area and accompanying surface runoff from all improvement areas, including driveways — with a goal of zero increase in runoff (no net increase in peak off-site runoff). The applicant may be required to participate in a peak stormwater runoff management program developed pursuant to new Program BIO-4.20.

BIO-4.20 **Minimize Runoff.** In order to decrease stormwater runoff, the feasibility of developing a peak stormwater management program shall be evaluated to provide mitigation opportunities such as removal of impervious surface or increased stormwater detention in the watershed.

Why is this important?

Riparian habitats are irreplaceable, vital biological systems that provide critical functions for water purification, flood control, fish and wildlife movement, and native habitat. However, large portions of existing riparian systems have been eliminated by past stream channelization, agricultural expansion, and urban development.

Environment: Preserving and restoring riparian habitats is essential to maintaining habitat connectivity and improving degraded conditions for fish and wildlife species. Adequate setbacks and limitations on uses within designated Stream Conservation Areas are needed to minimize disturbance to sensitive resources and to maintain and improve wildlife habitat, flood protection, and water purification.

Economy: Maintaining healthy waterways and natural habitat areas is critical to the economic health and vitality of the county. Protecting and restoring native vegetation along riparian corridors minimizes



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potential erosion, downstream sedimentation, and water quality degradation. Directing development out of floodways reduces potential costly flood damage and loss.

Equity: Protecting and restoring riparian corridors provide an opportunity to link urban and natural areas to benefit human beings as well as native plants and wildlife. This expands the network of open space lands, areas for healthy recreation and exercise, an appreciation of natural systems, and aesthetic benefits.

How will results be achieved?

Implementing Programs

- BIO-4.a** ***Adopt Expanded SCA Ordinance.*** Adopt a new SCA ordinance that would implement the SCA standards for parcels traversed by or adjacent to a mapped anadromous fish stream and tributary. Such an ordinance could, by way of example, require compliance with the incorporation of best management practices into the proposed project and could consider modest additions to existing buildings that would not result in significant impact to riparian resources, such as additions that do not exceed 500 square feet of total floor area and that do not increase the existing horizontal encroachment into the SCA, provided a site assessment first confirms the absence of adverse impacts to riparian habitats. As part of the new ordinance, consider including additional incentives, such as reduced fees or other similar incentives, to reduce the extent of existing development within an SCA or improve conditions that may be impacting sensitive resources.
- BIO-4.b** ***Reevaluate SCA Boundaries.*** Beginning with the City-Centered Corridor and smaller parcels, conduct a comprehensive study to reevaluate standards used to protect SCAs and regulate development adjacent to streams. The study shall consider available data on stream protection and management standards, their effectiveness, and the effectiveness of the current standards used in Marin County, including the 50- and 100-foot setback distances (plus additional setbacks from the edge of riparian vegetation where applicable). The study shall consider stream functions on a watershed-level basis, and include input from professionals such as a fluvial geomorphologist, hydrologist, wildlife biologist, and vegetation ecologist, together with resource agencies and interested members of the public. Each SCA should encompass all woody riparian vegetation and be of sufficient width to filter sediments and other pollutants before they enter the stream channel. Careful study may be needed to distinguish woody riparian vegetation from other types of woodland or forest vegetation in some areas.
- BIO-4.c** ***Prepare County Stream Map.*** Use the County GIS to map perennial, intermittent, and, where feasible, ephemeral streams subject to SCA policies. Use the resulting mapping in conjunction with USGS maps and the “ephemeral stream” definition to confirm SCAs on parcels proposed for development. Add to and update the map on an ongoing basis as additional streams are surveyed.



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- BIO-4.d** *Establish Functional Criteria for Land Uses in SCAs.* Develop detailed criteria for protection of riparian functions, and identify methods for their use in evaluating proposed development.
- BIO-4.e** *Identify Proposals Within SCAs.* Determine whether a proposed development falls wholly or partially within an SCA, through agency review by County staff, and as necessary by a qualified professional, of discretionary application materials and site inspection.
- BIO-4.f** *Identify Potential Impacts to Riparian Systems.* At the time of a development application, evaluate potential impacts on riparian vegetation and aquatic habitat, and incorporate measures to protect riparian systems into the project design and construction. Retain and minimize disturbance to woody and herbaceous riparian vegetation in SCAs and adjacent areas. (Tree growth may be cleared from the stream channel where removal is essential to protect against property damage or prevent safety hazards.)
- BIO-4.g** *Require Site Assessment.* Require development applications to include the submittal of a site assessment prepared by a qualified professional where incursions into the SCA are proposed, or adverse impacts to riparian resources may otherwise occur. Unless waived, the qualified professional shall be hired by Marin County. The site assessment shall be paid for by the applicant and considered in determining whether any adverse direct or indirect impacts on riparian resources would occur as a result of the proposed development, whether SCA criteria and standards are being met, and to identify measures necessary to mitigate any significant impacts. The site assessment may also serve as a basis for the County to apply restrictions in addition to those required by State and federal regulations.
- BIO-4.h** *Comply with SCA Criteria and Standards.* All development permit applications shall be reviewed for conformity with these SCA policies, criteria, and standards and in accordance with the California Environmental Quality Act. Proposals that do not conform to SCA policies, and cannot be modified or mitigated to conform, shall be denied. If a proposal involves the creation of a new parcel that is wholly or partially in an SCA, the land division shall be designed to ensure that no development occurs within the SCA.
- BIO-4.i** *Replace Vegetation in SCAs.* When removal of *native* riparian vegetation is unavoidable in an SCA, and mitigation is required, require establishment of native trees, shrubs, and ground covers within a period of five years at a rate sufficient to replicate, after a period of five years, the appropriate density and structure of vegetation removed. Require replacement and enhancement planting to be monitored and maintained until successful establishment provides for a minimum replacement or enhancement ratio of 2:1.



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- BIO-4.j** *Continue Funding Fencing of Sensitive Stream Areas.* Encourage continued funding in conjunction with the Marin Resource Conservation District, the Natural Resource and Conservation Service, and other relevant agencies, to pay the cost of fencing sensitive streamside areas (on both public lands and private property) that could be impacted by cattle grazing.
- BIO-4.k** *Locate Trails Appropriately.* Situate trails at adequate distances from streams to protect riparian and aquatic habitat and wildlife corridors. Trails may occasionally diverge close to the top of bank to provide visual access and opportunities for interpretive displays on the environmental sensitivity of creek habitats. (See policies and programs in the Trails Section of this Element.)
- BIO-4.l** *Monitor Stream Conservation Areas.* Establish a system of monitoring SCAs, which may include mapping fenced streams and stream restoration areas to ensure the protection of vegetation, soils, water quality, and wildlife habitat along streams.
- BIO-4.m** *Encourage Conservation Plans Within the Stream Conservation Area.* Continue to collaborate with the Marin Resource Conservation District to encourage and support the continued implementation of the Marin Coastal Watersheds Permit Coordination Program, especially the preparation of management and conservation plans where appropriate for agricultural activities within the Stream Conservation Areas.
- BIO-4.n** *Provide Information to Reduce Soil Erosion and Sedimentation.* Provide information and fact sheets on programs offered by the Marin Resource Conservation District at the Community Development Agency front counter to landowners and applicants who submit development proposals within the Streamside Conservation Area in the Stemple, Walker, and Lagunitas creek watersheds.
- BIO-4.o** *Consider Culvert Restoration.* As part of the expanded SCA ordinance, consider additional policy language to encourage reopening culverted reaches and restoring channelized reaches of natural drainages. This may include adjustments in minimum standard setback distances where site constraints prevent complete compliance along the restored or enhanced channel reach. A detailed analysis may be required to demonstrate restoration feasibility and address possible effects on erosion and flooding potential. Incentives may be available to landowners to encourage restoration and enhancement efforts.
- BIO-4.p** *Implement NPDES Phase II.* Continue to implement NPDES Phase II permit requirements relating to peak flow controls to ensure that project related and cumulative impacts to peak flows are minimized or avoided through conditions on project approval as required by the ordinances.
- BIO-4.q** *Develop Standards Promoting Use of Permeable Materials.* Review existing permit requirements for development in SCAs and WCAs, and recommend additional standards for project review and corrective measures as needed to protect SCAs and WCAs from inappropriate ministerial and discretionary development. Develop



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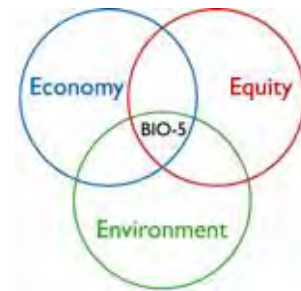
additional standards for requiring the use of best management practices, including measures such as the use of permeable materials in the SCA and WCA. A checklist of Best Management Practices should be made available to applicants.

- BIO-4.r** *Review Septic System Setbacks in SCA and WCA.* Review existing septic requirements within SCAs and WCAs, and revise requirements as necessary to provide monitoring and to protect SCAs and WCAs from impacts associated with septic systems. Consider adopting larger setback standards applied to new development for septic systems and their associated leachfields.
- BIO-4.s** *Continue Collaboration with the Marin Resource Conservation District and Agricultural Commissioner.* Continue to collaborate with, support, and participate in programs provided by the Marin Resource Conservation District, the Natural Resource Conservation Service, and the Agricultural Commissioner’s Office to encourage agricultural operators who conduct farm or ranch activities within a Streamside Conservation Area to minimize pesticide use and activities that cause sedimentation and erosion, to enhance habitat values.
- BIO-4.t** *Collaborate with Groups to Address Implementation of Protections to SCAs and WCAs.* Collaborate with local, regional, State, and federal organizations (Marin Organic, MALT, SPAWN, Marin Audubon, RCD, Fish and Game, RWQCB, Sierra Club, Farm Bureau, Trout Unlimited, and affected property owners) to address long term habitat protection and develop funding mechanisms to address the issue.
- BIO-4.u** *Investigate Tax Delinquent Properties.* Investigate conversion of tax delinquent properties in SCAs into public ownership.

What Are the Desired Outcomes?

GOAL BIO-5

Baylands Conservation. Preserve and enhance the diversity of the baylands ecosystem, including tidal marshes and adjacent uplands, seasonal marshes and wetlands, rocky shorelines, lagoons, agricultural lands, and low-lying grasslands overlying historical marshlands.



The Baylands Corridor is described in Maps 2-5a and 2-5b. While the mapped areas include lands within incorporated cities, the policies, programs, and implementation measures related to the Baylands Corridor apply only within unincorporated Marin County.

The Baylands Corridor consists of areas previously included in the Bayfront Conservation Zones in the 1994 Countywide Plan, as well as all areas included in Bayfront Conservation Zone overlays adopted since the 1994 Countywide Plan. The Baylands Corridor consists of land containing historic bay marshlands based on maps prepared by the San Francisco Estuary Institute. Based upon information contained in studies completed during the preparation of this Plan,



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the Baylands Corridor also includes associated habitat from the San Francisco Bay to Highway 101 in the Las Gallinas Planning Area. Except in the Tam Junction area and at the Rowland Boulevard and Highway 101 interchange in Novato, the Baylands Corridor does not extend west of Highway 101.

Where applicable for large parcels (more than 2 acres in size) that are primarily undeveloped, and based upon site-specific characteristics, an additional area of 300 feet or more of associated habitat is included. The inclusion of the 300-foot buffer is consistent with the minimum setback recommendations contained in the 1999 *Baylands Ecosystem Habitat Goals* report. This portion of the corridor serves both to recognize the biological importance of associated uplands adjacent to remaining tidelands, and to provide the opportunity to improve habitat values as part of future restoration of historic tidelands.

Within the Baylands Corridor, potential residential density and commercial floor area ratios shall be calculated at the low end of the applicable ranges. This provision does not apply to small parcels (2 acres or less in size) that were legally created prior to January 1, 2007. Within PD-AERA designation, the density and floor area ratios shall be as specified for those areas. Section 22.14.060 of the Development Code should be updated to reflect these policies.

For parcels of all sizes, existing lawful uses are grandfathered. For properties 2 acres or less in size within the Bayfront Conservation Zone on January 1, 2007, no additional regulations are imposed other than those previously applied to such lands. Creation of the Baylands Corridor will not subject currently allowed activities to additional County regulation. Such activities include repair and maintenance of bank erosion protection (riprap, plantings, etc.) and docks, levees, or dredging of existing dredged channels (such as Novato Creek), including existing dredge disposal sites.

Within the Baylands Corridor, public improvements at Gness Field and immediately adjacent properties pursuant to an approved Airport Master Plan or Airport Land Use Plan will not be subject to additional Baylands protection regulations.

The provisions of TR-1.7, Direct Aviation Uses to Appropriate Locations, and TR-1.p, Limit Aviation Uses, apply to Gness Field. Efforts to restore or enhance wetlands in the vicinity of Gness Field shall be consistent with an approved Airport Master Plan or Airport Land Use Plan and applicable FAA regulations. While the San Rafael airport is not in the Baylands Corridor, efforts to restore or enhance wetlands in the vicinity of the San Rafael Airport shall be consistent with the City of San Rafael's General Plan and other applicable City regulations, and shall also be consistent with safety considerations related to aircraft operations.

Small parcels not currently subject to tidal influence should be subject to mapping and analysis to determine whether they should be added to or omitted from the Baylands Corridor. In particular, historic marshland in the Richardson Bay and Bothin Marsh area should be included in the resource mapping and analysis to determine if these parcels meet the criteria for inclusion in the Baylands Corridor.

This mapping and analysis should do the following: (1) identify existing vegetative cover and sensitive features, such as streams, wetlands, and occurrences of special-status species; (2) use focal species and other similar ecological tools to determine the interrelationship between baylands and uplands; (3)



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identify methods to maintain connectivity between sensitive habitat features and baylands; (4) specify criteria and thresholds used in determining the extent of upland habitat essential to the baylands ecosystem; (5) make recommendations on an appropriate biologically based boundary if the Baylands Corridor is to be expanded; and (6) identify lands that provide habitat, could be restored to provide habitat, or provide protection from sea level rise. Completion of the analysis does not require on-site evaluations.

All parcels added to the Baylands Corridor as a result of this study are subject to Baylands Corridor regulations in effect at that time.

Policies

- BIO-5.1** **Protect the Baylands Corridor.** Ensure that baylands and large, adjacent essential uplands are protected, and encourage enhancement efforts for baylands, including those in the Baylands Corridor. The following criteria shall be used to evaluate proposed development projects that may impact the Baylands Corridor:
- ◆ For large parcels (over 2 acres in size), adhere to development setback standards for areas qualifying for protection under the WCA and SCA, but increase setback distances as necessary to ensure that hydrologically isolated features such as seasonal wetlands and freshwater marshes are adequately linked to permanently protected habitat. These additional development setbacks shall serve to prevent fragmentation and preserve essential upland buffers in the Baylands Corridor.
 - ◆ For small parcels (2 acres or less in size), encourage property owners where suitable habitat exists to preserve up to 10 feet landward of mean high tide as a species refuge area for high water events. Site constraints, opportunities for avoidance of sensitive biological resources, and options for alternative mitigation, may also be considered.
 - ◆ Minor redevelopment involving less than 25% of a structure on a residential or industrial parcel that is already filled and at least 50% developed may be exempted from the requirements for a site assessment, provided that no additional filling or modification to wetlands occurs. (See BIO-5.2.)
- BIO-5.2** **Limit Development and Access.** Ensure that development does not encroach into sensitive vegetation and wildlife habitats, damage fisheries or aquatic habitats, limit normal wildlife range, or create barriers that cut off access to food, water, or shelter for wildlife. Require an environmental assessment where development is proposed within the Baylands Corridor.
- BIO-5.3** **Leave Tidelands in Their Natural State.** Require that all tidelands be left in their natural state to respect their biological importance to the estuarine ecosystem. Any modifications should be limited to habitat restoration or enhancement plans approved by regulatory agencies.



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- BIO-5.4 Restore Marshlands.** Enhance wildlife and aquatic habitat value of diked bay marshlands, and encourage land uses that provide or protect wetland or wildlife habitat and do not require diking, filling, or dredging.
- BIO-5.5 Protect Freshwater Habitats.** Preserve and, where possible, expand habitats associated with freshwater streams, seasonal wetlands, and small former marshes to facilitate the circulation, distribution, and flow of fresh water, and to enhance associated habitat values.
- BIO-5.6 Use Flood Basins for Seasonal Habitat.** Utilize natural or manage manmade flood basins to provide seasonal habitat for waterfowl and shorebirds, and prohibit development in these basins to protect habitat values.
- BIO-5.7 Limit Access to Wetlands.** Design public access to avoid or minimize disturbance to wetlands, necessary buffer areas, and associated important wildlife habitat while facilitating public use, enjoyment, and appreciation of bayfront lands.
- BIO-5.8 Control Shoreline Modification.** Ensure that any modifications to the shoreline do not result in a loss of biodiversity or opportunities for wildlife movement. Possible modifications may include construction of revetments, sea walls, and groins, as permitted by State and federal agencies.
- BIO-5.9 Allow Limited Agricultural Use.** Encourage only those agricultural uses that are compatible with protection of wetlands and other sensitive resources to remain in baylands. Conversion of non-agricultural lands to agriculture should occur only if wetlands or other sensitive biological resources would not be lost or adversely affected. Where possible, wetlands should be enhanced and restored as part of agricultural use or conversion.
- BIO-5.10 Encourage Acquisition of Essential Baylands.** Continue to acquire large, essential baylands for open space and habitat restoration purposes, and support public and private partnerships working to acquire baylands.

Why is this important?

An estimated 82% of the historic tidal marshlands along the edge of the San Francisco Bay-Delta Estuary has been filled or altered. The remaining baylands continue to be threatened by increasing human populations and associated pollution and disturbance to sensitive habitat; continued dredging, filling, and urban development; major water diversion projects; and other factors.

Environment: Adequate building setbacks and some restrictions on public access are needed to maintain the buffers that protect the sensitive habitat of the baylands.

Economy: As with all wetlands, maintaining and enhancing baylands protects the long-term health of the county, and its attractiveness as a desirable location for business and commerce. Protecting the



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natural water filtration and recharge functions of baylands reduces the costs of flood damage, water pollution, and habitat degradation.

Equity: Protecting and restoring baylands provides for improved human and wildlife habitat.

How will results be achieved?

Implementing Programs

- BIO-5.a** *Establish Criteria for Upland Setbacks in the Baylands Corridor.* During the Development Code update, establish criteria to be used in the review of individual development applications for determining an adequate setback distance in adjacent uplands to serve as a buffer zone between development and remaining or historic tidelands and wetlands. Setbacks should provide for at least the minimum distances necessary to avoid adverse effects of increased human activity and potential disturbance to sensitive biological resources, and to provide essential linkages between important features such as seasonal wetlands, freshwater marsh, and roosting and nesting areas. This should include consideration of possible implications of future sea level rise on existing habitat. Use focus species, locational distribution of sensitive resources, and other ecological tools to establish criteria for determining essential habitat connectivity in site-specific planning that serves to preserve and enhance existing wildlife habitat values.
- BIO-5.b** *Provide Landowner Education.* Landowner education will be provided regarding the sensitivity of baylands and adjacent upland buffer areas as part of the Natural Resource Information Program called for in Program BIO-1.c. An emphasis will be placed on educating owners of developed properties adjacent to baylands where minimum upland setback distances are not provided. Information on regulations protecting baylands should be available, together with general methods to minimize disturbance and improve habitat values. An updated list of regulatory agencies and their contact information should be maintained as part of the Natural Resource Information Program.
- BIO-5.c** *Update Development Code.* Update the Development Code, redefining the Bayfront Conservation Zone to reflect Baylands Corridor policies as well as including relevant aspects from the current Bayfront Conservation Zone. The updated Development Code shall identify criteria to be used in evaluating proposed development projects, and appropriate development restrictions necessary to protect sensitive biological and wetland resources.
- BIO-5.d** *Enforce Tidelands Restrictions.* Ensure that the Development Code prohibits diking, filling, or dredging in tidelands, unless the area is already developed and currently being dredged. Current dredging operations for maintenance purposes may continue, subject to environmental review, if necessary. In some cases, exceptions may be made for areas that are isolated or limited in productivity. In tidal areas, only land uses that



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are water dependent shall be permitted, as consistent with federal, State, and regional policy. These include, but are not limited to the following:

- ◆ ports
- ◆ water-dependent industry and utilities
- ◆ essential water conveyance
- ◆ wildlife refuge and habitat restoration
- ◆ water-oriented recreation

Exemptions may be granted for emergency or precautionary measures taken in the public interest, such as protection from flooding or other natural hazards. Removal of native vegetation shall be discouraged, and secondary effects evaluated, such as potential reduction in available surface water and water quality degradation due to nonpoint discharge. Alteration of hydrology should only be allowed when it can be demonstrated that the impact will be beneficial or insignificant.

BIO-5.e ***Enforce Diked Bay Marshlands Requirements.*** Ensure that the updated Development Code allows only those land uses in diked bay marshlands that protect wetland or wildlife habitat and do not require diking, filling, or dredging, including the following:

- ◆ restoration to tidal status
- ◆ restoration to seasonal wetlands
- ◆ appropriate agricultural use
- ◆ flood basins
- ◆ wastewater reclamation areas
- ◆ maintenance and minor expansion of existing development located landward of existing dikes

Other uses that do not require diking, filling, or dredging may be allowed, consistent with zoning, if it can be demonstrated that impacts to baylands are minimized and adequately mitigated. Land uses that provide protection from flood or other natural hazards may be allowed if necessary to protect public health and safety. Existing dredging operations in developed areas may continue, subject to environmental review, if necessary. Priority shall be given to water-oriented uses, such as public access and low-intensity passive recreational and educational opportunities that include habitat protection and enhancement components.

BIO-5.f ***Control Public Access.*** Design public use areas to be clearly marked, to minimize possible conflicts between public and private uses, to provide continuous walkways from the nearest roads to the shoreline and along the shoreline, to be set back from any proposed structure, and to be buffered from wetlands. Restrict access to environmentally sensitive marshland and adjacent habitat, especially during spawning and nesting seasons.



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- BIO-5.g** *Identify Baylands as a Priority for Open Space Acquisition.* Designate regionally significant baylands, including tidelands, diked marshlands, and adjacent uplands, as a priority for open space acquisition, particularly in areas known to support essential habitat for special-status species, wetlands, and important habitat linkages for wildlife (see policies and programs in the Open Space and Trails sections of this Element).
- BIO-5.h** *Encourage Baylands Protection in Cities and Towns.* Work with the cities and towns of Corte Madera, Larkspur, Mill Valley, Novato, San Rafael, Sausalito, Belvedere, and Tiburon to protect tidelands and remaining undeveloped, diked historic saltmarsh areas.
- BIO-5.i** *Conduct Mapping and Analysis.* Small parcels not currently subject to tidal influence should be subject to mapping and analysis to determine whether they should be added to or omitted from the Baylands Corridor. In particular, historic marshland in the Richardson Bay and Bothin Marsh area should be included in the resource mapping and analysis to determine if these parcels meet the criteria for inclusion in the Baylands Corridor.
- This mapping analysis should do the following: (1) identify existing vegetative cover and sensitive features, such as streams, wetlands, and occurrences of special-status species; (2) use focal species and other similar ecological tools to determine the interrelationship between baylands and uplands; (3) identify methods to maintain connectivity between sensitive habitat features and baylands; (4) specify criteria and thresholds used in determining the extent of upland habitat essential to the baylands ecosystem; (5) make recommendations on an appropriate biologically based boundary if the Baylands Corridor is to be expanded; and (6) identify lands that provide habitat, could be restored to provide habitat, or provide protection from sea level rise. Completion of the analysis does not require on-site evaluations.
- All parcels added to the Baylands Corridor as a result of this study are subject to Baylands Corridor regulations in effect at that time.
- BIO-5.j** *Consider Technical Group.* Consider establishing a technical working group on an as-needed basis to provide scientific expertise in evaluating natural resource issues regarding adequate protections when considering revisions for SCA and WCA regulations, and baylands mapping.



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Figure 2-3 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
BIO-1 Enhanced Native Habitat and Biodiversity	•				•							
BIO-2 Protection of Sensitive Biological Resources	•				•							
BIO-3 Wetland Conservation	•			•	•							
BIO-4 Riparian Conservation	•			•	•	•						
BIO-5 Baylands Conservation	•			•	•							



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Number of identified northern spotted owls.	75 pairs in 2000.	No decrease in the number of owls identified.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 2-4
Biological Resources Program Implementation**

Programs	Responsibility	Potential Funding	Priority	Time Frame
BIO-1.a - Map Natural Communities.	Community Development Agency (CDA)	Existing budget and may require additional grants or revenue ²	Medium	Med. term
BIO-1.b - Develop Habitat Monitoring Programs.	CDA, Resource Protection Agencies	Existing budget, will require additional grants or revenue ²	Medium	Med. Term
BIO-1.c - Maintain a Natural Resource Information Program.	CDA, Resource Protection Agencies	Existing budget and may require additional grants or revenue ²	High	Med. Term
BIO-1.d - Reevaluate County Native Tree Preservation and Protection Ordinance #3291.	CDA	Existing budget	High	Short term
BIO-1.e - Protect Against Vegetation and Wildlife Diseases.	Agricultural Commissioner, Fire Agencies, UCCE-FA ³	Existing budget	Medium	Med. term
BIO-1.f - Prepare Appropriate Landscape Lists.	CDA	Existing budget	High	Ongoing
BIO-1.g - Expand Education, Outreach, and Regulatory Programs Regarding Control of Invasive Exotic Species.	CDA, Agricultural Commissioner, Resource Protection Agencies	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
BIO-1.h - Encourage Community Forest Programs.	Marin ReLeaf	Prop 40, 12, 84 State of California	High	Ongoing
BIO-2.a - Require Site Assessments.	CDA	Existing budget	High	Ongoing
BIO-2.b - Conduct Habitat Connectivity Assessment.	CDA, Marin County Open Space District (MCOSSD), Resource Protection Agencies	Will require additional grants or revenue ²	Medium	Short term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.

³UCCE-FA: University of California Cooperative Extension, FA: Farm Advisor.



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Programs	Responsibility	Potential Funding	Priority	Time Frame
BIO-2.c - Facilitate Agency Review.	CDA	Existing budget	High	Ongoing
BIO-2.d - Promote Early Agency Consultation.	CDA	Existing budget	High	Ongoing
BIO-2.e - Participate in FishNet4C Program.	Department of Public Works (DPW)	Existing budget	High	Ongoing
BIO-3.a - Adopt Wetland Conservation Area Ordinance.	CDA	Existing budget	High	Ongoing
BIO-3.b - Comply with Regulations to Protect Wetlands.	CDA, Resource Protection Agencies	Existing budget	High	Ongoing
BIO-3.c - Require Site Assessment.	CDA	Existing budget	High	Ongoing
BIO-3.d - Prioritize Wetland Avoidance.	CDA, Resource Protection Agencies	Existing budget	High	Short term
BIO-3.e - Establish Clear Mitigation Criteria.	CDA	Existing budget	High	Short term
BIO-3.f - Establish Criteria for Setbacks.	CDA	Existing budget	Medium	Short term
BIO-3.g - Provide Landowner Education.	CDA, Resource Protection Agencies	Existing budget and may require additional grants or revenue ²	High	Med. term
BIO-3.h - Evaluate Wetlands Definitions.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
BIO-4.a - Adopt Expanded SCA Ordinance.	CDA	Existing budget	High	Short term
BIO-4.b - Reevaluate SCA Boundaries.	CDA, Resource Protection Agencies	Existing budget and may require additional grants or revenue ²	High	Short term
BIO-4.c - Prepare County Stream Map.	CDA, DPW	Existing budget and may require additional grants or revenue ²	High	Ongoing
BIO-4.d - Establish Functional Criteria for Land Uses in SCAs.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
BIO-4.e - Identify Proposals Within SCAs	CDA	Existing budget	High	Short term
BIO-4.f - Identify Potential Impacts to Riparian Systems.	CDA	Existing budget	High	Short term
BIO-4.g - Require Site Assessment.	CDA	Existing budget	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
BIO-4.h - Comply with SCA Criteria and Standards.	CDA	Existing budget	High	Ongoing
BIO-4.i - Replace Vegetation in SCAs.	CDA	Existing budget	High	Ongoing
BIO-4.j - Continue Funding Fencing of Sensitive Stream Areas.	Marin Resource Conservation District	Existing budget, private donations	High	Ongoing
BIO-4.k - Locate Trails Appropriately.	MCOSD, CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
BIO-4.l - Monitor Stream Conservation Areas.	DPW, Marin Resource Conservation District	Will require additional grants or other revenue ²	Medium	Long term
BIO-4.m - Encourage Conservation Plans Within the Stream Conservation Area.	CDA, Marin Resource Conservation District	Existing budget	Medium	Short term
BIO-4.n - Provide Information to Reduce Soil Erosion and Sedimentation.	CDA, Agricultural Commissioner	Existing budget	High	Short term
BIO-4.o - Consider Culvert Restoration.	CDA, DPW, Marin Resource Conservation District	Existing budget and may require additional grants or revenue ²	High	Ongoing
BIO-4.p - Implement NPDES Phase II.	UCCE-FA ³	Existing budget	High	Ongoing
BIO-4.q - Develop Standards Promoting Use of Permeable Materials.	CDA, DPW	Existing budget and may require additional grants or revenue ²	Medium	Med. term
BIO-4.r - Review Septic System Setbacks in SCA and WCA.	CDA	Will require additional grants or revenue ²	Medium	Long term
BIO-4.s - Continue Collaboration with the Marin Resource Conservation District and Agricultural Commissioner.	CDA	Existing budget	High	Short term
BIO-4.t - Collaborate with Groups to Address Implementation of Protections to SCAs and WCAs.	CDA, DPW	Existing budget and may require additional grants or revenue ²	High	Immediate
BIO-4.u - Investigate Tax Delinquent Properties.	Treasurer Tax Collector, Department of Parks and Open Space, CDA	Existing budget	Medium	Med. term



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Programs	Responsibility	Potential Funding	Priority	Time Frame
BIO-5.a - Establish Criteria for Upland Setbacks in the Baylands Corridor.	CDA	Existing budget	High	Short term
BIO-5.b - Provide Landowner Education.	CDA, Resource Protection Agencies UCCE-FA ³	Existing budget and may require additional grants or revenue ²	High	Med. Term
BIO-5.c - Update Development Code.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
BIO-5.d - Enforce Tidelands Restrictions.	CDA, Resource Protection Agencies	Existing budget	High	Ongoing
BIO-5.e - Enforce Diked Bay Marshlands Requirements.	CDA, Resource Protection Agencies	Existing budget	Medium	Short term
BIO-5.f - Control Public Access.	CDA, MCOSED	Existing budget	Medium	Short term
BIO-5.g - Identify Baylands as a Priority for Open Space Acquisition.	MCOSED	Existing budget and public and private sources	Set annually by BOS	Ongoing
BIO-5.h - Encourage Baylands Protection in Cities and Towns.	CDA, Community Based Organizations (CBO's)	Existing budget	High	Ongoing
BIO-5.i - Conduct Mapping and Analysis.	CDA	Will require additional grants or revenue	Medium	Long term
BIO-5.j - Consider Technical Group.	CDA	May require additional grants and revenue ²	Low	Med. term



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Black Mountain at sunset.

2.5 Water Resources

Background

Marin watersheds are ridge-bounded ecosystems that drain into the bay or ocean (see Map 2-7, Major Watersheds, and Technical Background Reports and Other Supporting Documents). These systems carry water, sediments, and nutrients downstream, which also infiltrate the ground to recharge aquifers and springs (see discussion of riparian systems in the Biological Resources Section of this Element). While it takes many millennia for watersheds to achieve equilibrium, human activities can degrade their functions in a matter of years by increasing



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Water Quality Regulations

Water quality is regulated under federal, State and local laws by the following agencies:

- ◆ State Water Resources Control Board
- ◆ Regional Water Quality Control Boards
- ◆ California Department of Fish and Game
- ◆ U.S. Environmental Protection Agency
- ◆ State Department of Health Services
- ◆ County Environmental Health and Public Works Departments (grading and stormwater ordinances)
- ◆ Stormwater Ordinance
- ◆ California Coastal Commission (in the Coastal Zone)

or concentrating runoff, altering drainages, or causing changes at outlets (such as rising sea level), affecting the availability and quality of water supplies.

Local drinking water comes primarily from surface sources (see discussion of water provision in the Public Facilities and Services Section of the Built Environment Element). Many substances considered pollutants occur naturally in watersheds and only become problems when unusually concentrated. For example, sediment is a product of natural erosion but in excess quantities becomes a pollutant. Because most fecal coliform levels do not distinguish between human and wildlife sources, it is often difficult to determine whether pollution results from natural processes, human activities, or both.

Sediment is a major concern countywide, as it can damage aquatic habitat and cause flooding by filling in channels and floodplains. Sediment sources include construction, road building, and agriculture. Other local water quality concerns include toxic chemicals (especially in urban areas), mercury (in Walker Creek and Tomales Bay), and nutrients such as nitrogen and phosphorous. Toxic runoff sources include oil and gas, pesticides, cleaning agents, and sewage. In rural areas, septic systems (see Map 2-8, *Parcels with Buildings and Septic Systems*) and livestock waste contribute to nutrient and pathogen contamination.

Watershed Management Plans that are under way or have been completed include Tomales Bay, Bolinas Lagoon, and Marin County. Marin County is refining its first *Watershed Management Plan*, which describes and maps local watersheds, and prescribes actions for maintaining and improving watershed health countywide. The plan presents detailed recommendations for modifying the development review and permitting process, changing construction and maintenance practices, supporting interagency planning efforts, and establishing educational outreach programs. This Section of the Countywide Plan contains policies and programs that reflect those recommendations in order to preserve and enhance watershed health and water quality in Marin.



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Key Trends and Issues

Are water quality and watershed function threatened in Marin?

Recent studies list pollutants in local waters. The State has listed all urban streams in the City-Centered Corridor as impaired by the pesticide Diazinon, and San Pablo Bay as impaired by metals. Richardson Bay is identified as impaired by pathogens, while Tomales Bay is listed as impaired by metals (mercury), and excess sediment, nutrients, and pathogens. Walker Creek is impaired by metals, sediment, and nutrients while Lagunitas Creek is listed for sediment, nutrients, and pathogens. Pollutant levels are probably caused by urban and agricultural runoff.

Development has created extensive impervious surfaces.

The Bay Area Stormwater Management Agencies Association has found that studies evaluating stream and wetland health consistently show that significant water quality impacts begin with impervious land coverage levels as low as 10%. At impervious land coverage over 30%, impacts on streams and wetlands become more severe and degradation is almost unavoidable without special measures. The Association of Bay Area Governments reports in its Projections 2003 that 10.1% of all land in Marin was developed in 2000 (compared with 4.4% in Napa County and 7.7% in Sonoma County).

Threatened and endangered fish are showing signs of recovery. Coho salmon, listed at the state and federal level as endangered, and steelhead, federally listed as a threatened species, have suffered significant losses in Marin, but the long-term trend may be changing. These species recently have shown limited signs of recovery in certain areas, most likely in response to concerted efforts aimed at restoring watershed function and riparian habitat. Lagunitas Creek watershed annually produces as much as 15% of the total population of California's estimated 5,000 spawning adult coho.

Septic systems require maintenance, repair, and upgrades.

Faulty septic systems have been identified as one of the possible sources of pathogens in Tomales Bay and connected waterways. A voluntary survey along the East Shore of Tomales Bay found that 40% of the inspected septic systems were functioning marginally or directly discharging to the bay. (Policies and programs in the Public Facilities and Services section of the Built



Nonpoint source describes pollutants contributed by many small sources that cannot be easily distinguished but together degrade water quality. Pollution caused by release of waste or contaminated water through distinct structures such as pipes is termed *point source*. Because nonpoint source pollution can accumulate from diverse sources throughout a watershed, numerous small management changes can improve water quality.



Methods to Increase Infiltration

- ◆ Use pervious pavements whenever possible. Drain water into cisterns, dry wells, or infiltration trenches.
- ◆ Keep vegetated areas undisturbed whenever possible. Reestablish groundcover and woody plants immediately after disturbance.
- ◆ Use grass-lined swales instead of hard-surfaced ditches.



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Environment Element address regulations for septic systems.)

Stream restoration practices have changed significantly in the past 15 years. The design and construction practices associated with the hydrologic restoration of streams and their associated biotic habitats have steadily evolved and are now recognized as credible alternatives to standard engineering channel design and stabilization measures (e.g., concrete lining, concrete retaining walls, rock riprap, and gabion revetments). The primary goal of a stream restoration project should be a natural channel restoration utilizing fluvial geomorphic design principles, including hydraulic engineering design and limited bank stabilization.

Agricultural and recreational uses impact water quality. The impacts of agricultural operations can be mitigated by using proper management practices for agricultural and livestock operations to prevent contribution of excess sediment, nutrients, and pathogens to downstream waters. Recreational aquatic uses also can contribute pathogens if human waste is not properly managed.

Ahwahnee Principles for Water Supply

This set of concepts was identified by the Local Government Commission to help guide communities in developing policies for water supply, water quality, and watershed integrity.

Communities should do the following:

- ◆ Recognize and live within the limits of available water resources.
- ◆ Promote a stewardship ethic to care for and sustainably manage water resources.
- ◆ Maximize self-sufficiency and reliability of water resources by developing a diverse portfolio of local and regional water supplies, and efficient water management practices.
- ◆ Maximize available potable supplies by ensuring that the type of water being used is matched with the appropriate end use.
- ◆ Support natural resources planning on a watershed basis and use whole-system management approaches when evaluating development. They should encourage adjacent communities to collaborate on such efforts within their watersheds.
- ◆ Protect and restore natural systems, habitats, groundwater recharge areas, and watersheds as an integral part of water management and local land use planning and development.
- ◆ Use natural systems wherever possible to achieve flood control, water quality, and water supply goals, and attempt to mimic and restore natural ecosystems and hydrologic functions when projects are constructed.
- ◆ Encourage the design of buildings, landscapes, and land use to maximize water efficiency, water reuse, and the beneficial use of stormwater, including groundwater recharge and water quality improvement.
- ◆ Evaluate the multiple benefits of a project or program, and incorporate this information into cost-effectiveness analyses.
- ◆ Fully engage the public and all stakeholders in water planning efforts.
- ◆ Encourage the State and federal resources agencies to conduct natural resource-based planning on a watershed basis, and to use whole-system management approaches.
- ◆ Participate as much as possible in regional, State, and federal planning for water resources.

Source: Local Government Commission, 2004.



NATURAL SYSTEMS & AGRICULTURE ELEMENT

What Are the Desired Outcomes?

GOAL WR-1

Healthy Watersheds. Achieve and maintain proper ecological functioning of watersheds, including sediment transport, groundwater recharge and filtration, biological processes, and natural flood mitigation, while ensuring high-quality water.



Policies

- WR-1.1** **Protect Watersheds and Aquifer Recharge.** Give high priority to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.
- WR-1.2** **Restore and Enhance Watersheds.** Support watershed restoration efforts, coordinate County watershed activities with efforts by other groups, and simplify permit acquisition for watershed restoration and enhancement projects.
- WR-1.3** **Improve Infiltration.** Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site’s predevelopment infiltration to reduce downstream erosion and flooding.
- WR-1.4** **Protect Upland Vegetation.** Limit development and grazing on steep slopes and ridgelines in order to protect downslope areas from erosion and to ensure that runoff is dispersed adequately to allow for effective infiltration.

Why is this important?

According to the Bay Area Stormwater Management Agencies Association, watershed health suffers when impervious land coverage exceeds 10%. Impervious surfaces in Marin approach that threshold.

Environment: Sediment, pathogens, nutrients, and other chemical pollutants have devastating impacts on water quality and on watershed health and diversity. Local watershed areas vary from steep creek canyons with limited groundwater recharge capacity to tidal lands such as those bordering Tomales Bay. Tomales Bay alone is home to nearly 900 species of plants, 500 species of birds, and a mariculture industry. Proposed increases in the amount of paved and other unnatural surfacing should be carefully scrutinized and tightly controlled.

Economy: The use of best management practices and improvements in water quality, related regulations, and



“People have a fundamental yearning for great bodies of water. But the very movement of the people toward the water can also destroy the water.”

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



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education are smart financial investments toward preventing watershed degradation, which can be costly to the local economy.

Equity: Water quality is vital to community health and prosperity. Pollutants from nonpoint sources and improperly functioning septic systems pose significant human and nonhuman health risks.

How will results be achieved?

Implementing Programs

WR-1.a *Support Watershed Education and Outreach.* Continue to support and fund the Marin County Stormwater Pollution Prevention Program and local county stormwater program efforts to encourage residents to adopt practices that increase groundwater infiltration, and to educate them about how they can make a significant difference.



“Wetlands have a poor public image. . . . Yet they are among the earth’s greatest natural assets . . . mankind’s waterlogged wealth.”

— Edward Maltby,
Waterlogged Wealth, 1986

WR-1.b *Establish Development Standards for Infiltration.* Establish qualitative standards to maximize groundwater infiltration and minimize surface water runoff based on criteria developed by the Bay Area Stormwater Management Agency Associates. Standards should regulate the amount of impervious surfaces; vary by project type, land use, building-site placement, soils, and area characteristics; and provide for water impoundments, protecting and planting vegetation, cisterns, and other measures, such as restricting wet weather grading to increase groundwater recharge and reduce sedimentation.

WR-1.c *Seek Watershed Assessment and Monitoring Assistance.* Pursue federal and State funding to conduct baseline assessments and trend monitoring of water quality, aquatic habitat, sensitive species, and restoration in County watersheds.

WR-1.d *Coordinate Watershed Efforts.* Work with land and water management agencies, community-based watershed restoration groups, and private property owners to explore methods and programs for maintaining and improving watershed health, including carrying out the actions recommended in the *Marin County and Tomales Bay Watershed Plans* and *Redwood Creek Watershed, Vision for the Future*, July 2003.

WR-1.e *Require Restoration of Degraded Areas.* Require replanting of vegetation and remediation of associated erosion in conjunction with requested land use approvals, especially those including roads and over-grazing on steep slopes.

WR-1.f *Require Stream Restoration Projects.* Require restoration of streams in conjunction with associated land use approvals to improve groundwater recharge and filtration and to ensure high-quality water. Restoration projects should follow the design principles of natural channel restoration utilizing geomorphic concepts.



NATURAL SYSTEMS & AGRICULTURE ELEMENT

What Are the Desired Outcomes?

GOAL WR-2

Clean Water. Ensure that surface and groundwater supplies are sufficiently unpolluted to support local natural communities, the health of the human population, and the viability of agriculture and other commercial uses. (Policies on water availability are found in the Public Facilities and Services Section of the Built Environment Element.)



Policies

- WR-2.1 Reduce Toxic Runoff.** Reduce the volume of urban runoff from pollutants – such as pesticides from homes, golf courses, cleaning agents, swimming pool chemicals, and road oil – and of excess sediments and nutrients from agricultural operations.
- WR-2.2 Reduce Pathogen, Sediment, and Nutrient Levels.** Support programs to maintain pathogen and nutrient levels at or below target levels set by the Regional Water Quality Control Board, including the efforts of ranchers, dairies, agencies, and community groups to address pathogen, sediment, and nutrient management in urban and rural watersheds.
- WR-2.3 Avoid Erosion and Sedimentation.** Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and water bodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.
- WR-2.4 Design County Facilities to Minimize Pollutant Input.** Design, construct, and maintain County buildings, landscaped areas, roads, bridges, drainages, and other facilities to minimize the volume of toxics, nutrients, sediment, and other pollutants in stormwater flows, and continue to improve road maintenance methods to reduce erosion and sedimentation potential.
- WR-2.5 Take Part in Water Quality Education.** Continue to support local stormwater and community watershed group efforts to inform the public about practices and programs to minimize water pollution.

Why is this important?

Stormwater runoff is increasingly trapped above impervious surfaces picking up pollutants before running off into streams, lakes, and estuaries.



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Environment: Runoff from urban and agricultural uses is contributing to excessive pollutant levels in local streams and bays. Reducing the source volume of pollutants is necessary so that levels of sediment, nutrients, pathogens, and other pollutants do not threaten the health of natural and human communities.

Economy: Maintaining nonpolluted water sources supports local businesses that depend on clean water, including agriculture, mariculture, tourism, and recreation.

Equity: Ensuring that runoff is free of harmful pollutants is essential to maintaining healthy living and working conditions.

How will results be achieved?

Implementing Programs

WR-2.a *Participate in Updating Standards.* Work with the Regional Water Quality Control Boards and interested parties in the development and implementation of reasonable and achievable standards for clean water. Participate in the development and implementation of Total Maximum Daily Load (TMDL) standards for impaired water bodies, both for pollutants from the built environment and from agricultural and rural activities as identified by the Regional Boards, to achieve to the maximum extent practicable compliance with adopted TMDLs. (See also Agriculture and Food Program AG-1.r.)



The State Porter-Cologne Act (enacted 1969) authorizes Regional Boards to address nonpoint sources through local watershed planning. The federal Clean Water Act (originally enacted 1972) emphasizes control of nonpoint pollutants such as nutrients, pathogens, and chemicals (in descending order of importance).

WR-2.b *Integrate Bay Area Stormwater Management Agencies Association (BASMAA) Stormwater Quality Protection Guidelines into Permitting Requirements for All Development and Construction Activities.* All projects should integrate stormwater pollution prevention design features for water quality protection to the extent feasible, such as those included in the BASMAA *Start-at-the-Source* manual and the *Tools Handbook*.

WR-2.c *Research and Implement Safe and Effective Alternative Waste Options.* Research the potential to expand the use of alternative waste disposal methods – such as 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.)



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- 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 ensure compliance with health and safety requirements.
- WR-2.h** *Establish Additional County Service Areas.* Establish a Marshall County Service Area to relocate septic systems away from Tomales Bay, and to instigate 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 erosion and sedimentation, pathogen and nutrient, and chemical sources of water pollution. This would begin with letters to establish a lead agency to direct the effort. It would include soliciting input from local, State, and federal recreation management



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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** *Nontoxic Building Materials Standards.* Consider adoption of standards for nontoxic 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 annually) 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 groundwater 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, and 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.



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Why is this important?

Present water use is exceeding the amount of water available to support our population and local ecosystems. Water-efficient technologies and sustainable water supplies will benefit the environment, economy, and communities as a whole.

Environment: Conservation efforts countywide can increase the amount of groundwater left in the natural environment to support wildlife and the rest of the local ecosystem.

Economy: Conserving water and developing sustainable, alternative supply sources are cost-saving measures that benefit businesses.

Equity: Designing homes and institutions to be more water efficient also makes them more affordable to maintain over the long term.

How will results be achieved?

Implementing Programs

WR-3.a *Support Water Conservation Efforts.* Support the efforts of a variety of interested individuals and groups countywide in improving water conservation techniques and applying them to existing and new development, household and commercial practices, and agricultural operations (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).

WR-3.b *Support and Integrate Water District Conservation Efforts.* Assist the efforts of the water districts to reduce waste and increase reuse of water and wastewater 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).



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.



Water Facts:

Did You Know . . . ?

- ◆ Humans require about 2½ quarts of water a day.
- ◆ The average individual uses about 125 gallons of water per day.
- ◆ A faucet that drips 60 times in one minute would waste over 3 gallons a day, 1,225 gallons per year.
- ◆ It takes about 1 gallon of water to process a quarter pound of hamburger.
- ◆ It takes 39,000 gallons of water to manufacture a new car, including tires.
- ◆ Four quarts of oil can cause an 8-acre oil slick if spilled or dumped down a storm sewer.
- ◆ One gram of 2,4-D (a common household herbicide) can contaminate 2.6 million gallons (10 million liters) of drinking water.



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Figure 2-5 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
WR-1 Healthy Watersheds	•		•	•	•	•						•
WR-2 Clean Water	•		•		•	•						•
WR-3 Adequate Water for Wildlife and Humans	•	•		•	•	•						



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Water quality – standard industry measure: beneficial water uses.	16 beneficial uses in 2004.	No decline in water quality through 2015.
Healthy aquatic habitat standard industry measure: macroinvertebrate diversity.	See Index of Biological Integrity (www.krisweb.com).	No decrease in macroinvertebrate diversity due to water quality through 2015.
Reported pesticide use countywide.	54,328 pounds in 2000.	No increase through 2015 using a five-year average.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 2-6
Water Resources Program Implementation**

Programs	Responsibility	Potential Funding	Priority	Time Frame
WR-1.a - Support Watershed Education and Outreach.	MCSTOPPP UCCE-FA ²	Will require additional grants or other revenue ³	High	Ongoing/Long term
WR-1.b - Establish Development Standards for Infiltration.	DPW (MCSTOPPP)	Will require additional grants or other revenue ³	Medium	Long term
WR-1.c - Seek Watershed Assessment and Monitoring Assistance.	DPW (MCSTOPPP) UCCE-FA ²	Will require additional grants or other revenue ³	Medium	Long term
WR-1.d - Coordinate Watershed Efforts.	MCSTOPP, Agricultural Commissioner UCCE-FA ²	Existing budget and may require additional grants or revenue ³	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

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

²UCCE-FA: University of California Cooperative Extension, FA: Farm Advisor.

³Completion 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.



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Programs	Responsibility	Potential Funding	Priority	Time Frame
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 revenue ³	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 ³	Low	Ongoing
WR-2.h - Establish Additional County Service Areas.	CDA, CAO	Assessments and may require additional grants or revenue ³	High	Ongoing
WR-2.i - Establish a Septic Inspection, Monitoring and Maintenance District.	EHS, CAO	Assessments and may require additional grants or revenue ³	High	Ongoing
WR-2.j - Continue Public Outreach Regarding Toxic Chemical Use.	DPW	Will require additional grants or other revenue ³	Medium	Ongoing/Long term
WR-2.k - Establish Educational Partnerships to Protect Water Quality.	DPW (MCSTOPP) UCCE-FA ²	Will require additional grants or other revenue ³	Medium	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 revenue ³	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 revenue ³	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



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Programs	Responsibility	Potential Funding	Priority	Time Frame
WR-3.a - Support Water Conservation Efforts.	Water districts, CDA, Agricultural Commissioner, UCCE-FA ²	Existing budget, and may require additional grants or revenue ³	High	Ongoing
WR-3.b - Support and Integrate Water District Conservation Efforts.	Water districts, CDA	Existing budget, and may require additional grants or revenue ³	Medium	Ongoing



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© Tom Yarith

Mount Vision fire.

2.6 Environmental Hazards

Background

The policies and programs in this Section of the Countywide Plan are intended to minimize harm to people and property due to environmental hazards from seismic activity, geologic conditions, flooding, and fire. The County maintains an Emergency Operations Plan to guide agency and public natural disaster preparedness and response, as described under Goal PS-3 in the Public Safety Section of the Socioeconomic Element.



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Earthquakes can produce surface rupture and displacement, but ground shaking is a more likely threat, especially on looser soils (see Map 2-9, Seismic Shaking Amplification Hazards).

The San Andreas is the only local fault subject to the Alquist-Priolo Act (see Map 2-10, Fault Hazards), which prohibits specified types of habitable structures within 50 feet of an active trace. Shaking of water-saturated soil can result in liquefaction, another potential source of damage (see Map 2-11, Liquefaction Susceptibility Hazards). Earthquakes also can generate tsunamis — ocean waves that threaten coastal areas, and seiches — waves in enclosed waters that can overtop dams and flood downstream.

Landslides on steep slopes can be triggered by earthquakes or heavy rainfall. Rain also can cause expansive soils to swell and damage overlying structures. Buildings may suffer damage from subsidence of bay mud and other weak soils, or differential settlement due to placement on multiple soil types. Erosion and slope instability can threaten structures built on coastal bluffs.

Flooding can originate from storm runoff, tidal activity, or high surf. Areas near streams may be flooded after heavy rainfall, while high tides combined with heavy rains can cause flooding in bayfront and coastal areas. Dam failure and subsequent flooding can also result from earthquake activity (see Map 2-12, Flooding).

The absence of large fires in recent history has resulted in areas with high fuel loading. For example, areas surrounding Mount Tamalpais have not burned since 1945, resulting in a forest overstocked with trees and brush with high concentrations of dead material. To make matters worse, Sudden Oak Death has created additional tinder that amplifies the threat of wildland fire to homes and communities on the urban interface. (See Map 2-13, Urban-Wildland Interface Zone.) Insufficient water pressure and supply, and difficult access also contribute to the risk of property damage, injury, and loss of life from fire in some locations. The County provides structural fire protection to most unincorporated areas of the County (see Map 2-14, State Responsibility Areas for Fire Protection), while some rural and all urbanized areas are served by local fire protection districts, volunteer protection, and fire departments. State and local protection is provided to wildland areas.

Marin County is subject to tsunamis and seiches. Tsunamis are long-period waves generated by shifting of a large volume of water. Seiches are related to tsunamis and are triggered by the same sources, but occur in enclosed and semi-enclosed bodies of water, such as bays, inlets, lakes, and reservoirs. Tsunamis are generally associated with seismic activity and are a common hazard in tectonically active portions of the world. The west coast of North America is susceptible to this hazard. Seiches could occur in any reservoir located in the County and in San Pablo and San Francisco Bays. A tsunami is considered to be a greater potential hazard. Once a tsunami reaches land, the damage is determined by the wave run-up and the extent of inundation. The exposure of the Marin coastline to a tsunami hazard will vary locally, depending on the many factors involved. The creation of tsunami run-up and inundation maps help to identify the extent of hazard. Currently, tsunami inundation maps do not include the Marin County coast. However, a map has been completed for the San Francisco-San Mateo County area.

To prepare for and respond to emergencies, the Marin County Sheriff's Department established the Office of Emergency Services (OES). The function of the OES is to coordinate efforts to develop



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disaster-resistant communities and to educate residents on emergency preparedness. In the event of a major emergency or disaster, the OES has established a fully functional Emergency Operations Center (EOC) from which centralized emergency management can be performed. In April 2005 the OES prepared the Marin County Operational Area Hazard Mitigation Plan, which describes strategies for sustaining and building on existing mitigation activities to ensure the future and safety of lives, preservation of property, and protection of the environment during times of disaster.

The United States Coast Guard military installations in Point Reyes Station and Point Bonita are located in areas of known fire and geologic hazards. Any proposed development at these facilities should assess the potential impacts of these hazards and include careful planning, siting, and construction to lessen the hazard potential.

Policies and programs addressing emergency and disaster preparedness and hazardous materials are contained in the Public Safety Section of the Socioeconomic Element.

Key Trends and Issues

Are threats from environmental hazards increasing?

Many structures lie in hazardous areas, and land for new development may be even more hazard-prone. With most easily buildable land already developed, construction increasingly is being proposed on the remaining marginal lots with difficult access and steep hillsides, which are subject to slope instability and are vulnerable to rapid changes in fire behavior. Bluff erosion is threatening coastal homes built when bluff edges seemed safely distant. Vegetation that can fuel fires has increased because natural fires have been suppressed, and residential development continues to encroach on wildlands. Proliferation of impermeable surfaces, alteration of natural drainage patterns, and the effects of climate change have increased the frequency and severity of flood events, and estimates indicate that sea level could rise as much as 36 inches by 2100. Maps 2-9 through 2-15 are utilized by the County in reviewing land use activities proposed in areas with hazard potential.

How can hazards be avoided?

Careful planning, siting, and construction can lessen hazard potential. Limiting development densities (see Policy CD 8.6 in the Community Development Section of the Built Environment Element) and ensuring adequate access for emergency vehicles and evacuation in areas with hazard potential can reduce risks to people and property. Appropriate placement and engineering of foundations can render buildings less prone to ground shaking and liquefaction. Adequate site clearing and construction techniques such as fire sprinklers can help reduce the threat of fire. County zoning and development standards help mitigate flood damage by limiting what can be built in flood-prone areas. Special attention must be paid to land use activities at the urban-wildland interface zone, where people and property may be particularly susceptible to environmental hazards.

Historic development trends have allowed homes to be built on hillsides or steep slopes, sometimes with limited access and surrounded by brush and trees. An aggressive education campaign has been undertaken for building clearance space, limiting development on hillsides, and improving site access.



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Older neighborhoods with limited access remain. This Plan proposes an aggressive program on evacuation route education.

Will County public safety employees be available during a major emergency?

Most public safety employees live outside Marin. According to the 2002 Marin County Employee Housing Options Report, approximately 80% of County Sheriff and Fire Department employees live out of the county, with about 60% residing in Sonoma County. Their need to travel to the Emergency Operations Center, isolated fire stations, and other key locations during a major event could result in inadequate public safety in emergency situations. (Program HS-4.a in the Housing Section of the Built Environment Element describes mechanisms for helping public safety employees locate housing in Marin.)



Urban-Wildland Interface Zone:

That geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.

Source: 2003 International Urban Wildlife Interface Code.

Can adequate defensible space be created?

The urban-wildland interface areas in the County are particularly threatened because of the many jurisdictions and private properties maintaining lands in this area (see Map 2-13, Urban-Wildland Interface Zone). Designation of wildland-urban boundary areas, along with applicable regulations, will be used to impose defensible space requirements for new and substantially remodeled structures.

Fire risk potential is based on a variety of factors, including the amount of surrounding fuels (vegetation), slope, and parcel exposure. The fire risk map (see Map

2-15, Fire Risk) illustrates which areas of the county have the greatest potential for large, damaging fires based on these factors. As depicted on the map, some of the most hazardous locations are in water district and federal lands that interface with a variety of communities.

Is adequate emergency service provided for our aging population?

The demand for emergency services will continue to increase along with our increased population age. First-response fire personnel will continue to have medical training.



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What Are the Desired Outcomes?

GOAL EH-1

Hazard Awareness. Raise public awareness and responses about potential environmental hazards.

Policies

EH-1.1 Enhance Public Awareness. Advise the public regarding the availability of countywide and local area environmental hazards studies, sources of hazard information, and public services.

EH-1.2 Improve Information Base. Support scientific studies that increase and refine the body of knowledge regarding hazardous conditions in Marin County.

EH-1.3 Identify Evacuation Routes. Provide the public with information identifying accessible evacuation routes for fire, geologic, and other hazards.



Why is this important?

The public needs accurate and reliable information to cope with a variety of life-threatening natural hazards, including earthquakes, landslides, floods, and fires.

Environment: Expanded knowledge about hazards can protect the local environment and can improve the way in which environmental resources are managed.

Economy: Increased hazard awareness and data can help people make decisions about where they want to invest in homes and businesses. Well-informed decisions are financially sound decisions.

Equity: Providing the public with information about the potential for hazards can help save lives and reduce property damage.

How will results be achieved?

Implementing Programs

EH-1.a Provide Educational Materials. Work with the real estate community, homeowner associations, civic organizations, fire districts, and other groups to prepare and distribute materials, in multiple languages as appropriate, informing prospective and current property owners about potential safety hazards and appropriate evacuation routes.

EH-1.b Distribute Maps. Prepare and make available to the public maps depicting evacuation routes and areas prone to environmental hazards.



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- EH-1.c** *Improve Soils Information.* Compile and make available drilling log data that helps define the hazard potential due to specific soil conditions, such as areas with expansive soils, artificial fill, or bay mud.
- EH-1.d** *Facilitate Scientific Investigation.* Continue to support scientific study of hazard potential in Marin, including by providing investigators with access to public land and facilitating access to other areas.
- EH-1.e** *Support Emergency Preparedness Training.* Support the activities of Local Disaster Councils and fire departments in offering community emergency response training courses.

What Are the Desired Outcomes?

GOAL EH-2



Safety from Seismic and Geologic Hazards. Protect people and property from risks associated with seismic activity and geologic conditions.

Policies

EH-2.1 Avoid Hazard Areas. Require development to avoid or minimize potential hazards from earthquakes and unstable ground conditions.

EH-2.2 Comply with the Alquist-Priolo Act. Continue to implement and enforce the Alquist-Priolo Earthquake Fault Zoning Act.

EH-2.3 Ensure Seismic Safety of New Structures. Design and construct all new buildings to be earthquake resistant. The minimum level of design necessary would be in accordance with seismic provisions and criteria contained in the most recent version of the State and County Codes. Construction would require effective oversight and enforcement to ensure adherence to the earthquake design criteria.

- EH-2.4 Protect Coastal Areas from Tsunamis.** When inundation maps become available, address tsunami wave run-up and inundation when reviewing proposed development along coastal areas of Marin County.

Why is this important?

Lives can be saved and property protected when buildings are located safely.

Environment: Well-planned development protects the environment and minimizes impacts to natural systems when structures or facilities are damaged.

Economy: Careful planning in the placement and construction of buildings can help ensure safety during a hazardous event and provide for a speedy recovery. This lessens the severity and duration of the economic impact caused by a seismic event and/or unpredictable geologic conditions.



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Equity: The future health and prosperity of the community depend on our ability to cope with a major hazardous event. Earthquakes on the San Andreas and Hayward-Rodgers Creek fault systems could significantly affect Marin.

How will results be achieved?

Implementing Programs

- EH-2.a** ***Require Geotechnical Reports.*** Continue to require any applicant for land division, master plan, development approval, or new construction in a geologic hazard area to submit a geotechnical report prepared by a State-certified Engineering Geologist or a Registered Geotechnical Engineer that:
- ◆ evaluates soil, slope, and other geologic hazard conditions;
 - ◆ commits to appropriate and comprehensive mitigation measures sufficient to reduce risks to acceptable levels, including post-construction site monitoring, if applicable;
 - ◆ addresses the impact of the project on adjacent lands, and potential impacts of off-site conditions; and
 - ◆ meets the requirements of other agency regulations with jurisdiction in the hazard area, such as BCDC requirements for the safety of fills consistent with the Bay Plan.
- EH-2.b** ***Require Construction Observation and Certification.*** Require any work or construction undertaken to correct slope instability or mitigate other geologic hazard conditions to be supervised and certified by a geotechnical engineer and/or an engineering geologist.
- EH-2.c** ***Prohibit Structures in Active Fault Traces.*** Prohibit placement of specified types of structures intended for human occupancy within 50 feet of an active fault trace in compliance with the Alquist-Priolo Earthquake Fault Zoning Act.
- EH-2.d** ***Limit Building Sites in Alquist-Priolo Zones.*** Prohibit new building sites in any Alquist-Priolo Earthquake Fault Zone, unless a geotechnical report prepared by a professional geologist establishes that the development will comply with all applicable State and County earthquake standards and regulations.
- EH-2.e** ***Retrofit County Buildings and Critical Facilities.*** Identify and remedy any County-owned structures and critical facilities in need of seismic retrofit or other geotechnical/structural improvement, including eliminating any potentially hazardous features, and/or relocating services if necessary.
- EH-2.f** ***Avoid Known Landslide Areas.*** Continue to prohibit development in landslide areas and on landslide-prone deposits on steep slopes, except where the required geotechnical report indicates that appropriate mitigation measures can stabilize the site for construction.



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- EH-2.g** *Identify Compressible Soil Potential.* Require that geotechnical reports for projects on land underlain by compressible materials (such as fill, bay mud, and marsh or slough areas) delineate locations where settlement will be greatest and subsidence may occur, and recommend site preparation and construction techniques necessary to reduce risk and public liability to an acceptable level.
- EH-2.h** *Match Uses to Conditions.* Amend the Development Code to limit uses in areas with high potential for slope instability or differential soil activity to those that would not be damaged by ground movement and provide minimum inducement to slope failure or differential settlement.
- EH-2.i** *Minimize Impacts of Site Alteration.* Amend the Development Code to strictly limit the extent of any proposed fill, excavation, or other grading activities that could create or exacerbate risks in areas susceptible to geologic hazards. These are shown for illustrative purposes only, in Maps 2-9, 2-10, and 2-11.
- EH-2.j** *Seek Supplemental Expertise.* Continue to hire consultants expert in soils engineering as necessary for evaluating specific developments proposed on bay mud and fill prone to differential settlement.
- EH-2.k** *Address Tsunami Potential.* Review tsunami wave run-up and inundation maps, when available, along with other applicable information to be considered in coastal planning and development.
- EH-2.l** *Reliability of Lifelines and Access (Evacuation) Routes.* In cooperation with utility system providers, emergency management agencies, and others, assist in the development of strategies to reduce adverse effects of geologic hazards, especially fault surface rupture and landslides to critical public lifelines, and access (i.e., evacuation) routes in an emergency.
- EH-2.m** *Implement Geological Assessment Ordinances.* Continue to implement ordinances requiring geological assessment (e.g., Preliminary Soils, Soils Investigation, and Geologic/Geotechnical reports) for new subdivisions and grading permits to identify the presence of surface fault rupture.
- EH-2.n** *Post-Earthquake Damage Assessment.* Undertake immediate damage assessment of essential service buildings and facilities and then other buildings as part of the emergency response planning in response to a damaging earthquake.
- EH-2.o** *Geologic Hazard Areas.* Update Geologic Hazard Area maps as updated information becomes available. These maps should be used to determine the need for geologic and geotechnical reports for proposed development or redevelopment.
- EH-2.p** *Implement Stability Report Ordinances.* Continue to implement ordinances requiring a Stability Report for new construction in areas specified on County slope stability maps, assessment of storm-related landslide damage, and limits to slope steepness. In



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addition, continue to implement ordinances requiring geological assessment (e.g., Preliminary Soils, Soils Investigation, and Geologic/Geotechnical reports) for new subdivisions and grading permits to identify hazards associated with landsliding.

EH-2.q *Implement Subsidence Evaluation Guidelines.* Continue to implement ordinances that provide guidelines for subsidence evaluations of land that is or could be prone to subsidence. Require geological assessment (e.g., Preliminary Soils, Soils Investigation, and Geologic/Geotechnical reports) for new subdivisions and grading permits to identify hazards associated with subsidence and settlement.

EH-2.r *Implement Soil Classification and Design Guidelines.* Continue to implement ordinances that provide soil classification guidelines and design considerations for development in areas of expansive soils, as well as requiring geological assessment (e.g., Preliminary Soils, Soils Investigation, and Geologic/Geotechnical reports) for new subdivisions and grading permits to identify hazards associated with expansive soils.

EH-2.s *Make Marin County TsunamiReady.* Become a National Weather Service TsunamiReady community in order to promote public awareness and community preparedness, and facilitate quick recovery, in the event of a tsunami.

What Are the Desired Outcomes?

GOAL EH-3

Safety from Flooding and Inundation. Protect people and property from risks associated with flooding and inundation. (Also see the Public Facilities and Water Resources sections.)



Policies

EH-3.1 *Follow a Regulatory Approach.* Utilize regulations instead of flood control projects whenever possible to minimize losses in areas where flooding is inevitable.

EH-3.2 *Retain Natural Conditions.* Ensure that flow capacity is maintained in stream channels and floodplains, and achieve flood control using biotechnical techniques instead of storm drains, culverts, riprap, and other forms of structural stabilization.

EH-3.3 *Monitor Environmental Change.* Consider cumulative impacts to hydrological conditions, including alterations in drainage patterns and the potential for a rise in sea level, when processing development applications in watersheds with flooding or inundation potential.



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Why is this important?

With increases in sea level due to global warming, flooding is predicted to increase in the future. Locating development in flood-prone areas can expose structures to damage and create risks for inhabitants in the immediate and surrounding areas.

Environment: Prohibiting development in the floodplain helps preserve valuable habitat, vital groundwater recharge capacity, and other natural systems.

Economy: Significant flooding with associated economic impacts has occurred in portions of Corte Madera, Larkspur, Greenbrae, Ross, San Anselmo, San Rafael, and Novato over the last 30 years. Flooding has also occurred in Mill Valley, Fairfax, and Muir Beach. Extensive property damage could be expected in inundated valleys, especially those downstream from major dam/reservoir complexes. Protecting property from future flooding risks contributes to economic stability.

Equity: Limiting development in floodplain and coastal areas contributes to the protection of residents and their property.

How will results be achieved?

Implementing Programs

- EH-3.a** *Regulate Development in Flood and Inundation Areas.* Continue to require all improvements in Bayfront, Floodplain, Tidelands, and Coastal High Hazard Zones to be designed to be more resistant to damage from flooding, tsunamis, seiches, and related water-borne debris, and to be located so that buildings and features such as docks, decking, floats, and vessels would be more resistant to damage.
- EH-3.b** *Update Maps.* Annually review those areas covered by the Countywide Plan that are subject to flooding, identified by floodplain mapping prepared by the Federal Emergency Management Agency (FEMA) or Department of Water Resources, and update Figure 2-12 and other General Plan maps accordingly. Periodically review and overlay County zoning maps to show flood, tsunami, and inundation hazard areas along the San Francisco Bay, San Pablo Bay, Tomales Bay, and the Pacific Ocean, the Bayfront Conservation Zone, and the Coastal Zone.
- EH-3.c** *Revise Regulations.* Consider expanding the F-1 and F-2 Floodway Districts to include areas of the unincorporated county that lie within primary and secondary floodways, and/or establishing an ordinance that will ensure that land use activities in flood hazard areas will be allowed only in compliance with federal standards.
- EH-3.d** *Alert Property Owners.* Notify owners of property in areas with inundation or flooding potential regarding those hazards when they seek development review or other related County services.
- EH-3.e** *Restrict Development in Flood Prone Areas.* Continue to regulate development in Special Flood Hazard areas by applying the County's Floodplain Management



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Ordinance, Federal Emergency Management Agency regulations, and environmental review pursuant to the California Environmental Quality Act (CEQA).

- EH-3.f** ***Require Hydrologic Studies.*** Continue to require submission of detailed hydrologic and geologic studies for any proposed development that could increase sedimentation of a watercourse or alter natural drainage patterns. Amend the Development Code to include findings to continue to regulate development in flood prone areas to ensure public health and safety and to preserve the hydraulic and geomorphic integrity of the stream system and associated habitat.
- EH-3.g** ***Locate Critical Facilities Safely.*** Amend the Development Code to prohibit placement of public safety structures within tsunami inundation or flood-prone areas.
- EH-3.h** ***Retain Ponding Areas.*** Maintain publicly controlled flood ponding areas in a natural state for flood control, and continue to promote compatible uses in ponding areas, such as agriculture, open space, and recreation.
- EH-3.i** ***Update Dam Inundation Maps.*** Update and make public inundation maps for dam/reservoir complexes where downstream valleys are inhabited and the risk of loss of life and extensive property damage is significant.
- EH-3.j** ***Review and Inspect Dams.*** Maintain permit authority over and continue to oversee construction of dams too small to be regulated by the State or federal government.
- EH-3.k** ***Anticipate Sea Level Rise.*** Work with the U.S. Geological Survey, the San Francisco Bay Conservation and Development Commission, and other monitoring agencies to track bay and ocean levels; utilize estimates for mean sea level rise to map potential areas subject to future inundation (including by updating information about watershed channel conditions and levee elevations); and amend the Development Code to incorporate construction standards consistent with the policies of BCDC's Bay Plan for any areas subject to increased flooding from a rise in sea level.
- EH-3.l** ***Limit Seawall Barriers.*** Limit repair, replacement, or construction of coastal sea walls and erosion barriers consistent with Local Coastal Program requirements, and as demonstrated to be necessary to protect persons and properties from rising sea level.
- EH-3.m** ***Maintain Flood Controls.*** Continue to implement adopted flood control programs, including limitations on land use activities in flood hazard areas and through repair and maintenance of necessary flood control structures.
- EH-3.n** ***Plan for Sea Level Rise.*** Consider sea level rise in future countywide and community plan efforts. Consider revising Marin County Development Code standards for new construction and substantial remodels to limit building or require elevated buildings and infrastructure or other applicable mitigations in areas that may be threatened by future sea level rise as shown on maps released by the San Francisco Bay Conservation and Development Commission in February 2007.



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- EH-3.o** *Seek Levee Assistance.* Pursue funding for levee reconstruction in those areas threatened by sea level rise, including but not limited to Santa Venetia.
- EH-3.p** *Assess the Cumulative Impacts of Development in Watersheds on Flood Prone Areas.* Consider the effects of upstream development, including impervious surfaces, alteration of drainage patterns, reduction of vegetation, increased sedimentation, and others, on the potential for flooding in low-lying areas. Consider watershed studies to gather detailed information.
- EH-3.q** *Develop Watershed Management and Monitoring Plans.* Develop watershed-specific, integrated watershed management and monitoring plans that include development guidelines, natural flood mitigation measures, biomechanical technologies, and the enhancement of hydrological and ecological processes. The guiding principles of the watershed plans shall equally consider habitat and species protection and monitoring as well as the protection of human life and property.

What Are the Desired Outcomes?

GOAL EH-4



Safety from Fires. Protect people and property from hazards associated with wildland and structural fires.

Policies

EH-4.1 Limit Risks to Structures. Ensure that adequate fire protection is provided in new development and when modifications are made to existing structures.

EH-4.2 Remove Hazardous Vegetation. Abate the buildup of vegetation around existing structures or on vacant properties that could help fuel fires. (See also Natural Systems and Agriculture Element, BIO-1.4, Support Vegetation and Wildlife Disease Management Programs).

- EH-4.3 Adopt and Implement a Fire Management Plan.** Develop a proactive approach to manage wildfire losses by identifying hazard risks and enacting effective mitigation strategies.
- EH-4.4 Ensure Adequate Emergency Response.** Ensure that there is an adequate number of trained and certified emergency medical technicians to address the increase in medical demand.
- EH-4.5 Regulate Land Uses to Protect from Wildland Fires.** Use land use regulations, including but not limited to subdivision approvals and denials, as means of protecting people and property from hazards associated with wildland fires.



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Why is this important?

Fire plays a critical role in California's diverse ecology, and protecting people and property from fires will be a continuing challenge.

Environment: Using measures such as controlled burning to remove vegetation that has built up because of historic fire suppression efforts improves firefighting effectiveness and can help restore environmental balance in the county.

Economy: Fire costs can soar to millions of dollars a day from suppression costs, destruction of homes, loss of home-based businesses, damage to utilities, and impacts on recreation areas. Minimizing flammable vegetation can reduce potential economic impacts and help speed recovery.

Equity: Marin County has numerous structures located within the wildland-urban interface. Homes with wood siding, wood decks, and wood shingled roofs are at extreme risk from a wildland fire. Designing structures to be fire resistant protects all occupants as well as neighboring areas by limiting fuel available to a spreading fire.

How will results be achieved?

Implementing Programs

- EH-4.a** ***Provide Information About Fire Hazards.*** Work with FIRESafe Marin, the Marin County Fire Department, and local, regional, and State agencies to make maps of areas subject to wildland fire hazard publicly available, and to provide public information and educational programs regarding fire hazards, and techniques for reducing susceptibility to fire damage and areas of low water pressure.
- EH-4.b** ***Restrict Land Divisions.*** Prohibit new land divisions in very high and high fire hazard areas unless the availability of adequate water for fire suppression is demonstrated and guaranteed; access for firefighting vehicles and equipment is provided from more than one point; necessary fire trails and fuel breaks are provided; fire-resistant materials are used exclusively in construction; and adequate clearances from structures and use of fire-resistant plants in any landscaping is required.
- EH-4.c** ***Require Compliance with Fire Department Conditions.*** Continue to refer land development and building permit applications to the County Fire Department or local fire district for review, and incorporate their recommendations as conditions of approval as necessary to ensure public safety. Continue to require compliance with all provisions of the most recently adopted version of the California Fire Code (with local amendments).
- EH-4.d** ***Review Applications for Fire Safety.*** Require applicants to identify defensible space and compliance with fire safety standards, and continue to work with local and State fire agencies to ensure that California Fire Code (with local amendments), County Development Code, and State standards for construction are applied uniformly countywide.



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- EH-4.e** ***Require Sprinkler Systems.*** Continue to require installation of automatic fire sprinkler systems in all new structures and existing structures undergoing substantial remodeling, and provide incentives for sprinkler installation in all other habitable structures, especially those in high fire hazard areas.
- EH-4.f** ***Require Fire-Resistant Roofing and Building Materials.*** Continue to require and provide incentives for Class A fire-resistant roofing for any new roof or replacement of more than 50% of an existing roof. Work with Marin County fire departments to prepare and adopt an ordinance requiring fire-resistant building materials in extreme and high fire hazard areas.
- EH-4.g** ***Develop and Maintain Fuel Breaks and Access Routes.*** Work with public agencies and private landowners to construct and maintain fuel breaks and emergency access routes to facilitate effective fire suppression.
- EH-4.h** ***Require Adequate Clearance.*** Require standards for clearance of vegetation on vacant lots, and around structures, and landscaped areas to ensure timely and adequate removal of potential fire fuel on both public and private property.
- EH-4.i** ***Use Varied Methods to Provide Fuel Breaks and Fire Suppression.*** Use the best fuel reduction methods (depending on the time of year, fuel types, reduction prescriptions, and cost) to implement the Marin County Community Wildfire Protection Plan. This may include using CDF inmate crews, the Tamalpais Fuel Crew, the Marin Conservation Corps, animal grazing, or fuel reduction contractors.
- EH-4.j** ***Conduct Life Safety Assessments.*** Conduct a life safety assessment that considers the costs of fire safety maintenance prior to the County purchase of new land and facilities.
- EH-4.k** ***Adopt Amended Urban Wildlands Interface Regulations.*** Work with Marin fire departments to prepare and adopt urban wildlands interface regulations for new development and substantial remodels in order to reduce fire hazards in high and extreme fire hazard areas.
- EH-4.l** ***Continue FIRESafe Marin Program.*** Continue the various education efforts and safety projects sponsored by FIRESafe Marin and implemented through each neighborhood.
- EH-4.m** ***Continue to Use Technology to Promote Fire Safety.*** Continue to apply computer technology, such as Geographic Information Systems, vegetation inventory, and air movement modeling programs, to identify, analyze, and plan for potential fire hazards. Notify affected parties of any relevant findings.
- EH-4.n** ***Evaluate Development Standards.*** Request Fire Department review of County requirements for peak-load water supply and roadways (especially on hillsides) to determine whether those provisions need modification, such as limiting one-way road use, grade/slope limits, minimum radius, and turnaround widths, to ensure adequate fire protection and suppression.



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- EH-4.o** *Support a Fire Management Plan.* Adopt a resolution supporting a Fire Management Plan (including a fuel break plan), and encourage Marin cities and towns to also support its recommendations.
- EH-4.p** *Provide Paramedics as Needed.* Assess the adequacy and number of firefighters trained as emergency medical technicians, and train more paramedics or firefighters, as needed.



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Figure 2-7 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
EH-1 Hazard Awareness.	•									•		•
EH-2 Safety from Seismic and Geologic Hazards.	•									•		•
EH-3 Safety from Flooding and Inundation.	•		•							•		•
EH-4 Safety from Fires.	•		•		•					•		•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Number of Marin residents trained in emergency preparedness.	1,000 residents (.4%) trained as of 2004.	1% of county population trained by 2010 and 1.5% trained by 2015.
Number of county employees trained as disaster service workers to federal standards.	50% of employees trained as of 2004.	100% of county emergency first responders, Emergency Operations Center staff, and other County employees with designated disaster response roles by 2010 and maintain through 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 2-8
Environmental Hazards Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
EH-1.a - Provide Educational Materials.	OES, CDA	Existing budget and may require additional grants or revenue ²	Low	Ongoing
EH-1.b - Distribute Maps.	CDA, OES	Existing budget and may require additional grants or revenue ²	High	Ongoing
EH-1.c - Improve Soils Information.	CDA, United States Geological Survey (USGS)	Existing budget and may require additional grants or revenue ²	Low	Ongoing
EH-1.d - Facilitate Scientific Investigation.	OES, CDA	Existing budget	Medium	Ongoing
EH-1.e - Support Emergency Preparedness Training.	OES, Fire departments	Existing budget	High	Ongoing
EH-2.a - Require Geotechnical Reports.	CDA	Existing budget	High	Ongoing
EH-2.b - Require Construction Observation and Certification.	CDA	Existing budget	High	Ongoing
EH-2.c - Prohibit Structures in Active Fault Traces.	CDA	Existing budget	High	Ongoing
EH-2.d - Limit Building Sites in Alquist-Priolo Zones.	CDA	Existing budget	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
EH-2.e - Retrofit County Buildings and Critical Facilities.	DPW	Will require additional grants or other revenue ²	Medium	Long term
EH-2.f - Avoid Known Landslides Areas.	CDA	Existing budget	High	Ongoing
EH-2.g - Identify Compressible Soil Potential.	CDA	Existing budget	Medium	Med. term
EH-2.h - Match Uses to Conditions.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EH-2.i - Minimize Impacts of Site Alteration.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EH-2.j - Seek Supplemental Expertise.	CDA	Existing budget	High	Ongoing
EH-2.k - Address Tsunami Potential.	CDA, California Coastal Commission (CCC), USGS	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EH-2.l - Reliability of Lifelines and Access (Evacuation) Routes.	EOC	Will require additional grants or other revenue ²	High	Long term
EH-2.m - Implement Geological Assessment Ordinances.	CDA/DPW	Existing budget	High	Ongoing
EH-2.n - Post-Earthquake Damage Assessment.	EOC	Will require additional grants or other revenue ²	Low	Long term
EH-2.o - Geologic Hazard Areas.	CDA	Existing budget	Low	Ongoing
EH-2.p - Implement Stability Report Ordinances.	CDA/DPW	Existing budget	High	Ongoing
EH-2.q - Implement Subsidence Evaluation Guidelines.	CDA/DPW	Existing budget	High	Ongoing
EH-2.r - Implement Soil Classification and Design Guidelines.	CDA/DPW	Existing budget	High	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
EH-2.s - Make Marin County TsunamiReady	EOC	Will require additional grants or other revenue ²	Low	Long term
EH-3.a - Regulate Development in Flood and Inundation Areas.	CDA, DPW, OES	Existing budget, Fees	High	Ongoing
EH-3.b - Update Maps.	CDA, DPW	Existing budget	Medium	Med. term
EH-3.c - Revise Regulations.	CDA, DPW	Existing budget and may require additional grants or revenue ²	High	Ongoing
EH-3.d - Alert Property Owners.	CDA, DPW	Existing budget	High	Ongoing
EH-3.e - Restrict Development in Flood Prone Areas.	CDA, DPW	Existing budget	High	Ongoing
EH-3.f - Require Hydrologic Studies.	CDA, DPW	Existing budget	High	Ongoing/Med. term
EH-3.g - Locate Critical Facilities Safely.	CDA	Existing budget	High	Ongoing
EH-3.h - Retain Ponding Areas.	DPW	Will require additional grants or other revenue ²	High	Ongoing/Long term
EH-3.i - Update Dam Inundation Maps.	CDA, OES	Existing budget	Medium	Med. term
EH-3.j - Review and Inspect Dams.	CDA, DPW	Existing budget	Medium	Ongoing
EH-3.k - Anticipate Sea Level Rise.	USGS, BCDC, CCC, CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EH-3.l - Limit Seawall Barriers.	CDA, CCC	Existing budget	High	Ongoing
EH-3.m - Maintain Flood Controls.	Flood Control Districts	Existing budget and may require additional grants or revenue ²	High	Ongoing
EH-3.n - Plan for Sea Level Rise.	CDA & DPW	Will require additional grants or other revenue ²	Medium	Long term
EH-3.o - Seek Levee Assistance.	DPW	Will require additional grants or other revenue ²	Medium	Long term



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Program	Responsibility	Potential Funding	Priority	Time Frame
EH-3.p - Assess the Cumulative Impacts of Development in Watersheds on Flood Prone Areas.	CDA & DPW	Will require additional grants or other revenue ²	Medium	Long term
EH-3.q - Develop Watershed Management and Monitoring Plans.	CDA & DPW	Will require additional grants or other revenue ²	Medium	Long term
EH-4.a - Provide Information About Fire Hazards.	County Fire Departments, CDF, CDA	Existing budget	High	Ongoing
EH-4.b - Restrict Land Divisions.	CDA	Existing budget	High	Ongoing
EH-4.c - Require Compliance with Fire Department Conditions.	CDA (Building & Safety), County Fire Departments/Districts	Existing budget	High	Ongoing
EH-4.d - Review Applications for Fire Safety.	County Fire Department	Existing budget	High	Ongoing
EH-4.e - Require Sprinkler Systems.	CDA, County Fire Departments	Existing budget	High	Ongoing
EH-4.f - Require Fire-Resistant Roofing and Building Materials.	CDA, County Fire Departments	Existing budget	High	Ongoing
EH-4.g - Develop and Maintain Fuel Breaks and Access Routes.	County Fire Department/Fire Districts	Existing budget	High	Ongoing
EH-4.h - Require Adequate Clearance.	CDA, County Fire Department/Fire Districts	Existing budget	High	Ongoing
EH-4.i - Use Varied Methods to Provide Fuel Breaks and Fire Suppression.	County Fire Department	Existing budget and may require additional grants or revenue ²	High	Ongoing
EH-4.j - Conduct Life Safety Assessments.	MCOSD, Parks, DPW (Flood control)	Existing budget	High	Ongoing
EH-4.k - Adopt Amended Urban Wildlands Interface Regulations.	County Fire Department	Existing budget and may require additional grants or revenue ²	High	Ongoing
EH-4.l - Continue FIRESafe Marin Program	County Fire Department	Will require additional grants or revenue ²	High	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
EH-4.m - Continue to Use Technology to Promote Fire Safety.	County Fire Department	Existing budget	High	Ongoing
EH-4.n - Evaluate Development Standards.	CDA, County Fire Department	Existing budget	Medium	Med. term
EH-4.o - Support a Fire Management Plan.	Fire Departments, BOS	Existing budget	High	Medium
EH-4.p - Provide Paramedics as Needed.	Fire Departments	Existing budget	High	Ongoing



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2.7 Atmosphere and Climate

Background

Although air quality in Marin County is generally very good, emissions from within the county may contribute to pollution problems elsewhere in the region and climate changes that are occurring on a global scale. In some parts of the Bay Area, ozone levels exceed National Ambient Air Quality Standards and particulate concentrations exceed State standards (Figures 2-9 and 2-13). Vehicle traffic produces most of the emissions leading to increased ozone levels, while construction activities, wood burning, off-road travel, and agriculture generate some measured particulate matter.



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The Bay Area Air Quality Management District (BAAQMD) encourages local jurisdictions to implement policies that will help improve regional air quality, and to especially recognize sensitive receptors. This Section of the Countywide Plan provides a regulatory framework for articulating air quality objectives consistent with regional air quality programs. The Transportation, Energy and Green Building, Public Facilities and Services, and Community Development sections of the Built Environment Element also include policies and programs intended to reduce the impact of future development on air quality and global warming.

On a global scale, data indicate an increase in mean surface air temperatures over historic levels and climate models predict this warming will continue. Scientists expect that the average global surface temperature could rise 1°F to 4.5°F in the next 50 years, and 2.2° to 10°F in the next century. A rise of this magnitude is significant: For example, the difference in temperature between 1995 and the



“Everybody talks about the weather, but nobody does anything about it.”

– Mark Twain

temperature during the ice ages was 5°F to 8°F. Mounting scientific evidence suggests that the discharge by human activities of gases that trap heat in the atmosphere is largely responsible for this trend. A major consequence of global warming is melting glaciers and warmer waters, which cause the oceans to expand and rise. Sea level rise and higher evaporation rates are expected to increase storm frequency and severity. The resulting economic loss from increased storm activity will be equally dramatic: It has already increased tenfold over the past 40 years. Climate change will amplify existing environmental problems, such as erosion, storm-surge floods, and landslide risk, and changes to the water cycle will further stress domestic water supply as well as indigenous plant

and animal populations. Further complicating the issue of climate change is the high level of complexity and uncertainty associated with modeling and predicting climate behavior. While it is clear that damage resulting from weather-related events is already on the rise, it is not known whether future changes will be gradual or abrupt. Nor is it clearly understood what the full spectrum of impacts will be. Given the global risks to economic, environmental, and social stability, it is imperative that climate change be addressed at all levels of government.

Fortunately, local governments can play a meaningful role in addressing climate change, by instituting measures that reduce the vulnerability and increase the adaptability of Marin’s physical infrastructure, economic activities, and natural systems. Furthermore, steps taken to address climate change will yield positive benefits in local efforts to improve air quality, as vehicle traffic and energy generation are major contributors to both greenhouse gases and air pollution. For example, construction of a modern world class transportation system in Marin County will contribute to further reducing greenhouse gas emissions and improving air quality.

The issue of climate change is ultimately part of the larger challenge of fostering sustainable communities. Climate change goals are more effectively accomplished when efforts are focused on integrating principles of sustainability within sectors such as transportation, buildings, ecosystems, and water systems. While the aim of this Section is to provide a framework for addressing atmosphere and



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climate change, the detailed policies and programs that address climate protection are located throughout the Countywide Plan and are referenced here in this section.

Key Trends and Issues

How clean is the air in Marin?

Air quality indicators show improvement. Marin has experienced a drop both in the total number of days exceeding State Ambient Air Quality Standards and in the number of days exceeding safe levels of ozone since 1996. Marin also has had a reduction in the number of days that safe levels of particulate matter have been exceeded in the county since 1996 (Figure 2-9). Ozone precursor pollutants have decreased locally, and are expected to continue to decline.

Figure 2-9 Summary of Measured Air Quality Exceedances

Pollutant	Standard	Monitoring Station	Days Exceeding Standard				
			2000	2001	2002	2003	2004
Ozone (O ₃)	NAAQS 1-hr	San Rafael	0	0	0	0	0
		BAY AREA	3	1	2	1	0
	NAAQS 8-hr	San Rafael	0	0	0	0	0
		BAY AREA	4	7	7	7	0
	CAAQS 1-hr	San Rafael	0	0	0	0	0
		BAY AREA	12	15	16	19	7
Fine Particulate Matter (PM ₁₀)	NAAQS 24-hr	San Rafael	0	0	0	0	0
		BAY AREA	0	0	0	0	0
	CAAQS 24-hr	San Rafael	0	2	2	0	1
		BAY AREA	7	10	6	6	7
Fine Particulate Matter (PM _{2.5})	NAAQS 24-hr	San Rafael	0	--	--	--	--
		BAY AREA	1	5	7	0	1
All Other (CO, NO ₂ , Lead, SO ₂)	All Other	San Rafael	0	0	0	0	0
		BAY AREA	0	0	0	0	0

Source: 2000-2004 Bay Area Air Quality Management District.

Pollution levels can be reduced. Most particulate matter comes from areawide sources, such as combustion of wood and other nonclean fuels, and from homes and businesses without emission-control devices. Simple measures such as requiring clean-burning stoves can achieve improvements in air quality. Reducing motor vehicle use can result in significantly cleaner air.

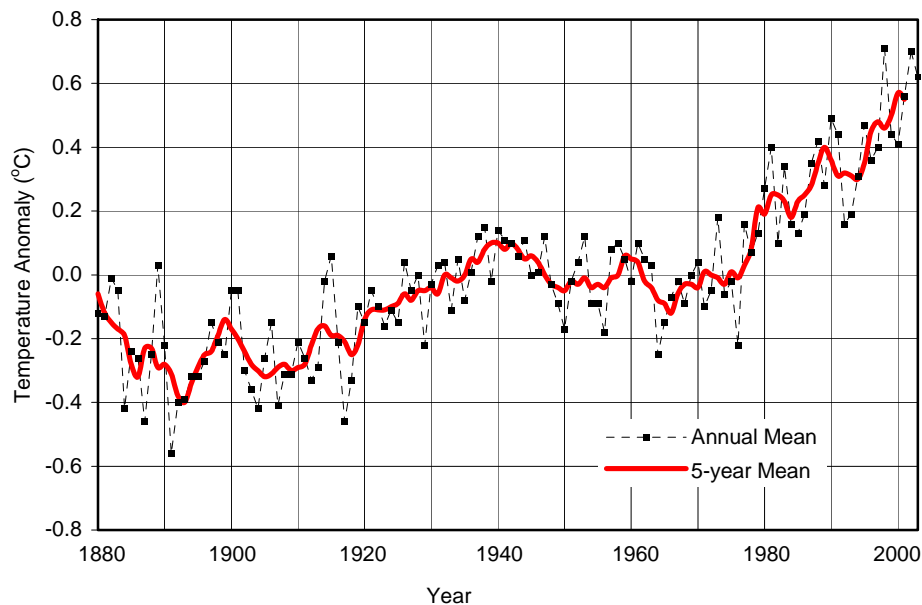


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Are temperatures rising globally?

The 10 warmest years of the 20th century all occurred after 1985, with 1998 the warmest year on record. The average of all global climate models suggests about a 3°F to 10°F rise in global temperature over the next 50 to 100 years. Global surface temperatures have increased about 1°F over the 20th century, with approximately 70% (or 0.7°F) of that change occurring in the last 25 years. The following graph illustrates the increasing rate and magnitude of global surface air temperatures.

Figure 2-10 Global Temperature



Source: NASA Goddard Institute for Space Studies.

Is sea level rising?

Globally, sea level has risen 4 to 8 inches over the past century. The Intergovernmental Panel on Climate Change (IPCC) notes it is very likely that the 20th-century warming has contributed significantly to rising sea levels, through thermal expansion of seawater and loss of land ice. The EPA estimates that sea level is likely to rise 1.8 feet along most of the West Coast by 2100. By comparison, the San Francisco Bay level has increased about 4 inches since 1850. Given a 1-foot rise in sea level, the current 100-year high in the storm surge felt on the levee system of inland San Francisco Bay and Delta would become the 10-year high. In other words, the frequency of a 100-year event would increase tenfold.

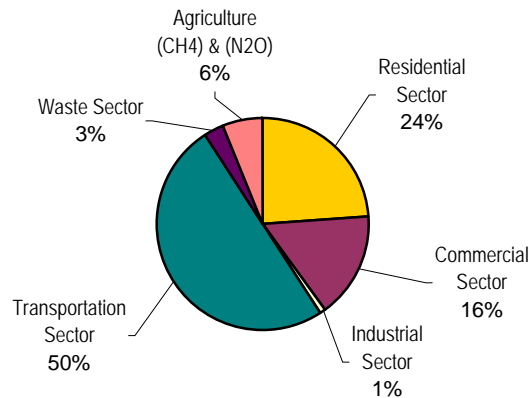


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What activities are contributing to the greenhouse gases in Marin?

Marin emits nearly 3 million tons of carbon dioxide every year. Vehicle traffic accounts for 50% of the total emissions, and energy use by buildings (residential, commercial and industrial combined) accounts for 41%.

Figure 2-11 Countywide Emissions Analysis



Source: Community Development Agency, Greenhouse Gas Emissions Analysis Report 2000.

Has climate change affected the global economy?

Challenges resulting from weather- and climate-related events include changes to world food production and supply, migration, and access to clean water and energy. As indicated in the table below, costs have increased substantially since 1980.



“The climate system is being pushed hard enough that change will become obvious to the man in the street in the next decade.”

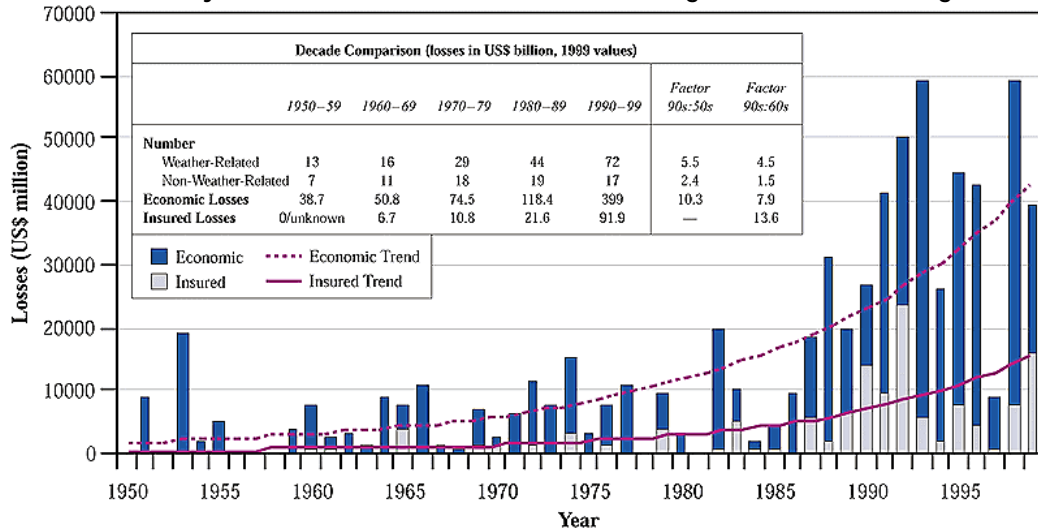
— James E. Hansen, director of NASA’s Goddard Institute for Space Studies, quoted in *Newsweek*, January 22, 1996



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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-1



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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Why is this important?

It is essential to use a regional approach to improving air quality, since polluted air flows from one place to another.

Environment: Cleaner air and water mean healthier marine and terrestrial ecosystems.

Economy: Poor air quality is linked to a higher incidence of public health costs associated with respiratory illnesses. The California Air Resources Board (CARB) suggests that the annual health impacts of exceeding state health-based standards for ozone and particulate matter include 6,500 premature deaths, 4,000 hospital admissions for respiratory disease, and 350,000 asthma attacks. The loss of productive workdays also affects the local economy. The American Lung Association (ALA) states that asthma accounts for an estimated three million lost workdays for adults nationally.

Equity: Poor air quality is linked to a higher incidence of respiratory illnesses. Asthma, which can be triggered and/or caused by poor air quality, currently affects 2.3 million Californians. In Marin, there were 17,083 cases of asthma in 2004, which translates to an impact on 7% of the population.

How will results be achieved?

Implementing Programs

- AIR-1.a** *Inform Local and Regional Agencies.* Notify local and regional jurisdictions of proposed projects in unincorporated areas that may affect regional air quality, as identified by project type and size thresholds in the *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans* (Figure 2-14).
- AIR-1.b** *Evaluate Air Quality Impacts of Proposed Projects and Plans.* As part of the Environmental Review Process, use the current BAAQMD CEQA Guidelines to evaluate the significance of air quality impacts from projects or plans, and to establish appropriate minimum submittal and mitigation requirements necessary for project or plan approval.
- AIR-1.c** *Take Part in Regional Programs.* Continue to participate in the Cities for Climate Protection and Spare the Air programs.
- AIR-1.d** *Cooperate to Enforce Air Quality Standards.* Cooperate with the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, and the BAAQMD to measure air quality at emission sources (including transportation corridors) and to enforce the provisions of the Clean Air Act and State as well as regional policies and established standards for air quality.



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Figure 2-13 California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	NATIONAL STANDARDS ^(a)	
			Primary ^(b,c)	Secondary ^(b,d)
Ozone	8-hour	0.07 ppm (154 µg/m ³)	0.08 ppm (176 µg/m ³)	—
	1-hour	0.09 ppm (180 µg/m ³)	— ^(e)	Same as primary
Carbon Monoxide	8-hour	9 ppm (10 µg/m ³)	9 ppm (10 µg/m ³)	—
	1-hour	20 ppm (23 µg/m ³)	35 ppm (40 µg/m ³)	—
Nitrogen Dioxide	Annual	—	0.053 ppm (100 µg/m ³)	Same as primary
	1-hour	0.25 ppm (470 µg/m ³)	—	—
Sulfur Dioxide	Annual	—	0.03 ppm (80 µg/m ³)	—
	24-hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	—
	3-hour	—	—	0.5 ppm (1,300 µg/m ³)
	1-hour	0.25 ppm (655 µg/m ³)	—	—
PM ₁₀	Annual	20 µg/m ³	50 µg/m ³	Same as primary
	24-hour	50 µg/m ³	150 µg/m ³	Same as primary
PM _{2.5}	Annual	12 µg/m ³	15 µg/m ³	—
	24-hour	—	65 µg/m ³	—
Lead	Calendar quarter	—	1.5 µg/m ³	Same as primary
	30-day average	1.56 µg/m ³	—	—

Notes: (a) Standards, other than four ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
(b) Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parenthesis.
(c) Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the EPA.
(d) Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
(e) The national one-hour ozone standard was revoked by U.S. EPA on June 15, 2005.

Source: 2004 Bay Area Air Quality Management District.



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**Figure 2-14
Projects with Potentially Significant Emissions**

Land Use Category	Trip Generation Rate	Size of Project Likely to Generate 80 lb/day NO _x
Housing		
Single Family	9.4/d.u.	320 units
Apartments	5.9/d.u.	510 units
Retail		
Discount Store	48.3/1000 sq.ft.	87,000 sq.ft.
Regional Shopping Center	96.2/1000 sq.ft.	44,000 sq.ft.
Supermarket	178/1000 sq.ft.	24,000 sq.ft.
Office		
General Office	10.9/1000 sq.ft.	280,000 sq.ft.
Government Office	68.9/1000 sq.ft.	55,000 sq.ft.
Office Park	12.8/1000 sq.ft.	210,000 sq.ft.
Medical Office	37.1/1000 sq.ft.	110,000 sq.ft.
Other		
Hospital	13.8/1000 sq.ft.	240,000 sq.ft.
Hotel	8.7/room	460 rooms

Note: Trip rates for many land uses will vary depending upon size of project. See latest edition of Trip Generation, Institute of Transportation Engineers.

Source: 1999 Bay Area Air Quality Management District.

AIR-1.e *Conduct Public Education Program.* Educate regarding the reason for requiring using best management practices to improve air quality.

AIR-1.f *Limit Residential Wood Burning.* Continue to implement the ordinance that phases out the use of older, polluting wood-burning appliances and limits the installation of wood-burning devices in new or renovated homes to pellet stoves, EPA-certified woodstoves and fireplace inserts, or natural gas or propane appliances.

AIR-1.g *Require Control Measures for Construction and Agricultural Activity.* Require reasonable and feasible measures to control particulate emissions (PM-10 and PM-2.5) at construction sites and during agricultural tilling activity, pursuant to the recommendations in the BAAQMD CEQA Guidelines, which may include the following:

- ◆ Watering active construction or agricultural tilling areas.
- ◆ Covering hauled materials.
- ◆ Paving or watering vehicle access roads.
- ◆ Sweeping paved and staging areas.



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What Are the Desired Outcomes?

GOAL AIR-2



Protection from Emissions. Minimize the potential impacts from land uses that may emit pollution and/or odors on residential and other land uses sensitive to such emissions (see Map 2-16, Sensitive Receptor Sites in Unincorporated Marin County).

Policy

AIR-2.1 Buffer Emission Sources and Sensitive Land Uses. Consider potential air pollution and odor impacts from land uses that may emit pollution and/or odors when locating (a) air pollution sources, and (b) residential and other pollution-sensitive land uses in the vicinity of air pollution sources (which may include freeways, manufacturing, extraction, hazardous materials storage, landfill, food processing, wastewater treatment, and other similar uses).

Why is this important?

People and sensitive plants and animals need to be protected from sources of air pollution.

Environment: Air pollution creates stress on fragile and sensitive ecosystems by reducing reproductive capacity and food sources.

Economy: Lowering pollutants from area-wide and point sources would lower public health costs associated with respiratory illnesses and lead to fewer sick days at the workplace.

Equity: Children, people who are ill, and elderly people are particularly sensitive to air pollution. Places where they congregate need protection from polluted air.

How will results be achieved?

Implementing Programs

AIR-2.a *Require Separation Between Air Pollution Sources and Other Land Uses.* Only allow (a) emission sources or (b) other uses in the vicinity of air pollution or odor sources if the minimum screening distances between sources and receptors established in the BAAQMD CEQA Guidelines can be met, unless detailed project-specific studies demonstrate compatibility with adjacent uses despite separations that do not meet the screening distance requirements.

AIR-2.b *Protect Sensitive Receptors Near High-Volume Roadways.* Amend the Development Code to require mitigation measures such as increased indoor air filtration to ensure the protection of sensitive receptors (facilities where individuals are highly susceptible to the adverse effects of air pollutants, such as housing, child care centers, retirement



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homes, schools, and hospitals) near freeways, arterials, and other major transportation corridors.

AIR-2.c *Health Risk Analysis for Sensitive Receptors.* Require that projects involving sensitive receptors proposed within 150 feet of freeways shall include an analysis of the potential health risks. Mitigation measures that comply with adopted standards of the BAAQMD for control of odor/toxics for sensitive receptors shall be identified in order to reduce these risks to acceptable levels.

What Are the Desired Outcomes?

GOAL AIR-3

Reduction of Vehicle-Generated Pollutants. Reduce vehicle trips and emissions, and improve vehicle efficiency, as means of limiting the volume of pollutants generated by traffic.



Policy

AIR-3.1 **Institute Transportation Control Measures.** Support a transportation program that reduces vehicle trips, increases ridesharing, and meets or exceeds the Transportation Control Measures recommended by BAAQMD in the most recent Clean Air Plan to reduce pollutants generated by vehicle use.

Why is this important?

Vehicle emissions are a major source of air pollution, and reduction of vehicle trips will improve air quality.

Environment: Vehicle travel is responsible for 54% of nitrogen oxides, 73% of carbon monoxide, and 79% of the particulate matter released in Marin. These pollutants create stress on Marin’s marine and terrestrial ecosystems through a loss of species diversity and reproduction capacity.

Economy: In addition to alleviating the economic burden of public health costs, a reduction in vehicle trips will reduce traffic congestion. In 2006, over 9,400 productive hours were lost each weekday as a result of traffic congestion and delay.

Equity: Based on EPA’s most current data, vehicle generated sources are responsible for 91% of the air-related cancer risk in Marin County. Furthermore, lower income neighborhoods tend to be nearest to major transportation routes; thus, these residents are exposed to higher levels of mobile source pollutants. One study finds that in the Bay Area, prevalence of asthma and bronchitis symptoms is about 7% higher for children in neighborhoods with higher levels of traffic pollutants compared with other children in the study.



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How will results be achieved?

Implementing Programs

AIR-3.a *Support Voluntary Employer-Based Trip Reduction.* Provide assistance to regional and local ridesharing organizations, and advocate legislation to maintain and expand employer ridesharing incentives, such as tax deductions or credits.

AIR-3.b *Utilize Clean Vehicle Technology.* Promote new technologies and other incentives, such as allowing zero or partial zero emission vehicles rated at 45 miles or more per gallon in Marin County carpool lanes, and replacing fleet vehicles with these and similar clean vehicles.



“Adding lanes to solve traffic congestion is like loosening your belt to solve obesity.”

– Glen Hemistra

AIR-3.c *Consider Model Clean Vehicle Requirements.* Research and consider adoption of an ordinance or standards that provide a set of voluntary measures to incorporate clean vehicles in fleets and promote the use of clean alternative fuels.

AIR-3.d *Reduce Peak-Hour Congestion.* Implement recommended Bay Area Air Quality Management District (BAAQMD) Transportation Control Measures in the Clean Air Plan to reduce vehicle emissions and congestion during peak commute periods.

AIR-3.e *Improve Arterial Traffic Management.* Modify arterial roadways to allow more-efficient bus operation, including possible signal preemption, and expand signal-timing programs where air quality benefits can be demonstrated.

What Are the Desired Outcomes?

GOAL AIR-4



Minimization of Contributions to Greenhouse Gases. Prepare policies that promote efficient management and use of resources in order to minimize greenhouse gas emissions. Incorporate sea level rise and more extreme weather information into the planning process.

Policies

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

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



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Why is this important?

Major contributors to greenhouse gas emissions, such as vehicle traffic and building energy use, can be reduced on a local level through the implementation of sustainable development policies.

Environment: Increased greenhouse gas emissions lead to climate change, which could include increases in temperature and shifting amounts of rainfall. Changes in temperature and water availability affect terrestrial and marine ecosystems. Furthermore, higher temperatures lead to higher evaporation rates, as well as reductions in stream flow and an increased frequency of droughts. Droughts are a problem in Marin, where 80% of our water comes from rainfall.

Economy: Mitigation measures that reduce emissions can result in substantial savings. The Tellus Institute estimates that California can save 1.9 billion dollars annually by 2020 through adoption of more stringent building codes and standards, efficiency programs, and increased supply of energy from renewable sources.

Equity: Access to clean water, energy, and mineral resources, and availability of productive arable land are all threatened by changes in climate. Weather- and temperature-related issues will add strain to an already overburdened public health system. Furthermore, low income families will be disproportionately impacted as they will be the least able to adapt to the effects of climate change.

How will results be achieved?

Implementing Programs

AIR-4.a *Reduce Greenhouse Gas Emissions Resulting from Energy Use in Buildings.*
Implement energy efficiency programs and use of renewable energy. (Also see EN-1, EN-2, PFS-2, and TR-4.)



Carbon Dioxide
The Ecological Footprint shows that the single largest human demand on ecosystems comes from carbon dioxide emissions. The land area required to absorb this waste product makes up over half the Ecological Footprint of the average Marin resident. If Marin County reduced its carbon dioxide emissions by 20%, it could reduce its total footprint by an area equal to almost the entire size of Marin County.



Changing Scientific Understanding of Human Influences on Climate Change
1990: “Our judgment is that global mean surface air temperature has increased [though] the unequivocal detection of the enhanced greenhouse effect is not likely for a decade or more.”
1995: “The balance of evidence suggests a discernible human influence on global climate.”
2001: “The Earth's climate system has demonstrably changed on both global and regional scales. There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities.”



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AIR-4.b *Reduce Greenhouse Gas Emissions Resulting from Transportation.* Increase clean-fuel use, promote transit-oriented development and alternative modes of transportation, and reduce travel demand. (Also see TR-4, AIR-3, DES-2, HS-2, HS-3, CD-2, CD-3, and EC-1.)

AIR-4.c *Reduce Methane Emissions Released from Waste Disposal.* Encourage recycling, decrease waste sent to landfills, require landfill methane recovery, and promote methane recovery for energy production from other sources. (See PFS-3.)



Cities for Climate Protection Milestones

In August 2002, the Board of Supervisors partnered with the Cities for Climate Protection Campaign to address climate change through five actions:

1. Analyze baseline greenhouse gas emissions.
2. Set a target for reducing emissions.
3. Develop a local action plan for pursuing emissions reductions measures.
4. Implement local action plan.
5. Monitor progress.

Source: www.iclei.org.

AIR-4.d *Reduce Greenhouse Gas Emissions from Agriculture.* Compile an inventory of agricultural greenhouse gas emissions. Partner with AgStar, the U.S. Department of Agriculture, and the U.S. Department of Energy to encourage the use of methane recovery technologies and determine potential use in energy production.

AIR-4.e *Reduce County Government Contributions to Greenhouse Gas Emissions.* Where feasible, replace fleet vehicles with hybrid fuel and other viable alternative fuel vehicles, increase energy efficiency of County-maintained facilities, increase renewable energy use at County-maintained facilities, adopt purchasing practices that promote emissions reductions, and increase recycling at County-maintained facilities. (Also see EN-1, EN-2, PFS-3, TR-4, EC-1 and PH-1.)

AIR-4.f *Establish a Climate Change Planning Process.* Continue implementation of the approved Marin County Greenhouse Gas Reduction Plan. Integrate this plan into long-range and current planning functions of other related agencies. Establish and maintain a process to implement, measure, evaluate, and modify implementing programs, using the Cities for Climate Protection Campaign as a model (see the sidebar).

AIR-4.g *Work with Bay Area Governments to Address Regional Climate Change Concerns.* Play a leading role to encourage other local governments to commit to addressing climate change. Participate in programs such as the Cities for Climate Protection Campaign to address local and regional climate change concerns.



“New analyses suggest that 15%–37% of a sample of 1,103 land plants and animals would eventually become extinct as a result of climate changes expected by 2050.”

— *Nature Medicine*, 2004



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- AIR-4.h** *Evaluate the Carbon Emissions Impacts of Proposed Developments.* Incorporate a carbon emissions assessment into land use plans and the environmental impact report for proposed projects.
- AIR-4.i** *Work with Appropriate Agencies to Determine Carbon Uptake and Storage Potential of Natural Systems.* Study Marin’s wetlands, forests, baylands, and agricultural lands to determine the potential to sequester carbon over time. Determine their value as carbon sinks.
- AIR-4.j** *Acquire and Restore Natural Resource Systems.* Take and require all technically feasible measures to avoid or minimize potential impacts on existing natural resource systems that serve as carbon sinks. (Also see CD-1, BIO-2, BIO-3, BIO-4, BIO-5, OS-1, and OS-2.)
- AIR-4.k** *Encourage the Planting of Trees.* Adopt urban forestry practices that encourage reforestation as a means of storing carbon dioxide. (Also see BIO-1, DES-3.)
- AIR-4.l** *Preserve Agricultural Lands.* Protect agricultural lands and soils that serve as carbon sinks. (Also see AG-1.)
- AIR-4.m** *Focus Development in Urban Corridors.* Build in urban corridors and limit development in natural resource areas. Encourage green spaces that serve as carbon sinks in urban corridors. (Also see CD-1, CD-2, and DES-3.)
- AIR-4.n** *Monitor for Carbon Storage Research.* Monitor federal and international research on technological approaches to carbon storage.
- AIR-4.o** *Implement Proposed State Programs to Reduce Greenhouse Gas Emissions.* Implement proposed State programs to reduce greenhouse gas emissions, including the Renewable Portfolio Standards, California Fuel Efficiency (CAFE) standards, and carbon cap and trade programs.

What Are the Desired Outcomes?

GOAL AIR-5

Adaptation to Climate Change. Adopt policies and programs that promote resilient human and natural systems in order to ease the impacts of climate change.

Policies

- AIR-5.1** **Determine Marin-Specific Climate Change.** Participate in research that examines the effects of climate change on human and natural systems in Marin.





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AIR-5.2 Prepare Response Strategies for Impacts. Prepare appropriate response strategies that aid systems in adapting to climate change based on sound scientific understanding of the potential impacts.

Why is this important?

Adapting to climate change will require accurate scientific understanding as well as an institutionalized policy framework.

Environment. Wildlife distributions, population size, population density, and behavior are directly affected by changes in climate and indirectly through changes in vegetation. As wildlife tries to adapt to changes in the environment caused by shifting temperature and precipitation patterns, the already high number of threatened and endangered species could see a marked increase. New analyses suggest that 15% to 37% of a sample of 1,103 land plants and animals would eventually become extinct as a result of climate changes expected by 2050.



“My interest is in the future, because I am going to spend the rest of my life there.”

– Charles Kettering

Economy. Aquaculture products brought \$2.4 million into Marin’s economy, representing 5.4% of Marin’s entire agriculture industry. Warmer ocean waters and saltwater inundation due to climate change may impact coastal ecosystems by speeding the decline in fish populations and marine ecosystems already stressed from habitat loss and reduced freshwater flows. A report sponsored by the United Nations stated that worldwide economic losses could soar to \$150 billion a year within the next 10 years.

Equity. Adopting and fostering resilience within the natural and built environments will save significant resources, speed recovery, and protect public health and safety for people of all income levels.

How will results be achieved?

Implementing Programs

AIR-5.a *Coordinate with Local and Regional Agencies.* Coordinate with the U.S. Geological Survey, Bay Conservation and Development Commission, California Coastal Commission and other monitoring agencies to study near-term and long-term high-probability climate change effects. Explore funding and collaborations with Bay Area partners in the Cities for Climate Protection Campaign in order to share resources, achieve economies of scale, and develop plans and programs that are optimized to address climate change on a regional scale.

AIR-5.b *Study the Effect of Climate Change.* Determine how climate change will affect the following:



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Natural Systems: Changes in water availability, shifting fog regimes (and the effect on coastal redwoods and fire ecology), temperature changes, and shifting seasons.

Biological Resources: Changes in species distribution and abundance in estuary ecosystems resulting from salinity changes and flooding. For marine ecosystems, determine changes in distribution and abundance resulting from warmer waters, rising sea level, and changes in ocean currents and freshwater inflows.

Environmental Hazards: Runoff, fire hazards, floods, landslides and soil erosion, and the impact on coastal and urban infrastructure.

Built Environment: Effect of flooding and rising sea level on sewage systems, property, and infrastructure.

Water Resources: Runoff, changes in precipitation, increases and decreases in drought, salinity changes, sea level rise, and shifting seasons.

Agricultural and Food Systems: Food supply, economic impacts, and effect on grazing lands.

Public Health: Temperature-related health effects, air quality impacts, extreme weather events, and vector-, rodent-, water-, and food-borne diseases.

AIR-5.c

Prepare Response Strategies. In coordination with the California Coastal Commission, the Bay Conservation and Development Commission, water districts, wildlife agencies, and flood control districts, prepare response strategies for Marin's human and natural systems. Current response strategies include the following:

Water Resources: Improve drainage systems, harvesting flows, and recharge designs in order to direct runoff to landscaped areas where the water can percolate into the soil. (See WR-1.)

Biological Resources: Limit development such that coastal wetlands are able to migrate inland in response to sea level rise, wildlife corridors and ecotones are protected, and development impacts are minimized. Promote the restoration of wetlands and riparian areas to provide capacity for high water and flood flows. (Also see BIO-2, BIO-4, BIO-5, OS-2, DES-1, and DES-5.)

Public Health: General strengthening of public health infrastructure and health-oriented environmental management, such as with air and water quality, and community and housing design.

Built Environment: Assess development located in coastal areas that are subject to sea level rise and increased flooding, and develop a response strategy, such as a planned retreat program, for the relocation of facilities in low-lying areas. Work with the County flood control and water districts to prepare a plan for responding to a potential rise in the sea level, consider developing flood control projects, and amend County Code Chapters 11, 22, 23, and 24 to include construction standards for areas potentially subject to increased flooding from a rise in sea level.



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Environmental Hazards: Develop response strategies that cope with increasing storm events, flooding, fire, landslides, and soil erosion. Establish surveillance systems. With the development of advanced (spatial) surveillance technology, it is conceivable that such systems will be expanded to address forest health and productivity, monitoring biotic vectors and natural elements, as well as tree and storm responses. (Also see EH-3, EH-4, BIO-1, and PH-1.)



“The causes and effects of climate change occur around the world. Individuals, communities, and nations must work together cooperatively to stop global climate change.”

– The Environmental Justice and Climate Change Initiative

AIR-5.d *Monitor Local Climate Change.* Encourage appropriate local and regional agencies to track the following environmental indicators of climate change:

- ◆ Sea level (also see EH-3)
- ◆ Minimum and maximum temperature
- ◆ Precipitation
- ◆ Timing and volume of river flow
- ◆ River temperatures
- ◆ Sea surface temperatures
- ◆ Diversity and abundance of fish stocks and sea birds

AIR-5.e *Seek Resources for Response Strategies.*

Explore funding and collaborative opportunities that share resources, to develop plans and programs that are optimized on a regional scale.

AIR-5.f

Protect and Enhance Native Habitats and Biodiversity. Effectively manage and enhance native habitat, maintain viable native plant and animal populations, and provide for improved biodiversity throughout Marin. Require identification of sensitive biological resources and commitment to adequate protection and mitigation. (Also see BIO-1 and BIO-2.)



“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

– Charles Darwin

AIR-5.g *Conduct Public Outreach and Education.*

Increase public awareness about climate change, and encourage Marin residents and businesses to become involved in activities and lifestyle changes that will aid in reducing greenhouse gas emissions.

AIR-5.h *Implement Floodplain Ordinances.* Continue to implement ordinances that regulate floodplain development to ensure that project-related and cumulative flooding impacts are minimized or avoided through conditions of project approval as required by the ordinances.

AIR-5.i

Modify Construction Standards. Amend the Marin County Code to include construction standards for areas threatened by future sea level rise.



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Figure 2-15 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
AIR-1 Improved Regional Air Quality	•		•	•	•							•
AIR-2 Protection from Emissions	•		•	•	•							•
AIR-3 Reduction of Vehicle-Generated Pollutants	•		•	•	•		•					•
AIR-4 Minimization of Contributions to Greenhouse Gases	•	•	•	•		•	•		•			•
AIR-5 Adaptation to Climate Change					•	•				•		•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Number of days of poor air quality.	No exceedences in 2000.	No increase through 2015.
Amount of greenhouse gas emissions countywide.	2,849,000 tons CO ₂ in 1990.	Reduce 15% by 2015.
Amount of greenhouse gas emissions from County government sources.	15,200 tons CO ₂ in 1990.	Reduce 15% – 20% by 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 2-16
Atmosphere and Climate Program Implementation**

Programs	Responsibility	Potential Funding	Priority	Time Frame
AIR-1.a - Inform Local and Regional Agencies.	CDA	Existing budget	High	Ongoing
AIR-1.b - Evaluate Air Quality Impacts of Proposed Projects and Plans.	CDA	Existing budget	High	Ongoing
AIR-1.c - Take Part in Regional Programs.	CDA	Existing budget	High	Ongoing
AIR-1.d - Cooperate to Enforce Air Quality Standards.	CDA, EPA, CA Air Resources Board, BAAQMD	Existing budget, State and federal funds	High	Ongoing
AIR-1.e - Conduct Public Education Program	CDA, BAAQMD	Existing budget and may require additional grants or revenue ²	High	Ongoing
AIR-1.f - Limit Residential Wood Burning.	CDA	Existing budget, Tobacco Settlement Funds	Medium	Ongoing
AIR-1.g - Require Control Measures for Construction and Agricultural Activity.	CDA, Agricultural Commissioner	Existing budget	High	Ongoing
AIR-2.a - Require Separation Between Air Pollution Sources and Other Land Uses.	CDA, BAAQMD	Existing budget	High	Ongoing
AIR-2.b - Protect Sensitive Receptors Near High-Volume Roadways.	CDA	Existing budget	Medium	Long term
AIR-2.c - Health Risk Analysis for Sensitive Receptors.	CDA	Existing budget	Medium	Short term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-10 years); Long term (10-20 years); and Ongoing.

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.



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AIR-3.a - Support Voluntary Employer-Based Trip Reduction.	DPW, Transportation Authority of Marin (TAM), CDA	Existing Budget, will require additional grants or other revenue ²	Medium	Med. Term
AIR-3.b - Utilize Clean Vehicle Technology.	1. CDA/CalTrans-carpool lanes, 2. DPW- County fleet	1. Existing budget, 2. Will require additional grants or other revenue ²	1. Medium, 2. Medium	1. Ongoing, 2. Long term
AIR-3.c - Consider Model Clean Vehicle Requirements.	DPW	Will require additional grants or other revenue ²	Medium	Long term
AIR-3.d - Reduce Peak-Hour Congestion.	TAM	TFCA	Medium	Ongoing
AIR-3.e - Improve Arterial Traffic Management.	DPW, TAM	Grants, traffic mitigation fees, transportation sales tax ²	Medium	Ongoing
AIR-4.a - Reduce Greenhouse Gas Emissions Resulting from Energy Use in Buildings.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. Term
AIR-4.b - Reduce Greenhouse Gas Emissions Resulting from Transportation.	1. TAM, CDA, 2. DPW	General Fund, TAM budget, TLC/HIP Grants, and will require additional grants or other revenue ²	1. Medium, 2. Medium	1. Ongoing, 2. Long term
AIR-4.c - Reduce Methane Emissions Released from Waste Disposal.	DPW	Will require additional grants or other revenue ²	Medium	Long term
AIR-4.d - Reduce Greenhouse Gas Emissions from Agriculture.	Agricultural Commissioner, CDA, USDA, USDOE	Grants, existing budget	Medium	Ongoing
AIR-4.e - Reduce County Government Contributions to Greenhouse Gas Emissions.	DPW	Will require additional grants or other revenue ²	High	Pending
AIR-4.f - Establish a Climate Change Planning Process.	CDA	Existing budget and may require additional grants or revenue ²	High	Immediate
AIR-4.g - Work with Bay Area Governments to Address Regional Climate Change Concerns.	CDA, ABAG, International Council for Local Environmental Initiatives (ICLEI)	Existing budget and may require additional grants or revenue ²	High	Ongoing
AIR-4.h - Evaluate the Carbon Emissions Impacts of Proposed Developments.	CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AIR-4.i - Work with Appropriate Agencies to Determine Carbon Uptake and Storage Potential of Natural Systems.	CDA, California Energy Commission (CEC), BAAQMD, other municipalities	Will require additional grants or revenue ²	Low	Long term
AIR-4.j - Acquire and Restore Natural Resource Systems.	MCOSD	Will require additional grants or revenue ²	High	Ongoing
AIR-4.k - Encourage the Planting of Trees.	CDA, NGO's, CBO's	Will require additional grants or revenue ²	Medium	Ongoing
AIR-4.l - Preserve Agricultural Lands.	CDA, MALT, CBO's	Will require additional grants or revenue ²	High	Ongoing
AIR-4.m - Focus Development in Urban Corridors.	CDA	Existing budget	High	Ongoing
AIR-4.n - Monitor for Carbon Storage Research.	CDA, ICLEI	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
AIR-4.o - Implement Proposed State Programs to Reduce Greenhouse Gas Emissions.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
AIR-5.a - Coordinate with Local and Regional Agencies.	CDA, Bay Conservation and Development Commission (BCDC), CCC, BAAQMD, USGS, ICLEI	Existing budget and may require additional grants or revenue ²	High	Ongoing
AIR-5.b - Study the Effect of Climate Change.	CDA, BCDC, CCC, BAAQMD, USGS, ICLEI	Will require additional grants or revenue ²	Medium	Ongoing
AIR-5.c - Prepare Response Strategies.	CDA, CCC, BCDC, Water Districts, Resource Protection Agencies, ICLEI	Existing budget, will require additional grants or revenue ²	High	Ongoing
AIR-5.d - Monitor Local Climate Change.	CDA, CCC, BCDC, Water Districts, Resource Protection Agencies, ICLEI	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
AIR-5.e - Seek Resources for Response Strategies.	CDA, CCC, BCDC, Water Districts, Resource Protection Agencies, ICLEI	Existing budget and may require additional grants or revenue ²	Medium	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AIR-5.f - Protect and Enhance Native Habitats and Biodiversity.	Parks & Open Space, CDA, CBO's	Existing budget and may require additional grants or revenue ²	High	Ongoing
AIR-5.g - Conduct Public Outreach and Education.	CDA, CBO's, ICLEI	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
AIR-5.h - Implement Floodplain Ordinances.	CDA/DPW	Existing budget	High	Ongoing
AIR-5.i - Modify Construction Standards.	CDA/DPW	Existing budget and may require additional grants or revenue ²	Medium	Long term



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Marin County Dept. of Parks and Open Space

2.8 Open Space

Background

Residents of Marin County enjoy a wealth of public open space unparalleled in the nine-county Bay Area. Land preservation has a long history in Marin. Some existing parklands — Muir Woods, Mount Tamalpais, and Samuel P. Taylor — were established in the early 20th century. Point Reyes National Seashore was established in 1962. In 1971, the Marin County Planning Department published a seminal land use planning document, *Can the Last Place Last?*, which set



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forth a vision for a countywide open space system. Since then, federal, State, and local agencies, in partnership with nongovernmental organizations and Marin’s residents, have met with considerable success in achieving that vision by acquiring or otherwise protecting the hills, ridgelines, wetlands, watershed lands, agricultural lands, and other undeveloped lands that generally define the term *open space* in Marin.

Marin voters created the Marin County Open Space District in 1972 as the local agency responsible for creating the County’s own system of public open space. The district’s mission is “to enhance quality of life in Marin through the acquisition, protection and responsible stewardship of ridgelines, baylands, and environmentally sensitive lands targeted for preservation in the Countywide Plan.”

District land preservation activities have focused primarily on the City-Centered Corridor, specifically on upland greenbelts and community separators (see Map 2-17, Open Space and Parks).

A handful of other public agencies and nongovernmental organizations, most notably the Golden Gate National Recreation Area, Point Reyes National Seashore, California State Parks, Marin Municipal Water District, North Marin Water District, and Marin Agricultural Land Trust (MALT), also protect land in Marin, but according to their own missions and for their own purposes (see Figure 2-17). All (with the exception of MALT) share a responsibility for managing extensive lands, amounting to thousands of acres each, that are more or less in a natural condition and open to the public. Together, these lands are a highly visible, defining element of the County’s landscape mosaic, offering multiple benefits – beauty, educational opportunities, watershed protection, habitat protection, trail-based recreation, and others – to the Marin County community.

The goals, policies, and programs in this section are intended to complement and support the missions and policies of the Open Space District and the other public agencies listed above. Coordination between the Countywide Plan’s open space goals and policies and the Open Space District’s goals and policies is essential because

- ◆ the Open Space District’s mission is tied to the Countywide Plan, and
- ◆ the Open Space District helps the County “preserve Marin’s unique environmental heritage,” a key element of the County’s mission.

The Open Space District recently completed a Policy Review Initiative – a review of its land management policies in the following areas:

- ◆ Fire
- ◆ Trails
- ◆ Non-Native Plants and Animals
- ◆ Special-Status Species
- ◆ Parking
- ◆ Visitor Facilities
- ◆ Access for the Disabled
- ◆ Countywide Trail System
- ◆ Public Outreach
- ◆ Camping



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The Open Space District's own policies further define the more general open space policies contained in the Countywide Plan.

Figure 2-17 Mission Statements of Key Public Land Managers and Land Conservation Organizations in Marin

Marin County Open Space District

To enhance the quality of life in Marin through the acquisition, protection, and responsible stewardship of ridgeland, baylands, and environmentally sensitive lands targeted for preservation in the Marin Countywide Plan.

Marin Municipal Water District

It is the purpose of the Marin Municipal Water District to manage sensitively the natural resources with which it is entrusted, to provide customers with reliable, high-quality water at an equitable price, and to ensure the fiscal and environmental vitality of the district for future generations.

North Marin Water District

We provide an adequate supply of safe, reliable, and high-quality water and deliver reliable and continuous sewer service to our customers at reasonable cost consistent with good conservation practices and minimum environmental impact.

Golden Gate National Recreation Area

Golden Gate National Recreation Area's mission is to preserve and enhance the natural environment and cultural resources of the coastal lands north and south of the Golden Gate for the inspiration, education, and recreation of people today, and for future generations. In the spirit of bringing national parks to the people, we reach out to the diverse urban community, bringing the richness and breadth of the national park experience to all including those who may never have the opportunity to visit other national parks. We also work to protect the integrity of our park's fragile resources in the challenging context of an urban setting. And, we are committed to forging partnerships with the community to strengthen the park's relevance to our metropolitan neighbors and to engage the public in stewardship of the park's history and ecology.

Point Reyes National Seashore

Point Reyes National Seashore was established to preserve and protect wilderness, natural ecosystems, and cultural resources along the diminishing undeveloped coastline of the western United States.

Marin Agricultural Land Trust

Marin Agricultural Land Trust (MALT) was the first land trust in the United States to focus on farmland preservation. Founded in 1980 by a coalition of ranchers and environmentalists to preserve farmland in Marin County, California, MALT acquires agricultural conservation easements on farmland in voluntary transactions with landowners. MALT also encourages public policies that support and enhance agriculture. It is a model for agricultural land preservation efforts across the nation. MALT has so far permanently protected 35,000 acres of land on 53 family farms and ranches.

California State Parks

To provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.



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Key Trends and Issues

Are Marin's public land management agencies still acquiring land? Do these agencies still have sufficient funds to purchase land?

The **Open Space District** currently owns and manages over 15,500 acres of land (see Map 2-17, Open Space and Parks). The Open Space District acquired more land in 1995 – 2,426 acres – than in any other year in its 32-year history. Annual acquisition totals for all succeeding years have been substantially lower. The availability of funding is among the chief factors enabling an agency to acquire land. Since its creation, the Open Space District has had to budget an increasing portion of its annual property tax revenues for land management purposes, as compared to land acquisition. The Open Space District receives slightly less than 1% of annual ad valorem property taxes collected in Marin, amounting to nearly \$4 million in fiscal year 2004–2005. In recent years, 95% to 100% of the Open Space District's annual property tax revenues have been budgeted for purposes other than land acquisition. The Open Space District continues to purchase open space by obtaining private and public grants, and by levying special taxes and assessments.

Regarding land acquisition by other agencies:

Golden Gate National Recreation Area: The Golden Gate National Recreation Area has largely met its land acquisition goals but still acquires land on occasion, most recently in Oakwood Valley and the vicinity of Tomales Bay.

Marin Municipal Water District: MMWD does not have an active land acquisition program; however, it does consider acquiring additional properties for the purpose of improving watershed protection as opportunities permit. Also, MMWD vigorously seeks Watershed Protection Agreements with private landowners within the drainage area of reservoirs. These agreements provide permanent restrictions for maintenance and development in order to safeguard water quality.

Other Jurisdictions: Marin jurisdictions, including San Anselmo, Fairfax, Mill Valley, San Rafael, and Novato, have active acquisition programs through purchase and/or development and dedication.

What are emerging land management issues?

Respondents to a survey conducted by the **Open Space District** as part of its Policy Review Initiative regarded fire, native plants and animals, and special-status species as three of the Open Space District's four most important policy areas. Trail use, while ranked the most important of the four, is not a new issue. This outcome suggests that fire danger reduction, reduction of non-native plant and animal populations, and special-status species habitat protection will figure prominently in the Open Space District's long-range land management planning. Because of Marin's vast acreage of public open space and its close proximity to developed areas of the county, addressing the issue of fire danger will require collaboration among communities, fire agencies, and public land management agencies.

Here are perspectives of other public agencies regarding emerging land management issues:

Golden Gate National Recreation Area. The GGNRA has largely met its land acquisition goals but still acquires land on occasion, most recently in Oakwood Valley and the vicinity of Tomales Bay.



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Marin Municipal Water District. Non-Native Species: A major MMWD focus is maintaining Mount Tamalpais’s unique natural diversity by controlling non-native invasive species. MMWD is seeking to control the expansion of wild turkey populations that are threatening Marin’s ecosystems. Impacts to amphibian and quail populations are of particular concern.

Roads and Trails: Erosion and siltation from roads and trails on MMWD watershed lands and other public lands is harming salmon and steelhead habitat in local streams and reducing reservoir capacity. MMWD’s Mount Tamalpais Watershed Road and Trail Plan provides direction for reducing the footprint of the roads and trails and for implementing a program of best management practices for sediment control.

Fire Hazard: Decades of fire suppression has resulted in high fuel loads on MMWD watershed lands and other nearby public lands. MMWD is revising its 10-year-old Vegetation Management Plan in order to better employ available methods (prescribed burning, mechanized brush clearing, goats, and chemical controls), to effectively reduce both fuel loads and invasive plants.

Science-Based Decision Making: MMWD is managing natural resource inventory and monitoring programs for key species at risk as well as conducting general baseline studies. This information is used to set resource management priorities and to minimize impacts from administrative and recreational use of watershed lands.

What Are the Desired Outcomes?

GOAL OS-1

Sustainably Managed Open Space. Manage open space in a sustainable manner for environmental health and the long-term protection of resources.



Policies

- OS-1.1 Enhance Open Space Stewardship.** Promote collaborative resource management among land management agencies. Monitor resource quality. Engage the public in the stewardship of open space resources.
- OS-1.2 Protect Open Space for Future Generations.** Ensure that protected lands remain protected in perpetuity, and that adequate funding is available to maintain it for the benefit of residents, visitors, wildlife, and the environment.



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Open Space

Living within the ecological limits of the planet means both reducing demand (footprint) on ecological resources and maintaining or even increasing supply (biocapacity). With 48% of its land area preserved as open space, watershed, or parkland, Marin County has already protected much of its existing biocapacity. Designating an additional 23,000 acres as open space would increase the amount of biocapacity in Marin's protected open space by 15%.

Why is this important?

Sustainable management of open space will ensure that this resource remains a public asset for future generations.

Environment: After open space has been acquired, it has to be managed for the long term so that it will continue yielding reduced runoff, cleaner air, cleaner water, beautiful landscapes, and a healthy ecosystem.

Economy: Good land management can save money for governments, homeowners, and private businesses. For example, according to the Marin County Open Space District, the cost to realign a fire protection road to restore natural drainage and direct water away from a landslide-prone slope can be as little as \$1,500 in 2005 dollars. The cost to repair a landslide affecting nearby homes caused, in part, by runoff from an improperly graded road can be \$500,000 or more, plus legal expenses.

Equity: Intelligent, sustainable open space management contributes to recreational opportunities and healthy and

safe communities, which benefit all Marin's residents. In addition, the open space lands enjoyed today are a living legacy for future generations.

How will results be achieved?

Implementing Programs

- OS-1.a ***Coordinate Countywide Open Space Management.*** Encourage public land management agencies, cities and towns, fire agencies, and others with an interest in open space management to share resource information and collaboratively address open space management issues. Examples of the latter include non-native species management and fire hazard reduction.
- OS-1.b ***Promote Compatible Open Space Policies.*** Regularly review Countywide Plan open space policies for compatibility with Open Space District policies.
- OS-1.c ***Utilize Integrated Pest Management.*** Minimize the use of pesticides and herbicides in open space management.
- OS-1.d ***Inform and Enforce.*** Utilize a variety of methods to disseminate information about what agencies are doing to protect open space and what the public can do to help. Continue efforts to inform and educate open space visitors about the importance of open space and its appropriate use. Use enforcement authority as necessary to ensure compliance with regulations.



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- OS-1.e ***Inventory Resources.*** Conduct inventories of sensitive resources and resource management issues – erosion sites or areas where populations of non-native species are expanding, for example – to determine resource management priorities.
- OS-1.f ***Encourage Environmental Education.*** Partner with schools and colleges to foster an understanding and appreciation of open space among all age levels.
- OS-1.g ***Encourage Resource Monitoring.*** Document trends in resource quality and public use to help guide long-term resource management decision making.
- OS-1.h ***Accommodate Research.*** Consider research requests to address issues such as non-native species management.
- OS-1.i ***Identify and Apply Best Management Practices.*** Review existing stewardship practices and the experiences of other land managers to identify best practices and make cost-effective, sustainable, environmentally sound land management decisions.
- OS-1.j ***Explore Tools to Fund Open Space Stewardship.*** Consider local ballot measures, possibly in partnership with other agencies when land management interests overlap, and private funding sources, including private grants, endowments, and bequests.
- OS-1.k ***Establish Partnerships.*** Establish partnerships among public land management agencies, other public agencies, cities, towns, and nongovernmental organizations to maximize funding opportunities for land stewardship.
- OS-1.l ***Engage the Public in Stewardship.*** Encourage volunteerism in resource management and enhancement activities to foster a sense of responsibility for the care of open space resources.
- OS-1.m ***Monitor Federal and State Legislation.*** Support legislation that maintains and enhances existing open space protection.
- OS-1.n ***Promote New State Legislation.*** Develop and support State legislation that will enhance open space protection in Marin County.



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What Are the Desired Outcomes?

GOAL OS-2



Preservation of Open Space for the Benefit of the Environment and Marin Residents. Close the gaps in the pattern of protected public open space and private lands where land acquisition or other methods of preservation would create or enhance community separators, wildlife corridors, watershed and baylands protection, riparian corridors, sensitive habitat, or trail connections.

Policies

OS-2.1 Support Countywide Open Space Planning. Encourage Marin’s public land management agencies to review the existing public open space system and prepare proactive, long-range plans to guide future land acquisition and preservation efforts consistent with their respective missions, and to create an interconnected system of public open space.

OS-2.2

Continue to acquire or otherwise preserve additional open space countywide. Targeted greenbelts and community separators in the Baylands and City-Centered corridors include the following:

- ◆ *Wolfback Ridge to Tennessee Valley*, west of Highway 101, around to Oakwood Valley, preserves Marin’s southern gateway. It connects the Golden Gate National Recreation Area (GGNRA) with Sausalito and Marin City. Most of this area has been acquired as part of the GGNRA.
- ◆ *Ridge above Tamalpais Valley*, along Panoramic from Tennessee Valley westward, includes trail links with Mount Tamalpais State Park. Portions are included in the GGNRA.
- ◆ *Tiburon Peninsula Ridge* includes trails to several points along the bay. The Open Space District and the Town of Tiburon have acquired portions of this ridge.
- ◆ *Northridge* is one of the most important community separators in Marin, connecting Mill Valley, Corte Madera, and Larkspur with the Marin Municipal Water District lands to the west. Most of the ridge has been acquired through the joint efforts of the Open Space District, cities and towns, and nongovernmental organizations.
- ◆ *The rim of the Corte Madera Creek Watershed* connects the Upper Ross Valley communities with the Marin Municipal Water District lands to the west. Most of the ridge has been acquired through the joint efforts of the Open Space District, cities and towns, and nongovernmental organizations.
- ◆ *Southern Heights Ridge*, dividing San Rafael and the Ross Valley.
- ◆ *San Pedro Peninsula Hills* provides a backdrop for the Civic Center and offers panoramic views of the bay region. Most of this ridge has been acquired by the State, the Open Space District, and the City of San Rafael.



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- ◆ *Terra Linda-Sleepy Hollow Divide*. Substantial portions have been acquired by the Open Space District and the City of Novato.
- ◆ *Big Rock Ridge* separates the Novato basin from the Lucas Valley-Marinwood communities, extends to Stafford Lake Park, and borders the College of Marin - Indian Valley campus. Portions have been acquired by the Open Space District, the County, the City of Novato, and the Marinwood Community Services District.
- ◆ *Hills east of Highway 101 near St. Vincent's School* provide a continuous greenbelt system between Big Rock Ridge and San Pablo Bay. This space separates Novato from San Rafael.
- ◆ *Pinheiro Ridge* functions as a ridge and upland greenbelt/community separator between the Atherton community and the lands including and surrounding Gness Field.
- ◆ *Mount Burdell* is the major landmark of North Marin. This preserve is a major component of a proposed greenbelt extending from the Rush Creek wetlands to Stafford Lake. Existing protected lands on Mount Burdell are the Open Space District's 1600-acre Mount Burdell Open Space Preserve and Olompali State Historic Park. Lands on the northern and eastern slopes of Mount Burdell to the county line serve as an agricultural and open space buffer and gateway between Marin and Sonoma counties.

OS-2.3

Balance Shoreline Protection and Access to Water Edge Lowlands. Consider tideland ecosystem health, habitat protection, and passive and active recreation in pursuing acquisition of additional marsh and other bay margin open space areas.

Targeted water edge lowlands in the Baylands and City-Centered corridors include the following:

- ◆ *Richardson Bay*. Portions of Bothin Marsh (with the exception of the Martin Brothers Triangle), most of the Tiburon shoreline, and most of the headwaters of Richardson Bay have been acquired. The following sections of shoreline should be acquired or otherwise protected: Manzanita Green (connecting Marin City with the Bay), Strawberry Cove, the Martin Brothers Triangle adjacent to Bothin Marsh, the adjacent Caltrans right-of-way, and other shoreline sections as appropriate. While these properties are recommended for acquisition, the Plan treats them in the same manner as similar property in regard to development policies — i.e., Plan policies apply to these properties as if no acquisition recommendation had been made.
- ◆ *Corte Madera Bayfront*. Existing marshes should be preserved, and portions of the San Quentin area should be considered for public access to the bay. The Corte Madera Ecological Reserve has been established in this area and provides habitat for the endangered clapper rail.
- ◆ *San Rafael Bay*. Land along the bayshore, which includes some of the highest density residential area in the county, should be permanently secured for open space. San Rafael has been actively acquiring a band of open space along the bay.



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- ◆ *San Pedro Peninsula shoreline* should be protected from McNear's Beach north to Gallinas Creek. Major portions have been acquired as part of China Camp State Park.
- ◆ *San Pablo Bayfront, Gallinas Creek to Novato Creek*, should be kept open to preserve the tidelands. Gallinas Creek provides habitat for threatened and endangered species, as well as migratory species. The creekside should be kept free of developments that would contribute to siltation and loss of navigational use in the stream channels. This area contains McInnis County Park and undeveloped, diked baylands.
- ◆ *Novato Creek to Black Point* is an important tidal marsh that contains habitat for endangered and migratory species, and a valuable flood ponding area. Large areas have been acquired.
- ◆ *Petaluma River*. Marshes, riverbank areas, and other lowlands should be preserved in cooperation with Sonoma County. The Audubon Society, the State, and the Open Space District have acquired significant wetland areas between Rush Creek and Basalt Creek.

OS-2.4

Support Open Space Efforts Along Streams. Support efforts to restore, enhance, and maintain natural vegetation and other habitat values along streams in the Baylands and City-Centered corridors. Maintain strict controls and high environmental standards in these zones. Targeted streams and creeks in the Baylands and City-Centered corridors include the following:

- ◆ *Mill Valley Area creeks.* Local jurisdictions should provide adjacent parks and regulate development to protect streamside vegetation along Arroyo Corte Madera del Presidio, Old Mill, Cascade, Homestead, and Coyote creeks.
- ◆ *Corte Madera Creek.* Although much of this creek has already been lined with concrete, a landscaped bicycle path now extends from the Larkspur Ferry Terminal through the lower Ross Valley. The California clapper rail inhabits marshes along this creek.
- ◆ *Miller Creek* from Highway 101 to Big Rock should provide a continuous natural strip through Marinwood and Lucas Valley to the bay. The Marinwood Community Services District, the Open Space District, and the City of San Rafael have acquired a substantial portion of the land targeted for acquisition along Miller Creek.
- ◆ *Novato and Warner creeks*, among the few remaining natural streams in east Marin, should be protected as far to the west as possible.

OS-2.5

Support Open Space Efforts in the Inland Rural Corridor. Targeted lands in the Inland Rural Corridor include the following:

- ◆ *Marin Municipal Water District lands.* This area includes lands around Kent Lake and the Carson Creek drainage.
- ◆ An area north of Samuel P. Taylor State Park including Devil's Gulch has been acquired by the federal government as part of a continuous park strip from the Golden Gate.



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- ◆ *The Nicasio Reservoir* area.
- ◆ *The Stafford Lake vicinity*. Includes the lake owned by the North Marin Water District and the adjacent Stafford Lake County Park.
- ◆ *Ridgeland defining the San Geronimo Valley*. Includes Pine Mountain Ridge westward from White Hill, and the lands between Loma Alta and Samuel P. Taylor State Park. The Open Space District has acquired substantial acreage here in the past decade.

OS-2.6 Support Open Space Efforts in the Coastal Corridor. Work with State and federal agencies to preserve targeted sensitive coastal lands, including the following:

- ◆ *Golden Gate National Recreation Area*. The National Park Service oversees this continuous corridor of public land along Marin's southern coast and adjacent to Point Reyes National Seashore. It should be retained in its natural state to the greatest extent possible.
- ◆ *Point Reyes National Seashore and Tomales Bay State Park*. The National Seashore should be retained in its natural condition, with ecologically fragile areas remaining relatively inaccessible.
- ◆ *Bolinas Lagoon*. The Marin County Open Space District, which oversees this former County park, has teamed with the U.S. Army Corps of Engineers to develop an adaptive management program to protect the lagoon's fragile subtidal and intertidal habitat resources.
- ◆ *Mount Tamalpais State Park and Stinson Beach Federal Park*.

Why is this important?

A planned, coordinated approach to acquiring open space will ensure that the most important areas are preserved.

Environment: Connecting isolated parcels of open space creates wildlife corridors for animals and expanded contiguous habitat for plants. This supports healthier ecosystems because organisms can have access to a bigger genetic pool for cross-breeding. Connected open space parcels also give animals the ability to access a broader landmass for food, water, and nesting.

Economy: Open space preservation is often the most affordable way to safeguard drinking water, clean the air, and achieve other environmental goals. Public open space also improves property values and contributes to a community's sense of identity and pride. For example, a three-mile greenbelt around Lake Merritt in Oakland, near the city center, was found to add \$41 million to surrounding property values. (Source: Steve Lerner and William Poole, *The Economic Benefits of Parks and Open Space*, the Trust for Public Land, 1999.)

Equity: Maintaining and expanding open space countywide preserves Marin's unique environmental heritage and supports healthy communities. Marin's residents recognize the benefits of public open space as demonstrated in a recent survey that indicated strong support for more open space acquisition in Marin. (Source: Moore Iacofano Goltsman, Inc., *Policy Review Initiative Survey Report*, Marin County Open Space District, January 2004.)



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How will results be achieved?

Implementing Programs

OS-2.a *Encourage Land Management Agencies, Cities, and Towns to Assess Their Land Protection Goals in the Baylands, City-Centered, Inland Rural, and Coastal Corridors.*
Assess whether additional land acquisition is necessary to fulfill an agency's mission. Determine short-, medium-, and long-term priorities and the most suitable method of protection.

OS-2.b *Coordinate Open Space Planning.* Identify shared interests and priorities among Marin's land management agencies, cities, towns, and nongovernmental organizations. Explore opportunities for collaborative open space acquisition or protection. Determine the purpose for linking public open space – wildlife corridors, trails, etc. – and the most suitable land preservation tools – purchase, trail easement, conservation easement, etc. – for accomplishing linkages.

OS-2.c *Acquire and Protect Lands Pursuant to the Open Space District's Mission Statement.*
Acquire and protect lands according to the Open Space District's mission statement. Lands should principally, but not solely, be within in the City-Centered Corridor. Within this corridor, and consistent with its mission, strive to acquire or otherwise protect the following:

- ◆ *Ridgeland*s that contribute to the completion of greenbelts and community separators surrounding the cities and towns in eastern Marin.
- ◆ *Baylands*, including tidal areas, water edges, mudflats, salt marshes, and submerged lands.
- ◆ *Environmentally Sensitive Lands*, including wildlife corridors, endangered species, habitats, riparian corridors, coastal estuaries, and seasonal wetlands.

Although most of the district's acreage is in the City-Centered Corridor, it owns and manages substantial acreage in the Inland Rural Corridor, in the vicinity of the San Geronimo Valley. In the Coastal Corridor, the district owns and manages Bolinas Lagoon.

The Open Space District also acquires land and easements that contribute to the completion of the countywide public trail system. (See Trails Section.) The Open Space District criteria to determine whether to acquire land include, but are not limited to, the following:

- ◆ Does the property adjoin existing district land? If not, is its acreage sufficiently large to avoid high per acre management costs typically associated with small parcels?
- ◆ Does the property connect district land with other public open space?
- ◆ Is there community support for the acquisition?



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- ◆ What are the geologic risks?
- ◆ What is the scope of fuel management required to reduce the risk of wildfire?
- ◆ Are there encroachments? Can clear title be obtained?

OS-2.d ***Establish Partnerships to Fund Open Space Protection.*** Establish partnerships among land management agencies, cities, towns, and nongovernmental organizations to maximize open space funding opportunities.

OS-2.e ***Fund Open Space.*** Utilize multiple open space funding sources, including

- ◆ grants from public agencies and private organizations;
- ◆ agency or organization revenues;
- ◆ bond financing through the creation of assessment districts or community facilities districts; and
- ◆ endowments, bequests, and other philanthropy.

OS-2.f ***Employ Tools to Preserve Open Space.*** Utilize a variety of methods to maximize the success of open space protection efforts, including

- ◆ fee acquisition, such as fair market purchase, development dedication, bargain or tax sale, donation, life estate, eminent domain, and lease-back arrangements;
- ◆ easement acquisition, including conservation, open space, agricultural conservation, and scenic easements;
- ◆ county land use regulations;
- ◆ Transfer of Development Rights (TDR) program;
- ◆ Williamson Act and Farmland Security Zone contracts; and
- ◆ gifts and life estates.

OS-2.g ***Apply County Zoning.*** Enforce County zoning provisions, and amend the Development Code as necessary to provide effective protection to open space areas.

OS-2.h ***Require Clustered Development.*** Require clustering to provide effective protection to open space and environmental resources.



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Figure 2-18 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
OS-1 Sustainably Managed Open Space	•	•		•	•							•
OS-2 Preservation of Open Space for the Benefit of the Environment and Marin Residents	•	•		•	•							•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Percent of land preserved.	48% (159,744 acres) in protected open space, watershed or park land in 2000.	Increase land preserved by 5% (16,640 additional acres) by 2010 and 7% (23,296 additional acres) by 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 2-19
Open Space Program Implementation**

Programs	Responsibility	Potential Funding	Priority	Time Frame
OS-1.a - Coordinate Countywide Open Space Management.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget and may require additional grants or revenue ²	High	Ongoing
OS-1.b - Promote Compatible Open Space Policies.	MCOSD, CDA	Existing budget	Medium	Long term
OS-1.c - Utilize Integrated Pest Management.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget	High	Ongoing
OS-1.d - Inform and Enforce.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget	Medium	Ongoing
OS-1.e - Inventory Resources.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
OS-1.f - Encourage Environmental Education.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
OS-1.g - Encourage Resource Monitoring.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Programs	Responsibility	Potential Funding	Priority	Time Frame
OS-1.h - Accommodate Research.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget	Low	Ongoing
OS-1.i - Identify and Apply Best Management Practices.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget and may require additional grants or revenue ²	High	Ongoing
OS-1.j - Explore Tools to Fund Open Space Stewardship.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget, grants, private donations, ballot measures ²	High	Ongoing
OS-1.k - Establish Partnerships.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget and may require additional grants or revenue ²	High	Ongoing
OS-1.l - Engage the Public in Stewardship.	MCOSD, GGNRA, CDA, PRNS, MMWD, State Parks, NMWD, Cities, Towns	Existing budget	Medium	Ongoing
OS-1.m - Monitor Federal and State Legislation.	MCOSD	Existing budget	Medium	Ongoing
OS-1.n - Promote New State Legislation.	MCOSD	Existing budget	Medium	Ongoing
OS-2.a - Encourage Land Management Agencies, Cities, and Towns to Assess Their Land Protection Goals in the Baylands, City-Centered, Inland Rural, and Coastal Corridors.	MCOSD, Cities, Towns, Land Management Agencies	Existing budget and may require additional grants or revenue	Medium	Ongoing
OS-2.b - Coordinate Open Space Planning.	MCOSD	Existing budget	Medium	Ongoing
OS-2.c - Acquire and Protect Lands Pursuant to the Open Space District's Mission Statement.	MCOSD	Grants, private donations, ballot measures ²	High	Ongoing
OS-2.d - Establish Partnerships to Fund Open Space Protection.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
OS-2.e - Fund Open Space.	MCOSD	Existing budget, public and private grants, donations, other public revenue sources	High	Short term & Ongoing
OS-2.f - Employ Tools to Preserve Open Space.	MCOSD, CDA, NGO's	Existing budget	High	Ongoing
OS-2.g - Apply County Zoning.	CDA	Existing budget	High	Ongoing
OS-2.h - Require Clustered Development.	CDA	Existing budget	High	Ongoing



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Marin County Dept. of Parks and Open Space

2.9 Trails

Background

Trails enhance the quality of life in Marin and the health of the public by offering opportunities to enjoy the wealth of parks and open space in Marin County.

Trails originated in Marin as links between Native American communities. The transportation needs of missions, logging enterprises, and ranches resulted in an expansion of this original trail system in the 19th and early-20th centuries. Some of these old trails and roads have become part of Marin's road system, while others have disappeared through disuse. Still others survive to this day on public parks and open space lands, ranches, and elsewhere. The current public trail



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network was created over decades, segment by segment, mile by mile, as public agencies acquired land and made it accessible to the public. Some of these agencies have acquired public trail easements through private lands, expanding the public trail network beyond the boundaries of public lands and creating trail connections between public lands and Marin’s communities (see Figure 2-20). Expanding the public trail network still further, some of Marin’s public trails are – or could be – part of regional or statewide trail systems such as the State Coastal Trail, the Bay Area Ridge Trail, and the San Francisco Bay Trail (see Map 2-18, Coastal, Ridge and Bay Trails, and Maps 2-19a through j, Marin Countywide Trails Plan).

Figure 2-20
Miles of Trails in Marin County by Managing Agency

Agency	Total Miles
Marin County Open Space District	190 (100 miles are unpaved fire protection roads)
Marin Municipal Water District	149 (91 miles are unpaved fire protection roads)
Golden Gate National Recreation Area and Point Reyes National Seashore	212
California State Parks	88
North Marin Water District	2
Total	641

Source: 2004 Marin County Community Development Agency.

The Countywide Plan first included a Trails Element in 1984, following a study of existing and proposed trails in the county. All 11 Marin cities and towns contributed funds to the study, and most adopted their respective portions of the final plan.

This section of the Countywide Plan contains policies and programs intended to ensure that trails are acquired, built, and managed effectively, and that they provide appropriate access for all segments of the population in coordination with the Marin County Department of Parks and Open Space. In this section of the plan, “trails” are defined as unpaved public access routes, ranging from narrow paths to fire protection roads. These trails are not intended for public motorized vehicle use. The Transportation Section of the Built Environment Element discusses paved bike paths. A *Trails Technical Background Report* (see Introduction, “Marin Countywide Plan Supporting Documents”) discusses trail acquisition, development, maintenance, and liability issues, and describes types of trails and categories of trail users in detail.

The maps contained in this section are for use in planning and preserving Marin’s network of public trails – not as trail guides. Trails of local significance that do not appear in the following maps may appear in community plans.

Agencies owning and managing public trails establish their own trail policies consistent with their respective missions. These agencies include the Golden Gate National Recreation Area, Point Reyes National Seashore, California State Parks, the Marin Municipal Water District, Marin County Open



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Space District, and some of Marin's cities and towns. The goals, policies, and programs in the Trails Section are intended to complement each agency's trail policies. Policies regarding community trails are found in the respective community plan.

Key Trends and Issues

Can the trail system continue to grow?

Yes. There are many proposed trails over which the public has yet to gain access. Most of these trails run through private land. For the public trail system to expand, public agencies must acquire the land or a public trail easement for members of the public to access any trail lawfully. While many proposed trails follow existing paths or fire protection roads, agencies will have to build others. Following acquisition and/or construction, agencies must have the resources to maintain the trails and manage public use. There is a growing public interest in and need for more trails. An aging population, recreational trends, and increased travel and fuel costs foster greater interest in recreation closer to home. Also pertinent is the increased interest in trail recreation for improved physical and mental health.

Expansion of the public trail system is constrained by the funding necessary to acquire and/or construct trails, and the willingness of private landowners to sell their land or a public trail easement. In other circumstances, an agency may acquire a lease or license to permit public trail use through private land if a landowner is unwilling to sell a permanent easement. Due to the many challenges associated with acquiring public trail rights, the creation of a public trail system requires many years of effort. Trails that are redundant or have major impacts on water quality within individual watersheds should be evaluated to determine if they should be decommissioned and those alignments restored to a natural condition.

Are conflicts with neighboring property owners increasing?

Parking has become a source of concern in a few neighborhoods, especially in situations where a subdivision predates acquisition of nearby public parkland or open space. Some neighborhoods, particularly older ones located on steep or hilly terrain, have narrow and/or winding roads with limited on-street parking. When trailheads are located in these neighborhoods, residents must share their limited on-street parking with open space visitors. Poorly or illegally parked vehicles may make passage by emergency vehicles difficult.

Trespass is also a concern for some landowners. Trespass occasionally occurs when a trail user on public land or on a public right-of-way is separated from his or her destination by private land. The general public may lawfully access a trail on private land only when a public agency has acquired an easement, lease, or license allowing public use of the trail. Public agencies have yet to acquire many miles of proposed trails through private lands. Some members of the public may take for granted their longtime access to private trails when a landowner has not attempted to prevent access. When ownership of such land changes, however, conflicts may occur because patterns of long-term trail use are sometimes difficult to change. Compromised privacy, interference with agricultural operations, and liability are some of the major landowner concerns related to trespass.

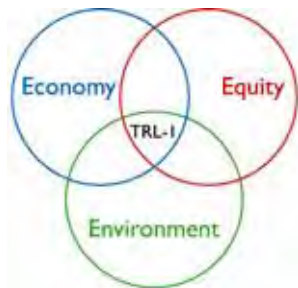


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Public agencies employ a variety of methods, including education, signage, enforcement, and coordination with local law enforcement agencies, to address trail-related parking and trespass problems.

What Are the Desired Outcomes?

GOAL TRL-1



Trail Network Preservation and Expansion. Preserve existing trail routes designated for public use on the Marin Countywide Trails Plan maps, and expand the public trail network for all user groups, where appropriate. Facilitate connections that can be used for safe routes to school and work.

Policies

TRL-1.1 Protect the Existing Countywide Trail System. Maintain the existing countywide trail system and protect the public’s right to access it.

TRL-1.2 Expand the Countywide Trail System. Acquire additional trails to complete the proposed countywide trail system, providing access to or between public lands and enhancing public trail use opportunities for all user groups, including multi-use trails, as appropriate.

TRL-1.3 Facilitate Public Dedication of Trails. Seek the voluntary dedication or sale of trail easements and/or the improvement of trails on lands traversed by trails shown on the Marin Countywide Trails Plan maps.

TRL-1.4 Coordinate Trail Planning. Promote collaboration among public land management agencies, nongovernmental organizations, and private landowners to implement the Marin Countywide Trails Plan and regional trail systems.

TRL-1.5 Preserve Paper Streets. Preserve undedicated or unaccepted (paper) streets where a paper street may provide access to trails or open space areas.

Why is this important?

Trails allow Marin residents and people from all over the world to explore Open Space District lands and state and national parks.

Environment: Trails are the means by which Marin’s residents and visitors access and enjoy substantial park and open space lands. There is a high degree of access to Marin’s 641 miles of public trails, especially in eastern Marin, where the Open Space District alone manages 175 trailheads. Consequently, many open space visitors enjoy access to open space without the need for a car. The Golden Gate National Recreation Area, Point Reyes National Seashore, Mount Tamalpais State Park, Samuel P. Taylor State Park, and the Open Space District’s Bothin Marsh, Loma Alta, and White Hill



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preserves are especially well served by public transit. This decreases tailpipe emissions that could impact the local ecosystem.

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.*** Determine public use of trails consistent with each agency's mission and policies. Explore and share information on innovative methods for safety on shared-use trails.
- 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. The proposed alignment of the Coastal Trail will be considered through the process to update the Marin County Local Coastal Program. In addition, collaborate with property owners and representatives from the agricultural community on the planning and appropriate alignment of the Coastal Trail and other new trail connections in the Coastal Zone.
- 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.



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- 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 consider granting or selling trail easements and/or improve trails on lands traversed by proposed trail connections shown on the adopted Marin Countywide Trails Plan maps.
- TRL-1.h** *Encourage Voluntary Sale or Voluntary Dedication.* Encourage project sponsors to voluntarily sell or grant trail easements and/or the improvement of trails in conjunction with development proposed on lands traversed by trail connections shown on the adopted Marin Countywide Trails Plan maps.
- TRL-1.i** *Avoid Motorized Vehicle Use in Trail Rights-of-Way.* Ensure that existing trails do not become access roads for new development. When such vehicle use is unavoidable, require that new public trails rights-of-way are provided separate from developed roads where possible.
- TRL-1.j** *Encourage Public-Private Trail Partnerships.* Encourage partnerships and cooperation between public land management agencies, trail interest groups, and property owners to increase and improve trail use opportunities and minimize conflicts.
- TRL-1.k** *Monitor New Trail Construction and Right-of-Way Acquisition.* Report annually on progress of new trail construction and acquisition of public trail rights.

What Are the Desired Outcomes?

GOAL TRL-2



Appropriate Trail Design, Location, Management, and Maintenance.

Design, build, manage, and maintain trails, as appropriate, in a manner compatible with natural resource protection. Ensure safe trails. Ensure that trails are managed and maintained in a sustainable manner.

Policies

TRL-2.1 Preserve the Environment. In locating and designing trails, protect sensitive habitat and natural resources by avoiding those areas.

- TRL-2.2** **Respect the Rights of Private Landowners.** Design and manage trails to avoid trespass and trail construction impacts on adjacent private land.
- TRL-2.3** **Ensure User Safety.** Plan and maintain trails to protect the safety of trail users.



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- TRL-2.4** **Consider Historic Use.** In trail design and designation, consider historic and cultural uses that have occurred prior to public acquisition.
- TRL-2.5** **Provide Access for Persons with Disabilities.** Design and develop trails and trail programs to enhance accessibility by persons with disabilities.
- TRL-2.6** **Provide Multiple Access Points.** Design trails with multiple access points to maximize accessibility and minimize concentrating access.
- TRL-2.7** **Ensure Sustainable Maintenance.** Continue to ensure that trails are responsibly maintained.
- TRL-2.8** **Provide Trail Information.** Strive to provide information to trail users that facilitates visitor orientation, nature interpretation, code compliance, and trail etiquette. Develop a methodology for signing trails to assist user and emergency personnel.

Why is this important?

Trails need to be well sited, built, and maintained so that the public can use them responsibly and safely.

Environment: A well-maintained trail system and well-managed public use of trails result in a low to insignificant impact on open space resources. For example, by implementing seasonal trail closures and rebuilding and realigning erosive trails, the Marin Municipal Water District and the Marin County Open Space District have reduced sediment loads and improved habitat in local streams inhabited by the endangered coho salmon and steelhead trout.

Economy: Marin County's well-developed trail network stimulates tourism by attracting hikers, bicyclists, and equestrians from throughout the Bay Area and the state. The Trust for Public Land has documented the multiple economic benefits of trail recreation in its publication *The Economic Benefits of Parks and Open Space*.

Equity: Some public agencies such as the Open Space District annually contract with the Marin Conservation Corps (MCC) for trail and other open space maintenance work. Among other benefits, the MCC provides job skill training for its employees, many of whom are from disadvantaged communities.

How will results be achieved?

Implementing Programs

- TRL-2.a** **Locate Trails to Protect Habitat.** Align or relocate trails to avoid impacting sensitive habitats such as wetlands and areas where endangered species are present. Avoid aligning trails along the boundaries of sensitive habitats.



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- TRL-2.b** *Design, Build, and Manage Trails in a Sustainable Manner.* Incorporate design measures that protect vegetation, protect habitats, and minimize erosion. Suggested measures include the following:
- ◆ Limit grading and vegetation removal.
 - ◆ Discourage people and pets from entering sensitive habitats or disturbing wildlife through education, signage, enforcement, and, as a last resort, fencing.
 - ◆ Provide vegetative buffers between trails and wetlands or other sensitive habitats.
 - ◆ Consider using existing roads or trails rather than building new ones when possible.
 - ◆ Temporarily close trails when necessary to minimize erosion or resource impacts, or to prevent threats of disease to livestock.
- TRL-2.c** *Eliminate Trail Redundancy.* Identify, abandon, and restore redundant or otherwise unnecessary trails or trail segments.
- TRL-2.d** *Protect Private Property.* Design and locate trails to avoid trespassing and adverse impacts on adjacent private lands and sensitive land uses. New (proposed) trails located in agricultural areas should be sited in the public right-of-way where feasible and should avoid running through active agricultural lands or operations. In special circumstances when no other alternatives exist but to route a trail through agricultural lands, such as for a crucial trail gap in a regionally significant route or a long-standing adopted plan, the County will pursue a collaborative effort with the land owner to site the trail in a mutually acceptable location as far as possible from sensitive agricultural operations, preferably along fence or property lines.
- TRL-2.e** *Design Safe Trails.* Design trails so that their surfaces, grades, cross gradients, sight distances, width, curve radii, vegetation clearance, and other specifications are consistent with anticipated uses.
- TRL-2.f** *Acknowledge Historic Trail Users.* When acquiring a property for public use, consider trail use that occurred prior to the public acquisition.
- TRL-2.g** *Promote Harmony Among Trail Users.* Provide educational information, and consider special programs and events to promote trail etiquette and cooperation among trail user groups. Encourage interagency collaboration on countywide standards for trail etiquette to promote harmony among trail user groups.
- TRL-2.h** *Identify Access Opportunities for Persons with Disabilities.* Review existing access opportunities for persons with disabilities. Identify and pursue new opportunities.
- TRL-2.i** *Distribute Access Information for Persons with Disabilities.* Distribute information concerning the availability of accessible trails and trail programs for persons with disabilities.



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- TRL-2.j** ***Address Trailhead Parking Issues.*** Work with neighborhood groups, cities, and towns to encourage carpooling, explore parking alternatives, and enforce parking restrictions at trailheads.
- TRL-2.k** ***Ensure Trail Maintenance.*** Encourage public agencies to develop trail maintenance plans and enter into cooperative trail maintenance agreements. Encourage volunteer trail stewardship programs.
- TRL-2.l** ***Ensure Trail Maintenance Funding.*** Strive to identify and secure consistent sources of funding for trail maintenance. Develop a program for funding that explores trail adoption, trail maintenance annuities, jurisdictional cooperation, and other sustainable methodology.
- TRL-2.m** ***Maintain Trails in a Sustainable Manner.*** Consider and implement as appropriate:
- ◆ Using natural materials
 - ◆ Using longer-lasting materials
 - ◆ Using recycled materials
 - ◆ Reducing or avoiding use of chemicals
 - ◆ Scheduling maintenance activities to avoid disturbing the nesting and breeding seasons of sensitive species
 - ◆ Exploring alternatives to fossil fuels for maintenance vehicles and equipment
 - ◆ Rebuilding and/or realigning trails with chronic maintenance problems
 - ◆ Seasonal trail closures
 - ◆ Removal of invasive exotic plants
- TRL-2.n** ***Promote Interagency Cooperation.*** Encourage information sharing and cooperation among public agencies concerning sustainable trail maintenance.
- TRL-2.o** ***Distribute Trail Maps and Information.*** Provide clear signs and maps. Provide code, natural resource, and directional information about the trail network in multiple formats and languages. In communication with users, promote trail systems for exercise, family activity, and, where applicable, everyday movement from place to place.
- TRL-2.p** ***Improve Code Compliance.*** Encourage trail managers to enforce codes, secure consistent funding for code enforcement, monitor the type and frequency of violations, and offer educational materials and programs to reduce code violations. Expand or create volunteer opportunities to monitor trail use.



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Figure 2-21 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
TRL-1 Trail Network Preservation and Expansion.	•				•							•
TRL-2 Appropriate Trail Design, Location, Management, and Maintenance.					•							•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Miles of trails in Marin County.	641 miles in 2004.	Maintain or increase the number of miles of trails.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 2-22
Trails Program Implementation**

Programs	Responsibility	Funding	Priority	Time Frame
TRL-1.a - Maintain Marin Countywide Plan Trails Maps.	CDA, MCOSED	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
TRL-1.b - Designate Trail Use Consistent with Agency Missions.	MCOSED, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Short term
TRL-1.c - Obtain Lawful Public Access Across Private Lands.	MCOSED, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	Medium	Ongoing
TRL-1.d - Establish Regional Trail Connections.	MCOSED	Existing budget	Medium	Ongoing
TRL-1.e - Explore Funding for Trail Acquisition.	MCOSED, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Grants, private donations, existing budget	High	Short term
TRL-1.f - Prioritize Trails for Acquisition.	MCOSED, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	Medium	Med. Term
TRL-1.g - Evaluate Proposed Development for Trail Impacts.	CDA, MCOSED	Existing budget	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Programs	Responsibility	Funding	Priority	Time Frame
TRL-1.h - Encourage Voluntary Sale or Dedication.	MCOSD, NGO's	Existing budget	High	Ongoing
TRL-1.i - Avoid Motorized Vehicle Use in Trail Rights-of-Way.	CDA, MCOSD	Existing budget	Medium	Ongoing
TRL-1.j - Encourage Public-Private Trail Partnerships.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-1.k - Monitor New Trail Construction and Right-of-Way Acquisition.	MCOSD	Existing budget	High	Short term
TRL-2.a - Locate Trails to Protect Habitat.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.b - Design, Build, and Manage Trails in a Sustainable Manner.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.c - Eliminate Trail Redundancy.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	Medium	Ongoing
TRL-2.d - Protect Private Property.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.e - Design Safe Trails.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.f - Acknowledge Historic Trail Users.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	Medium	Ongoing



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Programs	Responsibility	Funding	Priority	Time Frame
TRL-2.g - Promote Harmony Among Trail Users.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.h - Identify Access Opportunities for Persons with Disabilities.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.i - Distribute Access Information for Persons with Disabilities.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.j - Address Trailhead Parking Issues.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.k - Ensure Trail Maintenance.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget, Endowments	High	Ongoing
TRL-2.l - Ensure Trail Maintenance Funding.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget, Find new sources	High	Ongoing
TRL-2.m - Maintain Trails in a Sustainable Manner.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.n - Promote Interagency Cooperation.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget	High	Ongoing
TRL-2.o - Distribute Trail Maps and Information.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget and may require additional grants or revenue ²	High	Ongoing



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Programs	Responsibility	Funding	Priority	Time Frame
TRL-2.p - Improve Code Compliance.	MCOSD, GGNRA, PRNS, MMWD, NMWD, State Parks, Cities, Towns, NGO's	Existing budget and may require additional grants or revenue ²	High	Med. Term



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UC Cooperative Extension

2.10 Agriculture and Food

Background

Marin's farms and ranches have been a part of its diverse landscape since European settlers arrived here in the mid-1800s. Since that time, many generations of agricultural families have managed natural processes to provide food, forage, fiber, and other products vital to human survival. Livestock and dairy products have been the foundation of the agricultural economy here, but diversified farms also continue to produce different kinds of vegetable, fruit, and forage crops. Dairies continue to generate the majority of agricultural revenue (see Figure 2-23). Dairies and livestock ranches cover most of the county's agricultural land, while smaller areas of row crops occupy better soils, often in



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valley bottoms. Local animal products include milk, beef, sheep, poultry, and eggs, with oysters, mussels, and clams being produced by the aquaculture industry. Local farms also produce fruits, vegetables, wine grapes, flowers, nursery crops, wool, hay, honey, and herbs. Specialty products such as organic vegetables, grass-fed meats, olive oil, and farmstead cheese now supplement traditional farm income.

Agricultural ecosystems, or “agroecosystems” integrate elements of natural systems and managed agricultural practices into working landscapes that balance environmental soundness with social equity and economic viability. Inherent in this definition is the idea that sustainability must be extended not only globally but indefinitely in time, and to all living organisms, including humans. Agroecosystems are controlled by management of ecological processes. Their position in the continuum between natural and cultivated ecosystems depends on the kind of crops produced and management systems employed by individual farmers and ranchers.



“The question we must deal with is not whether the domestic and the wild are separate; it is how, in the human economy, their indissoluble and necessary connection can be properly maintained.”

- Wendell Berry

Agroecosystems can be intensively managed, as in the case of some row crop farms, or can simply involve the harvest of naturally produced biomass, as with low-input range livestock operations. Agroecology often incorporates ideas about a more environmentally and socially sensitive approach to agriculture, one that focuses not only on production, but also on the ecological sustainability of the productive system. This definition incorporates a number of societal and production issues that go well beyond the typical historic limits of agriculture.

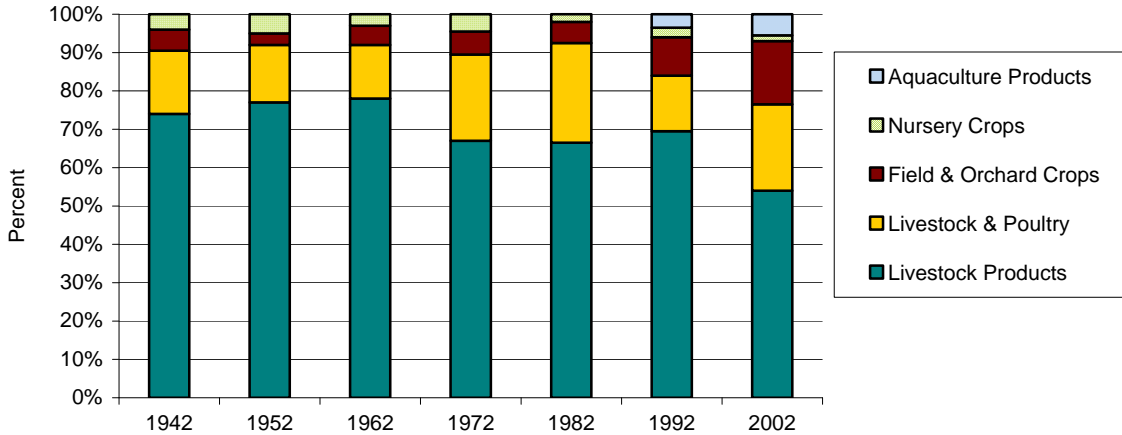
In other cases, agricultural practices can be used to enhance native species diversity by emulating or replacing essential disturbance regimes that have been lost through human suppression of natural processes.

Marin is a leader in organic agriculture, and local producers and support agencies are mounting a concerted effort to certify organic production. The Marin County Agricultural Commissioner’s office established the first local government organic certification agency in the United States. Since 2000, Marin Organic Certified Agriculture (MOCA) has certified 30 local producers and processors to meet USDA National Organic Program standards. This program represents an efficient and effective public agency agricultural cooperative collaboration. The Marin County Agricultural Commissioner’s office has also put into place the state’s first certification for grass-fed livestock.



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Figure 2-23
Marin County Agricultural Value by Commodity Category, 1942–2002¹



Aquaculture Products have included oysters, mussels, and clams that are farmed (not wild harvested). Nursery Crops have included container or bare root plants, and cut flowers. Field and Orchard Crops include pasture, fruits, nuts, vegetables hay, silage, and field crops. Livestock and Poultry includes eggs, cattle, lambs, and other livestock. Livestock Products include milk and wool.

¹In 2003, Aquaculture Products were 5%, Nursery Crops 1%, Field and Orchard Crops 16%, Livestock and Poultry 26%, and Livestock Products 53%.

Source: 1942-2003 Marin County Department of Agriculture, Weights and Measures.

Figure 2-24
Status of Lands in Agricultural Use in Marin County

Description	Approximate Acres	Percent
Private agricultural lands:		
Private agriculturally zoned land in Land Conservation Contract (10-year) ¹	82,157	48.6%
Private agriculturally zoned land in Farmland Security Zone Contract (20-year) ¹	16,417	9.7%
Private agriculturally zoned land not under land conservation contract ¹	38,426	22.8%
Public agricultural lands:		
Golden Gate National Recreation Area and Point Reyes National Seashore ²	32,000	18.9%
Totals	169,000	100.0%

¹ May 2003 Marin County Assessor's Office.

² 2003 National Park Service.



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The Marin Agricultural Land Trust was the first private nonprofit in the nation created specifically to protect agricultural land. Since 1988 MALT has acquired conservation easements on 49 ranches covering about 33,000 acres (roughly one-fourth of the private agricultural land in Marin; see Map 2-20). Many of these were purchased with \$15 million originally allocated by State Proposition 70, which was fully expended by 2000. MALT easements are now purchased with a combination of private contributions, grants, and 10% of County Open Space District uncommitted acquisition funds (about \$35,000 annually).



Forage for livestock in Marin can vary annually by more than 200% depending on rainfall, one of the many variables that make ranching a challenging occupation. Total annual forage production ranges from approximately 1,800 pounds per acre on infertile steep slopes on drier sites to more than 6,000 pounds per acre on moist, fertile soils. In contrast, some of the drier, interior regions of California produce less than 1,000 pounds per acre annually.

The county agricultural land base consists of about 137,000 acres of private land and 32,000 acres of federal land in the Point Reyes National Seashore and Golden Gate National Recreation Area (see Figure 2-24). Federal legislation provides authority to lease or permit lands for agricultural use in these areas. The Agriculture (A), Agricultural Residential Planned (ARP), and Agricultural Production Zone (APZ) districts generally require at least 60-acre parcels in specific locations in the Inland Rural and Coastal corridors, and coastal areas. The Limited Agricultural (A-2) and Residential Agricultural (R-A) districts allow residential uses and limited agriculture. Specified agricultural land uses are also allowed in the Residential Single Family Planned (RSP) and Residential Multiple Planned (RMP) districts. This Section of the Countywide Plan contains policies and programs that seek to protect agricultural land and operations and maintain agricultural use.

Most customary agricultural production uses and related facilities are currently permitted under the Marin County Development Code without the need for master plans, use permits, or other local zoning entitlements. For example, these activities include livestock grazing, crop production, and dairy operations. The Development Code also provides use permit exemptions for small-scale agricultural production and retail sale facilities, and exemptions from the design review process for agricultural accessory structures and related activities, such as barns and facilities for milking and packaging of fruits and vegetables. The types of agricultural land uses that are subject to special zoning requirements are for the most part limited to livestock sales/feed lots and agricultural processing and retail sale facilities not otherwise exempt based upon their size and the source(s) of product.

In the Coastal Zone, coastal development regulations adopted by the County to implement the State Coastal Act and Local Coastal Program may trigger a coastal permit for dwellings and agricultural production facilities and operations. Common agricultural land uses and facilities, such as livestock grazing, crop production, barns and storage buildings, and agricultural fencing, however,



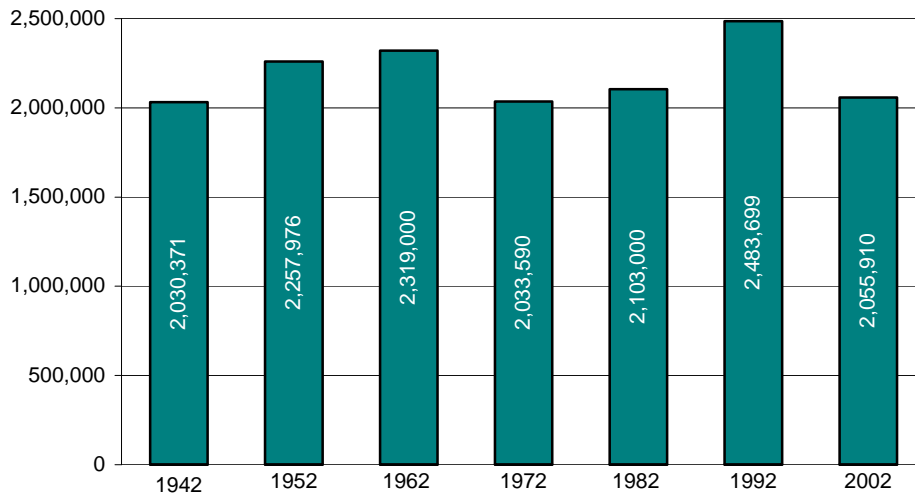
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are exempt or may be excluded from coastal permit requirements.

Agricultural parcels are eligible for land conservation contracts under the Williamson Act (enacted by the State in 1965), provided that certain acreage, zoning, and production criteria are met (see Map 2-20, Protected Agricultural Lands). Land conservation contracts restrict land to agriculture for 10 years in exchange for tax assessment based on agricultural use rather than market value. These contracts allow only one principal residence per ownership, but additional dwellings may be allowed for family members or agricultural workers, in compliance with zoning. In agricultural zoning districts, landowners can request that the County create a Farmland Security Zone, which allows owners to gain a 35% reduction in assessed valuation for a minimum period of 20 years.

Agricultural land can also be preserved through conservation easements with land stewardship entities that compensate landowners financially for giving up non-agricultural development potential. These easements typically prohibit residential or non-agricultural commercial development and uses that would hamper agricultural productivity. Conservation easements do not limit an owner's right to sell, bequeath, or otherwise transfer title, and they can help modernize operations, pay taxes, and facilitate generational succession.

Figure 2-25
Milk Production in Hundreds of Pounds, 1942 through 2002¹



¹Milk production in 2003 was 2,110,169.

Source: 1942-2003 Marin County Department of Agriculture, Weights and Measures.



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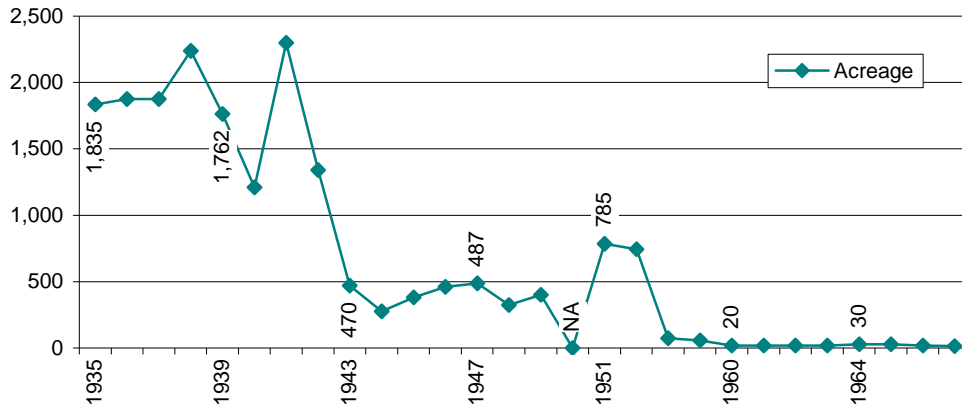
Key Trends and Issues

How has the county's agricultural production changed?

Milk continues to generate over half of gross agricultural revenues and beef production is increasing. Overall milk production has held constant since the early 1960s (see Figure 2-25). Although the number of Marin dairies has dropped from about 200 in the 1950s to about 30 in 2002, the remaining dairies have larger herds and higher per cow production. Specialty cheeses and organic milk, butter, and yogurt are providing new markets. Some operators have transitioned to raising replacement heifers for other dairies, while others have switched to, or lease land for, beef production. Beef ranching occupies the majority of agricultural land in the county, and grass-fed beef raised in Marin represents an emerging specialty market.

Row crops are making a comeback. Land for fruits, nuts, and vegetables has increased in recent years after a dramatic decline in the 1950s and 1960s; row crop acreage has steadily increased since 1991 (see Figures 2-26 and 2-27). In 1935, more than 1,800 acres of vegetables and nearly 1,000 acres of fruits and nuts were raised in Marin. In the 1930s and early 1940s, peas and artichokes – most of which were dry farmed – were important crops in coastal areas, with 2,000 acres of peas alone at the peak of production.

Figure 2-26 Vegetable Acreages 1935–1967

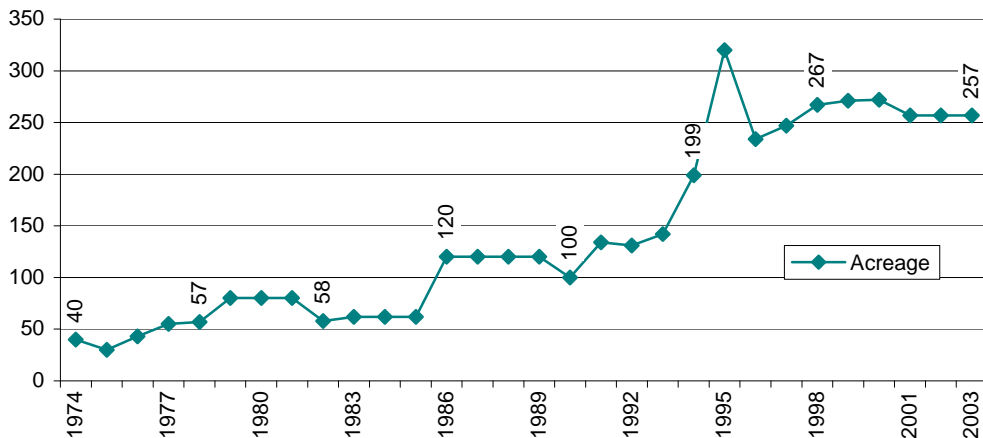


Source: 1935-1967 Marin County Department of Agriculture, Weights and Measures.



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Figure 2-27 Fruit, Nut, and Vegetable Acreages 1974–2003

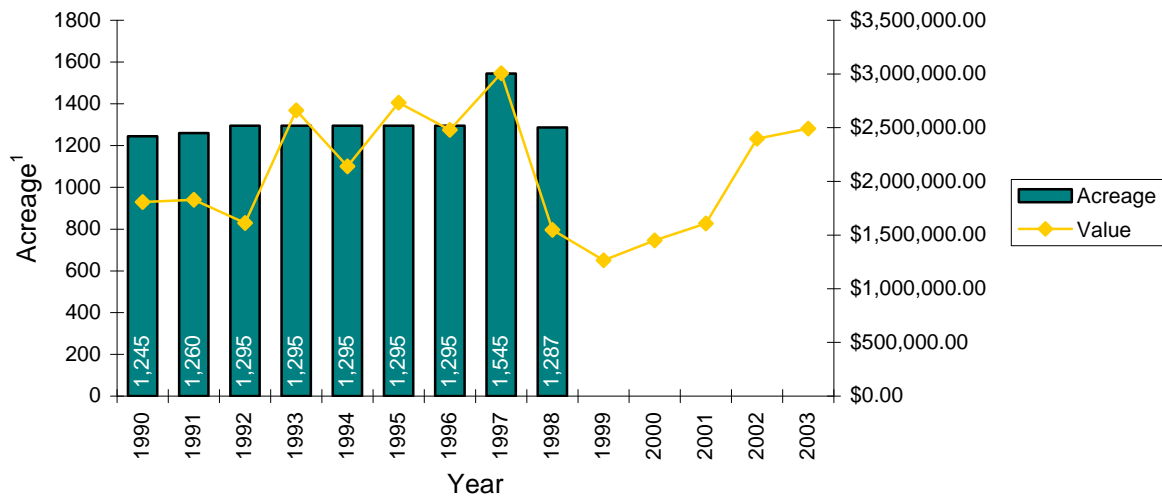


Note: There is no commercial nut acreage in Marin. Fruit, Nut, and Vegetable Acreages is a standardized category established by the California State Department of Food and Agriculture. Fruit acreage includes wine grapes.

Source: 1974-2002 Marin County Department of Agriculture, Weights and Measures.

Aquaculture remains a steady agricultural component. Shellfish farming has been practiced in the county since the mid-1800s, but has only been included in annual countywide crop reports since 1990. Figure 2-28 illustrates the production and dollar value of oysters, clams, and mussels in Marin County.

Figure 2-28 Acreage and Value of Aquaculture Products, 1990–2003



¹ Acreage data not available after 1998.

Source: 1990-2003 Marin County Department of Agriculture, Weights and Measures.



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Definition of Agriculture (land use): The breeding, raising, pasturing, and grazing of livestock, for the production of food and fiber; the breeding and raising of bees, fish, poultry, and other fowl; and the planting, raising, harvesting, and producing of agricultural, aquacultural, horticultural, and forestry crops.

Source: Marin County Development Code.

Organic agriculture is expanding. Organic operations have increased from 67 acres in 1990 to 1,560 acres in 2002, with almost 90% in dairying and livestock feed production. Organic crops also include vegetables, flowers, olives, dairy products, fruits, silage, and pasture. More than 20 operations were certified organic in the county in 2002 (compared with 4 in 1990), producing gross revenues of \$3.9 million.

Can local agriculture remain viable?

Low profit margins make agriculture a difficult business. A 2003 University of California Cooperative Extension (Farm Advisors Office) survey found that only 37% of farmers and ranchers responding considered their operations profitable. The cost of agricultural land has

increased far beyond what agricultural revenues can support. This trend has been exacerbated in recent years by the purchase of agricultural land for residential estates by non-agricultural buyers. While high land prices, long work hours, hard work, and more-lucrative off-farm employment discourage younger generations from continuing family agricultural operations, the study indicated that most agricultural operators desire to remain in their current business.

Residential demand is threatening agriculture. According to a 2003 study (see the Introduction, “Technical Background Reports and Other Supporting Documents”), agricultural activities are most

likely to be economically viable in Marin when land ownership costs and taxes are kept low as a result of very limited residential development and the use of protective agricultural easements. However, residential estate development is driving land ownership costs beyond farmers’ and ranchers’ ability to cover taxes, insurance, and maintenance. Unless residential development is limited to sizes reasonably related to agricultural production, estate development will continue to erode the county agricultural land base.



Definition of Agricultural Worker Housing: Any attached or detached dwelling unit used to house agricultural workers and their family members, including temporary mobile homes. For the purpose of calculating density, no more than one food preparation area shall be provided for each agricultural worker housing unit.

Source: Marin County Development Code.

Product diversity and changes in regulations can help.

New and different commodities can decrease vulnerability to market fluctuations, and value-added products can increase on-farm profits. County permitting regulations can be simplified to focus on health, safety, and environmental protection, and to coordinate the requirements of all agencies with jurisdiction over

agriculture. Simpler regulation can save time and money and encourage innovation. Zoning can be updated to better protect agriculture, and transfer of development rights potential can be enhanced through identification of receiver sites or by providing funding to purchase development rights.



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Limited water supplies constrain agricultural diversification. Historically, agricultural practices in Marin have not created high demands on water supplies; however, the lack of groundwater locally may require limited surface water impoundments to provide irrigation for even a modest diversification of farming. Because most of Marin’s row crop farms are small (usually less than 10 acres) and some crops can be dry farmed, relatively small water developments can provide significant irrigation. Strict regulation by numerous agencies intended to ensure environmental protection as well as safeguard against impacts to aquatic habitats presents a challenge to developing agricultural water sources on many sites.

What Are the Desired Outcomes?

GOAL AG-1

Preservation of Agricultural Lands and Resources. Protect agricultural land by maintaining parcels large enough to sustain agricultural production, preventing conversion to non-agricultural uses, and prohibiting uses that are incompatible with long-term agricultural production. Preserve important soils, agricultural water sources, and forage to allow continued agricultural production on agricultural lands.



Policies

AG-1.1 Limit Residential Use. Maintain agricultural production as the principal use on agricultural lands by limiting residential development to that which is reasonably related to agriculture.

AG-1.2 Encourage Contractual Protection. Facilitate agricultural conservation easements, land conservation and Farmland Security Zone contracts, and transfer of development rights between willing owners when used to preserve agricultural lands and resources.

AG-1.3 Preserve Agricultural Zoning. Maintain very low density agricultural zoning in the Inland Rural and Coastal corridors to support land-extensive agricultural production and discourage conversion to non-agricultural uses.

AG-1.4 Limit Non-Agricultural Zoning. Apply non-agricultural zoning only in areas where conflict with agricultural uses will be minimized, and ensure that development standards preserve and enhance nearby agricultural uses.



Agricultural Easements
Agricultural easements help to preserve not only the character of Marin County but also its land’s ability to supply food, fiber, and other environmental goods and services. Adding 32,000 acres of easements would more than double the protected biological capacity of pasture and cropland in Marin County.



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- AG-1.5 Restrict Subdivision of Agricultural Lands Within the Coastal, Inland Rural, and Baylands Corridors.** Require that the subdivision of agricultural lands shall only be allowed upon demonstration that long-term productivity on each parcel created would be enhanced as a result of subdivision. In the City-Centered Corridor, subdivision of agricultural lands shall only be allowed upon demonstration that the overall agricultural productivity of the subdivided parcels would not be reduced as a result of the subdivision. In considering subdivisions in all corridors, the County may approve fewer parcels than the maximum number of parcels allowed by applicable Countywide Plan land use designation and by the Development Code, based on site characteristics such as topography, soil, water availability, and the capacity to sustain viable agricultural operations.
- AG-1.6 Limit Non-Agricultural Development.** Limit non-agricultural development in the Agricultural Production Zone to allowed residential and accessory uses ancillary to and compatible with agricultural production. Require dwellings and other non-agricultural development to be limited in size and grouped together in building envelopes covering no more than 5% of the property or as determined through a site-specific analysis of agricultural and environmental constraints and resources, with the remainder preserved for agricultural production. Residential and non-agricultural development on very large parcels may be limited to less than 5% of the land area.
- AG-1.7 Limit Ancillary Non-Agricultural Land Uses.** Require non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.
- AG-1.8 Maintain the Agricultural Land Base.** Encourage private and public owners of lands that have traditionally been used for agriculture to keep land in agricultural use by continuing existing agricultural uses, developing compatible new agricultural uses, and/or leasing lands to agricultural operators.
- AG-1.9 Continue Agricultural Uses on Federal Land.** Encourage continuation of agricultural operations and uses in the pastoral zones of the Point Reyes National Seashore and the Golden Gate National Recreation Area through long-term tenure agreements (leases) with agricultural operators.
- AG-1.10 Protect Productive Agricultural Soils.** Discourage or prohibit non-agricultural buildings, impermeable surfaces, or other non-agricultural uses on soils classified by the Natural Resources Conservation Service as Prime Farmland soils or Farmland soils of Statewide Importance.
- AG-1.11 Preserve Rangeland Forage.** Discourage the conversion of rangeland to non-agricultural uses.
- AG-1.12 Support Sustainable Water Supplies.** Explore opportunities to provide sustainable water supplies, such as water conservation, collection, treatment, and reuse, to support



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small-scale agricultural diversification in a manner that does not adversely affect aquatic or other resources.

AG-1.13 **Protect Water Quality to Keep Mariculture Viable.** Protect and enhance the quality of waters used for mariculture through cooperation with other stakeholders, and outreach and education.

Why is this important?

Agriculture can continue and thrive only if the land that supports it is protected.

Environment: Working landscapes that produce food and other agricultural products maintain open areas with living plants, which absorb greenhouse gas emissions. Also, the aesthetic qualities that distinguish the local landscape are reinforced.

Economy: Preserving existing agricultural land and resources is vital to ensuring that agriculture remains an important contributor to a diverse and healthy economy in Marin County. County residents employed in the agricultural sector benefit from accessible, stable jobs.

Equity: Local agricultural production provides consumers with additional, often healthier food choices, and strengthens the cultural heritage and sense of community that stem from a working landscape.

How will results be achieved?

Implementing Programs

AG-1.a ***Residential Building Sizes in Agricultural Areas.*** The size of residential structures has been or will be dealt with in community plans or specific plans. Since most agricultural areas are located outside of community plan boundaries and no specific plans are anticipated in agricultural areas, standards concerning residential building sizes are covered in this program. The primary purpose of this program is to ensure that lands designated for agricultural use do not become de facto converted to residential use, thereby losing the long-term productivity of such lands. It is also a purpose of this program to enable the intergenerational transfer of agricultural lands within farm families so that the long-term productivity of such lands is maintained.

- a. Residential development shall not be allowed to diminish current or future agricultural use of the property or convert it to primarily residential use.
- b. Agricultural worker housing, up to 540 square feet of garage space for each dwelling unit, agricultural accessory structures and up to 500 square feet of office space used as a home occupation in connection with the agricultural operation on the property shall be excluded from this policy.
- c. Any proposed residential development above 4,000 square feet shall be subject to design review and must ensure that the mass and scale of new or expanded structures respect environmental site constraints and the character of the



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surrounding area. Such development must be compatible with ridge protection policies (see DES-4.e) and avoid tree-cutting and grading wherever possible.

Such proposed residential development is also subject to discretionary review. The County shall exercise its discretion in light of some or all of the following criteria and for the purpose of ensuring that the parcel does not de facto convert to residential use:

1. The applicant's history of production agriculture.
 2. How the long term agricultural use of the property will be preserved – for example, whether there is an existing or proposed dedication or sale of permanent agricultural easements or other similar protective agricultural restrictions such as Williamson Act contract or farmland security zone.
 3. Whether long term capital investment in agriculture and related infrastructure, such as fencing, processing facilities, market mechanisms, agricultural worker housing or agricultural leasing opportunities have been established or are proposed to be established.
 4. Whether sound land stewardship practices, such as organic certification, riparian habitat restoration, water recharge projects, fish-friendly farming practices, or erosion control measures, have been or will be implemented.
 5. Whether the proposed residence will facilitate the ongoing viability of agriculture such as through the intergenerational transfer of existing agricultural operations.
- d. In no event shall a single-family residence subject to these provisions exceed 7,000 square feet in size.

The square footage limitations noted in the above criteria represent potential maximum dwelling unit sizes and do not establish a mandatory entitlement or guaranteed right to development.

AG-1.b

Require Production and Stewardship Plans. Agricultural Production and Stewardship Plans shall be prepared and submitted for residential and other non-agricultural development as required by the Development Code. The purpose of these plans is to ensure that long-term agricultural productivity will occur and will substantially contribute to Marin's agricultural industry. Such plans shall clearly identify and describe existing and planned agricultural uses for the property, explain in detail their implementation, identify on-site resources and agricultural infrastructure, identify product markets and processing facilities (if appropriate), and demonstrate how the planned agricultural uses substantially contribute to Marin's agricultural industry. Agricultural Production and Stewardship Plans shall provide evidence that at least 90% of the usable land will remain in agricultural production and identify stewardship



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activities to be undertaken to protect agricultural and natural resources. Agricultural Production and Stewardship Plans shall be prepared by qualified professionals with appropriate expertise in range management and land stewardship. The approval of development proposals including Agricultural Production and Stewardship Plans shall include conditions ensuring the proper, long-term implementation of the plan.

The requirement for an Agricultural Production and Stewardship Plan may be waived for dwelling units and residential accessory buildings or structures occupied or used by the property owner(s) or lessee who are directly engaged in the production of agricultural commodities for commercial purposes on the property and agricultural worker housing. It may also be waived for non-agricultural land uses that are determined by the County to be ancillary to and compatible with agricultural production as the primary use of the land. Waivers may be granted when the Review Authority finds that the proposal will not diminish current or future agricultural use of the property or convert it to primarily residential use, as evidenced by bona fide commercial agricultural production on the property, and agricultural infrastructure, such as fencing, processing facilities, marketing mechanisms, agricultural worker housing, or agricultural land leasing opportunities, has been established or will be enhanced. Criteria and standards for defining commercial agricultural production should be developed so that Agricultural Production and Stewardship plans can differentiate between commercial agricultural production and agricultural uses accessory to residential or other non-agricultural uses.

Preparation of an Agricultural Production and Stewardship Plan (APSP) is not intended for applicants with a long history of production agriculture. Projects subject to the potential requirement of preparing an Agricultural and Stewardship Plan should be referred to the Agricultural Review Board for analysis and a recommendation. The 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** ***Consider Incentives for the Voluntary Merger of Parcels on Lands Protected by Agricultural Conservation Easements.*** Consider whether it is appropriate for agricultural conservation easements to include incentives for the voluntary merger of contiguously owned agricultural lands.
- 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.



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- 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:
- a. 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.
 - b. Identify possible criteria for identifying donor and receiver sites, and recommend procedures for the resale and transfer of purchased residential development rights.
 - c. Evaluate the feasibility of the Marin Agricultural Land Trust or another nonprofit entity to administer or participate in an expanded program.
 - d. The feasibility study should be prepared by qualified consultants with expertise in developing and implementing TDR programs.

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

- 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 an effective agricultural zoning district similar to the Agricultural Production Zoning District, and create compatible zoning districts to accommodate lands currently zoned for, but not suited for, agriculture as a principal use.

Agricultural Production Zoning (APZ), or a similar zoning district, shall apply to lands in the Inland Rural Corridor suitable for land-intensive or land-extensive agricultural productivity, as well as on soils classified as Prime Farmland or Farmland of Statewide Importance capable of supporting production agriculture. The purpose of this zoning district shall be to preserve lands within the zone for agricultural uses and support continued agricultural activities. The principal use of these lands shall be agricultural, and any development shall be accessory, incidental, and in support of agricultural production.

Agricultural Residential Planned District Zoning (ARP) shall apply to lands adjacent to residential areas, and at the edges of Agricultural Production Zones in the Inland Rural and Coastal corridors that have potential for agricultural production. This district may



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also be applied to lands with historic or potential agricultural uses within the City-Centered Corridor and in locations that function as community separators or greenbelts. This district is intended to protect agriculture but also allows residential and compatible commercial uses in areas that are transitional between residential and agricultural production uses.

Residential Agricultural Zoning District (RAZ) shall apply in rural areas within the City-Centered, Inland Rural, Coastal, and Baylands corridors to accommodate typical rural uses including small-scale row crop production, 4H projects and associated uses, along with residential uses and compatible commercial uses.

Woodland Conservation Zoning District (WCZ) shall apply to selected lands currently in agricultural zoning districts that have a very dense native tree cover. Aerial photography shall be utilized to determine the extent of canopy cover characterizing properties to be included in this zoning district.

- AG-1.h** *Assess ARP Zoning.* Conduct an assessment of lands within the ARP District to determine which are appropriate for agricultural production. Consider rezoning those that are not located near towns, villages, or the City-Centered Corridor, and are physically and geographically suited for agricultural production to an agricultural zoning district similar to the existing APZ District. (See Program AG-1.g, above.)
- AG-1.i** *Assess Density in Agricultural Districts.* Conduct an assessment of lands within A-20 or smaller zoning districts to determine which are appropriate for agricultural production. Consider rezoning those that are not suitable for agricultural production to the RAZ or ARP districts.
- AG-1.j** *Uphold Right-to-Farm Ordinance.* Continue to implement the right-to-farm ordinance that protects agricultural and mariculture operations from nuisance complaints by adjacent non-agricultural and non-mariculture property owners regarding allowable agricultural procedures and maricultural practices. The ordinance has established a grievance procedure to address the needs of all concerned.
- AG-1.k** *Define Non-Agricultural Ancillary Uses.* Develop criteria and standards to identify compatible ancillary and subordinate land uses, such as small-scale environmental and agricultural tourism, that enhance the economic viability of agricultural operations.
- AG-1.l** *Preserve Agricultural Lands and Uses.* Continue to use a combination of agricultural zoning, conservation easements, and agricultural preserve contracts with landowners to preserve open agricultural land, and to sustain and encourage dairy and ranching operations.
- AG-1.m** *Encourage Agricultural Leasing.* Explore a mix of incentives and guidelines to non-farming landowners to encourage leasing of all or part of their land to farmers and ranchers, as appropriate.



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AG-1.n *Standardize Sustainable Agricultural Indicators.* Establish sustainable agriculture indicators, such as increases in organic and other ecologically sound farming and ranching, to assist in determining farm activities that protect agricultural land, promote farm economic viability, and further social activities necessary to sustain agriculture.

AG-1.o *Map Important Soils.* Identify on digital soils maps the most suitable soils for row crop production. These include soils classified as Prime Farmland Soils and Farmland Soils of Statewide Importance, and soils with similar physical and chemical characteristics within other soil map units. Use this mapping to identify these soils in relation to proposed construction of buildings, impermeable surfaces, or other uses that would prevent farming on these soils.



“The soil is the great connector of our lives, the source and destination of all.”

– Wendell Berry, 1977

AG-1.p *Evaluate Small-Scale Water Development.*

Explore means to encourage water conservation, collection, treatment, and re-use and development of other potential small-scale water sources for agriculture that do not adversely affect aquatic or other environmental resources. (See Water Resources, Program WR-3.a in this Element and programs under Goal PFS-2 in the Public Facilities and Services Section, Built Environment Element.)

AG-1.q *Support Irrigation Alternatives.* Support the efforts of farmers and ranchers in developing water sources for agricultural diversification. Promote use of

recycled water for irrigation and other nonpotable uses. Promote investment in decentralized solutions such as small-scale waste treatment and rainwater catchments (on a community scale). Assess and implement cost-effective use of recycled water to irrigate County-owned properties, and encourage its use at other public and private facilities. (See also Natural Systems and Agriculture Element, Agriculture and Food Policy AG-1.12 and Program AG-1.n.)

AG-1.r *Provide Agricultural Industry Support.* Encourage agencies to provide online Irrigation Scheduling calculators, a California Irrigation Management Information System (CIMIS) Hotline to provide current reference evapotranspiration data, and a pump and system efficiency test program to determine how efficiently the irrigation system is applying water to crops.

AG-1.s *Maintain Up-to-Date Agricultural Statistics.* Monitor and maintain up-to-date statistics on agricultural production values, land costs, expenses, and other data affecting the agricultural economy.

AG-1.t *Pursue Preparation of a Hillside Agricultural Grading Program.* Continue to evaluate the feasibility of preparing and enacting a hillside agricultural grading program to include regulations, landowner education, and incentives to address the sensitivity of



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streams to agricultural grading on adjacent steep slopes. Pertinent information could be provided through the Resource Conservation District, Agricultural Commissioner’s Office, or the University of California Cooperative Extension, or as part of the Natural Resource Information Program called for in Program BIO-1.c.

What Are the Desired Outcomes?

GOAL AG-2

Improved Agricultural Viability. Enhance the viability of Marin County farms, ranches, and agricultural industries.

Policies

AG-2.1 Promote Organic Certification. Support Marin Organic Certified Agriculture (MOCA) to perform local organic farm certification to comply with National Organic Program (NOP) standards.

AG-2.2 Support Local, Organic, and Grass-Fed Agriculture. Encourage and protect local, organic, grass-fed, and other ecologically sound agricultural practices, such as dry farming, including field crops and animal agriculture, as a means to increase on-farm income, diversify Marin agriculture, and provide healthy food for the local supply.

AG-2.3 Support Small-Scale Diversification. Diversify agricultural uses and products on a small percentage of agricultural lands to complement existing traditional uses, help ensure the continued economic viability of the county agricultural industry, and provide increased food security.

AG-2.4 Encourage Agricultural Processing. Encourage processing and distribution of locally produced foods to support local food security and strengthen Marin’s agricultural industry.

AG-2.5 Market Local Products. Support the efforts of local farmers and ranchers to develop more diverse and profitable markets related to agriculture, including a permanent public market and direct marketing to local and regional restaurants for Marin County agricultural products.



Sustainable Farming
Sustainable farming practices such as organic and dry farming can both reduce a farm’s demand for resources and preserve its ability to provide food in the future. One hundred acres of farmland that relies heavily on artificial fertilizer, for example, requires an energy footprint of almost 10 global acres just to support its fertilizer consumption. Conventional farming and pasture management can also damage soil fertility, reducing the future biocapacity of that land.



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- AG-2.6** **Promote Small-Scale Crop Production.** Encourage small-scale row crop production that contributes to local food security on appropriate sites throughout the county.
- AG-2.7** **Preserve and Promote Mariculture.** Support maricultural usage of tidelands and onshore production areas. The need for mariculture sites in coastal waters should be aligned with the need to provide for other uses, such as commercial fishing, recreational clamming and boating, and protection of coastal native wildlife species, water, and visual resources.
- AG-2.8** **Avoid Introduction of Invasive Mariculture Species.** Encourage State and federal regulatory agencies that permit mariculture activities to prevent the introduction of invasive species.
- AG-2.9** **Support Livestock Production Programs.** Assist ranchers in using nonlethal methods to protect herd animals from predators.
- AG-2.10** **Increase Knowledge of Agriculture.** Raise the level of public awareness and understanding of Marin County agriculture, including its ecological, economic, open space, and cultural value, and its importance to local food security.
- AG-2.11** **Facilitate the Intergenerational Transfer of Agricultural Land.** Encourage and support transfer through inheritance, sale, or lease of agricultural properties to future generations of ranchers and farmers.



“The farm is a place to live. The criterion of success is a harmonious balance between plants, animals, and people; between the domestic and the wild; between utility and beauty.”

— Aldo Leopold

Why is this important?

Encouraging and supporting Marin agricultural producers in developing specialty products and markets will help to keep farming viable.

Environment: Viable agricultural operations provide habitats for many native plant and animal species, and have many fewer negative impacts to the environment than alternative types of development that could replace non-viable farms and ranches.

Economy: Diversification and local processing contribute to the economic viability of Marin’s agricultural industry by ensuring the continuation of the farming and ranching community.

Equity: Encouraging new generations of farmers and ranchers to retain land in active agricultural production helps to keep Marin’s historic agricultural heritage alive while providing food security.



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How will results be achieved?

Implementing Programs

- AG-2.a** *Promote Organic Products.* Provide adequate staffing to respond to expected annual growth for all Marin producers and handlers that wish to obtain organic certification. Develop incentives to encourage farmers and ranchers to transition from conventional farming practices to organic, grass-fed, or other ecologically sound techniques such as dry farming, or “beyond organic” (addressing ethical criteria not included in USDA organic standards).
- AG-2.b** *Support Sustainable Agriculture.* Work with University of California Cooperative Extension (Farm Advisor) and Marin County Agricultural Commissioner’s staff to assist producers with development, diversification, and marketing of Marin’s sustainable agricultural products.
- AG-2.c** *Review Existing Development Code Criteria and Standards.* Review and amend the Development Code as appropriate to include new and/or modified criteria and standards for agricultural processing and sales while limiting uses that are not compatible with sustainable agriculture. Consideration should be given to Development Code revisions that ensure agricultural processing and sales-related uses will not result in any significant impacts, such as those related to traffic, noise, and views. Continue to support the efforts of the UC Cooperative Extension, Marin Resource Conservation District, Marin County Farm Bureau, Marin Agricultural Land Trust, Marin Organic, Marin County Agricultural Commissioner, and Marin County Farmer’s Market to plan for agriculture in Marin and ensure that the new criteria and standards are consistent with the County’s goals of improved agricultural viability and preservation and restoration of the natural environment.
- AG-2.d** *Expedite Permitting.* Continue to simplify and expedite the permitting process for bona fide agricultural enterprises.
- AG-2.e** *Train Staff.* Educate County staff regarding the needs, benefits, and operational aspects of production agriculture, and how these are affected by the County permitting process.
- AG-2.f** *Permit Special Signage.* Allow agricultural producers to use small, tasteful, on-site signage to advertise their products and services, and consider the establishment of a community based program of discreet, off-site signs for directing the public to on-farm sales areas.



Integrated Pest Management

Controlling pests in a safe, environmentally sound manner can have multiple benefits for Marin’s ecosystems and public health.

Learn more at:

www.ourwaterourworld.org.



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- AG-2.g** *Consider Mariculture Zoning.* Amend the Development Code to include mariculture as a conditional use in the C-RSP or other zoning districts as appropriate for lands located along the shoreline of Tomales Bay.
- AG-2.h** *Conduct a Cumulative Analysis of Mariculture Operations.* Encourage the California Department of Fish and Game, U.S. Fish and Wildlife Service, or any other qualified entity to conduct a cumulative analysis of mariculture operations.
- AG-2.i** *Support County Livestock Protection Program.* Continue to support the Livestock Protection Program, and provide livestock ranchers with technical assistance and funding to implement nonlethal predator control methods.
- AG-2.j** *Promote Local Foods.* Promote the distribution of local foods through the Community Food Bank. Continue to offer farmers' market food coupons to food stamp and WIC recipients but increase the individual allotment.
- AG-2.k** *Promote Agriculture Education in Schools.* Support sustainable agriculture education, such as the Food for Thought curricula, in local schools, including the College of Marin.
- AG-2.l** *Raise Agricultural Awareness.* Promote public appreciation of agriculture by supporting organizations and agencies that carry out educational programs.
- AG-2.m** *Draw Attention to Agricultural Areas.* Identify agricultural areas with placement of appropriate directional signs in an effort to inform residents and visitors of the importance of agriculture in Marin.
- AG-2.n** *Support Food and Agriculture Assessment Panel.* Assess the effects of local, State, and federal policies on agriculture, and determine future policy directions.

What Are the Desired Outcomes?

GOAL AG-3



Community Food Security. Increase the diversity of locally produced foods to give residents greater access to a healthy, nutritionally adequate diet.

Policies

AG-3.1 Support Local Food Production. Promote local food production in agricultural zoning districts, as well as on appropriate urban and suburban lands.



NATURAL SYSTEMS & AGRICULTURE ELEMENT

AG-3.2 Promote Local and Organic Food.
Increase consumer appreciation of, and access to, locally produced and organic food and agricultural products.



AG-3.3 Enhance Food Security Education.
Promote public awareness and education about the importance of locally produced food and food security.

Why is this important?

Growing food locally offers many benefits to growers and consumers.

Environment: Locally grown food requires less energy and resources to transport, thus reducing greenhouse gas emissions and decreasing the size of our ecological footprint.

Economy: Buying local products supports the local economy; encourages efforts to develop diversified agricultural operations, including on-farm processing; and ensures that food is available regardless of trade and other issues that can affect supplies.

Equity: Locally available, fresh, organic food provides numerous health benefits and can be more readily accessed in the event of an emergency.

How will results be achieved?

Implementing Programs

AG-3.a Encourage Community Gardens. Allow community gardens on County property that is underutilized or where such use would complement current use, and amend the Development Code to require space for on-site community gardens in new residential developments of 10 units or greater. Work with community-based organizations to manage such gardens using ecologically sound techniques and to provide on-site water if available (find more information at www.communitygarden.org).



Local Food
The food that Marin residents eat doesn't only place demand on cropland. Food products that travel many "food miles" from farm to dinner plate can have an energy footprint much higher than the same products produced locally. Flying a single bottle of Australian wine to the United States demands an energy footprint of almost 250 square feet.



"There is no love sincerer than the love of food."
— George Bernard Shaw

"Health and cheerfulness mutually beget each other."
— Joseph Addison



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*“He who hath
good health is young.”*

– Proverb



*“Nature has given to us
the seeds of knowledge,
but not knowledge itself.”*

– Seneca

AG-3.b *Provide Community Education.* Provide community education regarding organic and other ecologically sound techniques of farming and the benefits of its produce. Raise awareness of farmers’ market dates and times.

AG-3.c *Promote Edible Landscaping.* Encourage fruit trees or other edible landscaping when possible in new development and when renewing planting on County property where appropriate. Include the replacement of irrigated ornamentals with drought-resistant edible plants, as appropriate.

AG-3.d *Use Locally Grown and/or Organic Foods in County Services.* Develop and adopt a food policy and procurement program that incorporates organic and locally grown foods into cafeteria services, the jail, and County-sponsored events.

AG-3.e *Promote Organic Food in Schools.* Support school programs, including on-site gardens, that incorporate organic foods into school meals.

AG-3.f *Support Local Groups.* Support the efforts of local groups such as the Marin Food Policy Council that make recommendations and support forums addressing sustainable food systems.



NATURAL SYSTEMS & AGRICULTURE ELEMENT

Figure 2-29 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
	1. Link equity, economy, and the environment locally, regionally, and globally. 2. Minimize the use of finite resources and use all resources efficiently and effectively. 3. Reduce the use and minimize the release of hazardous materials. 4. Reduce greenhouse gas emissions that contribute to global warming. 5. Preserve our natural assets. 6. Protect our agricultural assets. 7. Provide efficient and effective transportation. 8. Supply housing affordable to the full range of our workforce and diverse community. 9. Foster businesses that create economic, environmental, and social benefits. 10. Educate and prepare our workforce and residents. 11. Cultivate ethnic, cultural, and socioeconomic diversity. 12. Support public health, safety, and social justice.											
AG-1 Preservation of Agricultural Lands and Resources	•			•	•	•						
AG-2 Improved Agricultural Viability	•			•	•	•			•			
AG-3 Community Food Security	•			•	•	•			•		•	•



MARIN COUNTYWIDE PLAN

How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Acres preserved with agricultural easements.	28,377 acres preserved in 2000.	Increase by 25,000 acres by 2010 and by 12,500 additional acres by 2015.
Acres of land farmed organically.	357 acres in 2000.	Increase by 1,500% by 2010 and 1,700% by 2015.
Annual sales of identified Marin farmers' markets: Civic Center, Downtown San Rafael, Novato, and Fairfax.	\$9,860,000 in 2005.	Increase annual sales 10% by 2010 and 15% by 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



NATURAL SYSTEMS & AGRICULTURE 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 frame¹ will be dependent upon the availability of adequate funding and staff resources.

**Figure 2-30
Agriculture and Food Program Implementation**

Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-1.a - Residential Building Sizes in Agricultural Areas.	CDA	Existing budget	High	Short term
AG-1.b - Require Production and Stewardship Plans.	CDA	Existing budget	High	Ongoing
AG-1.c - Consider Incentives for the Voluntary Merger of Parcels on Lands Protected by Agricultural Conservation Easements.	CDA	Existing budget	Low	Med. term
AG-1.d - Standardize Conservation Easements.	CDA, County Counsel, UCCE-FA ²	Existing budget	Low	Med. term
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 revenue ³	Medium	Short term
AG-1.g - Revise Agricultural Zoning Districts.	CDA	Existing budget and may require additional grants or revenue ³	High	Med. term
AG-1.h - Assess ARP Zoning.	CDA	Existing budget and may require additional grants or revenue ³	Medium	Long term
AG-1.i - Assess Density in Agricultural Districts.	CDA	Existing budget	Medium	Long term

¹Time frames include: Immediate (0–1 years); Short term (1–4 years); Med. term (4–7 years); Long term (over 7 years); and Ongoing.

²UCCE-FA: University of California Cooperative Extension, FA: Farm Advisor.

³Completion 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.



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Programs	Responsibility	Potential Funding	Priority	Time Frame
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 revenue ³	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 revenue ³	Medium	Med. term
AG-1.q - Support Irrigation Alternatives.	Agricultural Commissioner, UCCE-FA, Water Districts, RCD	Existing budget and may require additional grants or revenue ³	Medium	Long term
AG-1.r - Provide Agricultural Industry Support.	Agricultural Commissioner, UCCE-FA	Will require additional grants or revenue ³	Medium	Long term
AG-1.s - Maintain Up-to-Date Agricultural Statistics.	Agricultural Commissioner, UCCE-FA, CDA	Existing budget and may require additional grants or revenue ³	Medium	Long term
AG-1.t - Pursue Preparation of a Hillside Agricultural Grading Program.	Agricultural Commissioner	Existing budget and may require additional grants or revenue ³	Medium	Short term
AG-2.a - Promote Organic Products.	Agricultural Commissioner, MOCA, UCCE-FA, CBO's	Existing budget and may require additional grants or revenue ³	High	Ongoing
AG-2.b - Support Sustainable Agriculture.	Agricultural Commissioner, MOCA, UCCE-FA, CBO's	Existing budget and may require additional grants or revenue ³	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-2.c - Review Existing Development Code Criteria and Standards.	CDA	Existing budget	High	Short term
AG-2.d - Expedite Permitting.	CDA or Agricultural Commissioner, UCCE-FA	Existing budget	High	Ongoing
AG-2.e - Train Staff.	CDA, UCCE-FA, Agricultural Commissioner	Existing budget and may require additional grants or revenue ³	High	Ongoing
AG-2.f - Permit Special Signage.	CDA	Existing budget and may require additional grants or revenue ³	Low	Med. term
AG-2.g - Consider Mariculture Zoning.	CDA	Existing budget and may require additional grants or revenue ³	Medium	Med. term
AG-2.h - Conduct a Cumulative Analysis of Mariculture Operations.	CDA, USFWS, UCCE-SeaGrant, other Resource Protection Agencies	Will require additional grants or revenue ³	Medium	Long term
AG-2.i - Support County Livestock Protection Program.	Agricultural Commissioner	Existing budget	High	Ongoing
AG-2.j - Promote Local Foods.	H&HS, Marin Food Policy Council, CBO's, UCCE-FA	Existing budget and may require additional grants or revenue ³	Medium	Med. term
AG-2.k - Promote Agriculture Education in Schools.	Marin Food Policy Council, School Districts, COM, CBO's, UCCE-FA, Agricultural Commissioner	Existing budgets and may require additional grants or revenue ³	High	Ongoing
AG-2.l - Raise Agricultural Awareness.	UCCE-FA, Marin Economic Commission (MEC), Agricultural Commissioner, CBO's	Existing budget	High	Ongoing
AG-2.m - Draw Attention to Agricultural Areas.	UCCE-FA, Agricultural Commissioner, CBO's	Existing budget and may require additional grants or revenue ³	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-2.n - Support Food and Agriculture Assessment Panel.	Agricultural Commissioner, UCCE-FA	Will require additional grants or revenue ³	Medium	Med. Term
AG-3.a - Encourage Community Gardens.	CDA, Agricultural Commissioner, UCCE-FA, DPW, MCOSED	Existing budget	Low	Ongoing
AG-3.b - Provide Community Education.	UCCE-FA, Agricultural Commissioner, CBO's	Existing budget and may require additional grants or revenue ³	Medium	Ongoing
AG-3.c - Promote Edible Landscaping.	CDA, Agricultural Commissioner, UCCE-FA, MCOSED	Existing budget	Low	Ongoing
AG-3.d - Use Locally Grown and/or Organic Foods in County Services.	Cultural Services, Agricultural Commissioner, UCCE-FA	Existing budget and may require additional grants or revenues, as well as Incentive Payments to Growers	High	Ongoing
AG-3.e - Promote Organic Food in Schools.	UCCE-FA, Agricultural Commissioner, Marin Food Policy Council, CBO's	Existing budget and may require additional grants or revenue ³	Medium	Ongoing
AG-3.f - Support Local Groups.	Agricultural Commissioner, CBO's UCCE-FA	Existing budget and may require additional grants or revenue ³	Medium	Ongoing



BUILT ENVIRONMENT ELEMENT



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Marin County is a highly desirable place in which to live, work, and own a business because of its beautiful setting, distinctive communities, and abundant cultural and recreational opportunities. Within Marin one can find unique villages, commercial activity centers, and high-quality residential neighborhoods. The attractiveness of many Marin neighborhoods is enhanced by the presence of nearby public open space and protected environmental resources.



MARIN COUNTYWIDE PLAN

The Built Environment Element of the Countywide Plan plays a central role in identifying many land use issues, constraints, and opportunities, and in addressing the numerous needs, perspectives, and desires within the unincorporated county. It also attempts to balance the amount of growth based on the availability of public services. It sets forth a pattern for land use, and sets out standards for the density of population and the intensity of development for each type of allowable use.

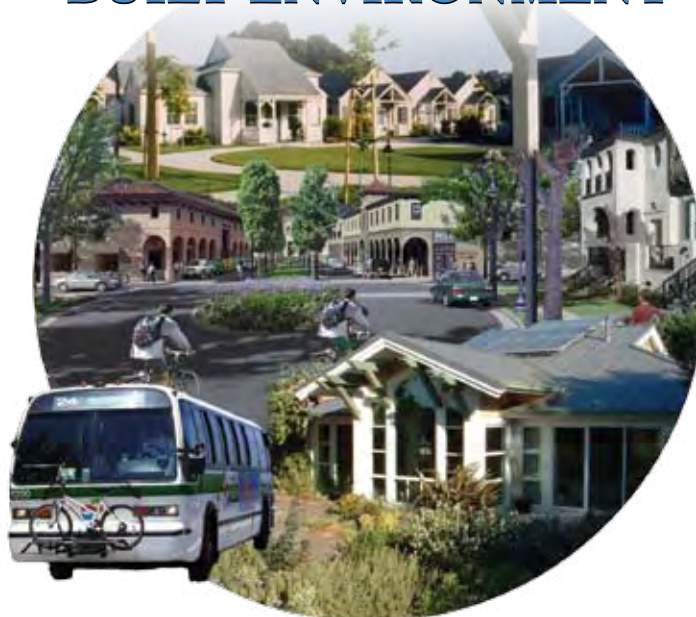
The Built Environment Element also establishes a direct tie between the timing, amount, type, design, and location of development and the traffic, service, and infrastructure resources available to serve additional demand.

Below are the topics covered in this portion of the Countywide Plan:

- ◆ Community Development
- ◆ Community Design
- ◆ Energy and Green Building
- ◆ Mineral Resources
- ◆ Housing
- ◆ Transportation
- ◆ Noise
- ◆ Public Facilities and Services
- ◆ Planning Areas

Topics related to the economy, to public safety, and to parks and recreation are located in the Socioeconomic Element.

BUILT ENVIRONMENT





BUILT ENVIRONMENT ELEMENT

3.2 Key Trends and Issues

Decades of rapid population growth in the Bay Area have subjected Marin to the same pressure for auto-dependent suburban development common to areas around American cities. Unlike many counties, Marin has aggressively sought to protect its irreplaceable natural and agricultural assets from being overrun by low density, sprawling development.

Construction in the county generally has left important physical features intact, such as ridgelines, hillsides, and riparian areas while providing housing, services, and employment opportunities. The Built Environment Element focuses on past, present, and future development patterns that affect the quality of life in unincorporated Marin, and addresses the relationships between land use and natural and social systems. Regional issues and impacts, such as increasing traffic along U.S. Highway 101, also receive attention in this Element.

While many of Marin's open spaces — habitat for natural species as well as land for agricultural commodities — have been protected, the historic quality of space for human habitation has been compromised in some cases because of the following:

- ◆ Investment in transportation systems has focused primarily on mobility by private automobile. This has led to fewer public transit alternatives, and to roadways that are congested with automobiles and poorly designed to accommodate pedestrians and bicyclists.
- ◆ Investment in housing has focused on the construction of low density and expensive single-family houses, often inadequately connected to older neighborhoods and downtowns. This type of development has consumed relatively large amounts of land to house a small number of residents, is affordable only to those with high incomes, and generates a significant proportion of vehicle trips countywide.
- ◆ Investment in retail and office space has primarily resulted in low density, single-use buildings, each surrounded by surface parking. Such buildings are relatively inflexible in responding to the pressures of a changing economy, do not create places compatible with Marin's heritage and character, and generate an automobile trip for almost every activity of their occupants.
- ◆ Investment in schools, libraries, and other civic and cultural facilities has not always been focused in traditional town or neighborhood centers, and has in some instances relegated civic activities that bring people together to single-use buildings surrounded by parking lots on the edges of towns.



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BUILT ENVIRONMENT ELEMENT

3.3 Framework

The Vision: In the 21st century, Marin will be a place where lifestyle and sustainable development practice will 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, the 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



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deposits remaining in local quarries needs to be determined, reclamation plans updated, best practices required, and extraction proposals balanced with the needs of surrounding communities.

Housing (see Section 3.8): In order to solve many of the housing problems that exist today, such as low vacancy rates, high housing costs, and demand pressures, the Countywide Plan addresses population growth potential, regional housing needs, housing type and cost distribution, and use of vacant or underutilized land. Objectives of the Plan address the pressing need for affordable housing while retaining Marin’s character, diversity, appearance, historical heritage, and existing neighborhood character, and the quality of housing.

Transportation (see Section 3.9): Land uses that generate traffic must be evaluated in concert with the facilities designed to accommodate resulting transportation needs. Existing traffic problems must be solved, and new development must mitigate any additional potential traffic impacts. This section addresses the heavy use of the road and highway system by single-occupant automobiles, and promotes efforts to provide additional transportation choices and to use the system more efficiently through increased transit use, carpooling, walking, and bicycling.

Noise (see Section 3.10): Vehicle traffic is the primary source of noise in Marin County. Noise will continue to be an important factor in the planning process as pressure increases to develop properties exposed to high noise levels and to place noisy activities near noise-sensitive receptors. The Plan addresses ways to ensure that people are not subjected to noise that exceeds appropriate and healthful levels.

Public Facilities and Services (see Section 3.11): New development generates a need for new and expanded public facilities related to water supply; sewage collection, treatment, and disposal; solid waste recycling and disposal; and disposal of hazardous waste and materials. The Countywide Plan addresses supply and demand issues, and limits growth based on the availability of services that cannot be distributed without limitations and conservation requirements. The Plan also establishes methods for addressing these service needs while recognizing resource supply limitations and the need for increased efficiency and conservation.

Planning Areas (see Section 3.12): This section helps to organize and define how the policies and programs of the Countywide Plan will be implemented within individual communities. Toward that end, the Countywide Plan is divided into seven planning areas, whose geographic boundaries are derived from ridgelines and watershed features. This section includes community-based policies, and land use maps.



BUILT ENVIRONMENT ELEMENT



3.4 Community Development

Background

The Countywide Plan incorporates sound environmental and planning principles that have guided Marin County for over 30 years. This section includes policies about urban form that are intended to shape development in the unincorporated county and provide guidance to the cities and towns of Marin.

The Plan recognizes the 606 square miles of land and water composing Marin County as a cohesive environmental unit made up of regions called *corridors*,



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characteristics, and natural boundaries, such as north-south ridgelines and baylands. In the first Countywide Plan, adopted in 1973, and in subsequent updates, three environmental corridors are designated to focus development and to protect environmental resources:

- ◆ **The Coastal Corridor**, adjacent to the Pacific Ocean, is designated for federal parklands, recreational uses, agriculture, and the preservation of existing small coastal communities.
- ◆ **The Inland Rural Corridor**, in the central and northwestern part of the county, is designated for agriculture and compatible uses, and for preservation of existing small communities.
- ◆ **The City-Centered Corridor**, along U.S. Highway 101 in the eastern part of the county near San Francisco and San Pablo bays, is designated for urban development and for protection of environmental resources. This corridor is divided into six planning areas that correspond with distinct watersheds. Environmental features that focus development within the City-Centered Corridor have been updated and clarified as depicted in Maps 3-1a and 3-1b, Environmental Features Focusing Development Within City-Centered Corridor.

In this update of the Plan, a fourth environmental corridor is designated:

- ◆ **The Baylands Corridor**, encompassing tidal and largely undeveloped historic baylands along the shoreline of San Francisco and San Pablo bays, provides heightened recognition of the unique environmental characteristics of this area and the need to protect its important resources. Based on maps and information provided by the San Francisco Estuary Institute, the area consists of marshes, tidelands, and diked lands that were once wetlands or part of the bays, and lands that were previously included in the Bayfront Conservation Zones and may include adjacent, largely undeveloped upland habitat.

Map 1-2, Environmental Corridors, depicts the four major county corridors.

The Plan's land use pattern reflects existing development potential shifted, to a degree, from environmentally constrained sites to more appropriate locations. Sites with environmental constraints or lacking public water or sewer systems have had development potential reduced to the low end of the density range for the applicable designation. These adjustments to development potential are reflected in corresponding increases in development potential in the City-Centered Corridor at locations closest to jobs and transit that are better suited to accommodate the development.

Countywide planning requires coordination with cities and towns and regional agencies. Tackling problems associated with growth requires ongoing coordination with regional agencies such as the Association of Bay Area Governments (ABAG) to determine housing need, Caltrans to resolve traffic

congestion, and the Regional Water Quality Control Board to ensure that clean water flows to the bay and ocean. Other State and federal agencies, such as the California Coastal Commission, the National Park Service, and the California Department of Parks and Recreation, are also frequently consulted. In addition, coordination occurs between Marin County and the Metropolitan Transportation Commission regarding the Regional Transportation Plan, and between the County



"The desire for community is a constant of human nature."

— Stephen Price



BUILT ENVIRONMENT ELEMENT

and the San Francisco Bay Conservation and Development Commission regarding activity near the bay.

The County also coordinates its planning efforts with many local agencies and jurisdictions. A Countywide Planning Agency was created by a joint powers agreement in 1990 among all the cities and towns and the County. The purpose of the Countywide Planning Agency is to review and comment on the Countywide Plan and the general plans of the cities and towns. Although the Countywide Planning Agency is currently inactive, this Plan proposes reinstating the group as the “City-County Planning Committee of the Transportation Authority of Marin,” and increasing its role in sub-regional planning. The Plan reflects Sphere of Influence boundaries for cities and towns and service agencies in the City-Centered Corridor, which are set by the Local Agency Formation Commission (LAFCO), the agency that plans for the provision of urban services.

Military readiness has been considered. The U.S. Coast Guard, under the United States Department of Defense and the Department of Homeland Security, operates two military installations in Marin, located in Point Reyes Station and Point Bonita. Based on information provided by the military and other sources, new growth contemplated by the Countywide Plan would not have an impact on the military readiness activities associated with these facilities. Please refer to the Background discussion for Planning Area 7, West Marin, in the Planning Areas Section for additional information on these two Coast Guard facilities.

Implementation tools such as the County Development Code are used to carry out the goals of the Countywide Plan. Some of the policies and programs in the Countywide Plan will require rezoning of individual properties for them to be consistent with the land use designations and the policies in the Plan. Community plans also provide specific direction for communities in the unincorporated area of the county. Many unincorporated communities are guided by community plans that provide specific direction regarding land use, transportation, community facilities, building design, and environmental quality, as well as issues unique to a particular community.

The redevelopment and rehabilitation of blighted residential, retail, commercial, and industrial properties is coordinated by the County Redevelopment Agency. In

partnership with private and nonprofit agencies, the Redevelopment Agency provides financial, technical, and permit assistance to develop projects that revitalize physically and economically underutilized areas. Projects sponsored by the Agency include Braun Court, 30 townhomes (22 of which are affordable at below market rates); Marin City, U.S.A., a mixed-use development with 255 apartments and 85 townhomes (40% of which are affordable), along with 185,000 square feet of retail space, a library, and a day care center; and Rotary Valley Senior Housing, 80 units of affordable housing for seniors of very low and low income levels.



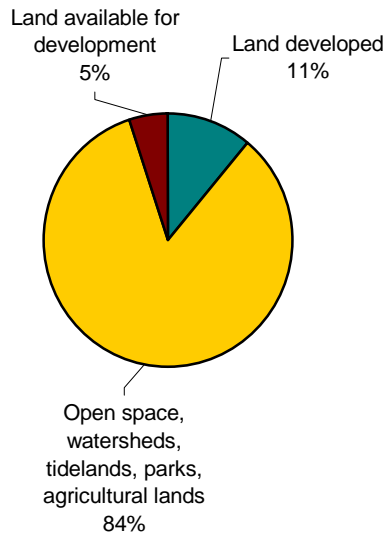
“When we build our landscape around places to go, we lose places to be.”

– Rick Cole

Key Trends and Issues

Why is development concentrated in certain areas?

More than three-fourths of Marin County's land is protected from development. Only 11% of Marin County's area has been developed, primarily within cities and towns, near services, and along major transportation corridors. Most of the additional land potentially available for higher density development (approximately 5% of the county) is in incorporated cities and towns. Nearly 84% of the county consists of open space, watersheds, tidelands, parks, and agricultural lands.



Is growth in Marin expected to continue?

Countywide population growth between 1990 and 2000 averaged $\frac{3}{4}$ of 1% per year. The population in cities and towns grew from 165,997 to 178,554, while the population in unincorporated areas increased from 64,099 to 68,735. Countywide population was 230,096 in 1990 and 247,289 in 2000 (1990 and 2000 Census).

Figure 3-1a 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 and underutilized in 2004 were fully developed according to the zoning designations of city and County general plans.

Information Category	1980 Actual	1990 Actual	2000 Actual	Theoretical Buildout
Demographics				
Population	222,592	230,096	247,289	279,972
Households	88,723	95,006	100,650	118,728
Average Household Size	2.43	2.33	2.34	2.36
Employed Residents	118,569	127,759	140,955	166,667
Jobs	77,853	101,060	122,960	151,566
Employed Residents/Job	1.52	1.26	1.15	1.09



BUILT ENVIRONMENT ELEMENT

Information Category	1980 Actual	1990 Actual	2000 Actual	Theoretical Buildout
Land Use				
Housing Units	92,647	99,757	104,990	120,755
Cities and Towns	67,420	73,914	77,585	89,132
Unincorporated Area	25,227	25,843	27,405	31,623
Commercial/Industrial sq. ft.	<i>Census</i>	29,570,756	33,965,509	49,602,570
Cities and Towns	<i>Data Not</i>	26,938,825	30,853,636	45,431,753
Unincorporated Area	<i>Available</i>	2,631,931	3,111,873	4,158,800

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

Figure 3-1b 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 in the future if the land designated for residential development were to be fully developed and occupied. Household size is expected to continue to increase slightly in the near future.

Job Development

Both the number of county residents holding jobs and the number of jobs in the county increased during the 1990s. In 1990, Marin had 1.26 employed residents for every job in the county. By 2000, Marin had 1.15 employed residents for every job in the county. When the number of employed residents per job nears 1.0, more employed residents could be working on jobs in the county. However, if job salaries do not match the cost of living in Marin, Marin residents will need to commute out of the county to higher-paying jobs, while workers from other counties will commute into Marin.

Commercial/Industrial Development

The increase in jobs in the county will be made possible by the development of land designated for commercial and industrial activities. At buildout, it is projected that there would be nearly 44 million square feet of commercial or industrial development, with the greatest growth potential in Novato and East San Rafael. Hamilton Air Force Base in Novato is the largest single site available for commercial and industrial development. Statistical summaries of planning areas indicate how commercial and industrial development potential is distributed throughout the county.

Housing

There is potential for about 15,200 new housing units countywide, both in single-family and multi-family developments. This figure includes both vacant and underdeveloped lots. The greatest potential for housing development is in the Richardson Bay, Las Gallinas, and Novato planning areas, as shown in the statistical summaries for the planning areas.



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What Are the Desired Outcomes?

GOAL CD-1



Environmental Corridor Land Use Framework. Establish, maintain, and continue to improve a broad land use management framework using the County’s environmental corridors as a basis for local policies and regulation, and to maintain the character of each of the corridors.

Policies

CD-1.1 Direct Land Uses to Appropriate Areas. Concentrate urban development in the City-Centered Corridor, where infrastructure and facilities can be made available most efficiently. Protect sensitive lands in the Baylands Corridor. Emphasize agricultural uses in the Inland Rural Corridor, along with preservation of resources, habitat, and existing communities. Focus on open space, recreational, and agricultural land uses, as well as preservation of existing communities, in the Coastal Corridor.

CD-1.2 Direct Urban Services. Discourage extension of urban levels of service to serve new development beyond urban service areas.

CD-1.3 Reduce Potential Impacts. Calculate potential residential densities and commercial floor area ratio (FAR) at the low end of the applicable range on sites with sensitive habitat or within the Ridge and Upland Greenbelt, or properties lacking public water or sewer systems except for multi-family parcels identified in certified Housing Elements.

Why is this important?

Urban sprawl, on average, requires 21% more land and a 10% increase in local roadways when compared with clustered development. Environmental protection, economic vitality, and social equity are all strongly dependent on the appropriate scale and geographic distribution of land uses throughout the County.

Environment: The prevalence of many of our current environmental challenges – air and water pollution, global warming, habitat fragmentation and conversion – are linked to sprawling, automobile-oriented development. Confining development to the City-Centered Corridor helps to lower greenhouse gas emissions and conserves natural resources in the Inland Rural and Coastal corridors.

Economy: Locating higher-intensity uses in the City-Centered Corridor is economically efficient and attractive to workers, who increasingly balance quality-of-life criteria with salary to determine where they will settle. For example, situating workplaces near housing centers, commercial uses, and major transportation routes provides a more diverse and sizable population and commercial base for supporting viable public transit and economic activity. Such mixed-use development near transit also has the potential to reduce roadway level of service (i.e., number of cars going through an intersection), which can also boost the economy.



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Equity: People living in the counties with the most sprawl are likely to weigh six pounds more than people in the most compact counties, and are more likely to be obese. Concentrating urban land uses in the City-Centered Corridor will make community neighborhoods more walkable and therefore healthier. Preserving existing communities in rural and coastal areas likewise helps ensure that a range of living options will remain available in the county as a whole.

How will results be achieved?

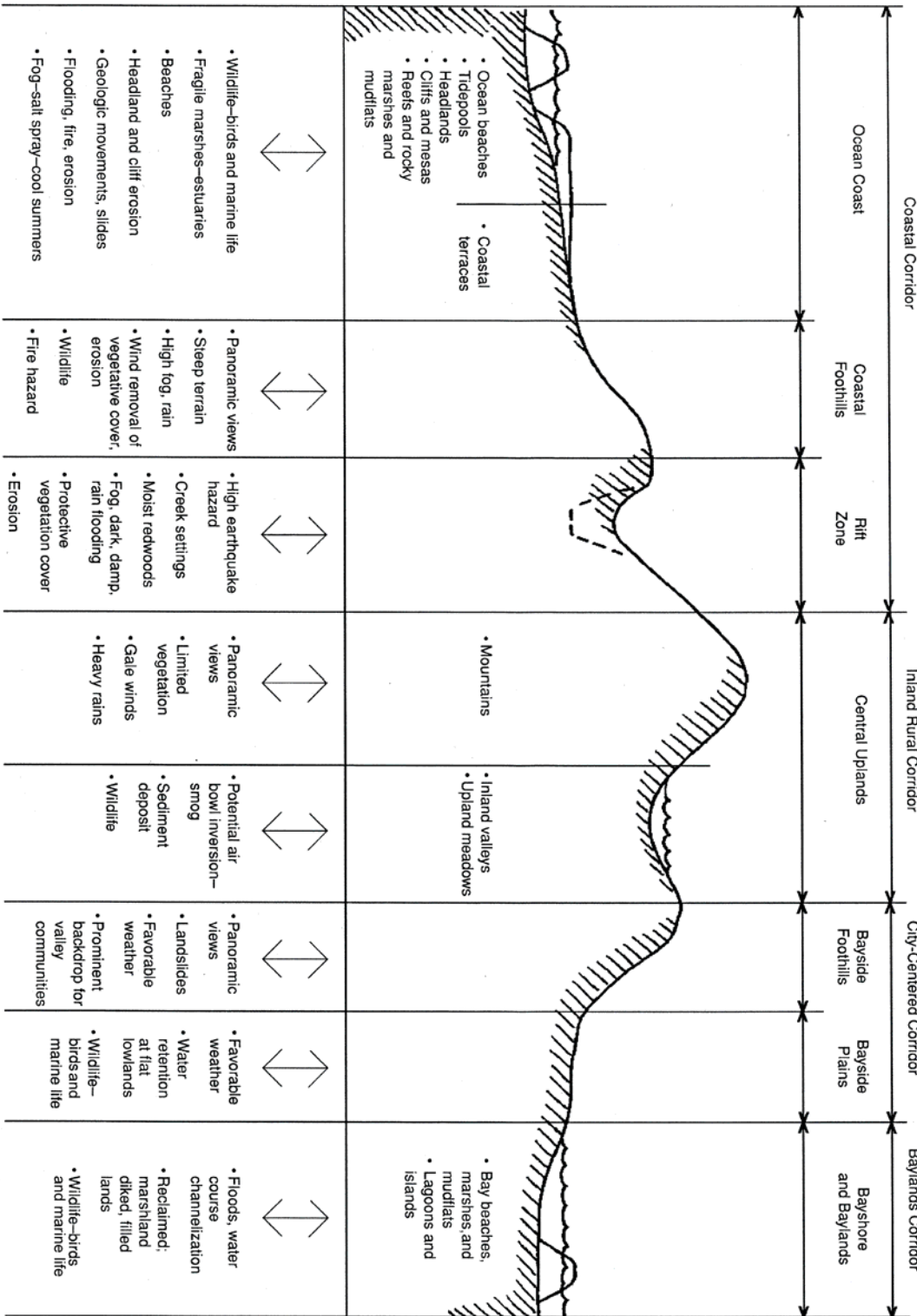
Implementing Programs

- CD-1.a** ***Keep Urban Uses in the City-Centered Corridor.*** Update the Development Code as necessary to ensure that urban development is confined primarily to the City-Centered Corridor, and designate specific areas within and surrounding the corridor for resource protection, including the Ridge and Upland Greenbelt Area, the Streamside Conservation Area, designated wetlands, and undeveloped historic baylands and floodplains (see Maps 3-1a and 3-1b, Environmental Features Focusing Development Within the City-Centered Corridor).
- CD-1.b** ***Preserve Resources in the Baylands Corridor.*** Amend the Development Code and zoning maps as necessary to expand protection of sensitive resources in the Baylands Corridor, and identify large, contiguous, undeveloped bayland properties as a priority for open space acquisition and restoration. (See the Biological Resources Section of the Natural Systems and Agriculture Element for details.)
- CD-1.c** ***Reduce Potential Impacts.*** Amend the Development Code to calculate potential residential density and commercial floor area ratio (FAR) at the low end of the applicable range on sites with sensitive habitat or within the Ridge and Upland Greenbelt, the Baylands Corridor, or properties lacking public water or sewer systems except for parcels identified in certified Housing Elements.
- CD-1.d** ***Maintain Agriculture in the Inland Rural Corridor.*** Work with individual landowners; special districts; local, State, and federal agencies; and private groups to ensure that rural character is preserved, agricultural operations remain viable in the Inland Rural Corridor, and sensitive resources and existing communities are not threatened.
- CD-1.e** ***Protect Open Lands in the Coastal Corridor.*** Work with individual landowners; local, State, and federal agencies; and nongovernmental organizations to preserve the rural character, agriculture, and open lands, and protect existing communities and recreational opportunities, in the Coastal Corridor.
- CD-1.f** ***Merge Underwater Parcels.*** Prior to any development on a shoreline parcel, merge any adjacent underwater parcels.
- CD-1.g** ***Consider Amending Urban Service Areas.*** Consider amending urban service area boundaries to areas appropriate for urban levels of development.

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Figure 3-2a Typical Cross Section Through Marin County Showing Environmental Transect





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CD-1.h *Consider Future Threat of Sea Level Rise.* Consider revising Policy CD-1.3 to include properties threatened by sea level rise as more information about the sea level rise threat becomes available.

What Are the Desired Outcomes?

GOAL CD-2

Balanced Communities. Maintain balanced communities that house and employ persons from all income groups and provide the full range of needed facilities and services.



Policies

CD-2.1 **Provide a Mix of Housing.** The range of housing types, sizes, and prices should accommodate workers employed in Marin County. This includes rental units affordable to lower-wage earners and housing that meets the needs of families, seniors, disabled persons, and homeless individuals and families.

CD-2.2 Policy CD-2.2 has been intentionally deleted. ¹

CD-2.3 **Establish a Housing Overlay Designation.** The Housing Overlay Designation (HOD) is established, as shown on Maps 3-2a and 3-2b. The purpose of the HOD is to encourage construction of units to meet the need for workforce housing, especially for very low and low income households, and for special needs housing, in the City-Centered Corridor close to transit, employment, and/or public services. Sites for the HOD include reuse of existing shopping centers or other underutilized sites. Development on sites designated as both mixed use and as suggested HOD sites shall be developed pursuant to the HOD Policy and Program and not per mixed-use land designation criteria. Each square foot of market-rate HOD housing shall be offset by an equal reduction in the square footage of the permissible commercial development. Up to 658 housing units may be approved within the HOD, subject to a discretionary approval process.

The criteria used in establishing the Housing Overlay Designation include the following:

Designated by the Countywide Plan as Multifamily (MF), General Commercial (GC), Neighborhood Commercial (NC), Office Commercial (OC), Recreation Commercial (RC), or Public Facility (PF). Located within

- ◆ the unincorporated portion of the City-Centered Corridor;

¹This policy was deleted during the EIR process as part of a policy decision.



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- ◆ one-half mile of a transit node or route with daily, regularly scheduled service; and
- ◆ one mile of a medical facility, library, post office, or commercial center.

The area to be developed

- ◆ does not exceed an average 20% slope and is not within the Ridge and Upland Greenbelt;
- ◆ is not within a Wetlands Conservation Area or Streamside Conservation Area;
- ◆ is not a park or public open space area; and
- ◆ is not primarily located within the 100-year flood plain.

The County will engage in discussions with cities and towns within Marin County regarding the possibility of locating residential units otherwise allocated to the HOD within these cities and towns, subject to the criteria described above.

Based on the above, the potential HOD suggested sites and unit allocations by traffic impact areas are listed in Figure 3-3 and shown in Map 3-2c.

Figure 3-3 HOD Unit Allocations by Traffic Impact Areas

Traffic Impact Areas as Determined by Screenlines and HOD Site Criteria (See Map 3-2c)	HOD Unit Potential for Traffic Impact Areas (Including Density Bonus Units)	Suggested Qualifying Sites Within Traffic Impact Areas
Screenline 7:	Up to 110	<ul style="list-style-type: none"> ◆ Marinwood Shopping Center (50 to 100 units) ◆ Idylberry School (up to 10 units) ◆ Other qualifying sites
Screenline 8:	Up to 25	<ul style="list-style-type: none"> ◆ Gallinas Elementary School ◆ Other qualifying sites
Screenline 23:	Up to 88	<ul style="list-style-type: none"> ◆ College of Marin (up to 25 units – limited to student or workforce employees of the College) ◆ Marin General Hospital (up to 50 total units if associated with reconstruction or reuse, of which up to 25 units must be designated senior housing and up to 25 units designated for affordable, workforce employees, or special needs housing) ◆ Toussin (up to 13 units) ◆ Other qualifying sites
Screenline 22:	Up to 10	<ul style="list-style-type: none"> ◆ Oak Manor ◆ Other qualifying sites
Screenline 13:	Up to 50	<ul style="list-style-type: none"> ◆ California Park (San Rafael) ◆ Other qualifying sites



BUILT ENVIRONMENT ELEMENT

Traffic Impact Areas as Determined by Screenlines and HOD Site Criteria (See Map 3-2c)	HOD Unit Potential for Traffic Impact Areas (Including Density Bonus Units)	Suggested Qualifying Sites Within Traffic Impact Areas
Screenline 17:	Up to 100	♦ Strawberry Shopping Center ♦ Other qualifying sites
Screenline 19:	Up to 50	♦ Fireside Motel
Screenline 21:	Up to 150	♦ Marin City Shopping Center ♦ Other qualifying sites
	Up to 583	Units on named HOD sites
	Total: Up to 658	Total Potential HOD Units including Density Bonus Units

- CD-2.4 Offer a Range of Jobs.** Encourage economic development that provides jobs for Marin residents at all income levels, especially in areas with low jobs-to-housing ratios.
- CD-2.5 Locate Housing Near Activity Centers.** Provide housing near jobs, transit routes, schools, shopping areas, and recreation to discourage long commutes and lessen traffic congestion.
- CD-2.6 Focus Intensive Development at Nodes.** Concentrate commercial and higher density residential development in areas with high transit accessibility and service capacity, such as the central business districts of the City-Centered Corridor. Discourage strip development along roadways and big box retailers unless specifically authorized in an approved community, master, or specific plan.
- CD-2.7 Enhance Existing Commercial and Industrial Areas and Businesses.** Enhance functioning commercial areas, especially historic downtowns, so that they continue to define community identity, while also encouraging mixed-use development.
- CD-2.8 Limit Development in Resource or Hazard Areas.** Discourage development in areas with high natural resource value or threats to life or property, and restrict development in such areas to minimize adverse impacts.
- CD-2.9 Promote Community Land Trusts.** Encourage local efforts toward the establishment and operation of community land trusts that secure affordable access to land and housing for the benefit of the community.
- CD-2.10 Expand Countywide Efforts to Increase Workforce Housing Rather Than Full Commercial Build-Out.** Provide technical assistance and collaborate with Marin’s towns and cities to provide increased opportunities for affordable and workforce housing – especially on sites near employment centers and public transportation. Provide model planning and regulatory language, and otherwise strongly encourage Marin County, cities, and towns to revise their land use planning and regulatory documents to enable more affordable and workforce housing and mixed uses rather



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than the theoretical full build-out of nonresidential uses allowed in their respective community and general plans.

CD-2.11 Promote Diverse Affordable Housing Strategies. Promote a diverse set of affordable housing strategies to convert existing market rate units to permanently affordable units in addition to building affordable housing in appropriate locations.

Why is this important?

Only 10% of Bay Area residents and workers can afford a home in the Bay Area, while approximately 60% can buy a home in surrounding cities and counties. This has created an increasing number of home buyers outside of the Bay Area, contributing to long commutes, worsening traffic, and a host of health problems. When a wider range of housing choices is created, more residents will have the opportunity to live, work, raise their families, and grow old in the same community.

Environment: Balanced communities allow residents to fulfill shopping, business, recreational, and educational needs within a reasonable distance of their homes, and reduce greenhouse gas emissions and congestion on roadways. Communities can pursue open space protection and development objectives through the clustering of development activity away from sensitive natural areas.



“The strongest principle of growth lies in human choice.”
– George Eliot

Economy: Concentrating jobs near commercial centers increases financial opportunities for all segments of the population and contributes to healthy and vibrant mixed-use, self-sustaining communities. New housing construction can be an economic stimulus for existing commercial centers that are currently vibrant during the workday, but suffer from a lack of foot traffic and consumers in evenings or weekends.

Equity: Nationally, housing prices have jumped 50% in the past five years. In Marin, median home prices doubled between 1997 and 2004. Integrating single- and multi-family structures in new housing developments can support a more diverse population and allow more equitable distribution of households of all income levels across the region. Using mixed-use development to provide a range of housing choices allows all households to find their niche – whether it is a garden apartment, a rowhouse, or a traditional suburban home – and accommodate sustainable growth at the same time.

How will results be achieved?

Implementing Programs

CD-2.a Increase the Affordable Housing Supply. Utilize all available methods to create affordable housing, including redevelopment of commercial areas for mixed use, air rights over parking areas for housing, residential duets on corner lots, upper-story housing over one-story commercial buildings, and Transfer of Development Rights (TDR) programs. (See **CD-2.d**, **CD-5.b**, **DES-2.a**, **DES-3.a**, **DES-2.c**, **HS-3.n** through **HS-3.t**, and **TR-3.e**.)



BUILT ENVIRONMENT ELEMENT

CD-2.b *Provide a Variety of Housing Types and Prices.* Employ the County inclusionary zoning provisions and master plan review process to facilitate new projects that provide a variety of housing types affordable to special needs, very low, low, and moderate income households.

CD-2.c *Enact Zoning Changes.* Amend the Development Code for residential and commercial land uses to

- ◆ rezone lands at appropriate locations for a mix of housing types and densities;
- ◆ encourage nodes of commercial and higher-intensity residential development at locations near existing employment bases that can be served efficiently by transit;
- ◆ designate areas that allow for expansion or nearby relocation of existing businesses in a manner sensitive to environmental constraints, desired community character, and the ability to provide services;
- ◆ require new commercial developments (including major remodels of shopping centers) to integrate housing that will reduce the need for commuting and expand the opportunities for residential development;
- ◆ guide development away from areas with environmental hazards and areas with high natural resource value, or, if other threats to life or property exist, to minimize adverse impacts to buildings and their occupants; and
- ◆ allow residential duets at appropriate locations on corner lots in single-family zones.

CD-2.d *Implement the Housing Overlay Designation Program.* The reviewing authority may allocate HOD units to suggested qualifying sites or other qualifying sites within Traffic Impact Areas shown on Map 3-2c up to a total of 658 units, including any applicable density bonus units. Housing Overlay units within identified Traffic Screenlines may be allocated to suggested HOD sites listed in Figure 3-3 if the HOD project meets the following standards:

1. Developer is encouraged to maintain ownership interest in the project.
2. High-quality building and site design that fits with the surrounding neighborhood and incorporates attractive and usable common/open space areas must be utilized, consistent with design guidelines.
3. Affordability levels as follows:

For rental developments:

- a. At least 49% of the units should be deed restricted and occupied to the maximum extent feasible by households whose incomes are 60% or less of area median income, adjusted for family size.

For ownership developments:

- a. At least 60% of the units should be deed restricted and occupied to the maximum extent feasible by households whose incomes are 80% or less of area median income adjusted for family size, *or*



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- b. At least 49% of the units should be deed restricted and occupied to the maximum extent feasible by households whose incomes are 60% or less of area median income, adjusted for family size.
4. Affordable ownership and rental units shall be deed restricted in perpetuity or for a period of not less than 55 years to ensure a stock of affordable ownership and rental units.
5. Housing densities of at least 30 units per acre (except for sites designated Neighborhood Commercial/Mixed Use where at least 25 units per acre applies) on the portion of the site developed for housing.
6. Projects that qualify for the designation and meet the affordability requirements may be entitled to development standard adjustments, such as parking, floor area ratio, height and fee reductions, and other considerations.
7. Additional “units” of senior housing on an HOD site may be permitted if
 - a. the additional “units” are affordable to low and very low below-market households; and
 - b. projected peak-hour traffic impacts of the entire project site, including the traffic impacts of the additional “units” of senior housing, fall within the maximum peak-hour traffic generated by the permissible development on the site, based on a traffic study to verify reduced trips and reduced parking.
8. Parking requirements may be adjusted on a case-by-case basis for senior and affordable housing, using criteria established in the URBEMIS model to encourage transit-oriented development. Trip reduction credits may be obtained through utilization of a variety of mitigation measures: locating development close to transit, or in a location where the jobs/housing balance will be optimized; commitments from the developer to implement demand management programs, including parking pricing and leased parking for market-rate units; use of tandem parking and off-site parking, among other measures to permanently reduce parking need. Reduction of parking requirements is subject to discretionary approval and may require a parking study to verify reduced parking demand.
9. Potential impacts are mitigated to the maximum extent feasible.
10. Occupancy or resident preferences for HOD projects should be analyzed for appropriateness in each project, taking into consideration applicable traffic impacts, jobs/housing balance opportunities, and fair housing laws.

Application can be made by a property owner to the County for the designation of a new HOD site that meets all of the criteria identified in Policy CD-2.3. In such cases, the review authority may designate an additional HOD site and reallocate units “assigned to” HOD sites within the same Traffic Impact Area and within the 658 total HOD units. Funding shall be pursued to prepare master plans and related environmental review documents to facilitate development on HOD sites. The Marinwood Plaza Conceptual Master Plan approved by the Board of Supervisors provides an example of a community-based planning process that meets the goals of the Housing Overlay Designation.



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The County's inclusionary housing ordinance (Marin County Code Chapter 22.22) shall be amended to exempt from inclusionary housing requirements any project developed with affordable housing as outlined in the HOD program.

The inclusion of workforce housing, especially for very low and low income households and for special needs housing, will be strongly encouraged at the time of commercial or other expansion and major remodeling proposals.

CD-2.e *Evaluate Residential Land Use Designations.* Evaluate residential land use designations and associated zoning to determine whether the following conditions exist:

- ◆ Planned multifamily designations are appropriately located.
- ◆ Minimum densities or other requirements would enable the development of more affordable housing rather than the construction of large, single-family homes on sites planned for multifamily residential development.

CD-2.f *Encourage the Formation of Community Land Trusts.* The Community Land Trusts should be encouraged to do the following:

- ◆ Provide affordable housing for lower income residents in the community
- ◆ Promote residential ownership and control of housing
- ◆ Capture the value of public investment for long-term community benefit
- ◆ Build a strong base for community action

CD-2.g *Identify and Plan Mixed-Use Sites.* Work with local cities and towns and the proposed City-County Planning Committee, the Marin Environmental Housing Collaborative, and similar collaborative venues to find sites suitable for mixed-use development (such as existing retail centers where housing can be added), and to establish appropriate site-specific standards that accommodate mixed use (such as increasing allowable building height). Seek funding to prepare specific plans and related environmental documents to facilitate mixed-use development at selected sites, and to allow these areas to serve as receiver sites for transfer of development rights away from environmentally sensitive lands. (See **CD-2.a**, **CD-5.b**, **DES-2.a**, **DES-2.c**, **DES-3.a**, **HS-3.n** through **HS-3.t**, and **TR-3.e**.)

CD-2.h *Promote Redevelopment of Sites.* Continue to redevelop blighted sites through the Redevelopment Agency, and promote other opportunities for reuse or intensification of marginally developed properties within existing communities.

CD-2.i *Conduct a 10-Year Countywide Homeless Plan.* Prepare a countywide plan to end homelessness in Marin County, including the following

- ◆ Gathering data and program information on existing emergency shelter, transitional housing, and interim housing availability
- ◆ Promulgating standards to guide the development of permanent housing



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- ◆ Converting existing emergency shelter and transitional housing to better coordinate jail and mental health hospital discharges

- CD-2.j** *Allow Temporary Emergency Homeless Shelters.* Amend the Development Code to allow places of worship and public facilities to be used as temporary emergency homeless shelters.
- CD-2.k** *Analyze Affordable Housing Preferences.* Occupancy or resident preferences for affordable housing projects should be analyzed for appropriateness in each project, taking into consideration applicable vehicle impacts, jobs/housing balance opportunities, and fair housing laws.
- CD-2.l** *Analyze Additional HOD Sites During the Housing Element Update.* Ensure that other potential Housing Overlay Designation sites are analyzed and considered during the update of the Marin County Housing Element.
- CD-2.m** *Evaluate Affordability Rates of the HOD.* Monitor and update the affordability rates required in Program CD-2.d, *Implement the Housing Overlay Designation*, to advance the HOD goals of providing rental housing to our low income workforce, seniors, and special needs populations.
- CD-2.n** *Processing on Affordable Housing Projects.* The County will provide technical assistance and priority process affordable housing projects that meet established requirements for very low and low income housing as determined by State and federal criteria and HOD projects. The Community Development Agency director may waive fees or transfer In-Lieu Housing Trust funds to pay for up to 100% of the Community Development Agency fees for qualifying projects. The amount of fee waiver or transfer will be determined based on the proportion of the project that is below-market-rate housing and the length of time the housing shall remain affordable.
- CD-2.o** *Revise Affordable Housing Regulations to Retain Housing Stock.* During the Housing Element update process, evaluate and revise the Housing Element as appropriate in order to preserve the affordable housing supply, such as establishing in-lieu fees for residences converted to nonresidential use, requirements for replacement housing, and strategies for maintaining legal nonconforming affordable units, such as requiring rebuilt units to be deed restricted as affordable housing. To aid the evaluation, economic information and reasons why units are nonconforming should be provided.
- CD-2.p** *Encourage Community-Based Planning for Issues of Community-Wide Interest* Encourage and support a community-based planning approach for projects with broad community-wide interest. The community-based planning process should promote cooperation and collaboration.
- CD-2.q** *Identify Affordable Housing Sites in Community Plans.* Community plans should include additional sites that are appropriate for and qualify as affordable housing sites.



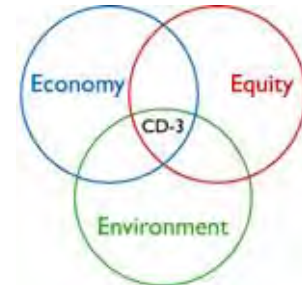
BUILT ENVIRONMENT ELEMENT

CD-2.r *Convert Existing Market Rate Units.* Identify specific strategies and funding mechanisms for the conversion of existing market rate units into permanently affordable housing.

What Are the Desired Outcomes?

GOAL CD-3

Low-Vehicle-Use Employment Opportunities. Facilitate employment opportunities that minimize the need for automobile trips, such as live/work, telecommuting, satellite work centers, and home occupations, in addition to mixed-use development strategies.



Policies

CD-3.1 **Promote Human-Scale Businesses.** Allow and encourage creation of studios and workspaces for artists, craftspeople, and other professionals, and encourage low-impact self-employment and home occupations, where they will be compatible with existing neighborhood character.

CD-3.2 **Support Telecommuting and Satellite Work Centers.** Encourage businesses and public agencies to offer telecommuting as a work alternative, and allow corporate satellite work centers near housing concentrations to enable residents who are employees of out-of-county businesses to reduce their commutes.

Why is this important?

Nationally, motor vehicles account for 94% of transportation emissions. Providing opportunities for people to reduce or eliminate commuting to work creates a number of benefits for the community.

Environment: Transportation emissions in the United States account for 61% of all CO₂ emissions. Decreasing the number of vehicles on the road has beneficial effects on air quality and greenhouse gas emissions. Marin's ecological footprint also decreases when the number and length of car trips are reduced.

Economy: In 2000, congestion cost America's motorists \$68 billion. Fewer cars on the road can significantly reduce the commuting time of urban drivers, who in 1999 spent an average of 36 hours, the equivalent of nearly five work days, in traffic delays. Employment alternatives that decrease the need to drive cars during peak traffic hours benefit the employees who no longer need to drive to work, others who still must commute, and companies whose productivity increases.

Equity: Adults are almost twice as likely to die from heart or lung disease when they live in high-traffic areas. Quality of life improves as more residents find services closer to home, roadways less crowded, and more time available for personal pursuits.



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How will results be achieved?

Implementing Programs

CD-3.a *Update Zoning for Small-Scale Employment.* Amend the Development Code to expand areas where live/work, studios, crafts spaces, and open studios and residential tour events are allowed. Establish standards and permitting procedures for those uses, including roadside signage, routes, parking, frequency, time, and other issues as appropriate.

CD-3.b *Satellite Work Centers.* Amend the Development Code and work with local cities and towns to include satellite work centers in appropriate zoning districts and locations, and to encourage inclusion of telecommuting options in new commercial projects, in part through incentives to employers.



“The desire for community is a constant of human nature.”
– Stephen Price

CD-3.c *Collaborate with the Marin Telecommunications Agency.* Continue to collaborate with, support, and participate as a member of the Marin Telecommunications Agency to promote and facilitate the policy objectives of that agency. Consider future amendment to the Marin Countywide Plan to include additional County-supported policies and programs to utilize best telecommunication technologies.

CD-3.d *Encourage Employee Commute Alternatives.* Encourage and implement model employee commute alternatives, including telecommuting, in partnership with the business community in order to reduce traffic congestion and greenhouse gas emissions.

What Are the Desired Outcomes?

GOAL CD-4



Coordinate Planning with Other Jurisdictions. Coordinate implementation of the Countywide Plan with community plans and planning efforts by local cities, towns, and special districts, and adjacent counties, as well as regional, State, and federal agencies.

Policies

CD-4.1 Update Community Plans. Amend existing community plans as necessary to define how policies and programs of the Countywide Plan will be implemented. (See Map 3-3, Community Plan Areas, and Map Set 3-34, Land Use Policy Maps, in the Planning Areas Section.)



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- CD-4.2** **Guide Local Planning Efforts.** Work with the proposed City-County Planning Committee and other interested organizations to encourage cities and towns and special districts in Marin to use the Countywide Plan policies and land use framework to guide development and assist in updating their local plans. (See other City-County Planning Committee programs in Goals CD-5 and CD-7.)
- CD-4.3** **Participate with Regional, State, and Federal Agencies.** Coordinate with nearby counties, and with State and federal agencies, regarding regional land use and transportation planning.
- CD-4.4** **Provide a Forum to Monitor Issues of Concern.** Provide periodic forums with the cities and towns, other local agencies, and members of the public to engage in discussions on issues of mutual concern, such as more-efficient delivery of services, and to promote the sharing of ideas, information, resources, and best practices for Marin.
- CD-4.5** **Achieve Consensus.** Work with the cities and towns to achieve consensus regarding housing and nonresidential growth projections.

Why is this important?

Because the Countywide Plan has impacts beyond the borders of unincorporated land, the County will benefit by providing widespread notification of its planning activities, paying close attention to the concerns of its neighbors, and providing input to planning efforts in neighboring jurisdictions and in the regional context.

Environment: Natural systems, such as prevailing winds, water currents, and habitat, do not recognize city and county boundaries. Environmental protection is best accomplished when planning is exercised on a larger scale rather than piecemeal. Likewise, major principles of the Countywide Plan, such as focusing development around transit nodes, need to be carried out through local plans.

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



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evaluate and refine the locations of the Ridge and Upland Greenbelt, Baylands Corridor, and address topics such as design issues, home size (see DES-4.c), affordable housing sites, hazards, evacuation routes, flooding, bicycle and pedestrian circulation, and other issues as needed. (See also CD-4.g, *Consider Additional Community Plans for Unincorporated Areas.*)

- CD-4.b** *Coordinate with Local Jurisdictions.* Work with cities and towns, districts, and the proposed 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. 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 City-County Planning Committee consisting of representatives and staff from the cities, the towns, and the County to do the following:
- collaborate on housing, transportation, land use, and sustainability issues;
 - evaluate and monitor the cumulative impacts of planning and development;
 - provide a forum for the sharing of ideas, information, resources, and best approaches for Marin; and
 - 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



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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.
- e. Wastewater, water (including for adequate fire flows), and other infrastructure improvements will be available to serve new development by the time the development is constructed.

Why is this important?

In California, approximately 83% of city revenue and 80% of County revenue is collected through State and federal taxes and fees, and redistributed at the local level. In many cases, the distribution of these funds does not generate sufficient revenue for local governments to provide municipal services to area residents. Services must be provided beyond current levels to reach the people who will live and work in new developments.



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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 United States. 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 United States 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 build-out” of nonresidential uses to allowing “realistic build-out” 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 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



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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, a 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 to 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 the 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 build-out.
- 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 case law, the County may waive or modify policy requirements determined to have removed all economically viable use of the property.



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- CD-5.n** *Ensure Current Land Use Data.* Consult with the Transportation Authority of Marin and MarinMap to review and revise the process to update the land use database to ensure that the data is kept current, complete, and accurate. This could be accomplished through either of the following two options:
1. Collaborate with the Transportation Authority of Marin to allocate additional funds from TAM’s budget to work with the cities and towns to maintain and update the database; or
 2. Consider amending the MarinMap Service Level Agreement to allocate additional funds from MarinMap member agencies lacking sufficient staff time and resources to maintain the database or a similar approach to enable working with the cities and towns to perform the updates.
- CD-5.o** *Continue to Fund MarinMap.* Provide funding for MarinMap according to the adopted member dues schedule.

What Are the Desired Outcomes?

GOAL CD-6



Confinement of Urban Development. Concentrate new medium- to high-intensity land uses at infill areas where services can be provided.

Policies

CD-6.1 Coordinate Urban Fringe Planning. Seek city review of development proposed adjacent to urban areas. Discourage development requiring urban levels of service from locating outside urban service areas. Coordinate with cities and towns regarding their plans and rules for annexing urbanized areas.

- CD-6.2 Update Sphere of Influence and Urban Service Area Boundaries.** Support LAFCO’s efforts to update the sphere of influence boundary plans for local jurisdictions. Update the urban service area boundaries, if necessary.



“A downtown office building well served by transit pollutes far less than a suburban office building accessible only by car.”

– Steve Belmont

Why is this important?

Urban sprawl causes approximately 10% more annual public service deficits and 8% higher housing occupancy costs than clustered development. Urban development is best served if it occurs in urbanized locations, which are equipped to provide water, sewer, police, and fire protection services efficiently.

Environment: Restricting medium- to higher-intensity uses to existing developed areas can help stop sprawl and conserve open space and irreplaceable natural resources



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on the urban fringe. Compact community and building design means less land for construction. It also provides and protects more open, undeveloped land, enabling it to absorb and filter rainwater, as well as reduce flooding and stormwater drainage needs; and it lowers the amount of pollution washing into our streams, rivers, and lakes. This approach also reduces the energy needed for transportation, moving water, and other services, and thus lowers greenhouse gas emissions and the ecological footprint.

Economy: Providing services to “greenfield” developments can cost \$60,000 per dwelling unit. Upgrading these services in “brownfields” can be completed for \$5,000 to \$10,000 per unit, and for even less in unbuilt and uncontaminated areas. A 2004 report found that states could reduce capital spending by 10% to 20%, and ongoing service delivery costs by almost 4%, if they confined urban development and used “smart growth” measures.

Equity: People who live in areas with a high degree of sprawl are more likely to report chronic health problems such as high blood pressure, arthritis, headaches, and breathing difficulties, compared with residents in less-sprawled-out areas. Concentrating development expands affordable housing and employment options and improves the quality of life for residents.

How will results be achieved?

Implementing Programs

- CD-6.a** ***Consider Annexation of Urbanized Areas.*** Encourage annexation of lands proposed for intensified development in urban service areas or within established urban growth boundaries by calculating density at the lowest end of the Countywide Plan designation range, thereby allowing less-intensive development than permitted by the neighboring city or town (unless limited to housing affordable to very low or low income residents, or specified in an adopted specific, community, or master plan).
- CD-6.b** ***Submit Project Proposals to Cities and Towns.*** Refer review of any master plan, subdivision, or development proposal for land within an urban service area to the adjacent city or town. Encourage the city to annex the subject land prior to consideration of subdivision or urban development.
- CD-6.c** ***Clarify City and Town Policies.*** Encourage cities and towns to amend their general plans and implement ordinances as necessary to clarify their policies regarding development of the unincorporated portions of their urban service areas. Require annexation of those areas prior to providing services to undeveloped properties. Prezone all undeveloped land located within the urban service area or in areas of probable annexation (as allowed by Section 65859 of the California Government Code).
- CD-6.d** ***Review Urban Service Areas.*** Participate in LAFCO’s periodic review of adopted spheres of influence and service review studies of cities and towns and special districts (see Section 3.11, Public Facilities and Services). Update County maps to show any changes to city spheres of influence or urban service areas. For example, LAFCO has reviewed cities and towns in central Marin, and removed several unincorporated,



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established communities, including Lucas Valley, Marinwood, and the St. Vincent’s and Silveira area, from the urban service areas of San Rafael.

CD-6.e ***Incorporate Adopted Spheres of Influence.*** Update County maps to show the adopted changes resulting from LAFCO’s study of the spheres of influence and service areas in southern Marin, called the Southern Marin Service Review and Sphere of Influence Update. This study evaluates the spheres of influence for Belvedere, Tiburon, Mill Valley, and Sausalito, and evaluates the service boundaries for the fire and sanitary districts, as well as other special districts.

What Are the Desired Outcomes?

GOAL CD-7



Evaluation and Monitoring of Plan Implementation. Expand the information technology system that evaluates incremental implementation of the Countywide Plan and gauges the cumulative achievement of Plan goals over time.

Policies

CD-7.1 Benchmarking and Progress Monitoring. Use information technology to make periodic measurements of the status of conditions and how much progress is being made toward goals. These types of measurements should be made for the county in total as well as subareas such as watersheds, planning areas, cities, towns, and neighborhoods.

CD-7.2 Incremental Development Evaluation. Use information technology to evaluate proposed development projects in terms of their internal qualities, impacts on surrounding areas, and consistency with Plan goals. These measurements should be used to inform the public and decision makers in ways that encourage modification of development proposals to enhance their qualities, reduce adverse impacts, and ensure Plan consistency.

Why is this important?

Between 1982 and 1997, the United States lost almost 500,000 acres of “prime” farmland to development every year. Where there were 150 dairies in Marin County, only the 27 largest operations continue today. If the Plan’s goals are to be achieved, it is essential that incremental actions and cumulative changes be evaluated and monitored to ensure that decision making is consistently headed in the right direction. The complexity of the County’s resources, its public constituencies, and its development processes require a systematic approach to evaluation and monitoring, and the County’s investment in information technology should be focused particularly on the need for clear and objective Plan implementation.

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



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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 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 child care spaces. Implementation of Countywide Plan sections such as Housing, Child Care, and Community Participation can benefit social equity, for example, by providing a range of housing options, increasing the number of child care 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 proposed 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.

What Are the Desired Outcomes?

GOAL CD-8

Land Use Categories. Map land use categories that further the goals of the Countywide Plan.

Policies

- CD-8.1 **Establish Land Use Plan Map Designations.** Land use designations are established as shown on the Land Use Policy Maps based on such factors as
 - ◆ natural resource protection;
 - ◆ existing and surrounding land uses;





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- ◆ the area's jobs/housing ratio;
- ◆ economic and fiscal goals;
- ◆ traffic capacity and transit needs; and
- ◆ environmental hazards.

CD-8.2 **Establish Land Use Categories.** Established land use categories are generalized groupings of land uses that define a predominant land use type. Some listed uses will be conditional uses under zoning, will require a use permit or other discretionary approval, and may be allowed only in limited areas or under limited circumstances.

CD-8.3 **Establish Land Use Intensity Standards.** Standards of building intensity expressed as floor area ratios or residential densities (dwelling units per acre) are established for each land use designation. To convert residential units to population densities, 2.3 persons per household shall be assumed. To convert commercial intensities to numbers of jobs, the following nationwide conversion standards shall be applied (in employees per 1,000 square feet of gross floor area): Retail – 4 employees; Wholesale – 3 employees; Service – 3 employees; Manufacturing – 1.1 employees; Other – 3.65 employees.

CD-8.4 **Establish Agriculture and Conservation Land Use Categories.** Agriculture and Conservation land use categories are established for land with resource values both for agricultural production and for wetlands and wildlife habitat. These lands may also have physical constraints, such as heavily wooded hillsides and ridgelines, that limit their potential for agricultural production and deserve protection on the basis of their habitat and visual resource values. Historically, 60 acres has been the minimum parcel size for most agricultural and resource conservation lands in the county. Various policies regarding agricultural productivity, water availability, effects on water quality, and other factors govern the subdivision of such lands, along with the densities and intensities described below. The effect is that subdivisions of agricultural and resource conservation lands are rare. The following Agricultural and Conservation land use categories are established:

Agriculture and Conservation 1. This land use category is established for agricultural and conservation uses, including nonresidential structures necessary for agricultural operations at a floor area ratio (FAR) of .01 to .09¹, and housing at a density of one dwelling unit per 31 to 60 acres.

Agriculture and Conservation 2. This land use category is established for agricultural and conservation uses, including nonresidential structures necessary for agricultural operations at a floor area ratio (FAR) of .01 to .09¹, and housing at a density of one dwelling unit per 10 to 30 acres.

Agriculture and Conservation 3. This land use category is established for agricultural and conservation uses, including nonresidential structures necessary for agricultural

¹In addition to FAR, building intensity standards are established by Policy AG-1.6 and Program AG-1.a regarding maximum building size.



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operations at a floor area ratio (FAR) of .01 to .09¹, and housing at a density of one dwelling unit per 2 to 9 acres, with an emphasis on affordable housing.

CD-8.5 **Establish Agricultural Land Use Categories.** Agriculture land use categories are established to preserve and protect a variety of agricultural uses, and to enable the potential for agricultural production and diversification. Historically, 60 acres has been the minimum parcel size for most agricultural lands in the county. Various policies regarding agricultural productivity, water availability, effects on water quality, and other factors govern the subdivision of such lands, along with the intensities described below. The effect is that subdivisions of agricultural lands are rare. The following Agricultural land use categories are established:

Agriculture 1. This land use category is established for agricultural uses, including nonresidential structures necessary for agricultural operations at a floor area ratio (FAR) of .01 to .09¹, and housing with a density of one dwelling unit per 31 to 60 acres.

Agriculture 2. This land use category is established for agricultural uses, including nonresidential structures necessary for agricultural operations at a floor area ratio (FAR) of .01 to .09¹, and housing with a density of one dwelling unit per 10 to 30 acres.

Agriculture 3. This land use category shall be provided for agricultural uses, including nonresidential structures necessary for agricultural operations at an FAR of .01 to .09¹, and housing with a density of one dwelling unit per 1 to 9 acres.

CD-8.6 **Establish Residential Land Use Categories and Densities.** Residential development is designated at a full range of densities, with an emphasis on providing more affordable housing including incentives for low and very low income units, while also recognizing that physical hazards, fire risk, development constraints, protection of natural resources, and the availability of public services and facilities can limit housing development in some areas.

The following categories are established for residential land uses. Standards of population density and building intensity are established for each category. Density ranges expressed as dwelling units per acre are provided for residential uses. For nonresidential uses permitted in a residential land use category, the FAR established for that land use category shall apply. For illustration purposes, Figure 3-4 provides a transect diagram that describes residential land use designations by development type and density. The Countywide Plan's Land Use Policy Maps apply these designations to property within the unincorporated portions of the county.

Some examples of zoning designations that are consistent with various general plan residential designations are provided below (these may not be the only possible consistent zoning designations), and the zoning maps and Development Code provide additional details regarding allowed uses and development standards. Other uses that

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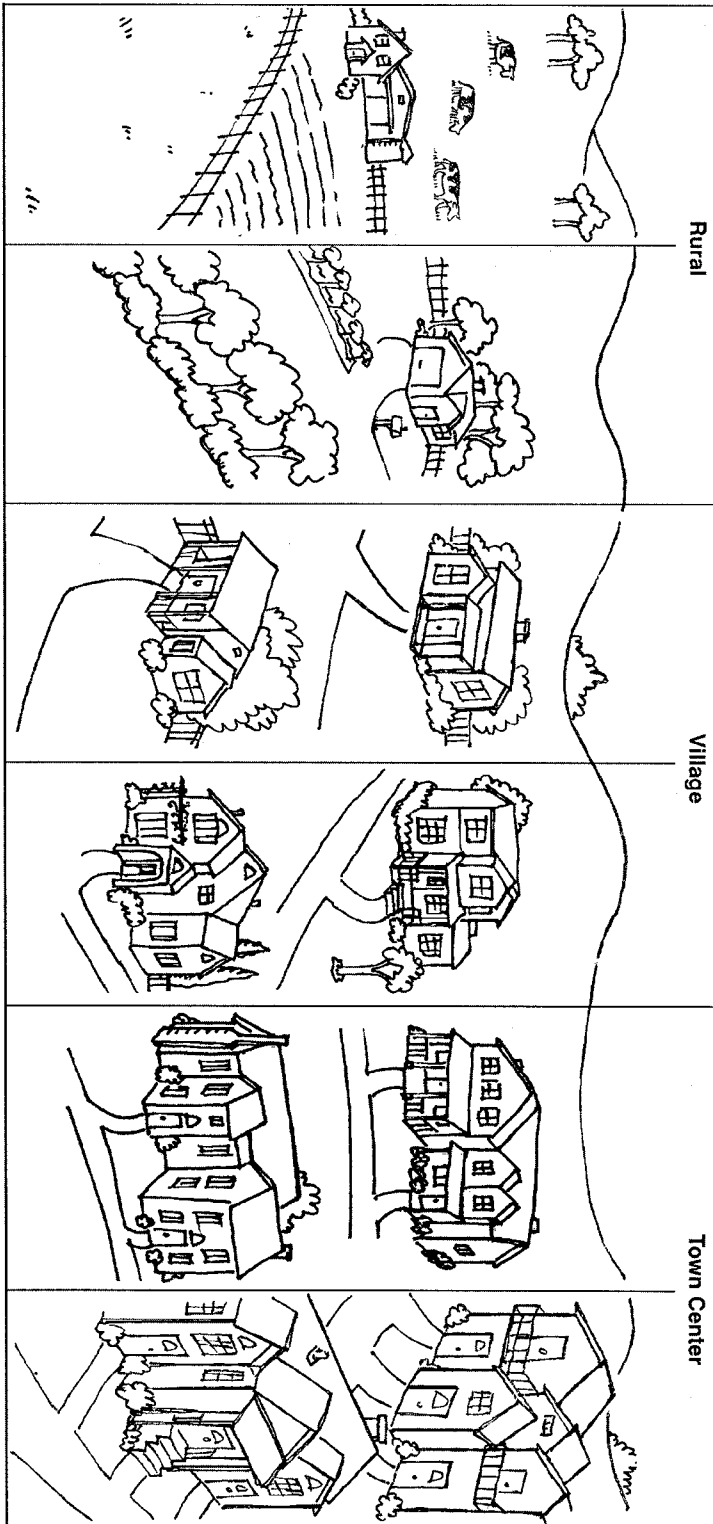


Figure 3-2b Transect Showing Ranges of Residential Density for Countywide Plan Land Use Categories



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may be permitted in residential land use designations include, but are not limited to, parks, playgrounds, crop and tree farming, nurseries and greenhouses, home occupations, schools, libraries, museums, community centers, places of worship, hospitals, retreats, educational institutions, philanthropic and charitable institutions, cemeteries, golf courses, country clubs, stables and riding academies, and family day care homes.

Very Low Density Residential

The following very low density residential land use categories (minimum lot sizes of 5 to 60 acres) are established for single-family residential development on large properties in rural areas where public services are very limited or nonexistent and on properties where significant physical hazards and/or natural resources significantly restrict development.

Land Use Category	Minimum Lot Size	FAR	Consistent Zoning
Single-Family 1 (SF1)	20 to 60 acres	.01 to .09	RSP-0.05 to RSP-0.016
Single-Family 2 (SF2)	5 to 19 acres	.01 to .09	RSP-0.02 to RSP-0.05

Rural/Residential. The following Rural/Residential residential land use categories (minimum lot sizes of 20,000 square feet to 5 acres) are established for single-family residential development in areas where public services are limited and on properties where physical hazards and/or natural resources may restrict development.

Land Use Category	Minimum Lot Size/ Density Ranges ¹	FAR	Consistent Zoning
Single-Family 3 (SF3)	1 to 5 acres	.01 to .09	R1:B4 R1:B5 RA:B4 RA:B5 RA:B6 ARP-2 RSP-0.2 to .RSP-1 A2:BD A2:B4

¹Low end is minimum allowed.



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Land Use Category	Minimum Lot Size/ Density Ranges ¹	FAR	Consistent Zoning
Single-Family 4 (SF4)	20,000 sq. ft. to 1 acre (1-2 du/ac ²)	.01 to .15	RA:B3 RSP-1.1 to RSP-2 R1:BD R1:B3 RR:B3 RE:B3
Planned Residential (PR)	1 unit per 1 to 10 acres	.01 to .09	RMP-1 to RMP 0.1

Low Density Residential

The following low density residential land use categories (minimum lot sizes of 20,000 square feet or less) are established for single-family and multi-family residential development in areas where public services and some urban services are available and where properties are not typically limited by physical hazards or natural resources.

Land Use Category	Minimum Lot Size/ Density Ranges ¹	FAR	Consistent Zoning
Single-Family 5 (SF5)	10,000 to 20,000 sq. ft. (2-4 du/ac ²)	.01 to .25	R1:B2 RA:B2 RR:B2 RSP-2.1 to RSP-4 A2:B2
Single-Family 6 (SF6)	Less than 10,000 sq. ft. (4-7 du/ac ²)	.01 to .3	R1 R1:B1 RA:B1 BFC-RF RSP-4.1 to RSP-7.5
Multi-Family 2 (MF-2)	1 to 4 du/ac ²	.01 to .3	R2 RMP-1 to RMP-4

²du/ac = dwelling units per acre.

¹Low end is minimum allowed.

²du/ac = dwelling units per acre.



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Low to Medium Density Residential

The following low to medium density residential land use categories (from 5 to 16 units per acre) are established where moderate density single-family and multi-family residential development can be accommodated in areas that are accessible to a range of urban services near major streets, transit services, and neighborhood shopping facilities.

Land Use Category	Density Range ¹	FAR	Consistent Zoning
Multi-Family 3 (MF3)	5 to 10 du/ac ²	.1 to .3	RMP-5 to RMP-10
Multi-Family 3.5 (MF3.5)	5 to 16 du/ac ²	.1 to .3	RMP-5 to RMP-16

Medium to High Density Residential

The following medium to high density residential land use categories (from 11 to 45 units per acre) are established within the City-Centered Corridor and in communities or villages where multi-family development can be accommodated with easy accessibility to a full range of urban services and locations near major arterials, transit services, and community and regional shopping facilities.

Land Use Category	Density Range ¹	FAR	Consistent Zoning
Multi-Family 4 (MF4)	11 to 30 du/ac ²	.1 to .8	RMP-11 to RMP-30 RX
Multi-Family 4.5 (MF4.5)	11 to 45 du/ac ²	.6 to .9	RMP-11 to RMP-45

CD-8.7

Establish Commercial/Mixed-Use Land Use Categories and Intensities.

Commercial/mixed-use land use categories are established to provide for a mix of retail, office, and industrial uses, as well as mixed-use residential development, in a manner compatible with public facilities, natural resource protection, environmental quality, and high standards of urban design. Mixed-use developments are intended to incorporate residential units on commercial properties, including on-site housing for employees, thereby contributing to affordable housing and reduced commutes. For projects consisting of low and very low income affordable units, the FAR may be exceeded to accommodate additional units for those affordable categories. For projects consisting of moderate income housing, the FAR may be exceeded in areas with acceptable levels of service - but not to an amount sufficient to cause an LOS standard

¹Low end is minimum allowed.

²du/ac = dwelling units per acre.



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to be exceeded. Up to 1,036 residential units may be approved countywide for mixed-use development, subject to a discretionary approval process.

The following criteria shall apply to any mixed-use development:

1. For parcels larger than 2 acres in size, no more than 50% of the new floor area may be developed for commercial uses, and the remaining new floor area shall be developed for new housing.

For parcels 2 acres and less in size, no more than 75% of the new floor area may be developed for commercial uses, and the remaining new floor area shall be developed for new housing.
2. Projected peak-hour traffic impacts of the proposed mixed-use development are no greater than that for the maximum commercial development permissible on the site under the specific land use category.
3. Priority shall be given to the retention of existing neighborhood serving commercial uses.
4. The site design fits with the surrounding neighborhood and incorporates design elements such as podium parking, usable common/open space areas, and vertical mix of uses, where appropriate. In most instances, residential uses should be considered above the ground floor or located in a manner to provide the continuity of store frontages, while maintaining visual interest and a pedestrian orientation.
5. For projects consisting of low income and very low income affordable units, the FAR may be exceeded to accommodate additional units for those affordable categories. For projects consisting of moderate income housing, the FAR may only be exceeded in areas with acceptable traffic levels of service – but not to an amount sufficient to cause an LOS standard to be exceeded.
6. Residential units on mixed-use sites in the Tamalpais Area Community Plan area shall be restricted to 100 residential units, excluding units with valid building permits issued prior to the date of adoption of the Countywide Plan update. The 100 unit cap includes any applicable density bonus and such units are not subject to the FAR exceptions listed in #5 above due to the area's highly constrained (week and weekend) traffic conditions, flooding, and other hazards.

Renovations not resulting in additional square footage will be exempt from the above requirements if consistent with the requirements of the Marin County Jobs-Housing Linkage Ordinance, Chapter 22.22 of the Development Code.



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The following categories shall be established for commercial land uses:¹

General Commercial/Mixed Use. The General Commercial mixed-use land use category is established to allow for a wide variety of commercial uses, including retail and service businesses, professional offices, and restaurants, in conjunction with mixed-use residential development. The Development Code includes permitted and conditional uses and development standards consistent with this designation. The Land Use Policy Maps provide floor area ratio (FAR) standards for this designation. Residential development located in a mixed-use development within this designation shall be included in the permissible amount of development under these FARs. For projects consisting of low and very low income affordable units, the FAR may be exceeded to accommodate additional units for those affordable categories. For projects consisting of moderate income housing, the FAR may be exceeded in areas with acceptable traffic levels of service – but not to an amount sufficient to cause an LOS standard to be exceeded. (Refer to CD-2.3 for projects located within the Housing Overlay Designation.)

Figure 3-4a General Commercial/Mixed Use



Consistent Zoning: C P
 C1-H
 H-1
 RMP-.1 to RMP-30

Office Commercial/Mixed Use. The Office Commercial/Mixed Use land use category is established to encourage a mixture of professional, administrative, and medical office uses, in conjunction with mixed-use or residential development where appropriate.

¹Note that the zoning designations listed in each category are examples of consistent zoning and are not the only possible consistent zoning designations. A complete list of permitted and conditional uses and development standards can be found in the Development Code. Educational, charitable, and philanthropic institutions such as schools, libraries, community centers, museums, hospitals, child care centers, and places of worship may be permitted in any commercial area.



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Employee and resident-serving retail and service businesses may also be permitted within this category. The Development Code includes permitted and conditional uses and development standards consistent with this designation. The Land Use Policy

Figure 3-4b Office Commercial/Mixed Use



Maps provide for commercial floor area ratio (FAR) standards for this designation. Residential development located in a mixed-use development within this designation shall be included in the permissible amount of development under these FARs. For projects consisting of low and very low income affordable units, the FAR may be exceeded to accommodate additional units for those affordable categories. For projects consisting of moderate income housing, the FAR may be exceeded in areas with acceptable traffic levels of service – but not to an amount sufficient to cause an LOS standard to be exceeded. (Refer to CD-2.3 for projects located within the Housing Overlay Designation.)

Consistent Zoning: A - P
 O - P
 RMP-.1 to RMP-30

Neighborhood Commercial/Mixed Use. The Neighborhood Commercial/Mixed Use land use category is established to encourage smaller-scale retail and neighborhood-serving office and service uses in conjunction with residential development oriented toward pedestrians and located in close proximity to residential neighborhoods. The Development Code includes permitted and conditional uses and development standards consistent with this designation. The Land Use Policy Maps provide



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Figure 3-4c Neighborhood Commercial/Mixed Use



for floor area ratio (FAR) standards for this designation. Residential development located in a mixed-use development within this designation shall be included in the permissible amount of development under these FARs. For projects consisting of low and very low income affordable units, the FAR may be exceeded to accommodate additional units for those affordable categories. For projects consisting of moderate income housing, the FAR may be exceeded in areas with acceptable traffic levels of service - but not to an amount sufficient to cause an LOS standard to be exceeded. (Refer to CD-2.3 for projects located within the Housing Overlay Designation.)

Consistent Zoning: VCR
RMPC
VCR:B2

Recreational Commercial. The Recreational Commercial land use category is established to provide for resorts, lodging facilities, restaurants, and privately owned recreational facilities, such as golf courses and recreational boat marinas. See the Development Code for a complete list of permitted and conditional uses and development standards. Refer to the Land Use Policy Maps for commercial Floor

Figure 3-4d Recreational Commercial



Area Ratio (FAR) standards. For projects consisting of low and very low income affordable units, the FAR may be exceeded to accommodate additional units for those



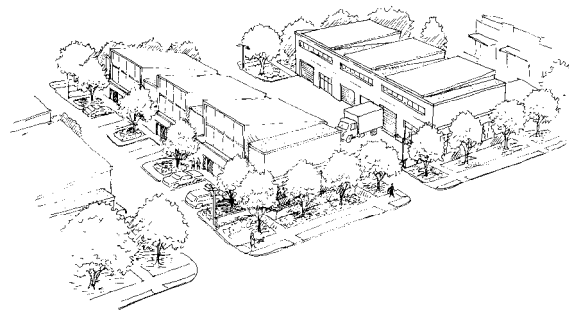
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affordable categories. For projects consisting of moderate income housing, the FAR may be exceeded in areas with acceptable traffic levels of service – but not to an amount sufficient to cause an LOS standard to be exceeded. (Refer to CD-2.3 for projects located within the Housing Overlay Designation.)

Consistent Zoning: RCR
BFC:RCR

Industrial. The Industrial land use category is established to provide for industrial uses such as warehouses, storage, laboratories, retail sales, and administrative offices. Housing for employees or very low and low income housing may also be permitted, except that FAR is not applied to affordable or workforce housing. See the Development Code for a complete list of permitted and conditional uses and

Figure 3-4e Industrial



development standards. Refer to the Land Use Policy Maps for commercial floor area ratio (FAR) standards. For projects consisting of low and very low income affordable units, the FAR may be exceeded to accommodate additional units for those affordable categories. For projects consisting of moderate income housing, the FAR may be exceeded in areas with acceptable traffic levels of service – but not to an amount sufficient to cause an LOS standard to be exceeded.

Consistent Zoning: RMPC
IP

CD-8.8

Establish Planned Designation Land Use Categories. The Planned Designation-Agricultural and Environmental Resource Area (PD-Agricultural and Environmental Resource Area), Planned Designation-Transit Village Area (PD-Transit Village Area), and Planned Designation-Reclamation Area (PD-Reclamation Area) land use categories are established. The Planned Designation categories are intended to enable the planning of reuse projects at major opportunity sites in a manner that honors the site’s location and unique natural, historic, aesthetic, and other characteristics, while promoting Countywide Plan policies regarding resource protection, affordable housing, and innovative transit-oriented and energy efficient design. In order to provide a forum for comprehensive, community-based planning, development in a Planned



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Designation category shall require approval of a specific plan pursuant to Government Code Section 65450 or a master plan pursuant to the County Development Code.

PD-Agricultural and Environmental Resource Area

Land Uses. The PD-Agricultural and Environmental Resource Area land use category is intended for reuse and development of the St. Vincent’s and Silveira area. Potential uses include agriculture and related uses, residential development, education and tourism, places of worship, institutional, and small-scale hospitality uses, as described more fully in SV-2.3.

Standards of Building Intensity. Building-intensity standards for the PD-Agricultural and Environmental Resource Area are up to 221 dwelling units in addition to existing development, or equivalent amounts of nonresidential development based on impacts on peak-hour traffic.

PD-Reclamation Area

The PD-Reclamation Area land use category is intended for the ultimate reclamation of the San Rafael Rock Quarry and McNear’s Brickyard site at the time the quarrying operations cease. As part of an updated reclamation plan, the ultimate reuse of the site will be identified, as will a time horizon as to when such reclamation would occur. While the Countywide Plan assumes that at such time as reclamation of the site occurs, it would be annexed to the City of San Rafael, if annexation should not take place, the Plan contemplates development under the County’s jurisdiction through a Specific or Master Plan to determine residential densities, commercial floor area, and habitat protection areas. In general, uses would be primarily residential, a marina, and limited supporting commercial, as reflected in the updated quarry reclamation plan.

Standards of Building Intensity. Building-intensity standards for the site reflect previous reclamation plans. Development of the site under the County’s PD-Reclamation Area designation would be subject to an updated reclamation plan with a maximum residential density of 75 dwelling units unless otherwise determined by a County-approved traffic study.

Consistent zoning within the PD use categories: ARP, BFC-ARP
RMPC
RMP
RSP
CP
OP
AP
IP

CD-8.9 Establish Public Facility, Quasi-Public Facility, and Open Space Land Use Categories. Lands used for public facilities and quasi-public institutional purposes, including airports, schools, hospitals, cemeteries, government facilities, correctional facilities,



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power distribution facilities, sanitary landfills, and water facilities, are designated Public Facility or Quasi-Public Facility, depending on the nature of their use. The Public Facility category is established for land owned by a governmental agency and used as a public institution. The Quasi-Public Facility category is provided for land owned by a nongovernmental agency that is used as an institution serving the public. A Public Facility or Quasi-Public Facility designation may be combined with another land use designation. In such instances, the applicable standard of building intensity is that for Public or Quasi-Public Facility, as depicted on the Land Use Policy Maps. Lands in public ownership for open space purposes, such as recreation, watershed, and habitat protection and management, are designated Open Space. In addition, private lands may be designated Open Space when subject to deed restrictions or other agreements limiting them to open space and compatible uses. Lands designated Open Space are subject to an FAR of .01 to .09. The following categories shall be established for public and quasi-public land use. The zoning designations listed are examples of consistent zoning and are not the only possible consistent zoning designations.

Public. Consistent zoning:

PF
PF-RSP-.05 to PF-RSP-7
PF-RMP-.01 to PF-RMP-16
PF-ARP-20
C-PF-ARP-20

Quasi-Public. Consistent zoning:

RMP-1
RA:B-1

Open Space. Consistent zoning:

OA

Why is this important?

Historically, the definition and pattern of land use designations in Marin County have had the effect of keeping various land uses (such as residential, commercial, or office) separate from each other geographically. Although this is an appropriate development pattern in many locations, some of the land use categories outlined above incorporate additional flexibility regarding the type and intensity of development in order to allow for the creation of more mixed-use and walkable communities where appropriate.

Environment: Appropriate zoning designations and effective land use policies and implementation can ensure protection of environmental resources and natural areas. Open space preservation supports sustainable development goals by bolstering local economies, preserving critical environmental areas, improving our community's quality of life, and guiding new growth into existing communities. By centralizing development, Marin can maintain a smaller ecological footprint and lower carbon emissions.



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Economy: Mapping land use categories allows communities to capitalize on their quality-of-life assets and employ them as tools for economic development. Doing so allows communities to think of quality of life as a commodity with commercial value that can be cultivated and managed. Pedestrian-oriented streets and other new urbanism designs create new opportunities for investment in enterprises that appeal to walk-in customers.

Equity: The average rush-hour commute grew more than 18 minutes between 1997 and 2000 in the United States. The planning of more mixed-use and walkable communities provides benefits, which include lower transportation costs, greater social interaction, improved personal and environmental health, and expanded consumer choice. By putting uses in close proximity to one another, alternatives to driving, such as walking or biking, become viable. Residents will also have greater housing options and job possibilities.

How will results be achieved?

Implementing Programs

- CD-8.a** ***Review of Development Code.*** Conduct a review of the Development Code to determine whether zoning categories and regulations clearly reflect the intention of the Land Use Policy Map designations as set forth in the Countywide Plan, and express the relationship between land use and population density and appropriate uses and procedures.
- CD-8.b** ***Revise Zoning Maps.*** Review and revise zoning designations where proposed Land Use Policy Map designations are different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use designations in unincorporated areas.



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Figure 3-5 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
CD-1 Environmental Corridor Land Use Framework	•	•	•	•	•	•	•					•
CD-2 Balanced Communities			•	•			•	•	•	•	•	•
CD-3 Low-Vehicle-Use Employment Opportunities	•			•				•	•			•
CD-4 Coordinate Planning with Other Jurisdictions	•	•	•	•	•	•	•	•	•		•	•
CD-5 Effective Growth Management	•	•	•	•	•	•	•	•			•	•
CD-6 Confinement of Urban Development	•	•	•	•	•	•	•					•
CD-7 Evaluation and Monitoring of Plan Implementation	•	•	•	•	•	•	•	•	•	•	•	•
CD-8 Land Use Categories	•	•	•	•	•	•	•	•	•	•	•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Number of dwelling units within ½ mile of a transit stop.	82,773 DU.	89,997 DU.
Average density within ½ mile of and including special study areas: Marin City, Tam Junction, Strawberry SC, SFD corridor in Kentfield, Oak Manor Plaza in Fairfax, Marinwood SC.	4.2 DU/AC.	6.0 DU/AC.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 3-6
Community Development Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
CD-1.a - Keep Urban Uses in the City-Centered Corridor.	CDA	Existing budget	High	Ongoing
CD-1.b - Preserve Resources in the Baylands Corridor.	CDA	Existing budget	High	Short term
CD-1.c - Reduce Potential Impacts.	CDA	Existing budget	High	Immediate
CD-1.d - Maintain Agriculture in the Inland Rural Corridor.	CDA	Existing budget	Medium	Ongoing
CD-1.e - Protect Open Lands in the Coastal Corridor.	CDA	Existing budget	High	Ongoing
CD-1.f - Merge Underwater Parcels.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
CD-1.g - Consider Amending Urban Service Areas	CDA	Existing budget and may require additional grants or revenue ²	Medium	Short term
CD-1.h - Consider Future Threat of Sea Level Rise.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
CD-2.a - Increase the Affordable Housing Supply.	CDA	Existing budget and may require additional grants or revenue ²	High	Short to med. term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
CD-2.b - Provide a Variety of Housing Types and Prices.	CDA	Existing budget	High	Ongoing
CD-2.c - Enact Zoning Changes.	CDA	Existing budget	High	Ongoing
CD-2.d - Implement the Housing Overlay Designation Program.	CDA	Existing budget	High	Short term
CD-2.e - Evaluate Residential Land Use Designations.	CDA	Existing budget	Medium	Med. term
CD-2.f - Encourage the Formation of Community Land Trusts.	CDA, MCF	Existing budget, MCF	Medium	Ongoing
CD-2.g - Identify and Plan Mixed-Use Sites.	CDA	Existing budget	High	Immediate to short term
CD-2.h - Promote Redevelopment of Sites.	CDA	Existing budget	High	Ongoing
CD-2.i - Conduct a 10-Year Countywide Homeless Plan.	CDA or H&HS	Existing budget and may require additional grants or revenue ²	High	Immediate
CD-2.j - Allow Temporary Emergency Homeless Shelters.	CDA	Existing budget and may require additional grants or revenue ²	Low	Med. term
CD-2.k - Analyze Affordable Housing Preferences	CDA	Existing budget	Low	Ongoing
CD-2.l - Analyze Additional HOD Sites During the Housing Element Update.	CDA	Existing budget	Medium	Short term
CD-2.m - Evaluate Affordability Rates of the HOD.	CDA	Existing budget	Medium	Ongoing
CD-2.n - Processing on Affordable Housing Projects.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
CD-2.o - Revise Affordable Housing Regulations to Retain Housing Stock.	CDA, and Marin cities and towns	Existing budget and may require additional grants or revenue ²	High	Short term



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Program	Responsibility	Potential Funding	Priority	Time Frame
CD-2.p - Encourage Community-Based Planning for Issues of Community-Wide Interest.	CDA	Existing budget	Medium	Med. term
CD-2.q - Identify Affordable Housing Sites in Community Plans.	CDA	Existing budget	Medium	Med. term
CD-2.r - Convert Existing Market Rate Units.	CDA	Existing budget	Medium	Med. term
CD-3.a - Update Zoning for Small-Scale Employment.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
CD-3.b - Satellite Work Centers.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Short term
CD-3.c - Collaborate with the Marin Telecommunications Agency.	DPW, CDA	Will require additional grants or revenue ²	Medium	Med. term
CD-3.d - Encourage Employee Commute Alternatives	DPW, TAM	Existing Budget	High	Ongoing
CD-4.a - Update Community Plans with a Watershed-Protection Approach.	CDA	Existing budget	Medium	Immediate to long term
CD-4.b - Coordinate with Local Jurisdictions.	CWPA, CDA, Marin cities and towns	Will require additional grants or revenue ²	Medium	Med. term
CD-4.c - Coordinate with Adjacent Jurisdictions.	CWPA, CDA	Existing budget	Medium	Ongoing
CD-4.d - Coordinate with State and Federal Authorities.	CDA	Existing budget	Medium	Ongoing
CD-4.e - Initiate Periodic City-County Meetings.	CDA	Existing budget	Medium	Ongoing
CD-4.f - Establish a City-County Planning Committee.	CDA	Will require additional grants or revenue ²	Medium	Long term
CD-4.g - Consider Additional Community Plans for Unincorporated Areas.	CDA	Existing budget	Medium	Med. term



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Program	Responsibility	Potential Funding	Priority	Time Frame
CD-5.a - Review and Correlate Countywide Growth and Infrastructure.	CWPA, CDA, Marin cities and towns	Will require additional grants or revenue ²	Medium	Med. term
CD-5.b - Develop Highway 101 Corridor-Specific Plans.	CDA	Existing budget and will require additional grants or revenue ²	High	Ongoing
CD-5.c - Maintain Traffic Levels of Service.	TAM ³ , CWPA, CDA	Existing budget and may require additional grants or revenue ²	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 revenue ²	Medium	Ongoing
CD-5.j - Exempt Affordable Housing Developments.	CDA, DPW, Water and Sewer Districts	Existing budget and may require additional grants or revenue ²	Medium	Med. term
CD-5.k - Monitor Growth and Circulation.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
CD-5.l - Provide Adequate Infrastructure Capacity.	TAM, Marin County, Cities, Towns, and Service Districts	Will require additional grants or revenue ²	High	Long term

³Transportation Authority of Marin (TAM).



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Program	Responsibility	Potential Funding	Priority	Time Frame
CD-5.m - Development Review.	CDA	Existing budget	High	Ongoing
CD-5.n - Ensure Current Land Use Data.	CDA, Cities and Towns, TAM, MarinMap	Existing budget and may require additional grants or revenue ²	High	Ongoing
CD-5.o - Continue to Fund MarinMap.	MarinMap	Existing budget and may require additional grants or revenue ²	High	Ongoing
CD-6.a - Consider Annexation of Urbanized Areas.	CDA	Existing budget	Medium	Short term
CD-6.b - Submit Project Proposals to Cities and Towns.	CDA	Existing budget	High	Ongoing
CD-6.c - Clarify City and Town Policies.	CDA, Marin Cities and Towns	Existing budget and may require additional grants or revenue ²	High	Ongoing
CD-6.d - Review Urban Service Areas.	CDA	Existing budget	Medium	Ongoing
CD-6.e - Incorporate Adopted Spheres of Influence.	CDA	Existing budget	High	Short term
CD-7.a - Stakeholder Cooperation.	CDA, CWPA, MCF, Marin Cities and Towns, CBO's	Existing budget	High	Ongoing
CD-7.b - Technical Stewardship.	CDA, CWPA, MCF, Marin Cities and Towns, CBO's	Will require additional grants or revenue ²	Medium	Long term
CD-7.c - Data Development.	CDA, CWPA, Information Services and Technology (IST)	Will require additional grants or revenue ²	Medium	Long term
CD-8.a - Review of Development Code.	CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
CD-8.b - Revise Zoning Maps.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term



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3.5 Community Design

Background

The villages, towns, and cities of Marin blend attractively with the surrounding natural and agricultural landscape. Older homes are concentrated around downtowns and in walkable neighborhoods that adjoin commercial, cultural, and civic activity centers. Maintaining this pedestrian-scale heritage and applying it in new and redeveloping areas is a key objective of the Countywide Plan.

A variety of design strategies are recommended to ensure that neighborhoods will be compact and include a range of housing types within easy walking distance of schools, parks, and shops. Careful attention to changes in roadways, streetscapes,



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building design, and parking configurations can significantly improve pedestrian-friendliness. Connecting fragmented bicycle and walking paths also will make communities more healthy and vibrant. Vital mixed-use centers are intended to create attractive environments that accentuate the compact combination of businesses and medium to higher density housing with distinctive landscaping and lighting, outdoor furnishings, art, and public gathering areas. Well-designed urban waterfront areas promote public use, and preserved historic sites serve as community magnets. Placing parking underground and landscaping surface lots also adds to community character, as does protecting views of historic and natural features.

Community gateways create a powerful first impression for visitors. Consequently, community gateways at the rural-urban boundary and along major routes can enhance their natural and rural setting.

Key Trends and Issues

Why isn't Marin designed to be more pedestrian friendly?

Many of Marin's urban and rural areas have been subjected to pressure for suburban development for decades. Much of the building in the last 50 years has produced low density single-family homes and commercial developments that generate frequent automobile trips. Streets increasingly have been designed to serve fast-moving automobile traffic at the expense of pedestrian use.



"Shopping centers depend on access: They need locations near major traffic arteries. However, the shoppers themselves don't benefit from traffic: They need quiet, comfort, and convenience, and access from the pedestrian paths in the surrounding area."

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

Can sprawl and urban form be controlled by the County?

Far more development in Marin occurs in cities and towns than in the unincorporated county. If sustainable community design strategies are to have a noticeable impact, they have to be applied in local jurisdictions. The County can set an example by following sound design principles in unincorporated communities and by encouraging appropriate design in cities and towns.

Will future development be new buildings or remodels?

Remodels and additions to existing buildings are increasingly becoming the predominant type of development. Policies and programs to encourage green building, fire safety in high slope areas, and water conserving landscaping have been included.



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What Are the Desired Outcomes?

GOAL DES-1

Preservation of Community Character. Perpetuate the unique character of each community, including the essential design characteristics that make it attractive and livable.



Policies

- DES-1.1** **Address Design at the Community Level.** Use community plans to regulate building design and protect key resources. Encourage cities and towns to address design issues.
- DES-1.2** **Protect Rural Character.** Ensure that development in rural areas is consistent with local design and scale and does not detract from the open character of the landscape.
- DES-1.3** **Encourage Sustainable Urban Forestry.** Promote the use of sustainable urban forestry practices addressing long-term forest management, public education, and outreach.
- DES-1.4** **Plan Complementary Transition Areas.** When planning areas between cities, towns, and unincorporated rural communities, ensure that development provides for a harmonious transition to complement the design characteristics of both areas.

Why is this important?

Heritage visitors spend, on average, \$631 per trip compared with \$457 for all U.S. travelers, and they spend an average of 4.7 nights away from home as compared with 3.4 nights for all other travelers. Each Marin community has a special character that will benefit from attractive building design and layouts.

Environment: Promoting resource efficient building and mixed-use and walkable neighborhoods reduces air pollution and traffic congestion. Protecting rural character and transition zones can lead to better protection of our surrounding natural and agricultural assets.

Economy: Between 1998 and 2000, 57% of all travelers added one or more nights to their trip for a cultural activity. Emphasizing and marketing the unique characteristics of a community can help local businesses attract residential customers and visitors alike.

Equity: Preserving community character allows for residents and visitors to feel a greater sense of place and a closer connection to their community. Pedestrian- and bicycle-friendly community design enhances mobility, safety, and health.



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How will results be achieved?

Implementing Programs

DES-1.a *Add Design Components to Community Plans.* Update community plans to include customized building and site design standards that reflect the unique character of each area, respond to local design issues, encourage ridgeline and viewshed protection, and promote walking, bicycling, and shared parking in commercial centers. Consider the use of form-based codes and design charrettes where applicable.

DES-1.b *Assist City and Town Design Efforts.* Encourage cities and towns to maintain compact development patterns and require urban forms that express their unique characters.

DES-1.c *Regulate Urban and Rural Design.* Prepare urban and rural design standards to ensure that new structures, additions, lighting, glare, signs, landscaping, infrastructure, and other design elements are consistent with existing character and compatible with the surrounding environment.



“Building set-backs from the street, originally invented to protect the public welfare by giving every building light and air, have actually helped greatly to destroy the street as a social space.”

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

DES-1.d *Reduce Wood Waste and Encourage Reuse of Urban Lumber.* Encourage Marin ReLeaf to develop an urban wood utilization program to reduce wood waste and to educate residents on the benefits of reusing urban wood.

DES-1.e *Expand Design Guidelines.* Expand design guidelines to address commercial, mixed-use, multifamily residential, and community gateway projects.

DES-1.f *Rural Sign Regulation.* Revise sign standards in the Development Code to address commercial, mixed-use, multi-family residential, and community gateway projects.

DES-1.g *Hold Remodels to the Same Standards as New Housing.* Ensure, to the extent feasible, that design guidelines include standards for remodel projects that mandate the same quality of materials, construction, and design required for new homes.



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Traditional Neighborhood Design

Traditional neighborhood design includes the following:

- ◆ A discernible center. This is often a plaza, square, or green and sometimes a busy or memorable intersection. A transit stop should be located at this center.
- ◆ Buildings at the center placed close to the sidewalk and to each other, creating an urban sense of spatial definition. Buildings towards the edges are placed farther away and farther apart from each other, creating a more rural environment.
- ◆ Dwellings mostly within a five-minute walk from the center.
- ◆ A variety of dwelling types. These take the form of houses, rowhouses, and apartments, such that younger and older, singles and families, the poorer and wealthier, can find places to live.
- ◆ Places to work in the form of office buildings or live-work units.
- ◆ Shops sufficiently varied to supply the ordinary needs of a household. A convenience store, a post office, a teller machine, and a gym are the most important among them.
- ◆ Small ancillary buildings permitted within the backyard of each house and may be used as a secondary unit, or as a place to work.
- ◆ Elementary school and playgrounds close enough so that most children can walk from their dwelling. This distance should not be more than one mile.
- ◆ Thoroughfares within the neighborhoods form a continuous network, providing a variety of itineraries and dispersing traffic. The thoroughfares connect to those of adjacent cities as often as possible.
- ◆ Thoroughfares are relatively narrow and shaded by rows of trees that slow traffic and create an appropriate environment for pedestrian and bicyclists.
- ◆ Parking lots and garage doors rarely front on the thoroughfares. Garages and parking are relegated to the rear of buildings and may be accessed by alleys or lanes.
- ◆ Key prominent sites reserved for public buildings. A building must be provided at the center for neighborhood meetings.

Source: Adapted from Fisher and Hall, Urban Design.

DES-1.h *Lighting Design Guidelines.* Amend the Development Code to include lighting design guidelines to be applied through design review and other discretionary permits. Explore the feasibility of amending the Building Code to include lighting specifications. Require new development and major remodel projects that would make significant parking lot improvements or add new lighting to submit a lighting plan consistent with these guidelines for design review by County staff. Lighting design guidelines and/or specifications should address the following:

Efficiency. Cost-effective energy efficiency standards for outdoor lighting shall be developed to conserve energy, thereby reducing excessive lighting, light pollution, light trespass, and glare.



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Reasonableness of Intensity. Acceptable standards shall be defined for various land uses and development types, specifying the maximum allowable total lumens.

Directional Control. Standards shall be developed to minimize the upward transmission and intensity of light at various distances from its source through the use of full-cutoff lighting, downward casting, shielding, visors, etc.

Signage. Standards for illuminated signs shall be developed that prohibit or limit the size, spacing, design, upward transmission of light, and hours of operation. In addition, signs should be white or light-colored lettering on dark backgrounds.

Night Lighting. Hours of operation for various uses shall be specified in order to prohibit all-night lighting except when warranted for public safety reasons. On-demand lighting shall be encouraged.

Education. A voluntary educational component of this program shall include the distribution of informational materials for use by county residents, developers, and lighting supply retailers. These materials shall provide specific methods and product information necessary for compliance with new development, as well as aiding the conversion of existing lighting sources.

Incentives. The County shall develop incentives for residents and businesses, encouraging the conversion of existing lighting sources to compliant ones.

Enforcement. These standards shall be incorporated into the County Development Code and design review process for new development.

What Are the Desired Outcomes?

GOAL DES-2



Transit-Oriented Development. Locate mixed-use, medium to higher density development in appropriate locations along transit corridors (see Figure 3-7).

Policy

DES-2.1 Enhance Transit Nodes. Concentrate commercial and medium to high density residential development near activity centers that can be served efficiently by public transit and alternative transportation modes.

Why is this important?

Carbon monoxide emissions from mobile sources in urban areas can be as high as 90% of all emissions. While increases in automobile use far exceed population growth, transit-oriented development supports public transit and enables additional transportation choices.

Environment: For every passenger mile traveled, public transportation is twice as efficient as private automobiles. Research has shown that compact, pedestrian- and transit-friendly communities improve



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air quality by reducing car trips. Open space habitat, prime farmland, and other natural landscapes and resources are protected by clustering development in existing transportation corridors.

Economy: The average working American drives 396 hours each year, the equivalent of 10 workweeks. More than one-fourth of this time is spent commuting to and from work. Transit-oriented and mixed-use development can convey substantial fiscal and economic benefits for workers. In addition, businesses recognize that transit-oriented development encourages a variety of local employment opportunities, and helps attract new businesses and industries.



“As growth becomes denser, highway costs rise while transit costs decline.”

– Norman Bel Geddes

Equity: The cost of buying, maintaining, and operating vehicles is the largest source of personal debt after home mortgages. Transit-oriented development offers a framework to build community and help create and preserve a sense of place. It does this through housing and transportation choices, urban green spaces, accessible recreational and cultural attractions, and policies and incentives that promote mixed-use neighborhoods for the benefit of everyone.

How will results be achieved?

Implementing Programs

DES-2.a *Designate Target Nodes.* Work with cities and towns and the Transportation Authority of Marin to identify transit nodes appropriate for mixed-use development, and promote transit-oriented development through means including the following:

- ◆ rezoning of commercial properties to residential and/or mixed use;
- ◆ expanded zoning for multifamily housing;
- ◆ flexible parking and building height limitations;
- ◆ density bonus programs;
- ◆ design guidelines for private and public spaces; and
- ◆ incentives for redevelopment of underutilized areas, such as surface parking lots (see other Community Development, Housing, and Transportation programs).

DES-2.b *Encourage Flexible-Use Building Types.* Encourage more mixed uses, and enable prototype structures for use in neighborhood center zones that can be adapted to new uses over time with minimal internal remodeling, avoiding the need for expensive and energy intensive demolition and reconstruction.



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Figure 3-7 Strawberry Shopping Center Photo Simulation



Existing Shopping Center



Conceptual Redesign

The above photo simulation illustrates how the Strawberry Center could be redesigned to combine businesses with medium to higher density residential development.



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Community Design Principles

Like Facing Like. The opportunity for social and economic vitality is increased when similar land uses and building types face each other. Change uses at the *back* of the property line, not the front.

Sense of Proportion. Town and country streets have a comfortable human scale when the building-to-street proportion is around 1:1 (one foot of building height to one foot of street width).

Streets. Provide an interconnected street pattern wherever possible to disperse traffic and to encourage pedestrian activity. Maintain narrow streets to encourage pedestrian activity.

Civic Spaces. Line civic spaces such as plazas, squares, and waterfronts with public streets to improve safety, increase vitality, and enhance retail opportunities.

Terminated Vistas. At the terminus of important streets, carefully site civic buildings (e.g., libraries, city hall, etc.) or other buildings of exceptional architectural character or community value. In the case of important natural features at the end of the street (e.g., hills, bodies of water), frame the vista by leaving the street open to these features.

Defensible Space. To maximize safety in urban settings, front buildings onto streets and space doors approximately every 30 feet.

Building Frontages. Encourage pedestrian-friendly building frontages on public streets, such as shopfronts and awnings, and discourage surface parking lots and soundwalls.

Source: Adapted from Fisher and Hall, *Urban Design*.

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 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.



“Use 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*



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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.

Policies

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.



“A town needs public squares; they are the largest, most public rooms that the town has.”

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

Why is this important?

A 2003 study found that urban sprawl increases local road lane-miles 10%, annual public service costs about 10%, and housing costs about 8%, adding about \$13,000 per dwelling unit. Compact development near or within existing communities is already served by infrastructure, utilizes the resources that existing neighborhoods offer, and conserves open space and irreplaceable natural resources on the urban fringe.

Environment: Compact building design allows communities to preserve more land for open space. In addition, it allows for building construction that makes more efficient use of land and resources, thus shrinking the ecological footprint.

Economy: In 2003, Marin households averaged a \$7,150 budget for transportation costs, the highest in the Bay Area. Development in existing neighborhoods represents an approach to growth that has been shown to be more cost effective. By encouraging development in existing communities, businesses benefit from closer proximity to a range of jobs and services, increased efficiency of already developed land and infrastructure, a stronger tax base, and reduced development pressure in edge areas, which strengthens rural communities.

Equity: Carefully designed infill and green spaces positively influence public health by encouraging people to walk, thus promoting healthy lifestyles for all segments



“Sprawling communities are a major contributor to climate change and air pollution because of their overdependence on automobiles, which burn polluting fossil fuels. By reducing sprawl, we will reduce our greenhouse gas emissions.”

— David Suzuki, Canadian geneticist and broadcaster



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of the community, and providing amenities accessible to everyone. Compact building design is necessary to support wider transportation choices, and provides cost savings for localities and the residents who live there.

How will results be achieved?

Implementing Programs

DES-3.a *Encourage Mixed-Use Projects.* Amend the Development Code to strongly encourage residential and/or mixed-use development in commercial zoning districts. (See other Community Development, Housing, and Transportation programs.)

DES-3.b *Adopt Design Guidelines.* Continue to incorporate the Marin County Single Family Residential Design Guidelines (see the Introduction, “Technical Background Reports and Other Supporting Documents”) into the design review process for new and remodeled homes, and include standards for view protection, solar access, landscaping and trees, streetscapes and pedestrian amenities, and compatibility with surrounding built and natural features. Landscaping standards may include techniques such as *irregular plant spacing* to achieve a natural appearance on graded slopes, and requirements to minimize runoff and conserve water.

DES-3.c *Prohibit Gated Developments.* Amend the Development Code to preclude the establishment of gated residential communities.

DES-3.d *Identify Public Green Space Potential.* Work with local jurisdictions to identify locations for new and expanded public spaces – including medians, parkways, parks, and community gardens, and encourage green spaces as focal points for any new development.

DES-3.e *Encourage Small-Scale Green Spaces.* Promote planting of vegetation as a means to provide habitat and food, and provide technical assistance, such as tree planting and plant-care instruction, to citizens who want to create green spaces by transforming abutting yards, rooftops, or other private lands.

What Are the Desired Outcomes?

GOAL DES-4

Protection of Scenic Resources. Minimize visual impacts of development and preserve vistas of important natural features.

Policy

DES-4.1 **Preserve Visual Quality.** Protect scenic quality and views of the natural environment – including ridgelines and upland greenbelts, hillsides, water, and trees – from adverse impacts related to development.





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Why is this important?

Protecting scenic resources promotes development that uses natural and built boundaries to define neighborhoods, towns, and regions. It encourages the construction and preservation of buildings, which prove to be assets to a community over time, not only because of the services provided within, but also because of the unique contribution they make on the outside to the look and feel of a city.



“When natural bodies of water occur near human settlements, treat them with great respect.

Always preserve a belt of common land, immediately beside the water. And allow dense settlements to come right down to the water only at infrequent intervals along the water’s edge.”

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

Environment: Protecting the viewshed around our communities will prevent development from further encroaching on Marin’s natural open space habitat and prime farmland. In addition, visually prominent ridgelines and hillsides will continue to define our community boundaries and frame the natural environment as viewed from developed areas.

Economy: Creating high-quality communities with a combination of architectural and natural elements protects scenic resources, buildings, natural areas, and neighborhoods, all of which enhance economic value over time.

Equity: Infrastructure and natural resources create communities with a distinctive and beautiful place that residents can call “home” for many generations. Preserving vegetation, landforms, and views is vital to retaining a sense of place, and contributes to a high quality of life.

How will results be achieved?

Implementing Programs

- DES-4.a ***Protect Key Public Views.*** Work with community groups to identify, map, and protect important view corridors. Establish design standards for development in these areas as part of the design review requirements and individual community plans (see DES-3.b).
- DES-4.b ***Minimize Visual Impacts of Public Facilities.*** Amend applicable codes and procedures to require appropriate placement, design, setbacks, and native landscaping of public facilities (including soundwalls, medians, retaining walls, power lines, and water tanks) to reduce visual impacts, and encourage local agencies to adopt similar standards.
- DES-4.c ***Regulate Mass and Scale.*** Ensure that the mass and scale of new structures respect environmental site constraints and character of the surrounding neighborhood (see Program DES-3.b), are compatible with ridge protection policies (see Program DES-4.e), and avoid tree-cutting (especially on wooded hillsides) and grading wherever possible. Community plans should consider regulations concerning home size.



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DES-4.d *Protect Views of Ridgelines.* Implement Development Code standards that require development proposed on or near visually prominent ridgelines (including in the Ridge and Upland Greenbelt Areas shown on Map 3-4) to be clustered below the ridgeline on the least visually prominent portion of the site. Expand the implementation of these standards by including in the Ridge and Upland Greenbelt Area those unmapped ridgelines identified as having countywide significance and rezoning Ridge and Upland Greenbelt lands to Planned District categories and adjacent buffer area to a transitional district. (See DES-4.e.)

DES-4.e *Protect Views of Ridge and Upland Greenbelt Areas.* Employ a variety of strategies to protect views of Ridge and Upland Greenbelt areas, including the following:

- ◆ Identifying any unmapped ridgelines of countywide significance, both developed and undeveloped, and adjusting the Ridge and Upland Greenbelt Areas map as appropriate;
- ◆ Amending the Development Code and County zoning maps to designate a suburban edge on all parcels contiguous to the City-Centered Corridor that abut the Ridge and Upland Greenbelt, and requiring that those parcels develop at rural densities with visually sensitive site design;
- ◆ Rezoning Ridge and Upland Greenbelt lands to the Planned District category and adjacent buffer areas to a transitional district, thereby subjecting them to County Design Review Requirements that include hillside protection;
- ◆ Requiring buildings in Ridge and Upland Greenbelt areas to be screened from view by wooded areas, rock outcrops, or topographical features (see DES-3.b); and
- ◆ Calculating density for Ridge and Upland Greenbelt subdivisions at the lowest end of the General Plan designation range.

DES-4.f *Consider Participation in the California Scenic Highway Program.* Consider participation in the Scenic Highway Program in order to preserve and enhance Marin’s scenic highway corridors. (See also Section 3.9, Transportation.)



“People want to be close to shops and services, for excitement and convenience. And they want to be away from services, for quiet and green. The exact balance of these two desires varies from person to person, but in the aggregate it is the balance of these two desires which determines the gradient of housing densities in a neighborhood.”

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



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What Are the Desired Outcomes?

GOAL DES-5



Attractive and Functional Streets and Parking Areas. Design automobile use areas to fit the character of the community, and comfortably accommodate travel by pedestrians and bicyclists, while still meeting health, safety, and emergency access needs (see Figure 3-8).

Policy

DES-5.1 Achieve Streetscape Compatibility. Ensure that roadways, parking areas, and pedestrian and bike movement are functionally and aesthetically appropriate to the areas they serve.



“Encourage local shopping centers to grow in the form of short pedestrian streets, at right angles to major roads, and opening off these roads – with parking behind the shops, so that the cars can pull directly off the road, and yet not harm the shopping street.”

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

Why is this important?

Poor road conditions cost U.S. motorists \$54 billion per year in repairs and operational costs, which equates to \$275 per motorist. Functional and well-designed streets, sidewalks, and parking areas can save long-term costs and can encourage walking and cycling.

Environment: By definition, walkable communities make pedestrian and bicycle activity possible, expanding transportation options, contributing to cleaner air, and shrinking our ecological footprint.

Economy: Walking and biking paths rank third among features that home buyers identify as crucial factors in their home-purchasing decisions. Streets and parking areas contribute to a community’s identity and visual appeal if they are designed to complement surrounding building types and to promote walking and bicycling. Walkable communities are desirable places to visit, live, work, learn, and play, and therefore can be a key contributor to a healthy economy.

Equity: The personal and societal benefits of pedestrian-friendly communities include lower transportation costs, greater social interaction, improved personal and public health, and expanded consumer choice.



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How will results be achieved?

Implementing Programs

DES-5.a ***Adopt Streetscape Design Standards.*** Prepare appropriate location- and use-specific standards for streetscape design that address sidewalk width and surface type, bicycle lanes, height-to-width ratio of buildings, streets and “outdoor rooms,” height of streetlights, glare, number and spacing of benches and other pedestrian amenities, and distances between doors facing the street. Complete specific design standards for low-traffic-volume roads.

DES-5.b ***Refine Parking Area Standards.*** Review and amend the Development Code as necessary to

- ◆ ensure that sufficient on-street parking is provided to encourage customers to enter commercial uses through doors facing the street;
- ◆ minimize the need for additional curb cuts;
- ◆ require that parking lots be screened from public view;
- ◆ include standards for parking structures and underground parking;
- ◆ require that a minimum of 50% of a parking lot be shaded by trees within 10 years of being built or substantially remodeled;
- ◆ ensure that parking standards do not unintentionally decrease the density of infill projects or discourage the use of transit;
- ◆ encourage the use of pervious surfaces for drainage swales, driveways, and parking areas, such as “parking groves,” with permeable stall design, intervening trees, and bollards to delineate parking spaces; and encourage shared, tandem, elevator, and other flexible parking arrangements that will facilitate space-saving and attractive design; and
- ◆ encourage designs that reduce the prominence of garages facing the street.



“The pedestrian is the design imperative.”

– Dom Nozzi



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Figure 3-8 Marinwood Shopping Center Photo Simulation



Existing shopping center.



Conceptual redesign.

Source: 2004 Urban Advantage

The above photo simulation illustrates how the Marinwood Shopping Center could be redesigned to combine businesses with medium to higher density residential development. The redesign creates a pedestrian-oriented, bicycle-friendly environment with parking screened from view.



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Figure 3-9 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
DES-1 Preservation of Community Character					•	•	•	•	•		•	•
DES-2 Transit-Oriented Development	•			•			•	•				•
DES-3 New Development in Built Areas		•		•	•	•	•	•				•
DES-4 Protection of Scenic Resources	•	•		•	•	•	•					•
DES-5 Attractive and Functional Streets and Parking Areas							•					•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Vehicle miles traveled per capita countywide (VMT).	11,177 VMT per capita in 2000.	No or minimal increase by 2020.
Public transportation ridership share of modal split countywide.	11% (bus and ferry) in 2000.	Increase public transportation ridership by 2015 and then again by 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 3-10
Design Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
DES-1.a - Add Design Components to Community Plans.	CDA	Existing budget	High	Med. term
DES-1.b - Assist City and Town Design Efforts.	CDA	Existing budget and may require additional grants or revenue ²	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 revenue ²	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 revenue ²	Low	Long term
DES-2.a - Designate Target Nodes.	TAM, CDA, Marin Cities and Towns	Existing budget and may require additional grants or revenue	Medium	Med. term
DES-2.b - Encourage Flexible-Use Building Types.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term

¹ Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

² 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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
DES-2.c - Allow Mixed Use in Commercial Districts.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
DES-2.d - Require Parking “Cash-Out” Program.	CDA, DPW	Will require additional grants or revenue ²	High	Short term
DES-3.a - Encourage Mixed-Use Projects.	CDA	Existing budget and may require additional grants or revenue ²	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 revenue ²	Medium	Med. term
DES-3.d - Identify Public Green Space Potential.	CDA, MCOSP	Existing budget and may require additional grants or revenue ²	Low	Ongoing
DES-3.e - Encourage Small-Scale Green Spaces.	CDA	Existing budget and may require additional grants or revenue ²	Low	Ongoing
DES-4.a - Protect Key Public Views.	CDA	Existing budget and may require additional grants or revenue ²	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 Ridgelines.	CDA	Existing budget and may require additional grants or revenue ²	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 revenue ²	High	Med. term
DES-4.f - Participate in the California Scenic Highway Program.	TAM, CWPA, CDA	Existing budget and may require additional grants or revenue ²	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 revenue ²	High	Short term



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3.6 Energy and Green Building

Background

Energy is essential to every sector of the economy and community, and the design of the built environment determines how much energy is used. The way energy is obtained and produced has significant impacts on individual and environmental health. Energy generation from fossil fuels (coal, oil, natural gas) is the single largest contributor to greenhouse gas emissions.

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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.

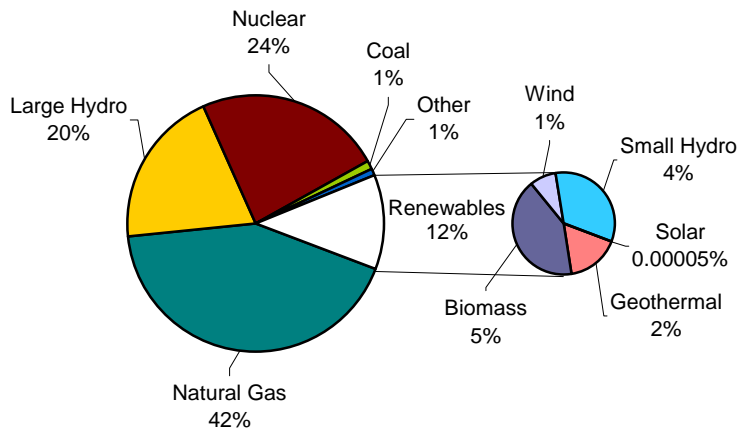
Energy conservation means reducing energy waste. Examples include turning lights, heating, and motors off when not needed.

Most energy in the county and state is imported, and Pacific Gas and Electric (PG&E) is the sole distributor of electricity and natural gas locally. Marin is therefore vulnerable to supply disruptions and price increases like the 2000–2001 spike that cost local residents and businesses about \$60 million more than 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, 2005¹



Source: 2006 California Energy Commission.

¹This 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



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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.

Key Trends and Issues

Is local energy demand increasing?

Marin residents are using more energy. Marin community-wide electricity use increased 18% from 1991 to 2000, with only about a 5% increase in customers. Natural gas use increased about 6% during the same period. Customers responded to the energy crisis by reducing community-wide electricity use 11% between 2000 and 2002. However, California set new peak demand records in the summer of 2004.

Homes in Marin are getting larger. While the Marin population is expected to grow at less than 1% per year, the increasing size of new and remodeled homes, and building in warmer areas (that require cooling), are adding to rising local energy demand. Homes consume about half the electricity and most of the natural gas in Marin (see Figures 3-12 and 3-13). By 2020, most energy demand will continue to come from buildings that exist today. Thus, significant reductions in energy use must come from the existing built environment. Forty-four percent of the CO₂ emissions in Marin are from energy use in buildings.

Pumping and treating water is energy intensive. Marin Municipal Water District (MMWD) is the largest electricity user in the county, using about 26 million kWh in fiscal 2004, or about 2% of the countywide load. North Marin Water District (NMWD) accounts for .02% of the countywide energy use.

MMWD is considering building a desalination plant to meet water demand that exceeds local supply and Russian River allocations. At the maximum estimated output (15 million gallons per day), the desalination plant could use up to 98 million kWh annually, more than tripling MMWD's current load and increasing countywide electricity use by 7%.

San Quentin prison is also a large energy user. In fiscal year 2002–03, the prison's usage was 11.8 million kWh, with a demand of 2.6 MW. The projected load of the proposed Condemned Inmate Complex is 7.7 MW, tripling the current load.

Is the cost of energy increasing?

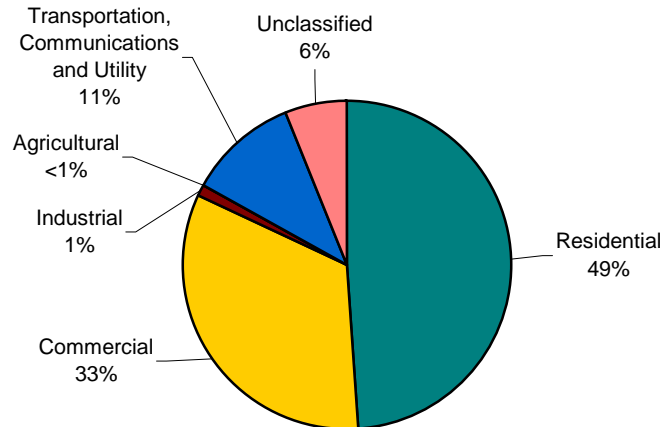
While imported energy prices are increasing, the costs of new energy efficiency and renewable technologies are falling. Investment in energy efficiency and renewables will keep millions of dollars in the local economy.



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How is energy used in Marin?

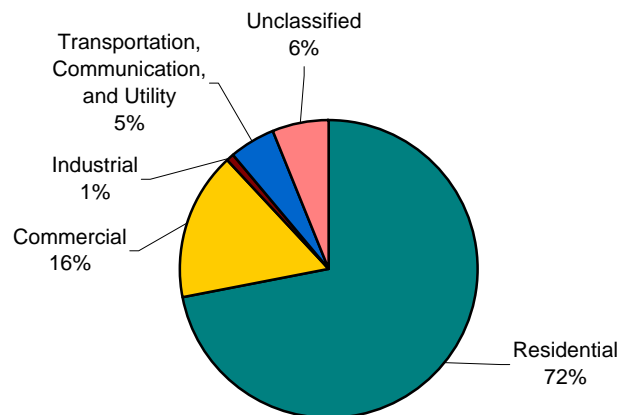
Figure 3-12 Marin Electricity Use, 2000



Source: 2000 Pacific Gas and Electric.

As this figure shows, approximately one-half of all electricity use is in homes, and one-third is in commercial buildings.

Figure 3-13 Marin Natural Gas Use, 2000



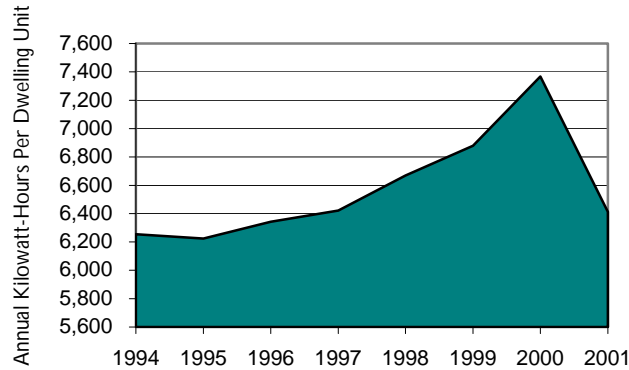
Source: 2000 California Energy Commission.

As the figure indicates, 72% of Marin's natural gas use is in homes. There is a significant opportunity to reduce this gas use through simple weatherization measures and advanced measures such as window retrofits and replacing old furnaces with high-efficiency ones.



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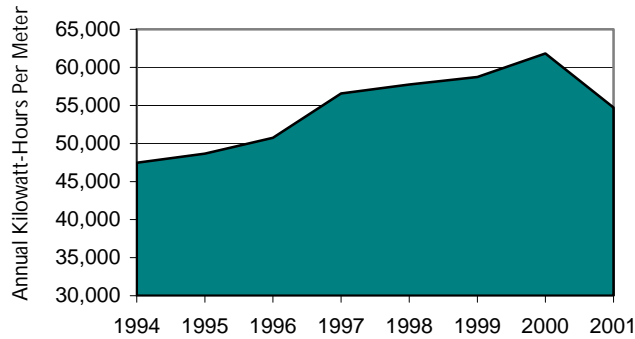
Figure 3-14 Marin Residential Electricity Consumption, 1994–2001



Source: 2000 Pacific Gas and Electric.

Per-customer residential electricity use increased by approximately 11% between 1995 and 2000. However, per-customer use dropped about 8% between 2000 and 2002, largely in response to the energy crisis.

Figure 3-15 Marin Nonresidential Electricity Consumption, 1994–2001



Source: Pacific Gas and Electric, CA Energy.

Nonresidential electricity use (including all commercial, industrial, and agricultural customers) increased 15% from 1995 to 2000 but retreated about 6% between 2000 and 2002 in response to the energy crisis. The number of nonresidential meters decreased from 13,608 in 1994 to 13,469 in 2001.

Marin also has a relatively consistent peak load throughout the year, compared with the rest of California. The peak load for Marin County was 306 MW in 2000, 267 MW in 2001, 266 MW in 2002, and 284 MW in 2003. These peak times occurred in July. The base load for Marin is 100 MW.



Peak load is the maximum energy demand per hour over a defined high-use time period.



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The Public Utilities Commission has set a goal to save more than 23,000,000 MWh per year by 2013. This is the energy equivalent of 10 giant power plants and equal to the electricity needs of 1.3 million customers.

What is the potential for energy efficiency?

Marin can decrease energy use with efficiency. A 2001 Kema-Xnergy study titled *California's Secret Energy Surplus* projects that current Public Goods Charge-funded energy efficiency programs can reduce energy peak demand by 3% through 2011 over a "no program" scenario. A doubling of funding for energy efficiency programs would reduce peak demand by 5%-6%, and a tripling of current funding would reduce peak demand by 9%.



Imported energy sources are approximately 15% efficient due to losses of energy in the excavation, production, and transportation processes.

Renewable energy technologies are becoming more available and less costly.

Marin has significant renewable resources, including solar, wind, micro-hydro, biogas, and tidal power. Wind electric generation is cost competitive with natural-gas-fired power plants today. Solar electric technologies that can be installed at the point of use are widely available and becoming more competitive. Solar electric installations per year in unincorporated Marin County increased from 6 in 2000 to 44 in 2001, 47 in 2002, and 74 in 2003. As of February 2007, there were 797 installed solar electric systems countywide, which are producing a total of 5.2 MW of power. Solar water heating has tremendous potential to offset natural gas use. Additionally, communities have the power to substantially increase generation from renewable energy through Community Choice Aggregation (AB 117). This bill allows communities to become energy providers and choose to increase the use of renewable energy.



Renewable energy means energy from sources that regenerate and are less damaging to the environment, such as solar, wind, biomass, and small-scale hydroelectric power.

What are the impacts of buildings on the environment and human health?

Buildings have a significant impact on the environment. They account for approximately 40% of total energy use, 71% of electricity use, and 33% of all CO₂ emissions in the United States. Buildings also account for 40% of all materials and wood use and 25% of all water use in the United States. Construction and demolition waste is 12% of

Marin's waste stream, with an average of 12.91 tons of waste created from the construction of a new 2,000-square-foot home. About 75% of energy used in buildings is wasted due to poor design and construction and inefficient appliances.

The built environment contributes approximately 44% of the CO₂ produced countywide, and the unincorporated areas contribute about 17%. Dairies and ranches, located predominantly in the unincorporated area, account for only 6% of the CO₂ countywide but 29% in the unincorporated areas.



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Buildings may also have unsafe levels of toxins. The U.S. Environmental Protection Agency reports that the air in new homes can be 10 times more polluted than outdoor air due to the off-gassing of finishes and furnishings. Americans spend approximately 90% of their time inside buildings.

How is green building being implemented?

Green building rating systems provide credible guidelines for green projects. The U.S. Green Building Council (USGBC) has developed the Leadership in Energy and Environmental Design (LEED) rating system to assist building professionals and the public with designing and building green buildings. LEED rates buildings using five categories: Sustainable Sites, Water Efficiency, Energy and Atmosphere, Indoor Air Quality, and Materials and Resources (see the sidebar). Marin County utilizes green building guidelines for single-family homes largely developed by the Alameda County Waste Management Authority.

The number of State and local governments developing green building programs is growing rapidly. Santa Monica, San Jose, San Francisco, Berkeley, and Alameda County; Boulder, Colorado; Austin, Texas; and now Marin County have developed green building programs. The State of California requires all new and renovated state-owned facilities to meet LEED Silver or higher certification.

What are the costs of green building?

Building green is a sound financial choice. Investments in green buildings pay for themselves 10 times over, according to a new study for 40 California agencies. This study, drawing on national data for 33 green buildings and an in-depth review of several hundred existing studies, found that sustainable buildings are a very cost-effective investment. The report concluded that financial benefits of green design are between \$50 and \$70 per square foot in a LEED building, over 10 times the additional cost associated with building green.

Homeowners are increasingly supportive of green building. In a survey conducted in 2000, 36% of respondents were willing to pay up to \$5,000 more for green building options, and 20% were willing to pay up to \$10,000 more. While building green doesn't have to cost more, many people are willing to pay more for the benefits.



CDA's Energy Efficiency and Green Building Program includes the following:

- ◆ Fast-track permitting and waived energy fees currently for projects that
 - a. exceed Title 24 by 20%
 - b. install a solar system that meets 75% of project's energy needs
 - c. meet the Green Building checklist requirements
- ◆ Technical Assistance
- ◆ Green Building Resource Library
- ◆ Trainings for County staff, building professionals, and the public
- ◆ Coordination with other municipalities



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What Are the Desired Outcomes?

GOAL EN-1



Decreased Energy Use. Reduce total and per-capita nonrenewable energy waste and peak electricity demand through energy efficiency and conservation.

Policies

EN-1.1 Adopt Energy Efficiency Standards. Integrate energy efficiency and conservation requirements that exceed State standards into the development review and building permit process.

EN-1.2 Offer Effective Incentives. Continue to offer incentives such as expedited permit processing, reduced fees, and technical assistance to encourage energy efficiency technology and practices.

EN-1.3 Provide Public Information and Education. Continue to provide information, marketing, training, and education to support energy efficiency and energy conservation.

EN-1.4 Reduce Energy Use in County Facilities. Continue to integrate energy efficiency and conservation into all County functions.

Why is this important?

In 2000, electricity production resulted in 63% of U.S. sulfur dioxide emissions that contribute to acid rain, 21% of U.S. nitrous oxide emissions that contribute to urban smog, and 40% of U.S. carbon emissions that contribute to global climate change. Reducing energy use decreases impacts on the environment and critical health problems such as asthma.

Environment: Electricity generation from fossil fuels is the single largest contributor to greenhouse gases in the world. Countywide emissions of carbon dioxide in 2005 were 3.2 million tons. The extraction, processing, transport, and generation for energy contribute to ecosystem degradation and health problems.

Economy: Total countywide electricity costs for Marin in 2005 were \$216,000,000. A dollar spent on energy



Total Energy Use. Saving energy does not necessarily mean living less well. Footprint-efficient products such as compact fluorescent light bulbs (CFLs) can reduce a room's lighting footprint by three-quarters without changing the amount of light provided. If Marin County reduced its total energy use by just 10%, the county could reduce its footprint by 63% the size of Marin County.



Housing Overlay. Smart development that reduces urban sprawl and locates housing near jobs can help to create safer and healthier communities. It can also reduce footprint. A compact, well-designed community can decrease a resident's total driving footprint by at least 10%.



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efficiency will cycle through the economy four times versus a dollar spent on an energy bill that leaves the local economy quickly. Reducing energy costs is important to a healthy local economy.

Equity: Lower income households pay a high percentage of their income on energy bills and are adversely affected by rising energy prices. Rental housing where lower income tenants live often lacks energy efficient insulation, windows, heating equipment, or appliances.

How will results be achieved?

Implementing Programs

EN-1.a *Establish a Permanent Sustainable Energy Planning Process.* Integrate sustainable energy resource planning and program implementation (including climate protection, water resources, and other overlapping topics) into long-range and current planning functions and other related County divisions. Establish and maintain a process to implement, evaluate, and modify existing programs. Work with PG&E and local and State agencies to estimate current and future energy demand countywide, conduct integrated resource planning, determine how energy sources and delivery systems can conserve resources and reduce demand in Marin, and promote energy conservation, efficiency, and use of renewable resources.

EN-1.b *Adopt Energy Efficiency Standards for New and Remodeled Buildings.* Develop and implement building standards that exceed Title 24 for residential and commercial buildings based on appropriate criteria for the county's specific climate zones, sustainability goals, and other appropriate criteria. Establish technical and financial feasibility criteria by which the standards can be periodically improved.



CDA Sustainability Programs

- ◆ Green Business
- ◆ Certification and marketing program
- ◆ Solar incentives and technical assistance
- ◆ Energy efficiency and resource efficiency
- ◆ Green building incentives
- ◆ Climate protection target and plan
- ◆ Sustainable County operations report



Energy efficiency retrofits at the Marin Civic Center have saved over \$300,000 and 1,000 tons of CO₂ per year, which is the equivalent of planting 288 acres of trees.



Exceeding the building energy-use requirements of the State Energy Code by 22% will reduce the average home energy bill by \$812/year and have a payback of 5 to 10 years.



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EN-1.c *Implement the Single-Family Dwelling Energy Efficiency Ordinance.* Continue to require that all new and remodeled homes larger than 3,500 square feet comply with the Marin County Single Family Dwelling Energy Efficiency Ordinance through energy efficiency techniques and/or use of renewable energy. Review and revise the standard periodically to account for changes in Title 24, and technical and financial advances in energy efficiency and renewable technologies.



Marin County current sustainability ordinances:

- ◆ Single Family Dwelling Energy Efficiency Ordinance
- ◆ Construction and Demolition Waste Recovery Ordinance
- ◆ Wood Smoke Reduction Ordinance

EN-1.d *Explore Energy Efficiency Standards for Existing Buildings.* Explore and, if appropriate, adopt energy efficiency standards for existing residential and commercial buildings upon substantial remodel. Consider requiring energy efficiency inspections, disclosure, and retrofits at change of ownership based on cost-effective and commercially available energy efficiency measures.

EN-1.e *Offer Information, Technical Assistance, Training, and Incentives.* Continue to expand energy efficiency information, marketing, training, and technical assistance to property owners, development professionals, schools, and special districts. Review and revise, as needed, existing incentives for incorporating energy-

reducing practices in remodels and new development, including fee reductions and expedited processing.

EN-1.f *Explore Regional Collaboration, Financing, and Other Incentives.* Explore regional and countywide collaborations among local governments, special districts, and other public organizations to share resources, achieve economies of scale, and develop plans and programs that are optimized on a regional scale. Evaluate and implement opportunities for supporting new programs and promoting sustainable energy practices through financing mechanisms (e.g., pooled project financing, low-interest loans, Community Choice Aggregation, other local government joint ventures, and State funds earmarked for energy efficiency and renewables).

EN-1.g *Support Key Legislation.* Monitor and support State and federal legislation that promotes energy efficiency and renewable energy sources.

EN-1.h *Support Low Income Weatherization.* Review and ensure that adequate low income weatherization programs are being implemented in Marin, and all available State and federal funds and programs are being used to the fullest extent possible. Provide information, training, and technical assistance to owners and tenants who may have incentives for implementing energy efficiency in low income rental properties.

EN-1.i *Reduce Energy Use in Processing Operations.* Work with local commercial, industrial, and agricultural operations to identify opportunities for energy efficiency in the storage, transport, refrigeration, and other processing of commodities, and require such



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operations to provide energy efficiency analyses in conjunction with required County approvals.

- EN 1.j **Reduce Energy Use in County Facilities.** Continue to reduce energy in County facilities, utilize innovative energy efficiency technologies, and provide leadership and technical assistance to other agencies.

What Are the Desired Outcomes?

GOAL EN-2

Increased Renewable Resource Use. Utilize local renewable energy resources, and shift imported energy to renewable resources.



Policies

- EN-2.1 **Protect Local Renewable Resources.** Preserve opportunities for development of renewable energy resources.
- EN-2.2 **Adopt Renewable Energy Building Standards.** Integrate technically and financially feasible renewable energy requirements into development and building standards.
- EN-2.3 **Promote Renewable Energy.** Facilitate renewable technologies through streamlined planning and development rules, codes, processing, and other incentives.
- EN-2.4 **Provide Public Information and Education.** Provide information, marketing, training, and education to support renewable resource use.



Why is this important?

Buildings account for most electricity and natural gas consumption in the county. Incorporating solar (electric and both passive and active space and water heating) in new design and retrofitting of existing buildings offers the greatest opportunity for using local renewable resources.

Energy mix. Burning fossil fuels to produce electricity is responsible for a large portion of CO₂ emissions in Marin County. Switching to renewable energy sources such as solar can result in significant footprint savings. Increasing the share of renewably generated electricity in Marin's energy mix to 40% in 2015 will decrease the county's footprint by 1.8 Marin counties each year.



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Installed photovoltaic systems in Marin reduce CO₂ emissions by 1,427 tons CO₂ avoided per year.

Environment: The amount of land required for photovoltaic (PV) cells to produce enough electricity to meet all U.S. power needs is estimated at less than 60,000 square kilometers, or roughly 20% of the area of Arizona. Renewable energy generation options such as solar, wind, biogas, and tidal power increase the reliability of our supply and reduce our dependence on imported energy. Both local and imported renewable energy reduce greenhouse gas emissions.



Photovoltaic systems have a payback of 8 to 15 years.

Economy: Increasing renewable electricity use from 2.5% today to 20% by 2020 would reduce natural gas use by 6% and save consumers nearly \$27 billion. Using locally produced renewable energy can provide price stability and keep more money in the local economy through lower energy bills and job creation. The solar industry generates around nine jobs per megawatt installed, whereas traditional fossil fuel generates one job per megawatt installed.

Equity: The United States is home to only 3% of the world's known oil reserves. Renewable energy at the source of use, such as solar electric generation, can provide greater control over cost and reliability. However, initial capital cost and lack of financing can make it unaffordable to lower income residents.

Figure 3-16 Renewable Energy

Biogas energy is recovered methane from landfills or agricultural operations used to power an engine or a turbine.

Micro-hydro turbines use the energy of falling water to create electricity. MMWD and NMWD have hydro-power potential at their reservoirs.

Solar energy uses the sun's energy to provide heat, light, hot water, and electricity for homes, businesses, and industry.

Tidal energy systems use the energy of waves, rising/falling tides, or the flow of water through a venturi to power a turbine. San Francisco is pursuing a tidal energy system, and Marin is exploring the idea with it.

Wind generators are turbines that use the energy in the motion of the wind to make mechanical energy, which is then converted to electrical energy. Wind is the least expensive method of generating electricity, and there is enough potential wind energy in the United States to power the entire country. National Renewable Energy Laboratory (NREL).



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How will results be achieved?

Implementing Programs

- EN-2.a ***Map Local Renewable Energy Resources, Utility Systems, and Demand Areas.*** Use Geographic Information Systems (GIS) to map and assess local renewable resources, the electric and gas transmission and distribution system, community growth areas anticipated to require new energy services, and other data useful to deployment of renewable technologies.

- EN-2.b ***Protect Renewable Resources.*** Identify possible sites for production of energy using local renewable resources such as solar, wind, small hydro, biogas, and tidal; evaluate potential land use, environmental, economic, and other constraints affecting their development; and adopt measures to protect those resources, such as utility easement, right-of-way, and land set-asides.

- EN-2.c ***Protect Solar Access.*** Continue to require the protection of passive or active solar design elements and systems from shading by neighboring structures and trees.

- EN-2.d ***Facilitate Renewable Energy Technologies and Design.*** Continue to identify and remove regulatory or procedural barriers to producing renewable energy in building and development codes, design guidelines, and zoning ordinances. Work with related agencies such as fire, water, and health that may impact the use of alternative technologies. Develop protocols for alternative energy storage such as biodiesel, hydrogen, and/or compressed air.

- EN-2.e ***Provide Incentives for Alternative Energy Production.*** Continue to provide incentives such as fee reductions and expedited processing for facilities that use renewable sources for energy production. Work with State and federal agencies to secure tax exemptions, tax rebates, or other financial incentives for such facilities.

- EN-2.f ***Use Renewable Energy in County Facilities.*** Continue to develop and employ renewable energy and clean generation technologies such as solar, wind, biogas, tidal, cogeneration, and fuel cells to power County facilities using tax-free low-interest loans and other available financial options. Evaluate the feasibility of purchasing renewable energy certificates to reduce Marin County government’s contribution to greenhouse gas emissions.

- EN-2.g ***Explore Community Choice Aggregation.*** Evaluate and pursue implementation of Community Choice Aggregation (CCA) if it proves to be a cost-effective and low-risk strategy to accelerate the use of renewable energy resources.



A study of available rooftop space in Marin determined that approximately 100 MW of photovoltaics could be installed on commercial buildings and 130 MW could be installed on residential buildings.



Community Choice Aggregation (AB 117)

CCA permits municipalities to aggregate and provide electricity to residents, businesses, and public facilities. Investor-owned utilities (IOUs) continue to own and operate the transmission and distribution system, and provide metering, billing, and other customer service functions.

EN-2.h *Provide Information and Technical Assistance.* Offer technical assistance for renewable energy and clean distributed generation as part of the program under EN-1.e.

EN-2.i *Explore Renewable Energy Financing Options.* Evaluate and implement as feasible local government financing options such as low-interest loans, pooled project financing, and joint ventures with other agencies with financing authority, such as the water districts.

EN-2.j *Coordinate with the Special Districts on Energy Use.* Work with MMWD, NMWD, and sanitary and other special districts to assess and develop joint initiatives for energy and water resource planning, resource conservation, and energy development.

EN-2.k *Explore Regional Collaboration.* Explore regional collaborations among local governments, special districts, nonprofits, and other public organizations to share resources, achieve economies of scale, and develop renewable energy policies and programs that are optimized on a regional scale.

What Are the Desired Outcomes?

GOAL EN-3



Adopt Green Building Standards. Integrate green building requirements into the development review and building permit process.

Policies

EN-3.1 *Initiate Green Building Initiatives.* Encourage and over time increasingly require sustainable resource use and construction with nontoxic materials.

EN-3.2 *Offer Effective Incentives.* Continue to offer incentives that encourage green building practices.

EN-3.3 *Incorporate Green Building in County Facilities.* Integrate green building practices into all County facilities.

EN-3.4 *Provide Public Information and Education.* Continue to provide information, marketing, training, and education to support green building.



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Why is this important?

Efficient windows, appliances, and lighting can lower electricity need in a building by up to 65%. Many conventional products, such as cabinets, counter tops, shelving, and furniture, are made from particleboard that is glued together with formaldehyde, a suspected human carcinogen. Green building practices create healthier living and working conditions, protect watersheds, reduce the embodied energy of materials, reduce pressure on forest and mineral resources, and result in buildings that are less expensive to operate and often have a higher resale value.

Environment: Buildings have a significant impact on the environment. They account for approximately 40% of total energy use, 71% of electricity use, and 33% of all carbon dioxide emissions in the United States. Buildings also account for 40% of all materials and wood use, and 25% of all water use in the United States.

Economy: In 2003, the State of California commissioned a study of 35 LEED buildings. The study found that the average extra first cost was approximately \$5 to \$6/square foot (2%) more than average commercial construction costs. However, the range of benefits was approximately \$50 to \$70/square foot, with increased productivity being the largest benefit.

Equity: Up to 40% of children born today may develop respiratory problems, possibly due in part to the chemicals in their homes. Conventional buildings contain many toxins, such as formaldehyde. Green building strives to use nontoxic materials.

How will results be achieved?

Implementing Programs

- EN-3.a** ***Require Green Building Practices for Residential Development.*** Require residential development and major remodels that are subject to design review to utilize the Marin Green Building Design Guidelines (see the Introduction, “Technical Background Reports and Other Supporting Documents”) or other County-approved rating systems. Affordable housing projects are encouraged but not required to integrate the Marin Green Building Design Guidelines or other County-approved rating systems. Additional technical assistance and public funding should be provided for that purpose.
- EN-3.b** ***Require Green Building Practices for Nonresidential Development.*** Consider incentives and/or the discretionary permit process to require new nonresidential development and remodels to utilize the U.S. Green Building Council’s LEED rating system.
- EN-3.c** ***Divert Construction Waste.*** Continue to implement and improve the Construction and Demolition Waste Recovery Ordinance, requiring building projects to recycle or reuse a minimum of 50% of unused or leftover building materials.
- EN-3.d** ***Encourage Fly Ash in Concrete.*** Provide incentives and consider regulations requiring new building projects that use a substantial amount of concrete to incorporate at least



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25% fly ash to offset some of the energy use and greenhouse gas emissions associated with the manufacturing of cement.

- EN-3.e** *Offer Information, Technical Assistance, Training, and Incentives.* Continue to expand green building information, marketing, training, and technical assistance to property owners, development professionals, schools, and special districts. Include green building guidelines in residential design guidelines. Review and revise, as needed, existing incentives for incorporating green building practices in remodels and new development, including fee reductions and/or expedited permit processing.
- EN-3.f** *Facilitate Green Building Practices.* Continue to identify and remove regulatory or procedural barriers to implementing green building practices in Marin, such as updating codes, guidelines, and zoning.
- EN-3.g** *Support Green Building Professional Certification.* Support minimum green building certification requirements for architects, contractors, and other building professionals. Provide ongoing training to meet the minimum requirements. Maintain County membership in the United States Green Building Council.

Figure 3-17 LEED Rating System

LEED (Leadership in Energy and Environmental Design) is a rating system created by the U.S. Green Building Council that evaluates environmental performance over a building's life cycle.

LEED rates new and existing commercial, institutional, and high-rise residential buildings as follows:

<i>Rating</i>	<i>Points</i>
Certified	26-32
Silver	33-38
Gold	39-51
Platinum	52-69 (maximum measured)

Maximum rating is 69 points.

- EN-3.h** *Adopt LEED Gold Standards for Public Buildings.* Implement where feasible the LEED (Leadership in Energy and Environmental Design) Gold certification requirements or a higher standard for development and major remodels of new public buildings.



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- EN-3.i** *Explore Regional Collaborations.* Explore regional collaborations among local governments, special districts, nonprofits, and other public organizations to share resources, achieve economies of scale, and develop green building policies and programs that are optimized on a regional scale.
- EN-3.j** *Support Key Legislation and Initiatives.* Monitor and support State and federal legislation and programs that promote green building.
- EN-3.k** *Evaluate Carbon Neutral Building Incentives.* Evaluate the feasibility of incentives and regulations to achieve carbon neutral buildings.



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Figure 3-18 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
EN-1 Decreased Energy Use	•	•	•	•						•	•	•
EN-2 Increased Renewable Resource Use	•	•	•	•	•				•			•
EN-3 Adopt Green Building Standards		•		•	•				•			•



BUILT ENVIRONMENT ELEMENT

How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Energy use per capita countywide.	16,636 kWh unincorporated per capita in 2000.	Reduce consumption of electricity per capita 10% by 2020.
Energy use per employee in County-operated buildings.	11,072 kWh per employee in 2000.	Lower energy consumption per employee by 2020.
Total MW of photovoltaic systems installed countywide.	0.0255 MW in 2000.	15 MW by 2015 and 30 MW by 2020.
Total MW of photovoltaic systems installed by County government.	0 in 2000.	0.5 MW by 2010 and 1 MW by 2015.

¹Many 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 3-19
Energy Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
EN-1.a - Establish a Permanent Sustainable Energy Planning Process.	CDA, CEC, PG&E	Existing budget	Medium	Short term and Ongoing
EN-1.b - Adopt Energy Efficiency Standards for New and Remodeled Buildings.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EN-1.c - Implement the Single-Family Dwelling Energy Efficiency Ordinance	CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
EN-1.d - Explore Energy Efficiency Standards for Existing Buildings.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EN-1.e - Offer Information, Technical Assistance, Training, and Incentives.	CDA	Existing budget and may require additional grants or revenue ²	High	Immediate
EN-1.f - Explore Regional Collaboration, Financing, and Other Incentives.	CDA, CAO, Marin Cities and Towns	Existing budget and may require additional grants or revenue ²	High	Immediate
EN-1.g - Support Key Legislation.	CDA, CAO	Existing budget and may require additional grants or revenue ²	Medium	Immediate and Ongoing
EN-1.h - Support Low Income Weatherization.	CDA, CBO's	Will require additional grants or revenue ²	Medium	Short term
EN-1.i - Reduce Energy Use in Processing Operations.	CDA, UCCE-FA ³	Will require additional grants or revenue ²	Medium	Med. term

¹ Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

³UCCE-FA: University of California Cooperative Extension, FA: Farm Advisor.



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Program	Responsibility	Potential Funding	Priority	Time Frame
EN-1.j - Reduce Energy Use in County Facilities.	DPW	Existing budget and may require additional grants or revenue ²	High	Short term
EN-2.a - Map Local Renewable Energy Resources, Utility Systems, and Demand Areas.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Short term
EN-2.b - Protect Renewable Resources.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
EN-2.c - Protect Solar Access.	CDA	Existing budget	High	Ongoing
EN-2.d - Facilitate Renewable Energy Technologies and Design.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
EN-2.e - Provide Incentives for Alternative Energy Production.	CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
EN-2.f - Use Renewable Energy in County Facilities.	DPW, CDA	Will require additional grants or revenue ²	High	Ongoing
EN-2.g - Explore Community Choice Aggregation.	CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
EN-2.h - Provide Information and Technical Assistance.	CDA	Existing budget	High	Ongoing
EN-2.i - Explore Renewable Energy Financing Options.	CDA, CAO	Existing budget and may require additional grants or revenue ²	Medium	Short Term
EN-2.j - Coordinate with the Special Districts on Energy Use.	CDA, Water and Sewer Districts	Existing budget and may require additional grants or revenue ²	Medium	Short Term
EN-2.k - Explore Regional Collaboration.	CDA, CAO, Marin Cities and Towns, Water and Sewer Districts, Schools, CBO's	Existing budget and may require additional grants or revenue ²	High	Immediate



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Program	Responsibility	Potential Funding	Priority	Time Frame
EN-3.a - Require Green Building Practices for Residential Development.	CDA	Existing budget	High	Ongoing
EN-3.b - Require Green Building Practices for Nonresidential Development.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Short term
EN-3.c - Divert Construction Waste.	CDA	Existing budget	High	Ongoing
EN-3.d - Encourage Fly Ash in Concrete.	CDA	Existing budget	Medium	Short term
EN-3.e - Offer Information, Technical Assistance, Training, and Incentives.	CDA	Existing budget	High	Ongoing
EN-3.f - Facilitate Green Building Practices.	CDA	Existing budget	High	Ongoing
EN-3.g - Support Green Building Professional Certification.	CDA	Existing budget	Medium	Short term
EN-3.h - Adopt LEED Gold Standards for Public Buildings.	Board of Supervisors, DPW	Existing budget and future capital improvement budgets	High	Immediate
EN-3.i - Explore Regional Collaborations.	CDA	Existing budget and may require additional grants or revenue ²	High	Immediate
EN-3.j - Support Key Legislation and Initiatives.	Board of Supervisors CDA, County Lobbyist	Existing budget	Medium	Ongoing
EN-3.k - Evaluate Carbon Neutral Building Incentives.	CDA	Existing budget	Medium	Med. term



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3.7 Mineral Resources

Background

The State requires cities and counties to adopt policies that restrict designated mineral resource sites from premature development and protect surrounding communities from impacts associated with mineral extraction. The purposes of such State policies include encouraging extraction of necessary mineral and construction commodities in locations reasonably close to their markets, and ensuring that mined lands are reclaimed to minimize adverse effects on the environment and public health. Furthermore, local governments have a responsibility to protect the public health and safety of their residents by requiring that only legal mining and material transport and handling activities are conducted, and that the impacts of such operations are adequately mitigated using the best available management practices.

The impacts of existing and proposed quarry activities must be mitigated to respect both the environment and neighbors, in compliance with the County use-permit process and the accompanying environmental review required by the California Environmental Quality Act (CEQA). The use-permit and environmental review processes allow decision makers to objectively review proposed operations, to gather public input concerning potential impacts, and then to place a variety of limitations on mining, construction, transportation, and other associated activities — such as restricted hours of operation, required noise and dust control measures, and necessary water quality protection methods. Additional restrictions may be placed on existing operations when quarry operators request modifications to already permitted activities if the existing operation causes inadequately mitigated impacts.

In conjunction with the use permit required for a proposed quarry operation, a reclamation plan must also be filed (as required by State law). The plan identifies the method for restoring the land for a subsequent use once the mining operation is completed. The plan must also contain specific information about the site, the mineral commodity being mined, the mining method, and the details regarding how the proposed reclamation program will minimize adverse impacts. Conformance with the reclamation plan is monitored by the County Department of Public Works.

Quarry operations are generally divided into three categories:

1. vested quarries that existed prior to adoption of the County's quarry ordinance in 1973, do not have contemporary use permits, and may lack comprehensive environmental impact analysis;
2. existing quarry operations that have a use permit;
3. new quarries, which will be required to obtain a use permit, a surface mining and quarrying permit, and a reclamation plan.

The State Mining and Geology Board maintains information on mineral deposits of statewide or regional significance. The North Bay region, comprising Sonoma, Marin, and Napa counties, places an ongoing demand on crushed stone and alluvial deposits for construction materials, including asphaltic concrete, aggregate, road base and sub-base, and Portland cement concrete. Eight sites in Marin County have been designated by the State as having significant mineral resources for the North Bay region (see



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Map 3-5, Location of Mineral Resource Preservation Sites). These sites contain deposits that qualify as marketable commodities by meeting a threshold value based on gross sales price. Four of these sites should be considered for removal from State listing because they have been purchased for public open space, are already subdivided and used for residential purposes, or are highly environmentally sensitive.

Mineral Resource Zones are grouped by the State into four categories based on geologic factors, with Class 2 (MRZ-2) lands having the greatest importance. Class 2 sites are underlain by demonstrated mineral resources considered important to the region or the state as a whole. All of the Marin mineral resource sites are identified by the State as Class 2, except for Ring Mountain, which is considered a Scientific Resource Zone (and therefore not a production site) due to the presence of rare geologic formations. In addition, there are mineral resource sites not designated by the State that have County-approved operating permits and reclamation plans.

This Section of the Countywide Plan is intended to ensure that mineral resource sites provide materials needed locally and regionally in a manner that protects public health and safety, and that mining sites will be operated, maintained, and ultimately restored in compliance with adequate operating permits and reclamation plans.

Key Trends and Issues

Can local sources provide for all of Marin's mineral resource needs?

Materials likely will still be imported to support construction activity. Total consumption of mineral resources to 2030 in Sonoma, Marin, and Napa counties is estimated at 478 million tons. Although the volume of deposits remaining in local quarries has not been determined, it is expected that mined commodities will still need to be transported from outside the County. Consumption level may vary if growth patterns change, and unforeseen events such as disaster reconstruction could dramatically increase the need for materials. Fine sand and gravel suitable for producing Portland cement concrete is already limited in supply locally. Efforts to reduce demand for mineral resources, including minimizing waste of mined materials and using fly ash as a constituent in concrete, can help conserve resources and limit the need for additional extraction.

Are there conflicts between mineral resource extraction operations and neighboring land uses?

In some areas of the county, quarry operations, including truck transportation and blasting, have resulted in substantial conflicts with nearby residential and recreational uses. One example of this is the noise and truck traffic experienced by neighbors of the San Rafael Rock Quarry, which operates under a permit granted in 1972.



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What Are the Desired Outcomes?

GOAL MIN-1

Properly Conducted Mining. Ensure that mineral resource sites remain viable for long-term production and that operations and eventual site reclamation do not adversely impact public health or the environment.



Policies

- MIN-1.1** **Preserve Mineral Resource Sites.** Protect State-designated Class 2 production sites from encroachment by temporary or permanent land uses that would inhibit timely mineral extraction to meet market demand.

- MIN-1.2** **Remove Sites from State Listing.** Petition the State to declassify mining sites from the State list, if a site has been reclaimed.

- MIN-1.3** **Buffer Extraction Areas and Incompatible Land Uses.** Create sufficient buffers between designated mineral resource sites or potential extraction areas and uses incompatible with mining, such as housing.

- MIN-1.4** **Require Best Available Management Practices.** Require best available management practices through the use-permit process to minimize or avoid nuisances, hazards, or adverse environmental impacts.

- MIN-1.5** **Reclaim Mined Lands.** Ensure that all mining operations provide for adequate reclamation of mined lands, including erosion control, revegetation, maintenance of settling ponds, and control of contaminants.

- MIN-1.6** **Address Operational Issues.** When a use permit comes up for renewal, or if a property owner amends a surface mining and quarrying permit, the environmental impacts of the project shall be evaluated and mitigated through the California Environmental Quality Act and the permit process.

- MIN-1.7** **Study Mineral Resource Areas.** In order to respond to changing needs, a study will be conducted to evaluate whether to provide more flexibility in land uses in areas subject to State designations for mineral extraction. The study will include the steps necessary to change mineral policies in order to comply with the requirements of the State Surface Mining and Reclamation Act.

Why is this important?

Eight sites in Marin County have been designated by the State as having significant mineral resources. Mining activities can impact local water, fish, and wildlife, as well as surrounding communities. When the need to extract material is not accompanied by appropriate protection of the environment and the



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health and safety of surrounding neighbors, such operations can create nuisances, hazards, or significant environmental impacts.

Environment. Requiring compliance with use permits, surface mining and quarry permits, and reclamation plans can ensure environmentally sensitive mining operations and healthy reuse of the site after project completion.

Economy: Encouraging construction activity to use materials mined locally helps reduce the costs associated with long-distance transportation of materials and supports local businesses.

Equity: Buffering mining operations from uses sensitive to noise, odors, dust, vibration, and traffic limits exposure of residents to nuisances and health threats, and upholds neighborhood quality of life.

How will results be achieved?

Implementing Programs

- MIN-1.a** ***Modify the Mineral Resource Overlay Zone.*** Modify the Mineral Resource overlay zone to include (1) all sites in unincorporated Marin determined by the State Mining and Geology Board to qualify as Class 2 production sites – such as the Borello, Mount Burdell, and San Pedro Hill sites, and (2) all County-approved mining operations – such as the Nicasio, Martinoni, and Redwood Landfill Quarries.
- MIN-1.b** ***Request Termination of Mineral Designation Status.*** Coordinate with the State Mining and Geology Board to evaluate the removal of the mineral designation status from the two Burdell Mountain mineral resource sites as shown on Map 3-5 as sites 5 and 8 if they no longer meet the threshold for listing.
- MIN-1.c** ***Request Removal from State Listing.*** Coordinate with the State Mining and Geology Board to remove the mineral designation status from Ring Mountain, Black Point, and Burdell Mountain, as these sites are owned by the Marin County Open Space District, and/or are highly environmentally sensitive.
- MIN-1.d** ***Preclude Mining at Ring Mountain.*** Amend the Development Code and County Zoning Map to assign the label “Designated Mineral Resource – Scientific Zone” to all or portions of the following parcels, (Ring Mountain) 038-182-31,32,36,37 to preclude future development of mining operations at this site.
- MIN-1.e** ***Provide Maps of Mineral Resources Areas.*** Make available to the public designated mineral resource areas on County land use maps and mineral resource preparation map sites (Map 3-5).
- MIN-1.f** ***Require Adequate Buffers.*** Modify the Mineral Resource overlay zone to incorporate sufficient buffers between mining operations and neighboring land uses to minimize to the extent feasible adverse effects on public health and safety. Apply such buffers to existing and proposed mining operations through the applicable permitting and environmental review process.



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- MIN-1.g** *Mitigate Impacts.* Prepare and continue to update a list of best available management practices that reflect the state-of-the-art mitigation of project impacts, including traffic and noise. Apply these to mining operations through the permitting and environmental review processes as appropriate.
- MIN-1.h** *Enforce Reclamation Requirements.* Continue to enforce adopted mining reclamation provisions (Development Code Section 23.06, State Public Resources Code Section 2710, *et seq.*, and State Code of Regulations Title 14, Division 2, Chapter 8, Subchapter 1), including through ongoing monitoring of on-site and off-site conditions, and ensure that sufficient financial assurances have been provided to enable full reclamation in accordance with approved plans.
- MIN-1.i** *Require Wetlands Protection.* Amend County Code Section 23.06.40(5) to require mining operations to protect and buffer any wetlands on-site or downstream that might be affected by proposed activities, and to reclaim mined wetlands and return them to wetland status after conclusion of mining operations.
- MIN-1.j** *Require Visual Impact Mitigation.* Amend County Code Section 23.06.40(5) to require mining operations to mitigate any potential negative visual impacts.
- MIN-1.k** *Remove Mineral Resources Protection from Reclaimed Sites.* Withdraw application of County mineral resource preservation policies for mining sites that have been reclaimed.
- MIN-1.l** *Promote Alternative Materials and Conservation.* Work with consumers of mined materials to reduce demand through use of alternative materials and by optimizing recycling of construction and demolition waste (see the Energy and Green Building Section of the Built Environment Element).
- MIN-1.m** *Consider State Mineral Requirements.* Consider changing mineral policies consistent with State law or requirements to allow more flexibility in allowing alternative land uses where considered desirable by the County.



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Figure 3-20 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of this Section’s goal to the Guiding Principles.

Goal	Guiding Principles											
MIN-1 Properly Conducted Mining	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
	•	•	•	•								•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Amount of daily annualized PM 10 and PM 2.5 emissions from active quarry sites adjacent to 25 or more homes.	California PM 2.5 and PM 10 standards.	5% reduction from California standards.

¹Many 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 3-21
Mineral Resources Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
MIN-1.a -Modify the Mineral Resource Overlay Zone.	CDA, DMG	Existing budget and may require additional grants or revenue ²	Low	Med. term
MIN-1.b - Request Termination of Mineral Designation Status.	CDA, DMG	Existing budget and may require additional grants or revenue ²	Low	Long term
MIN-1.c - Request Removal from State Listing.	CDA, DMG	Existing budget and may require additional grants or revenue ²	Low	Long term
MIN-1.d - Preclude Mining at Ring Mountain.	CDA	Existing budget and may require additional grants or revenue ²	Low	Long term
MIN-1.e - Provide Maps of Mineral Resources Areas.	CDA	Existing budget	Medium	Med. term
MIN-1.f - Require Adequate Buffers.	CDA	Existing budget	Medium	Med. term
MIN-1.g - Mitigate Impacts.	CDA	Existing budget	High	Short term
MIN-1.h - Enforce Reclamation Requirements.	DPW	Quarry Fees	High	Ongoing
MIN-1.i - Require Wetlands Protection.	DPW	Will require additional grants or other revenue ²	Medium	Long term
MIN-1.j - Require Visual Impact Mitigation.	DPW	Will require additional grants or other revenue ²	Medium	Long term

¹ Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

² 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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
MIN-1.k - Remove Mineral Resources Protection from Reclaimed Sites.	CDA	Existing budget and may require additional grants or revenue ²	Low	Ongoing
MIN-1.l - Promote Alternative Materials and Conservation.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
MIN-1.m - Consider State Mineral Requirements.	DPW, CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term



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3.8 Housing

Background

Every California city and county is required to include a Housing Element in its general plan that establishes housing goals, policies, and programs that respond to community housing conditions and needs. Marin County adopted an updated Housing Element in April 2003 (which is included in its entirety as part of the Countywide Plan). The Element was found to be in substantial compliance with State law by the California Department of Housing and Community Development (HCD) in June 2003. The Marin County Housing Element responds to current and near-term future housing needs in the unincorporated area of the county.



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This section of the Countywide Plan provides a summary of the background information and analysis contained in the adopted Element, and includes the complete list of Housing Element policies and programs in a format consistent with the rest of the Countywide Plan. A detailed examination of Marin County's housing need, housing supply, housing cost, population, and household characteristics is provided in the complete, adopted Housing Element.

The primary challenge of the County Housing Element is to meet local housing needs while ensuring that new housing will be compatible with existing community character and quality, environmental constraints, and resources. Marin offers one of the more attractive residential environments in the Bay Area due to its natural beauty, desirable neighborhoods, and proximity to San Francisco. Many current housing problems — such as low vacancy rates, escalating housing prices and rents, and overall demand for housing and pressure for growth — result from these attractive qualities.

The Housing Section of the Built Environment Element of the Countywide Plan does not amend the County's Housing Element, adopted June 3, 2003. Rather, this Section of the Countywide Plan summarizes and implements the provisions of the State-certified Housing Element.

Key Trends and Issues

Who needs housing?

Lower Income Households. Significant numbers of very low, low, and moderate income households are in need of housing in Marin County. There are very low and low income families living in overcrowded housing, with families doubling up or larger families living in one- and two-bedroom apartments.

Marin's Aging Population. Seniors with very low and low incomes, primarily SSI-dependent. Many seniors may own their own house, some live alone, but not all have the resources to maintain their house, and some may need to live closer to services.

Young Adults. Students and young adults working in local businesses, and other employees in local businesses commuting to jobs in Marin.

Persons with Special Needs. People living with disabilities who require specific design or service considerations, such as wheelchair-accessible apartments; people in group homes with semi-independent living; farmworkers; the homeless; people in need of mental health care; and people with HIV/AIDS and other illnesses.

Housing for Local Workers. A significant proportion of new jobs projected in the county are expected to be lower paying.

What types of housing are needed?

Rental Units. Particularly smaller units affordable to those with low and very low incomes, and units of two or more bedrooms affordable to moderate and low income households. Marin has a diversity of housing, but in recent years single-family detached housing has been the predominant type of housing built.

Smaller for-Sale Housing. Smaller and attached for-sale units affordable to moderate and low income households.



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Special Needs Housing. Special needs housing and housing with a service component, including senior housing affordable to low and low income households.

Second Units. Second units (which can also improve the affordability of the single-family units).

New Housing That Fits In with Existing Communities. Design policies will help to ensure enhancement of area identity and sense of community so that new housing will have a sensitive transition of scale and compatibility in form to the surrounding area.

How much housing is needed?

ABAG Regional Housing Needs. Under California law, every city and county has a legal obligation to respond to its fair share of the projected future housing needs in the region in which it is located. For Marin County and other Bay Area jurisdictions, the regional housing need is determined by the Association of Bay Area Governments (ABAG), based upon an overall regional need number established by the State. The fair share numbers establish goals to guide local planning and development decision making.

Limited Population Growth. Potential growth in population in Marin County is limited. Between 2000 and 2040, the California Department of Finance projects that Marin County as a whole will grow at an average annual rate of 0.5%, which amounts to about 1,220 people per year, or roughly 500 households per year countywide.

Where should new housing be located?

Integrate Housing with Other Needs. Housing policies must be integrated with related issues, such as land use, design, environmental resource protection, traffic capacity, economic development, adequate infrastructure, and others.

Link Housing with Transit. Linkages with land use strategies that encourage use of transit are also supported in housing policies.

Use Available Land Wisely. Because there is little remaining vacant land available for large-scale development, building on smaller or underutilized scattered sites will be important in meeting housing needs. These infill sites must be developed in a way that best adds value to an area. Encouraging new housing development at appropriate densities, promoting mixed uses where housing can be incorporated into areas of commercial-only or industrial-only uses, and supporting continued development of second units will help make better use of land resources, protect the environment, and help to address housing needs.

Optimize Use of Redevelopment Areas. Sites in Marin City that are within the purview of the County Redevelopment Agency are among those that are appropriate for and capable of providing new housing. Programs HS 3.n through 3.t address mechanisms for constructing new residences in redevelopment/mixed-use projects.



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Provide Locations for Specialized Housing Linked to Services. Continue to support housing for population groups who require special assistance, such as homeless persons, people living with disabilities, seniors, large families, single-parent households, and students.

Figure 3-22
Housing Units Built in Unincorporated Marin County by Income Category (1999 to 2001)

	Very Low Income	Low Income	Moderate Income	Subtotal Affordable Units	Above Moderate Income	Total
Regional "Fair Share" Housing Need	85	48	96	229	292	521
Total Housing Units Built	4	12	61	77	255	332
Units Built as a Percentage of ABAG Need	5%	25%	64%	34%	87%	64%

Source: 2001 Baird + Driskell/Community Planning.

Figure 3-23
Summary of Housing Element Programs and Housing Needs (January 1999 to June 2006)

	Very Low Income	Low Income	Moderate Income	Subtotal Affordable Units	Above Moderate Income	Total
Miscellaneous Housing Element Programs						
Second Units	9	30	17	56	14	70
Attached and Detached Single Family Homes ¹	0	0	18	18	575	593
Market Rate Rentals (Multi-Family) ¹	0	0	26	26	9	35
Subtotal from Miscellaneous Housing Programs	9	30	61	100	598	698
Housing from Potential Sites						
Gates Cooperative	30	4	4	38	0	38
Gibson House	7	1	0	8	0	8
Oakview	7	14	30	51	52	103
Marin City Church	0	1	5	6	0	6
Fireside Motel	50	0	0	50	0	50
Point Reyes Affordable	10	24	0	34	0	34
Ross Hospital	0	0	4	4	0	4
Subtotal Housing from Potential Sites	104	44	43	191	52	243
Total Units Anticipated	113	74	104	291	650	941
Regional "Fair Share" Housing Need	85	48	96	229	292	521
Percent of ABAG Need Expected to Be Met	133%	154%	108%	127%	223%	181%

Note: The above numbers represent some of the total housing that may be built. Additional units may be constructed independent of the programs/sites listed.

Source: Marin County Community Development Agency.

¹For market-rate units, 3% of single-family (mostly townhomes) and 75% of multi-family units are expected to be affordable to moderate income households.



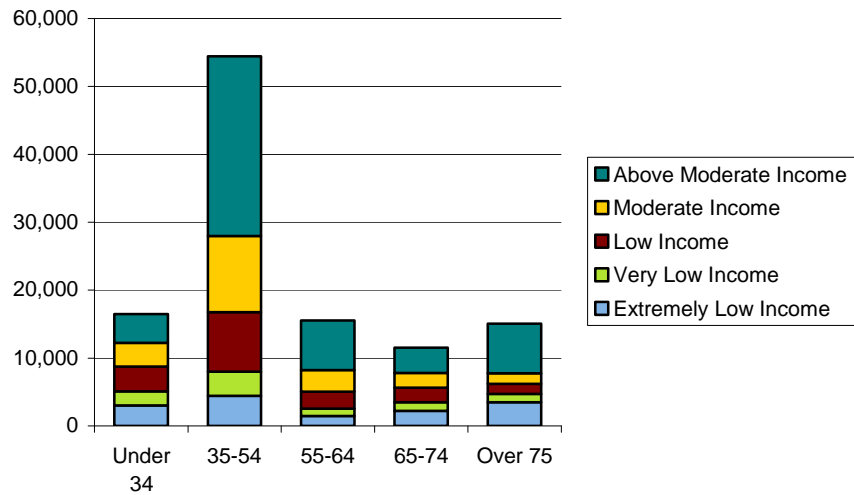
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Figure 3-24
Summary of New Construction and Rehabilitation Quantified Objectives

	Very Low Income	Low Income	Moderate Income	Subtotal Affordable Units	Above Moderate Income	Total
New Construction	113	74	104	291	650	941
Rehabilitation	53	3	38	94	5	99
Total	166	77	142	385	655	1,040

Source: Marin County Community Development Agency.

Figure 3-25 Estimated Distribution of All Households in Marin County by Age and Income (2000)

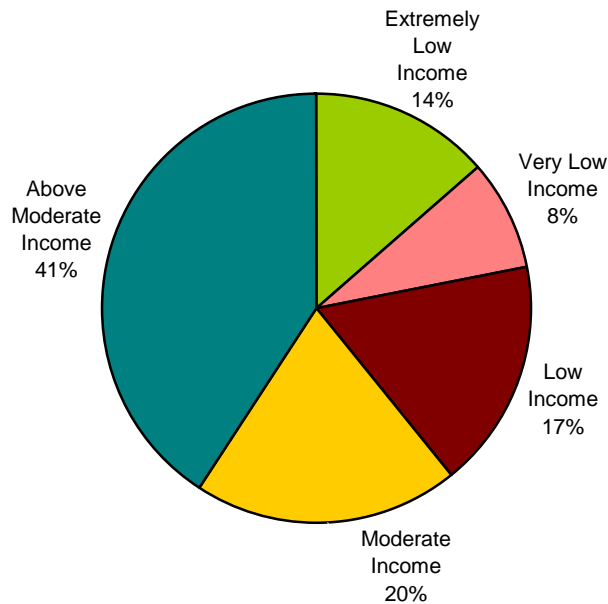


Source: 2000 Baird + Driskell/Community Planning; Claritas, Inc.



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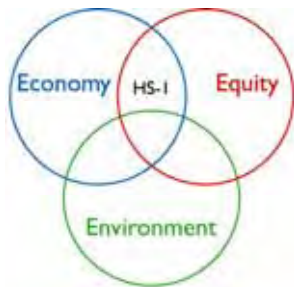
Figure 3-26
Distribution of Marin County Households by Income Category (2000)



Source: 2000 Baird + Driskell/Community Planning; Claritas, Inc.

What Are the Desired Outcomes?

GOAL HS-1



Collaboration and Coordination in Housing. Work together to achieve the County’s housing goals.

Policies

HS-1.1 Assume a Leadership Role. Affordable housing is an important County priority, and the County will take a proactive leadership role in working with community groups, other jurisdictions, and other agencies in following through on identified Housing Element implementation actions in a timely manner.

HS-1.2 Promote Participation in Housing and Land Use Plans. Undertake effective and informed public participation from all economic segments and special needs of the community in the formulation and review of housing and land use issues.

HS-1.3 Hold Neighborhood Meetings. Developers of any major project will be encouraged to have neighborhood meetings with residents early in the process to undertake problem solving and facilitate more informed, faster, and constructive development review.



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HS-1.4 **Ensure Equal Housing Opportunity.** To the extent possible, ensure that individuals and families seeking housing in Marin County are not discriminated against on the basis of race, color, religion, marital status, disability, age, sex, family status (due to the presence of children), national origin, or other arbitrary factors, consistent with the Fair Housing Act.

Why is this important?

The responsibility for effectively addressing housing needs and assuring effective application of Fair Housing laws needs to be shared by many community groups, including neighborhood associations, businesses, nonprofit organizations, and government agencies. The intent of this approach is to continue to be purposeful and creative in developing and responding to opportunities to achieve Marin County's housing goals.

How will results be achieved?

Implementing Programs

- HS-1.a** ***Coordinate Neighborhood Meetings.*** Strongly encourage developers to have neighborhood meetings with residents and staff early as part of any major development pre-application process.
- HS-1.b** ***Conduct Community Outreach Activities.*** Provide ongoing outreach and a forum for discussion of housing issues through presentations and increased citizen awareness of housing programs.
- HS-1.c** ***Prepare and Update Public Information Materials.*** Coordinate with local businesses, housing advocacy groups, neighborhood groups, and chambers of commerce, and participate in the Marin Consortium for Workforce Housing in building public understanding and support for workforce and special needs housing. Using materials from the Marin Housing Workbook and Marin County Housing Element, provide information to improve awareness of housing needs, issues, and programs.
- HS-1.d** ***Collaborate to Implement an Inter-Jurisdictional Strategic Action Plan for Housing.*** The Strategic Action Plan for Housing in Marin that will be considered with each jurisdiction's housing element should be reviewed by each jurisdiction and adopted by the Countywide Planning Agency. The Strategic Action Plan program should be coordinated by the Marin County Affordable Housing Strategist and be available to assist participating cities and towns.
- HS-1.e** ***Undertake Coordinated Lobbying Efforts.*** Identify and lobby for possible changes to State law (such as allowances for the County and cities and towns to voluntarily collaborate in funding and sharing allocations for housing developments in cities and towns) or other legislation that helps to most effectively implement local housing solutions and achieve housing goals.



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- HS-1.f** ***Require Nondiscrimination Clauses.*** Continue to provide nondiscrimination clauses in rental agreements and deed restrictions for housing constructed either with County participation or with Development Disposition Agreements and Owner Participant Agreements when Redevelopment Agency participation occurs.
- HS-1.g** ***Respond to Complaints.*** Refer discrimination complaints to the appropriate legal service, County agency, or State agency, or to Fair Housing of Marin. Participate in activities available in the community to broaden knowledge of fair housing laws, including Fair Housing in-service training, press releases, direct contact with interest groups, and posting of fair housing laws, contacts, and phone numbers.

What Are the Desired Outcomes?

GOAL HS-2



Well-Designed Housing. Maintain and enhance existing housing and blend well-designed new housing into existing neighborhoods; ensure that existing affordable housing at risk of conversion to market rates will remain affordable.

Policies

- HS-2.1 Create an Effective Design Process.** Review proposed new housing to achieve excellence in development design in an effective process.
- HS-2.2 Promote Design That Fits into the Neighborhood Context.** Enhance neighborhood identity and sense of community by designing all new housing to be sensitive to and compatible with the scale and form of the surrounding area.
- HS-2.3 Follow Housing Design Principles.** The intent in the design of new housing is to provide stable, safe, and attractive neighborhoods through high-quality architecture, site planning, and amenities that address the following principles:
- Reduce the Perception of Building Bulk.** In multi-unit buildings, require designs that break up the perceived bulk and minimize the apparent height and size of new buildings, including the use of upper-story step-backs and landscaping. Ensure a human scale in new development and, when possible, create multi-family buildings that have the appearance of gracious single-family homes. Windows and doors, for example, are an important element of building design and an indicator of overall building quality.
 - Recognize Existing Street Patterns.** Incorporate transitions in height and setbacks from adjacent properties to respect adjacent development character and privacy. Design new housing so that it relates to the existing street pattern and creates a sense of neighborliness with surrounding buildings.
 - Enhance the Sense of Place by Incorporating Focal Areas.** Design new housing around natural and/or designed focal points, emphasized through direct



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pedestrian/pathway connections. Respect existing landforms, paying attention to boundary areas and effects on adjacent properties.

- d. **Minimize the Visual Impact of Parking and Garages.** Discourage home designs in which garages dominate the public façade of the home (i.e., encourage driveways and garages to be located to the side of buildings and recessed, or along rear alleyways or below the building in some higher-density developments).
- e. **Use Quality, Energy Efficient Building Materials.** Building materials should be high quality, long lasting, durable, and energy efficient.

- HS-2.4** **Conserve Resources.** Promote development patterns and construction standards that provide resource conservation by encouraging residential site planning, housing types and designs that use sustainable practices and materials, cost-effective energy conservation measures, and fewer resources (water, electricity, etc.), and therefore cost less to operate over time, supporting long-term housing affordability for occupants. (See EN-1.1 and EN-1.2 in the Energy Section of this Element.)
- HS-2.5** **Employ Renewable Energy Technologies.** Promote the use of sustainable and/or renewable materials and energy technologies (such as solar and wind) in new and rehabilitated housing when possible. (See EN-1.1 and EN-1.2 in the Energy Section of this Element.)
- HS-2.6** **Preserve Existing Residences.** Prohibit, to the extent permitted by law, conversion of rental developments to nonresidential or bed-and-breakfast uses to protect and conserve existing rental housing stock.
- HS-2.7** **Protect Existing Affordable Housing.** Strive to ensure that affordable housing provided through government subsidy programs, incentives, and deed restrictions will remain affordable over time, and intervene when possible to help preserve such housing.
- HS-2.8** **Maintain and Manage Quality Housing and Neighborhoods.** Encourage good management practices and the long-term maintenance and improvement of existing housing through housing and building code enforcement and rehabilitation loan assistance for low and moderate income homeowners, and rental property owners with lower income tenants. Make the most effective use of rehabilitation loan funds by prioritizing their use to meet the greatest need.
- HS-2.9** **Protect Mobile Homes, Mobile Home Parks, and Manufactured Housing.** Strive to protect mobile homes, mobile home parks, and manufactured housing as an important source of affordable housing in Marin County. Work with residents, property owners, agencies, and nonprofit groups to seek ways to assist in the long-term protection and affordability of this unique source of housing in the community. If mobile home parks are converted to other uses, the County will require developers to provide relocation assistance for current residents.



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Why is this important?

New development should be compatible with and enhance existing community character. Maintaining community diversity is a high priority. Policies in this Plan encompass two approaches. The first is that the County and its communities share a responsibility in helping to meet housing needs: Investment in new housing and improvements should be distributed throughout the county. Second, new housing development needs to recognize and enhance the design character of the surrounding neighborhood.

How will results be achieved?

Implementing Programs

- HS-2.a** *Exceed Title 24 Requirements and Establish “Green” Building Standards and Processes.* Exceed Title 24 energy conservation requirements, and require structural and landscaping design to make use of natural heating and cooling where financially feasible. Institute the BEST Program applying “Green Building Standards and Processes.” Encourage the use of green building materials and energy conservation.
- HS-2.b** *Clarify and Adopt Criteria for Use in Residential Design Review Process.* Adopt “design guidelines” or more general “design principles” that will establish consistent development review criteria for use by applicants, the community, staff, and decision makers.
- HS-2.c** *Link Code Enforcement with Public Information Programs.* Implement housing, building, and fire code enforcement to ensure compliance with basic health and safety building standards, and provide information about rehabilitation loan programs and subsidized housing programs for use by qualifying property owners and tenants in need.
- HS-2.d** *Assist in Maximizing Use of Rehabilitation Programs.* Publicize low income homeowners’ assistance for housing rehabilitation and the availability of other funding mechanisms to help with home upkeep and maintenance, such as reverse mortgages for seniors on fixed incomes. Utilize federal Community Development Block Grant (CDBG) funds, administered by the Marin Housing Authority, that are available for this purpose, or other sources to the extent possible, given program-funding criteria and local need. Facilitate greater participation in the program by increased advertising and encouragement of resident participation.
- HS-2.e** *Monitor “At Risk” Units and Acquire Existing Affordable Rental Housing.* Work with nonprofit sponsors seeking to acquire and rehabilitate affordable rental housing units in order to maintain ongoing affordability of the units. This will include, but not be limited to, the following: (1) support necessary to obtain funding commitments from governmental programs and nongovernmental grants; (2) assistance in permit processing; (3) possible waiver of fees; and (4) use of local funds if available.
- HS-2.f** *Remedy Constraints on the Development, Maintenance, and Improvement of Housing for Persons with Disabilities.* Analyze and determine whether there are



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constraints on the development, maintenance, and improvement of housing intended for persons with disabilities, consistent with Senate Bill 520, enacted January 1, 2002. The analysis will include an evaluation of existing land use controls, permit and processing procedures, and building codes. If any constraints are found in these areas, the County will initiate actions to address these constraints to provide reasonable accommodation for housing intended for persons with disabilities.

What Are the Desired Outcomes?

GOAL HS-3

Efficient Use of Land. Use our land efficiently to meet housing needs and to implement “smart” and sustainable development principles.



Policies

- HS-3.1 House Local Workers.** Strive to provide an adequate supply and variety of housing opportunities to meet the needs of Marin County’s workforce and their families, striving to match housing types and affordability with household income.
- HS-3.2 Require Contributions for Workforce Housing from Nonresidential Uses.** Require specific nonresidential development project proposals to contribute to the provision of affordable workforce housing, such the provision of housing on-site, or other alternatives of equal value.
- HS-3.3 Develop Employee Housing.** Work with employers developing larger projects to ensure local housing opportunities for their employees, and engage employers to find ways to provide housing assistance as part of their employee packages. Developers of major projects in mixed-use areas will be encouraged to consider and propose housing where feasible.
- HS-3.4 Encourage Live/Work Developments.** Live/work units provide workforce affordable housing, generate additional economic activity in the community, and improve the jobs/housing balance. Encourage opportunities for live/work developments where housing can be provided for workers on-site or caretaker or other types of housing can be provided in appropriate locations.
- HS-3.5 Maintain Population Diversity.** Maintain a diversity of age, social, and economic backgrounds among residents throughout Marin County by matching housing size, types, tenure, and affordability to household needs.
- HS-3.6 Provide a Variety of Housing Choices.** Strive to achieve a mix of housing types, densities, affordability levels, and designs. Work with developers of nontraditional and innovative housing approaches in financing, design, construction, and types of housing that meet local housing needs.



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- HS-3.7 Allow Flexibility in Development Standards.** Seek ways to allow for flexibility in applying development standards, such as FAR, height limits, density, and parking, based on the location and design of the development, compatibility with adjacent uses, and the type, size, and income levels of the occupants of the housing. Recognize that more affordable housing near transit, jobs, and services will generate fewer trips, require less parking, and have fewer area-wide impacts.
- HS-3.8 Build Single-Room Occupancy Units (SRO) and Efficiency Apartments.** Establish opportunities for development of SROs and efficiency apartments in appropriate locations as lower-cost rental alternatives for single-person households. Consider the revision of parking requirements for SRO housing.
- HS-3.9 Retain and Expand Multi-Family Sites at Medium and Higher Density.** Protect and strive to expand the supply and availability of multi-family infill housing sites for affordable and workforce housing; make the most efficient use of these sites in meeting local housing needs; and strive to make sites competitive for subsidies. The County will not redesignate or rezone residential land for other uses or to lower densities without rezoning equivalent land for higher density multi-family development.
- HS-3.10 Encourage Home Sharing.** Seek ways to make house sharing a viable, affordable home-ownership option for seniors and other people with special housing needs.
- HS-3.11 Provide Incentives for Transit-Oriented Development.** Establish land use arrangements and densities that facilitate efficient public transit systems and provide incentives for housing developments within an easy walking distance of transit stops, where reduced automobile use and parking requirements are possible.
- HS-3.12 Designate Transit-Oriented Development Locations.** The following criteria should be met for a Transit-Oriented Development (see TR-3.3, in the Transportation Section of this Element):
- The site is within 0.25-mile distance of a transit route, 0.5 mile of a transit stop, or 0.75 mile of a transit hub and services (i.e., downtowns, or retail centers where daily goods and services are provided, such as markets, dry cleaners, pharmacies, and similar uses).
 - Potential impacts are mitigated.
 - Required inclusionary units are provided.
 - The development provides an excellent, high-quality design that fits with the surrounding neighborhood and incorporates attractive and usable common/open areas.
 - The development provides and/or allows for provision of transit improvements or service as appropriate and if feasible for the site.
 - Parking requirements will be relaxed where possible.
- HS-3.13 Coordinate Regional Transportation/Housing Activities.** Coordinate with regional transportation planning agencies such as the Transportation Authority of Marin and



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Metropolitan Transportation Commission, and facilitate transit-oriented housing development by using the incentives and other means provided through regional transportation plans.

- HS-3.14 Promote Mixed-Use Housing.** Develop incentives to encourage mixed-use residential/nonresidential development in appropriate locations.
- HS-3.15 Redevelop Shopping Centers.** Promote the development of housing in conjunction with the redevelopment of shopping centers when it occurs.
- HS-3.16 Offer Density Bonuses and Other Incentives for Affordable Housing Developments.** Use density bonuses and other incentives to help achieve housing goals while ensuring that potential impacts are considered and mitigated.
- HS-3.17 Control Long-Term Housing Affordability.** Apply resale controls and rent and income restrictions, to ensure that affordable housing provided through incentives, and as a condition of development approval, remains affordable over time to the income group for which it is intended.
- HS-3.18 Designate Affordable Housing Sites.** Given the diminishing availability of developable land, identify housing opportunity areas and sites where a special effort will be made through incentives and other means to provide affordable housing.
- HS-3.19 Follow an Inclusionary Housing Approach.** Require developments with two or more dwellings to provide a percentage of units on-site for very low, low, and moderate income housing; developments with two to four units may pay an in-lieu fee. The units provided through this policy are intended for permanent occupancy and must be deed restricted, including but not limited to single-family housing, multi-family housing, condominiums, townhouses, locally approved licensed care facilities, stock cooperatives, or land subdivisions.
- HS-3.20 Target Income Levels.** Inclusionary zoning requirements will target very low or low income rental units and low or moderate income ownership units at 30%–80% of area median income for rental units and 50%–120% of area median income for ownership units.
- HS-3.21 Meet Inclusionary Requirements.** The primary intent of the inclusionary requirement is the construction of new units on-site with the focus being multi-family housing developments with deed restrictions to support long periods of affordability. Second priority for meeting inclusionary requirements shall be the construction of units off-site or the transfer of land and sufficient cash to develop the number of affordable units required within the same community or planning area. If these options are not practical, then other alternatives of equal value, such as in-lieu fees or rehabilitation of existing units, may be considered.



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- HS-3.22 Maintain Long-Term Affordability of Inclusionary Units.** Inclusionary units shall be deed restricted to maintain affordability on resale to the maximum extent possible (typically in perpetuity or at least 55 years).
- HS-3.23 Require Payment of In-Lieu Fees.** Payment of in-lieu fees will be accepted only when it is determined that transfer of land and/or dedication of units would provide fewer affordable housing units than could be obtained by the expenditure of in-lieu fees on affordable housing development within the planning area. Fees will be calculated based on the cost of land and improvements for unit development and evaluated every other year.
- HS-3.24 Allow Second Units.** Enable construction of well-designed second units in both new and existing residential neighborhoods, consistent with parking and street capacity, as an important way to provide workforce and special needs housing.
- HS-3.25 Update Second-Unit Development Standards and Permit Process.** Streamline applications consistent with State and County procedures.
- HS-3.26 Require Second Units in New Development.** Require some second units (unequal duets) and occasional duplexes as part of new single-family subdivision development where four or more new units are proposed.
- HS-3.27 Ensure Second-Unit Affordability.** When local funding is used to assist in the construction of a second unit, the County will require a use agreement to ensure that second-unit rents are affordable to lower income persons.
- HS-3.28 Legalize Existing Second Units.** Establish an amnesty program for illegal second units that provides a period of time for owners of unpermitted units to register their units and make them legal. In exchange for the property owner's meeting of specified health and safety standards, there should be assurances of the continued affordability of the unit.

Why is this important?

Shelter is a necessity of life. The County recognizes shelter as basic to human dignity. The present housing situation in Marin County effectively provides the right to shelter only for the well-to-do, and restricts opportunities for seniors and young adults to remain in their community. It limits the ability of teachers and other public service employees, people who work in local businesses, and people who provide child care and elder care to find housing so that they can live in the community where they work.

More housing choices can be created through mixed-use housing, live-work units, higher density housing close to public transit and services, and sensitive development of unused or underutilized lands. Infill development reduces vehicle trips and the resulting greenhouse gas emissions. Recent changes in California State law will make it easier for property owners to add a second unit. The County has identified sites and areas as having the potential to provide housing to help meet the demand for housing, as well as meet State law and regional housing need requirements. The development potential



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of these sites and areas is based on the properties' availability for development, land use designations, ownership, size, and other physical characteristics, and their relative lack of environmental constraints.

How will results be achieved?

Implementing Programs

- HS-3.a** *Complete a Nonresidential Job/Housing Linkage Study.* In coordination with Marin County and the cities of San Rafael and Novato, complete the Nexus Study (already in draft form) to determine appropriate and possible contributions for affordable housing from nonresidential uses, and to document the relationship between job growth and affordable housing needs of various types of development.
- HS-3.b** *Adopt a Job/Housing Linkage Ordinance.* Continue to apply the Jobs/Housing Linkage Ordinance, which sets requirements on new development for construction of affordable dwelling units and/or payment of in-lieu fees to the Housing Trust Fund.
- HS-3.c** *Identify Existing Employee Housing Opportunities.* Work with local school districts, public agencies, and existing businesses to seek opportunities for helping their employees find needed housing, such as purchasing or leasing of larger facilities to provide local housing opportunities, mortgage buy-downs or subsidies, and rent subsidies. Seek the commitment of other organizations, such as the Marin Board of Realtors, to have their members encourage employers to address employee-housing opportunities.
- HS-3.d** *Establish Zoning for Live/Work Opportunities.* Review home occupation, employee, and caretaker provisions in the Development Code to ensure reasonable standards for home occupations and to create the possibility for live/work projects. Identify locations in Marin County suitable for live/work units, and include performance standards relating to noise, odor, and type of uses permitted, and standards for parking, fencing, and related performance standards.
- HS-3.e** *Apply CEQA Exemptions and Expedited Review.* Consistent with CEQA Section 15332 ("Infill Development Projects"), seek opportunities for infill development within urbanized areas consistent with local general plan and zoning requirements that can be categorically exempt from CEQA review. In instances where CEQA Section 15332 would not apply, the County will consider an areawide Environmental Assessment or Program EIR assessing areawide infrastructure and other potential off-site impacts to expedite the processing of subsequent affordable housing development proposals.
- HS-3.f** *Modify Multi-Family Sites Zoning.* Review and amend multi-family residential standards and procedures in order to ensure protection and efficient development of multi-family infill housing sites that are consistent with the Marin Countywide Plan and Development Code to be developed for affordable and workforce housing. Amendments to be addressed include the following:



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- a. Establish requirements for minimum densities to be built to ensure that medium and higher density sites are not developed with lower density, detached, single-family housing unless it is certain that physical or environmental constraints would preclude it.
- b. If development on a site is to occur over time, ensure that the proposed development does not prevent subsequent development of the site to at least its minimum density.
- c. Approve well-designed multi-family housing at the mid- to high end of the density range of Countywide Plan and Community Plans densities.
- d. List multi-family housing up to a specified number of units as a permitted use (not a conditional use) in multi-family zones, subject to design review and other routine development review and approval.
- e. Establish Countywide Plan multi-family density ranges of up to 40 units per acre where appropriate (e.g., where parks and other services would be adequate, and/or near transit stops and other services, and/or on key sites/areas already designated multi-family or mixed use).
- f. Encourage use of planned development zones in order to allow flexibility in applying development standards and to achieve higher densities, particularly where greater affordability can be achieved.
- g. Allow density standards to be applied on a net acre basis.
- h. Allow flexibility in some locations to increase the height limit for multi-family buildings when linked to good design.

HS-3.g

Seek Increased Multi-Family Housing Opportunities. When undertaking general plan amendments, specific plans, rezoning, or a community visioning process, the County will strive to identify sites for multi-family affordable workforce and special needs housing where opportunities are available. The following kinds of sites and opportunities may be included or considered:

- a. Land owned by the County or other governmental agencies (such as school districts).
- b. Reuse of underutilized or nonviable commercial sites, and, in limited circumstances, industrial sites, to encourage adaptive reuse of vacant buildings with residential or mixed residential and commercial uses.
- c. Parking lots.
- d. Residentially zoned sites where higher density is feasible or may be accommodated through lot consolidation.
- e. A small percentage of sites in single-family neighborhoods where duplexes or small multi-family uses would be appropriate.
- f. For key housing opportunity sites/areas, identification of specific housing use and design objectives, and incorporation of fast track process provisions for subsequent projects that are consistent with the plan.
- g. Identification of the mix of uses, minimum density standards, density bonuses, or a percentage of affordable units (sites should be rezoned at sufficient densities to



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create incentives for housing production within the five-year time frame of the Housing Element).


- h. Establishment of objectives and commitments in general plans and community/neighborhood plans so that project-specific review can focus on site-specific issues such as design.
- i. Linkage of plans to CEQA exemptions and expedited review, consistent with CEQA Section 15332.
- j. Provision of clear guidelines and incentives for the development of housing in conformance with current State laws, and identification of specific ways to streamline processing for subsequent development proposals.

HS-3.h

Zone and Provide Appropriate Standards for SRO Units and Efficiency Apartments.

Establish opportunities for development of single room occupancy units (SROs) and efficiency apartments in appropriate locations as lower-cost rental alternatives for single-person households. Review and revise zoning regulations to encourage additional SRO units and efficiency apartments in multi-family and mixed-use areas. This review should include the following:

- a. Review and provision of appropriate parking, development, and management standards, and reduction of per unit fees and other standards in recognition of the small size and low impacts of SRO units.
- b. Expansion of the types of SRO development that may be permitted (e.g., not strictly very low and low income).
- c. Consideration of zoning provisions to encourage SROs and “studio apartments” through the use of density bonus provisions, or other provisions that may equate SRO units or studio apartments on a two-to-one basis with two-bedroom apartments.



Cohousing is a type of collaborative housing that attempts to create a sense of community among neighbors. Cohousing projects are comprised of a combination of private dwellings (with private kitchen and living spaces) and extensive common facilities for community dining and recreation. This physical design encourages social contact.

HS-3.i

Encourage Cohousing, Cooperatives, and Similar Collaborative Housing Development.

Encourage housing developments that are based on cohousing and similar approaches that feature housing units clustered around a common area and shared kitchen, dining, laundry, and day care facilities, and make zoning revisions that could assist “shared housing,” such as allowing a small meal preparation area in addition to a kitchen in order to facilitate home sharing opportunities, particularly in underutilized, large homes occupied by only one or two people.



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- HS-3.j** *Evaluate Government Property for Housing Potential.* Actively work with school districts, government agencies, and neighborhood groups to develop surplus or underdeveloped property for affordable housing for teachers and government personnel. Establish an equitable selection process if the agency or district puts up land and therefore has an equity interest in the housing development.
- HS-3.k** *Encourage Transfer of Development Rights (TDR).* Consider actions to encourage Transfer of Development Rights (TDR) if it will result in the development of workforce or special needs affordable housing in appropriate locations.
- HS-3.l** *Review and Update Parking Standards.* Review and update parking standards based on the most up-to-date empirical studies to allow for more flexible parking requirements to help facilitate infill, transit-oriented, and mixed-use development. Consider the following:
- Establish a landscape parking reserve that is designated for parking if needed in the future.
 - Evaluate opportunities for underground parking or auto sharing.
- HS-3.m** *Establish Transit-Oriented Development (TOD) Zoning Standards.* Establish standards and procedures in the Development Code to promote Transit-Oriented Development (TOD), including (1) a density bonus (up to an additional 25% in excess of the General Plan maximum); (2) parking standards to be established on a case-by-case basis, depending upon the location and characteristics of the development; and (3) height limit bonuses on parts of TOD sites as appropriate if the design fits with other nearby uses and within the neighborhood context.
- HS-3.n** *Identify and Designate TOD Sites.* Identify and map potential TOD sites, and undertake general plan, rezoning, and environmental review as necessary to facilitate their development.
- HS-3.o** *Conduct a Survey of Potential Mixed-Use Sites.* Conduct a survey of nonresidential sites to identify sites that have the potential for mixed-use development or redevelopment, as follows:
- Site-selection efforts should be focused on areas located near to downtowns, commercial corridors, and shopping centers, malls, or village commercial areas.
 - Analyze current zoning and development standard constraints that may limit mixed-use development for each potential site identified.
 - Develop criteria for site identification, such as proximity to transit, commercial services, compatible scale of surrounding development, lack of land use conflicts, and applicability of CEQA Section 15332 (“Infill Development Projects”).
- HS-3.p** *Prepare a White Paper on Mixed-Use Housing Development Feasibility.* Investigate financing, market, management, and development feasibility issues related to mixed-



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use development. Identify ways in which government actions can make mixed use affordable and workforce housing more feasible.

HS-3.q *Establish Mixed-Use Development Standards and Incentives.* Assess impediments and create incentives for mixed-use housing development, including changes to zoning and Development Code standards to make possible affordable housing development in mixed-use zones. Consider the following:

- a. Allow for height limit bonuses, especially in downtowns.
- b. Allow flexibility in applying development standards (FAR, lot coverage) based on the location, type, and size of the units, and the design of the development.
- c. Encourage housing by allowing the residential component of a mixed-use development to be “additive” rather than within the established FAR for that zone, and eliminate density requirements for residential uses.
- d. Allow reduced and shared parking based on the use mix, and allow for reduced parking where sites are located within 0.25 mile of a public transit stop.
- e. Permit allowances for tandem parking and off-site parking leases.

(See **CD-2.a**, **CD-2.d**, **CD-5.b**, **DES-2.a**, **DES-2.c**, and **DES-3.a**.)

HS-3.r *Link to Funding Resources.* Establish specific uses of housing funds and/or land donations generated through the inclusionary housing program. As appropriate, designate specific sites where affordable housing will be required through zoning, and provide incentives and other means to make that development happen.

HS-3.s *Conduct a Detailed Affordable Housing Sites Feasibility Study.* Initiate a Housing Sites study, which, in part, shall review whether any surplus or potentially surplus public or quasi-public lands are appropriate for residential and mixed-use development, especially for people who are homeless and at risk of homelessness. Work with community groups to evaluate properties for their fitness as sites for affordable housing. Issues to be investigated include the following:

- a. Financial feasibility.
- b. Detailed planning, environmental review, and appropriate zoning.
- c. Site characteristics (access to public services and amenities, potential environmental issues, adjacent land uses, etc.).
- d. Affordable Housing Overlay Zoning.

HS-3.t *Enact Density Bonus Zoning and Other Incentives.* Amend the Development Code to encourage an increase in the supply of well-designed housing for very low, low, and moderate income households.

HS-3.u *Prepare a White Paper on Ways to Facilitate Smaller Affordable Housing Projects.* Prepare a study of options and opportunities for the development of smaller affordable housing projects, such as mixed use or small infill site development. Work with



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nonprofits in exploring management best practices, funding, and other feasibility issues for smaller developments.

- HS-3.v** *Evaluate the Feasibility of an “Affordable Housing Overlay Designation” Zoning Designation.* Evaluate the feasibility of establishing an affordable housing overlay zoning ordinance that lists particular sites on which residential densities will be substantially increased if a specified level of affordability is achieved.
- HS-3.w** *Work with the Marin Housing Authority.* Continue the agreement with the Marin Housing Authority (MHA) for management of the affordable housing stock in order to ensure permanent affordability, implement resale and rental regulations for low and moderate income units, and ensure that these units remain at an affordable price level.
- HS-3.x** *Revise the Inclusionary Housing Regulations.* Update the existing Inclusionary Housing Ordinance to include requirements for residential projects, including development of specific income targets and in-lieu fee formula.
- HS-3.y** *Modify Second-Unit Development Standards and Permit Process.* Continue to allow second units and review and modify the following second-unit development requirements consistent with SB 1866:
- a. Establish second units as permitted when the single-family lot, primary structure, and second unit meet all of the zoning and building development standards established for the zoning district in which they are located, and adequate traffic safety and parking are available.
 - b. Prohibit the conversion of second units to bed-and-breakfast uses.
- HS-3.z** *Establish an Amnesty Program for Nonpermitted Second Units.*¹ Establish an amnesty program for nonpermitted second units in order to increase the legal housing stock when assurances are made of continued affordability of the unit as low income housing, such as agreement to accept Section 8 vouchers or other mechanisms to ensure affordability to a low income household. A specific period of time will be allowed for owners of illegal units to register their units and make them legal without incurring fines, along with assurances of long-term affordability of the unit.

¹Amnesty program was established on January 1, 2007.

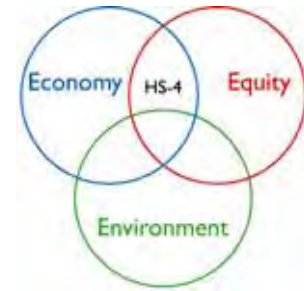


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What Are the Desired Outcomes?

GOAL HS-4

Special Needs Housing and Services. Provide housing for special needs populations that is coordinated with support services.



Policies

- HS-4.1 Address Special Needs.** Actively promote the development and rehabilitation of housing to meet the needs of special needs groups, including seniors, people living with disabilities, farmworkers, the homeless, people with HIV/AIDS and other illnesses, people in need of mental health care, single-parent families, large families, and other persons identified as having special housing needs in Marin County.
- HS-4.2 Provide Affordable Housing for Special Needs Households.** Work with groups to provide opportunities through affordable housing programs for a variety of affordable housing to be constructed or acquired for special needs groups, including assisted housing and licensed board and care facilities. Specific types of housing include the following:
- Smaller, affordable residential units, especially for lower income single-person households.
 - Affordable senior housing to meet the expected needs of an aging population, including assisted housing and board and care (licensed facilities).
 - Affordable units with three or more bedrooms for large family households.
 - Affordable housing that can be adapted for use by people with disabilities (specific standards are established in California Title 24 Accessibility Regulations for new and rehabilitation projects).
- HS-4.3 Offer Density Bonuses for Special Needs Housing.** Use density bonuses to assist in meeting special housing needs for lower income elderly and disabled people, consistent with roadway capacity and considering parking needs and neighborhood scale. Senior care facilities, including residential care facilities serving more than six people, shall be treated as a residential use subject to inclusionary housing requirements.
- HS-4.4 Allow Group Residential Care Facilities.** Continue to comply with State and federal law by allowing group homes with special living requirements consistent with the County's land use regulations.



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- HS-4.5** **Require Family Housing Amenities.** Ensure that adequate provisions are made in new developments for families with children, including consideration of amenities such as tot lots, play yards, and child care.
- HS-4.6** **House the Homeless.** Support countywide programs to provide for a continuum of care for the homeless, including emergency shelter, transitional housing, supportive housing, and permanent housing.
- HS-4.7** **Take Part in Rental Assistance Programs.** Continue to publicize and create opportunities for using available rental assistance programs, such as the project-based and tenant-based Section 8 voucher programs, in coordination with the Marin Housing Authority (MHA). Continue to support the use of Marin Community Foundation funds for affordable housing, and continue to participate in the Rebate for Marin Renters program, administered through the Marin Housing Authority (MHA).
- HS-4.8** **Link Health and Human Services Programs.** Seek ways to link all services for lower income people to provide the most effective response to homeless or at-risk individuals by providing a highly responsive set of programs corresponding to the unique needs of all subpopulations that make up the county's homeless population, including adults, families, youth, seniors, veterans, victims of domestic violence, farmworkers, other economically challenged or underemployed workers, and those with mental disabilities, substance abuse problems, HIV/AIDS, physical and developmental disabilities, and multiple diagnoses.
- HS-4.9** **Provide Emergency Housing Assistance.** Participate and allocate funds, as appropriate, for County and nonprofit programs providing emergency shelter and related counseling services.

Why is this important?

The Countywide Plan seeks to address the many housing needs in Marin, with attention to providing housing for population groups that require special assistance (special needs individuals include homeless persons, people with disabilities, the elderly, people with serious illnesses, or substance abuse or mental health issues, large families, female-headed households, farmworkers, and other persons identified as having special housing needs in the community). It is also important to link housing to health and human services programs that help meet the needs of seniors, people with disabilities, the homeless, and others. The linkage between housing and service programs is discussed further in the Public Health Section of the Socioeconomic Element.

How will results be achieved?

Implementing Programs

- HS-4.a** **House Government Employees.** Work closely with agencies supplying vital public services to help them realize affordable housing located in the county for emergency after-hours and standby personnel. Identify opportunities to build housing for emergency and standby personnel. Steps the County could take include fast-tracking



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processing of housing proposals, coordinating funding, and consideration of density bonuses and other incentives to increase housing affordability. Identify opportunities for local government employees to find housing locally through such efforts as construction of workforce housing at public facilities or parking lots, or subsidizing mortgages or rents.

- HS-4.b** *Offer First-Time Homebuyer Programs.* Operate and expand first-time homebuyer programs as funding is available, and combine such programs with housing counseling programs.
- HS-4.c** *Coordinate Efforts in the Effective Use of Available Rental Assistance Programs.* Develop and implement measures to make full use of available rental assistance programs.
- HS-4.d** *Engage in a Countywide Effort to Address Homeless Needs.* Actively engage with other jurisdictions in Marin to provide additional housing and other options for the homeless. Support and implement *Continuum of Care* actions in response to the needs of homeless families and individuals.

What Are the Desired Outcomes?

GOAL HS-5

Institutional Capacity to Achieve Housing Goals. Build local government institutional capacity and monitor accomplishments to respond to housing needs effectively over time.



Policies

- HS-5.1** **Seek Local Funding for Affordable Housing.** Seek ways to reduce housing costs for lower income workers and people with special needs by continuing to utilize local, State, and federal assistance to the fullest extent possible to achieve housing goals, and by increasing ongoing local resources. This would include efforts to do the following:
 - a. Provide technical and financial resources to support development of affordable housing in the community, especially housing that meets the needs of the local workforce, people with special housing needs, and people with moderate, low, and very low incomes.
 - b. Partner with philanthropic organizations to help finance affordable housing developments, and continue to participate in other rental assistance programs.
 - c. Work with affordable housing developers to obtain mortgage revenue bonds and/or mortgage credit certificates, thereby promoting homeownership and rental housing opportunities for moderate and lower income households.



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- HS-5.2 Coordinate Among Projects Seeking Funding.** Ensure access to and the most effective use of available funding in Marin County by providing a mechanism for coordination among affordable housing developments when they seek funding from various sources.
- HS-5.3 Set Up a Housing Trust Fund.** Establish a Housing Trust Fund to create a permanent source of funds for affordable housing.
- HS-5.4 Take Part in Land Acquisition and Land Banking.** Give priority to Housing Authority, Redevelopment Agency, and local jurisdiction land acquisition/land banking for future affordable projects as a way to assist development of affordable projects.
- HS-5.5 Achieve Organizational Effectiveness.** In recognition of limited resources available to achieve housing goals, seek ways to organize and allocate staffing resources effectively and efficiently to implement the programs of the Housing Element. Opportunities to enhance Marin County’s capabilities may include the following:
- Sharing or pooling resources and coordinating tasks among multiple jurisdictions, land trusts, and other housing groups in implementing common housing programs.
 - Creation of a countywide Housing Assistance Team (HAT) to provide technical expertise to staff in working with affordable housing developments and implementing programs.
 - Identification of information resources.
 - Establishment, where possible, of best practices and common rules, regulations, and requirements as they relate to housing.
 - Enhancing relationships and partnerships with nonprofit service providers.
 - Establishment of standardized methods (procedures, definitions, responsibilities, etc.) linked to housing programs, to enable the effective and efficient management of housing data.
- HS-5.6 Monitor, Evaluate, and Revise the Housing Element.** Establish a regular monitoring and update process to assess housing needs and achievements, and provide a process for modifying policies, programs, and resource allocations as needed in response to changing conditions.

Why is this important?

In order to be successful in addressing housing needs, the Countywide Plan must take an active approach in sharing resources and making organizational changes to effectively create and respond to opportunities to achieve housing goals. Success depends on establishing standardized methods for the effective and efficient management of housing data among all jurisdictions in Marin, and establishing a regular process for monitoring achievements and updating policies, actions, and priorities. It is also important to respond effectively to changing conditions and the changing needs of the population over time. Additionally, in the future, it will be even more important to be aggressive and creative in finding ways to increase ongoing local funding resources for lower income special needs housing.



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How will results be achieved?

Implementing Programs

- HS-5.a** ***Update Housing Trust Fund Ordinance and Operating Procedures.*** Adopt a Housing Trust Fund Ordinance, specifying that monies paid into the fund will be used to develop or rehabilitate units affordable to very low and low income households. Explore other streams of financing to add to or match these funds, and establish administrative guidelines for land acquisition for affordable housing, capital improvements for affordable housing developments, and other implementation actions. Staff will work with community and elected leaders to identify potential revenue sources.
- HS-5.b** ***Coordinate Funding Among Development Proposals.*** Participate in efforts to establish administrative procedures to ensure that there is adequate coordination between jurisdictions and development proposals on their various housing activities and funding proposals, that local projects are competitive for outside funding sources, and that resources are used in the most effective manner possible.
- HS-5.c** ***Support Establishment of a Countywide Housing Data Clearinghouse.*** Support the establishment of a central housing data clearinghouse, under the Housing Strategist position, with up-to-date information on housing conditions in the county by jurisdiction, best practices, State law, funding opportunities, and related housing information.
- HS-5.d** ***Continue to Retain Permanent County Affordable Housing Strategist Position.*** Continue to retain a full-time, permanent County Housing Strategist position with adequate support staffing to work with the County in creating affordable housing opportunities. The role of the Affordable Housing Strategist and supporting staff will be to implement Housing Element policies and programs, and coordinate the housing assistance team as described below.
- HS-5.e** ***Conduct an Annual Housing Element Review.*** Develop a process for the assessment of Housing Element implementation through annual review by the Marin County Planning Commission and Board of Supervisors. Provide opportunities for public input and discussion, in conjunction with State requirements for a written review by July 1 of each year (per Government Code Section 65583(3)). Based on the review, establish annual work priorities for staff.
- HS-5.f** ***Support Establishment of a Countywide Housing Assistance Team (HAT).*** Support the establishment of a housing technical assistance team who can advise and assist staff in implementing housing programs and facilitating development of partnerships with affordable housing developers for specific projects. The Housing Assistance Team (HAT) can consist of a pool of specialists with the following specialties: a local architect, an individual with knowledge about the underwriting of housing financing,



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and available funding sources, and a local community representative who is knowledgeable about the local issues.

- HS-5.g** *Conduct Staff Training.* Conduct training sessions with local staff to review potential constraints and opportunities to create affordable housing, including housing needs, finance, issues such as delay and density, and management.
- HS-5.h** *Update the Housing Element Regularly.* Undertake Housing Element updates as needed, in accordance with State law requirements.



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Figure 3-27 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
	1. Link equity, economy, and the environment locally, regionally, and globally. 2. Minimize the use of finite resources and use all resources efficiently and effectively. 3. Reduce the use and minimize the release of hazardous materials. 4. Reduce greenhouse gas emissions that contribute to global warming. 5. Preserve our natural assets. 6. Protect our agricultural assets. 7. Provide efficient and effective transportation. 8. Supply housing affordable to the full range of our workforce and diverse community. 9. Foster businesses that create economic, environmental, and social benefits. 10. Educate and prepare our workforce and residents. 11. Cultivate ethnic, cultural, and socioeconomic diversity. 12. Support public health, safety, and social justice.											
HS-1 Collaboration and Coordination in Housing	•			•				•	•	•	•	•
HS-2 Well-Designed Housing		•		•			•	•	•	•	•	•
HS-3 Efficient Use of Land	•	•	•	•	•	•	•	•	•	•	•	•
HS-4 Special Needs Housing and Services							•	•	•	•	•	•
HS-5 Institutional Capacity to Achieve Housing Goals								•	•	•	•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Regional fair share housing allocation.	Met in 2000.	Meet regional fair share allocation in 2010 and 2015.
Jobs-housing balance countywide.	1.22 workers per household in 2000.	Reach and maintain a 1.3 employed resident workers to total jobs ratio through 2015.
Number of employees who live and work in Marin.	61% in 2000.	No decrease.
Number of County government employees who live in Marin.	51.3% in 2000.	No decrease.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 3-28
Housing Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
HS-1.a - Coordinate Neighborhood Meetings.	CDA	Existing budget	TBD	2002 (Ongoing)
HS-1.b - Conduct Community Outreach Activities.	CDA; MHA, Continuum of Housing and Services	Existing budget, Grants	TBD	December 2002 (Ongoing)
HS-1.c - Prepare and Update Public Information Materials.	CDA; HAT	Existing budget	TBD	December 2003 (Ongoing)
HS-1.d - Collaborate to Implement an Inter-Jurisdictional Strategic Action Plan for Housing.	CDA; City-County Planning Committee	Will require additional grants or other revenue ²	TBD	December 2003 (Ongoing)
HS-1.e - Undertake Coordinated Lobbying Efforts.	CDA; City Councils and City Managers	Existing budget	TBD	December 2003 (Ongoing)
HS-1.f - Require Nondiscrimination Clauses.	CDA	Existing budget	TBD	December 2002 (Ongoing)
HS-1.g - Respond to Complaints.	CDA	Existing budget	TBD	2002 (Ongoing)
HS-2.a - Exceed Title 24 Requirements and Establish "Green" Building Standards and Processes.	CDA	Existing budget, Grants	TBD	December 2002 (Ongoing)
HS-2.b - Clarify and Adopt Criteria for Use in Residential Design Review Process.	CDA	Existing budget	TBD	December 2004 (Pending)

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
HS-2.c - Link Code Enforcement with Public Information Programs.	CDA, MHA	Existing budget	TBD	December 2002(Ongoing)
HS-2.d - Assist in Maximizing Use of Rehabilitation Programs.	CDA, MHA	Federal grants, Redevelopment Tax, Increment Set-Aside funds, HTF County-generated affordable housing funds	TBD	December 2003 (Ongoing)
HS-2.e - Monitor "At Risk" Units and Acquire Existing Affordable Rental Housing.	CDA	Existing budget, funding for preservation and acquisition	TBD	December 2004 (Ongoing)
HS-2.f - Constraints on the Development, Maintenance, and Improvement of Housing for Persons with Disabilities.	CDA	Existing budget	TBD	July 2003 (Ongoing)
HS-3.a - Complete a Nonresidential Job/Housing Linkage Study.	CDA	Existing budget	TBD	December 2002 (Completed)
HS-3.b - Adopt a Job/Housing Linkage Ordinance	CDA	Existing budget	TBD	December 2003 (Completed)
HS-3.c - Identify Existing Employee Housing Opportunities.	CDA, other government agencies, NGO's	Existing budget	TBD	(Completed)
HS-3.d - Establish Zoning for Live/Work Opportunities.	CDA	Existing budget	TBD	December 2002-2004
HS-3.e - Apply CEQA Exemptions and Expedited Review.	CDA	Existing budget	TBD	December 2002 (Ongoing)
HS-3.f - Modify Multi-Family Sites Zoning.	CDA	Existing budget	TBD	December 2004 (Immediate)
HS-3.g - Seek Increased Multi-Family Housing Opportunities.	CDA	Existing budget	TBD	December 2004 (Immediate)
HS-3.h - Zone and Provide Appropriate Standards for SRO Units and Efficiency Apartments.	CDA	Existing budget	TBD	December 2004 (Immediate)



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Program	Responsibility	Potential Funding	Priority	Time Frame
HS-3.i - Encourage Cohousing, Cooperatives, and Similar Collaborative Housing Development.	CDA	Existing budget	TBD	December 2005 (Ongoing)
HS-3.j - Evaluate Government Property for Housing Potential.	CDA	Existing budget	TBD	June 2004 (Completed)
HS-3.k - Encourage Transfer of Development Rights (TDR).	CDA	Existing budget	TBD	December 2004 (Immediate)
HS-3.l - Review and Update Parking Standards.	CDA, DPW	Existing budget	TBD	December 2004 (Immediate)
HS-3.m - Establish Transit-Oriented Development (TOD) Zoning Standards.	CDA, DPW	Will require additional grants or other revenue ²	TBD	December 2004 (Immediate)
HS-3.n - Identify and Designate TOD Sites.	CDA	Existing budget	TDB	December 2004 (Immediate)
HS-3.o - Conduct a Survey of Potential Mixed-Use Sites.	CDA	Existing budget	TBD	June 2003 (Completed)
HS-3.p - Prepare a White Paper on Mixed-Use Housing Development Feasibility.	CDA	Existing budget	TBD	December 2003 (Immediate)
HS-3.q - Establish Mixed-Use Development Standards and Incentives.	CDA	Existing budget	TBD	December 2004 (Immediate)
HS-3.r - Link to Funding Resources.	CDA	Existing budget	TBD	December 2002 (Completed)
HS-3.s - Conduct a Detailed Affordable Housing Sites Feasibility Study.	CDA, H&HS, and the member organizations of the Continuum of Housing and Services	Existing budget	TBD	December 2003 (Ongoing)
HS-3.t - Enact Density Bonus Zoning and Other Incentives.	CDA	Existing budget, Fees	TBD	December 2004 (Completed)
HS-3.u - Prepare a White Paper on Ways to Facilitate Smaller Affordable Housing Projects.	CDA	Existing budget	TBD	December 2004 (Immediate)



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Program	Responsibility	Potential Funding	Priority	Time Frame
HS-3.v - Evaluate the Feasibility of an "Affordable Housing Overlay Designation" Zoning Designation.	CDA	Existing budget	TBD	December 2005 (Immediate)
HS-3.w - Work with the Marin Housing Authority.	CDA and MHA	Existing budget, Federal grants	TBD	December 2002(Ongoing)
HS-3.x - Revise the Inclusionary Housing Regulations.	CDA	Existing budget	TBD	December 2003 (Completed)
HS-3.y - Modify Second-Unit Development Standards and Permit Process.	CDA; Planning Commission	Existing budget	TBD	December 2004 (Completed)
HS-3.z - Establish an Amnesty Program for Nonpermitted Second Units.	CDA; Planning Commission; and BOS	Existing budget	TBD	December 2004 (Immediate)
HS-4.a - House Government Employees.	CDA	Existing budget	TBD	December 2002 (Completed)
HS-4.b - Offer First-Time Homebuyer Programs.	CDA	Existing budget	TBD	December 2002 (Ongoing)
HS-4.c - Coordinate Efforts in the Effective Use of Available Rental Assistance Programs.	CDA, MHA	Existing budget	TBD	December 2002 (Ongoing)
HS-4.d - Engage in a Countywide Effort to Address Homeless Needs.	MHA, CDA, Continuum of Housing and Services; H&HS	Existing budget	TBD	December 2002 (Ongoing)
HS-5.a - Update Housing Trust Fund Ordinance and Operating Procedures.	CDA, HAT, BOS	Existing budget	TBD	December 2003(Immediate)
HS-5.b - Coordinate Funding Among Development Proposals.	CDA, HAT, IMCF, NGO's	Existing budget	TBD	(Ongoing)
HS-5.c - Support Establishment of a Countywide Housing Data Clearinghouse.	CDA; HAT	Will require additional grants or other revenue ²	TBD	December 2002 (Immediate)



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Program	Responsibility	Potential Funding	Priority	Time Frame
HS-5.d - Continue to Retain Permanent County Affordable Housing Strategist Position.	CDA; BOS	Will require additional grants or other revenue ²	TBD	December 2002 (Completed)
HS-5.e - Conduct an Annual Housing Element Review.	CDA	Existing budget	TBD	Annually
HS-5.f - Support Establishment of a Countywide Housing Assistance Team (HAT).	CDA; BOS	Will require additional grants or other revenue ²	TBD	December 2002 (Immediate)
HS-5.g - Conduct Staff Training.	CDA; HAT	Existing budget	TBD	December 2003 (Immediate)
HS-5.h - Update the Housing Element Regularly.	CDA	Existing budget and will require additional grants or other revenue ²	TBD	June 2009 (Ongoing)



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Golden Gate Transit District

3.9 Transportation

Background

The transportation system and land use pattern are inextricably linked. Any major change to one triggers the need to modify the other (as evidenced by the common practice of using computer models to balance future transportation capacity with growth projections). Energy consumption is responsible for an estimated 33 percent of Marin County’s greenhouse gas emissions. But an even larger share – 62 percent – comes from transportation. Traditional solutions to maintaining acceptable traffic flows, such as road widening, tend to



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be prohibitively expensive and environmentally damaging, while not relieving traffic congestion for the long term. Instead, major changes in travel behavior will be needed to reduce traffic congestion, greenhouse gas emissions, and air pollution in Marin, as described in *Moving Forward: A 25-Year Vision for Transportation in Marin County* (2003). This County transportation vision calls for an integrated, multimodal system that relies on travel by bus, rail, ferry, bicycle, and foot to supplement and supplant automobile use. Increasing transportation choices can help reduce traffic congestion and improve air quality. The County is not estimated to grow significantly in the future, but most of the residential growth will occur in the City-Centered Corridor, where most of the impacted roads exist. The Plan calls for much of the residential growth to occur near transit, in medium to higher density or mixed-use-type development.

Both circulation improvements and new development need to enhance the travel experience for pedestrians, cyclists, and transit users to ensure that alternative modes are successful in reducing car traffic and accommodating latent demand. These improvements are achieved in a variety of ways. Marin County has a Roadway Impact Fee ordinance, which provides for the repair and maintenance of County streets and roads resulting from construction activity. Also, Sub-regional Transportation Improvement fees are assessed for new developments to pay their fair share for transportation facilities fees in specific study areas. Outside of the specific study areas covered in the Sub-regional Transportation Improvement areas, projects may trigger transportation improvements or fees if they cause significant impact to intersection level of service. Commercial and medium to higher density residential development must be integrated with transit hubs where modal transfers will occur. Funding from local, State and federal sources can pay for some needed circulation improvements, and public/private partnerships and changes to zoning can lead to successful transit-oriented development, increasing mobility while mitigating traffic congestion.

Operating as a “self-help” county is becoming increasingly vital as local funding provides local control for transportation funding decisions, and opens new opportunities to receive State and federal grants. As state funding earmarked for transportation is being diverted to other programs by the Legislature, it is becoming exceedingly clear that Marin’s transportation needs are best met by a Marin agency allocating local funds for local needs.

In 2003, a Joint Committee of the Board of Supervisors, Marin County Transit District, and Transportation Authority of Marin created the *Transportation Vision For Marin County* which outlined desirable projects worth \$1.6 billion, and noted that a source of local funding is the necessary first step to address the most immediate needs. At that time, funding for local transit services was insufficient to meet even the reduced service levels implemented in November 2003. A sales tax was the most feasible option available and would qualify Marin as a “self-help” county, allowing Marin to provide local matching funds and compete for federal and State grants, which would multiply the impact of the tax dollars.

In November 2004, Marin County residents overwhelmingly approved a landmark sales tax measure allocating funds to local transportation projects and allowing Marin more control of its transportation future. Measure A, the Traffic Relief and Better Transportation Act, approved by Marin voters, authorizes a half-cent sales tax that will generate approximately \$331 million over the next 20 years.



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The goal of Measure A is to improve transportation and mobility for all Marin County residents and workers by providing a variety of high-quality transportation improvements and transit options designed to meet local needs. This includes expanding bus service, completing the Highway 101 HOV lane through San Rafael, providing roadway improvements, and ensuring safer access to schools.

Marin County Transportation Sales Tax Expenditure Plan

The four key strategies of Measure A to reducing congestion and improving transportation in Marin:

Strategy	Measure A Funds	Share of Measure A Funds
Develop a seamless local bus system that serves community needs, including special services for seniors and those with disabilities.	\$182.4 million	55%
Fully fund and accelerate completion of the Highway 101 HOV Lane Gap Closure Project through San Rafael.	\$24.9 million	7.5%
Improve, maintain, and manage Marin’s local transportation infrastructure, including roads, bikeways, pathways, and sidewalks.	\$87.9 million	26.5%
Reduce school-related congestion and improve safe access to schools	\$36.5 million	11%

This Section of the Countywide Plan establishes level of service standards for traffic operations. The Congestion Management Program (CMP) addresses existing and future transportation problems in Marin by developing a process to determine the impacts of local development decisions on the regional transportation network. A seven-year investment strategy (Capital Improvement Program [CIP]) is developed and updated every two years in order to promote the goals of the CMP. The CMP will ultimately be incorporated into the Regional Transportation Plan (RTP), and all projects in the CIP must be consistent (see Maps 3-6a and 3-6b). However, while improvements may ease congestion at a specific location, added vehicles passing through the system can increase congestion elsewhere. Thus, multi-modal mitigation – which has additional benefits rather than adverse impacts – is often preferable. This Section also endorses interagency cooperation to achieve regional transportation objectives. (Also see the Atmosphere and Climate Section of the Natural Systems and Agriculture Element for further information.) Public utility circulation improvements are discussed in the Public Facilities and Services section.

Marin County operates the only public-use airport, Gness Field, within the county. The county airport at Gness Field should be the only civilian airport facility in Marin County and shall be for general aviation only. The Countywide Plan policies are consistent with the relevant airport land use plan adopted by the Airport Land Use Commission in 1991 and amended in 1997.

The Sonoma Marin Area Rail Transit (SMART) project is intended to provide passenger train service extending from Cloverdale to Larkspur, and provide approximately 71 miles of service with up to 14 stations, 9 in Sonoma County and 5 in Marin County. If approved by the voters, SMART passenger train service will provide a transportation alternative for thousands of commuters traveling within and between Sonoma and Marin counties. A continuous bicycle and pedestrian multi-use pathway is also planned as part of the project. Half of all traffic entering Marin County from the north on Highway 101



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is destined for Marin County. Providing rail service to Larkspur is intended to make a significant contribution to relieving congestion on Highway 101. SMART also plans to provide rail service to the existing ferry terminal at Larkspur Landing (or relocated to San Quentin), enabling commuters to 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. Although a new ferry terminal across 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 ferries travel between San Francisco and Larkspur and Sausalito. Expansion of the services is dependent on securing operating and capital funding.



“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 Language: Towns, Buildings, Construction*

Key Trends and Issues

Is traffic congestion in Marin getting worse?

People walk and ride bicycles less in the United States. Worldwide, the United States ranks as the first-world country with the lowest percentage of people who walk and bicycle for transportation. In 2000, biking and walking trips made up only 6% of all daily trips in the United States, compared with 10% in Marin County¹, 12% in Canada, 16% in England, 34% in Switzerland and Germany, 39% in Sweden, and 46% in the Netherlands². In general, 10.9% of Marin residents walk and ride bicycles as a form of transportation.³

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 (see Figure 3-29).

Most people in Marin drive alone. In 2003, 66%⁴ 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.

¹2000 Marin Traffic Model.

²John 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.

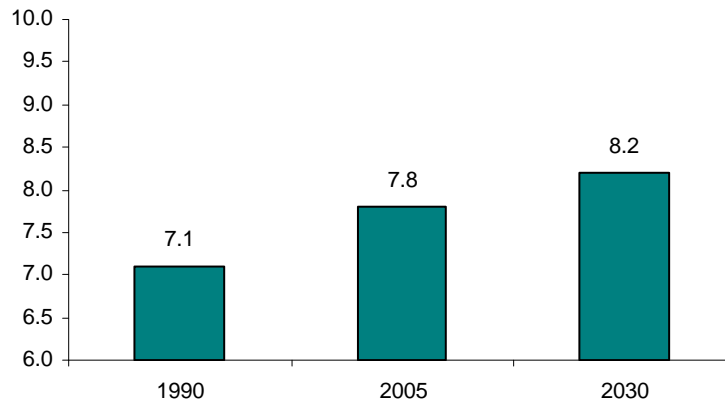
³Metropolitan Transportation Commission, 2000 Household Transportation Survey.

⁴RIDES' Commute Profile 2003.



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



Source: 2005 Marin Traffic Model.

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% to 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.

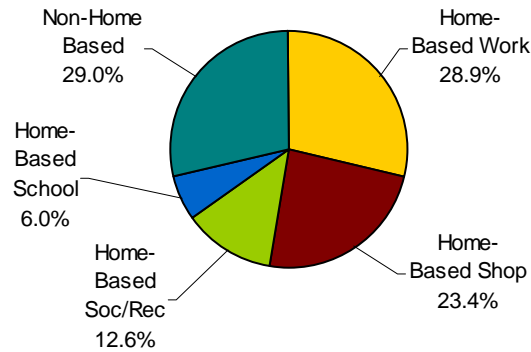
Where are drivers going?

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 coast creates congestion on weekends in southern and western Marin, where few alternatives to the automobile exist.



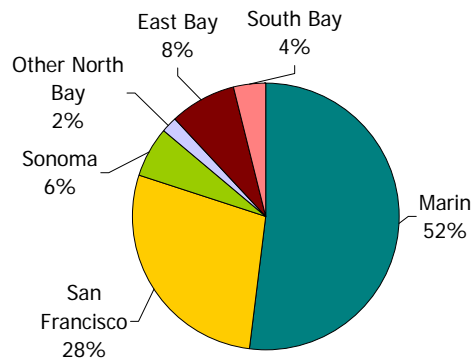
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Figure 3-30
Total Daily Weekday Trips Generated in Marin County



Source: 2000 Marin Traffic Model.

Figure 3-31
Destination of Work Trips for Marin County Residents



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 made up 5%¹ 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.

¹ RIDES' Commute Profile 2003.



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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, make up 25% of all commute trips, while intra-county trips between Marin communities account for less than 5% of the transit commute share.

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.

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. 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 could potentially increase transit ridership.

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 relocate 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's Congestion Management Program, developed by TAM, is designed to ensure 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, and a map of monitored roadways in Marin County and their existing level of service (see Map 3-7, Monitored Roadway Locations for Level of Service; and Figures 3-33 through 3-36).



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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. Biennial monitoring and reporting of the LOS standard to determine compliance occurs in September of each even-numbered 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.

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.

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.



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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.

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 built a countywide computer model now maintained by TAM 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 biennial run of the countywide model to track roadway LOS changes made from land use decisions. The model is also run to predict transportation impacts from general plan amendments or when proposed projects may significantly impact transportation LOS at intersections.

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 2007 CMP Transportation System Monitoring Report, there are no road segments currently operating worse than the LOS standard that are not already grandfathered.



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

#	Segment	Peak Direction	Hour Volume	No of Lanes	Volume Per Lane	Type	Capacity	V/C	LOS	# of Vehicles Above Standard
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 Hilldale 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

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

Source: Wilbur Smith Associates (2005).



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What Are the Desired Outcomes?

GOAL TR-1

Safe and Efficient Movement of People and Goods. Provide a range of transportation options that meet 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.

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 multimodal 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 installation, before or concurrent with new developments. In evaluating whether a transportation improvement is necessary, the County shall consider alternatives to the improvement consistent with Policy TR-1.1, Manage Travel Demand, and the extent to which the improvement will offset the traffic impacts generated by proposed and expected development and restore acceptable traffic levels of service.



“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 Language: Towns, Buildings, Construction



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- TR-1.6** **Keep Rural Character in West Marin.** Maintain roads in West Marin as two-lane routes, with the possible additions of bicycle lanes, turn lanes at intersections, and turnouts for slow-moving traffic.
- TR-1.7** **Direct Aviation Uses to Appropriate Locations.** Maintain Gness Field as the County's civilian airport facility, and limit its use and expansion in accordance with the adopted Airport Master Plan. Continue to allow the private San Rafael Airport consistent with the 1983 Declaration of Restrictions and the Richardson Bay seaplane base and helipad. Require additional aviation facility proposals to conduct site-specific environmental analysis prior to consideration.
- TR-1.8** **Reduce Vehicle Miles Traveled (VMT).** Reduce the rate of increase for total vehicle miles traveled by single-occupant automobile to not exceed the population growth rate.

Why is this important?

Based on 2005 data, Americans collectively spend 3.7 billion hours in gridlock each year.

Environment: Daily automobile trips in Marin are continuing to increase and are outpacing population growth. Providing transportation alternatives that reduce peak-hour automobile use lowers fuel consumption and tailpipe emissions.

Economy: The average American spends more than 100 hours per year commuting to and from work. This is equivalent to more than two weeks of work. Almost half of the average commute time (47 hours per year) is spent stuck in traffic. Reducing the proportion of single-occupancy vehicles and decreasing traffic congestion results in time and cost savings for delivery of goods and services.

Equity: A safe, efficient, and convenient transportation system contributes to quality of life for travelers, leading to easier commutes (and thereby more time for meaningful activity) and more convenient access to goods and services.

How will results be achieved?

Implementing Programs

- TR-1.a** **Support Alternate Work Schedules.** Encourage employers to allow alternate work schedules for employees, telecommuting, and use of satellite work centers (also see programs in the Socioeconomic Element).
- TR-1.b** **Allow Live-Work Arrangements.** Amend the Development Code to allow and encourage live-work, cottage industry, self-employment, and home occupation uses in appropriate locations.
- 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



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employers, commuters, and recreational users to support these transportation alternatives.

TR-1.d *Coordinate with Local Agencies.* Work with a 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 Language: Towns Buildings, Construction

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 expressways¹. 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 that 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.

¹2007 Draft CMP.



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- ◆ New housing units affordable to very low and low income households.

All projects shall be conditioned to include feasible mitigation measures for project-related traffic impacts.

TR-1.f *Analyze Multimodal Performance.* Develop methods and adopt standards to assess the performance of pedestrian, bicycle, and transit facilities, and measure the success of those components against the goals of the County *Transportation Vision*.

TR-1.g *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
- ◆ Close the HOV gap on U.S. 101 both and 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
- ◆ 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 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 for the addition of an HOV lane in each direction from State Route 37 in Novato to Old Redwood Highway in Petaluma, including Atherton Avenue interchange improvements, continuous bike/ped facilities, and provisions for traffic management such as traveler information services
- ◆ New northbound auxiliary lane from Nave Drive on-ramp to State Route 37



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- ◆ New traveler information system along I-580, U.S. 101, and State Route 37
- ◆ New southbound auxiliary lane from Miller Creek Road to 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
- ◆ Improve Lucky Drive access to/from U.S. 101
- ◆ Widen U.S. 101 northbound and southbound from three lanes and one auxiliary lane to four lanes for HOV and one auxiliary lane between Second Street and I-580
- ◆ Reconfigure U.S. 101/Sir Francis Drake interchange
- ◆ New southbound auxiliary lane on U.S. 101 from Andersen Drive to Sir Francis Drake Boulevard as part of the U.S. 101 improvement project
- ◆ Operational improvements on northbound U.S. 101 from Paradise Drive to Sir Francis Drake Boulevard, including consideration of auxiliary lanes in selected locations such as Paradise Drive to Lucky Drive
- ◆ Improve access to transit facilities from Greenbrae interchange to Tamalpais Drive
- ◆ Improve U.S. 101 from Greenbrae interchange to Tamalpais Drive
- ◆ Study expanding U.S. 101 between I-580 and Sir Francis Drake Boulevard from three to four mixed flow lanes in the southbound direction
- ◆ Improve Tiburon Boulevard overcrossing with additional lanes (particularly in the eastbound direction from southbound U.S. 101 to Strawberry Drive), more offramp and onramp capacity, accommodation of bicyclists and pedestrians, and better access to bus transit stops in the interchange
- ◆ Widen and improve signals or otherwise work to lessen traffic congestion on State Route 1 between Flamingo Road and U.S. 101, including replacement of Tennessee Valley (Coyote Creek) bridge
- ◆ Access management for State Route 1 from U.S. 101 to Stinson Beach and Tennessee Valley Road for access to the Golden Gate, Mount Tamalpais, and Stinson Beach Recreation areas
- ◆ Consider expansion of regional 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, including necessary intermodal facilities
- ◆ 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
- ◆ Widen or compete other operational improvements on Sir Francis Drake Boulevard between Bon Air Road and Wolfe Grade
- ◆ Consider widening Sir Francis Drake Boulevard from two to three lanes in each direction from U.S. 101 to Eliseo Drive



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- ◆ Consider expansion of 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
- ◆ Signalize the Miller Creek Road and U.S. 101 northbound and southbound off-ramp intersections and the Miller Creek Road and Las Gallinas intersection plus add eastbound and northbound left turn pockets and a westbound left turn pocket on Miller Creek Road

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

- ◆ As needed, widen South Novato Boulevard from U.S. 101 to Rowland Boulevard
- ◆ 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 Avenue¹



“Very simply – when the area devoted to parking is too great, it destroys the land.”

“In downtown Los Angeles over 60 percent of the land is given over to the automobile.”

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

TR-1.h *Add Transportation Policies to Community Plans.*

Incorporate Vehicle LOS standards, recommended transportation system improvements, and additional policies and standards appropriate to reduce traffic congestion and improve walking and bicycling in specific unincorporated communities covered by community plans.

TR-1.i *Adopt Flexible Parking Standards.* Amend the Development Code and work with cities and towns to allow reduced automobile parking requirements for projects that participate in subsidy programs for transit riders or provide direct access to multimodal transit hubs.

TR-1.j *Install Highway Improvements.* Work with the Transportation Authority of Marin and Caltrans to carry out physical and operational improvements, such as completion of the High Occupancy Vehicle lane and ramp metering projects on Highway 101.

TR-1.k *Update Transportation System Modeling.* Maintain transportation system modeling capability for the purpose of providing estimates and projections of trip generation, transportation demand, and Vehicle LOS on the road network and transit routes within the modeling system, and incorporate multimodal performance measures and indicators as feasible.

TR-1.l *Update Traffic Mitigation Fees.* Review and update as necessary the Public Transportation Facilities Fee schedule to add transportation improvements in specific unincorporated areas. Consider broadening the use of these fees to include alternative

¹The City of San Rafael has a peak hour parking program that provides some relief.



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mode projects intended to mitigate increases in travel demand and congestion. Amend the Sub-regional Transportation Fee study and Roadway Impact fees to keep pace with future transit demand as needed. Amend the Public Transportation Facilities Fee ordinance to allow a waiver, reduction, or adjustment in traffic mitigation fees for affordable housing projects.

- TR-1.m** *Promote Regional Traffic Mitigation Fees.* Encourage the Transportation Authority of Marin to require new development to fund or otherwise support solutions, including alternative mode projects that will mitigate growth in regional traffic and improve the livability of communities and quality of life.
- TR-1.n** *Obtain and Dedicate Transportation Funding.* Apply for funds from State and federal sources, and use general funds, fees, privately funded improvements, user charges, and local taxes for transportation improvements to provide improvements called for in the *Transportation Vision*, maintain service levels at established standards, and meet multimodal objectives.
- TR-1.o** *Keep West Marin Rural.* Limit West Marin roads to two lanes, and work with State and federal agencies and local communities to enhance road safety, improve pedestrian, bicycle, and transit access, and maintain or reduce congestion through means such as limiting local parking, creating a multipurpose path from West Marin to the City-Centered Corridor, and providing shuttle service to popular destinations. Shoulder widening for bicycles, turn lanes at intersections, turnouts for slow-moving traffic, traffic calming measures, and similar improvements would be permitted. However, projects will not be undertaken to increase the motorized vehicular capacity of West Marin roads.
- TR-1.p** *Limit Aviation Uses.* Maintain the County Airport at Gnossov Field as the primary civilian airport facility in the county, and limit its use to general aviation, emergency flights, and similar public uses, in accordance with an approved *Airport Master Plan* or *Airport Land Use Plan for Gnossov Field* and current technological conditions. Continue to allow the private San Rafael Airport facility consistent with the 1983 Declaration of Restrictions, the San Rafael General Plan, and other applicable City land use regulations, and the heliport and seaplane bases in Richardson Bay to provide water-oriented visitor and commercial uses. Any proposed helipad shall be subject to all applicable CEQA requirements prior to consideration.
- TR-1.q** *Review Parking Requirements.* Parking requirements may be adjusted on a case-by-case basis for senior and affordable housing using criteria established in the URBEMIS model to encourage transit-oriented development. Trip reduction credits may be obtained through utilization of mitigation measures such as locating development *within ½ mile of a transit hub or bus stop with regularly scheduled service during both peak and off-peak times*, or in a location where the jobs/housing balance will be optimized; commitments from the developer to implement demand management programs, including parking pricing for market-rate units; and use of tandem parking, off-site parking, and parking leases. Reduction of parking requirements should be



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subject to discretionary approval and may require a parking study to verify reduced parking demand.

TR-1.r *Reduce Congestion on Grandfathered Road Segments.* Encourage the Transportation Authority of Marin or other responsible agency to prepare plans to reduce congestion on grandfathered road segments that do not meet current LOS standards. These plans should rely on programs and policies other than physical infrastructure improvements to the extent feasible.

TR-1.s *VMT Reduction Monitoring and Implementation and Transportation Demand Management Program.* Develop and implement a countywide program for monitoring and reducing VMT consistent with State and regional efforts and based on information from State and regional planning agencies. Identify and require in new developments specific transportation demand management (TDM) strategies for reducing the VMT below levels that would otherwise occur. Consider the following types of strategies for inclusion in the VMT Reduction Monitoring and Implementation and Transportation Demand Management Program:

- ◆ Increased transit.
- ◆ All new residential projects consisting of 25 units or more should be located within 1/2 mile of a transit node, shuttle service, or bus route with regularly scheduled, daily service.
- ◆ New multi-family projects consisting of 25 units or more should include TDM measures, such as reduced parking for affordable or senior projects, subsidized public transportation passes, or ride-matching programs, based on site-specific review. For market-rate projects, consider TDM programs such as charging parking fees separate from rent.
- ◆ Safe, convenient connections should be provided to existing pedestrian and bicycle facilities, and secure bicycle parking should be provided in new nonresidential developments.
- ◆ TDM should be required for new or expanded projects with 50 employees or more, including programs such as parking cash out, subsidized transit passes, ridesharing incentives, and bicycle storage facilities.

TR-1.t *Reduce Single Occupancy Trips.* Adopt fees and other programs that encourage alternatives to the single occupant vehicle. Consider imposing tolls, congestion pricing, parking fees, gas taxes, and residential parking permit limits. Encourage and assist local cities and towns to adopt similar programs.

TR-1.u *Create Car Share Program.* Support the establishment of a “Car Share” program to promote socially responsible car sharing by providing convenient, reliable, and affordable access to cars to reduce individual car ownership.



BUILT ENVIRONMENT ELEMENT

What Are the Desired Outcomes?

GOAL TR-2

Increased Bicycle and Pedestrian Access. Expand bicycle and pedestrian facilities and access in and between neighborhoods, employment centers, shopping areas, schools, and recreational sites (see Maps 3-9a, 3-9b, and 3-9c, Bikeways of Marin County).



Policies

- TR-2.1** **Improve the Bicycle and Pedestrian Network.** Promote adequate bicycle and pedestrian links, to the extent feasible, throughout the county, including streetscape improvements and standards that are safe and pedestrian and bicycle friendly.

- TR-2.2** **Provide New Bicycle and Pedestrian Facilities.** Where appropriate, require new development to provide trails or roadways and paths for use by bicycles and/or on-street bicycle and pedestrian facilities. In-lieu fees may be accepted if warranted in certain cases.

- TR-2.3** **Connect to State and Federal Parklands.** Explore the possibility of creating bicycle and pedestrian trails that would connect urban areas to federal and State parklands in Marin County.

- TR-2.4** **Seek Funding Opportunities for Bicycle and Pedestrian Infrastructure.** Seek grants and other funding opportunities available to construct new bicycle and pedestrian infrastructure and to connect existing segments.



“Bikes are cheap, healthy, and good for the environment; but the environment is not designed for them. Bikes on roads are threatened by cars; bikes on paths threaten pedestrians.”

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

Why is this important?

Eighty percent of trips less than a mile are made by car. This is partly because in many development projects there has been insufficient emphasis on accommodating pedestrians and bicyclists. Conventional land use regulation often prohibits the mixing of land uses, thus lengthening trips and making walking a less viable alternative than other forms of travel.



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Environment: The construction of multi-use trails allows more Americans to replace automobile trips with nonmotorized trips. Alternatives to vehicle use reduce the environmental impacts of traffic and congestion, including a reduction in greenhouse gas emissions and a smaller ecological footprint.



Modal split. A resident of Marin who drives alone to work each day has a commuting footprint more than four times greater than the same commuter who rides a bus. One-third of Marin residents already carpool, use public transportation, walk, or bike to work. If this fraction increased to one-half, the total footprint of commuting for Marin County residents would decrease by 11,000 global acres.

Economy: The American public saves between 5 and 22 cents for every automobile mile replaced by walking and bicycling. This is due to reduced pollution, reduced oil import costs, and reduced congestion costs, such as lost wages and lost time on the job. Increased bicycle and pedestrian activity can allow for increased access to local businesses and services. Encouraging non-automobile travel also expands commuting options and, potentially, employee productivity, thus saving both the employer and employee money.

Equity: A walkable distance is defined as one-half mile, which equates to an average walk of less than 15 minutes. Providing pedestrian-friendly and other alternative methods of transportation expands consumer choice,

encourages social interaction, strengthens sense of community, ensures safe and inviting pedestrian corridors, increases opportunities for healthy exercise, and offers transportation options for those residents who do not own vehicles.

How will results be achieved?

Implementing Programs

- TR-2.a** ***Encourage Bicycling and Walking.*** Work with local community groups to encourage bicycling and walking for local trips by students, commuters, visitors, and shoppers through marketing and incentive programs, as well as improved facilities.
- TR-2.b** ***Adopt Standards for Pedestrian and Bicycle Access.*** Amend the County Code and Development Code to include standards for provision of safe pedestrian and bicycle accommodations. Include standards in the design of roadways. As appropriate, require new development and redevelopment projects to address the following: bicycle and pedestrian access internally and to other areas through easements; safe access to public transportation and construction of paths that connect with other nonmotorized routes; safe road crossings at major intersections for school children and seniors; and secure, weatherproof bicycle storage facilities and shower/changing room facilities for bicycle commuters. Ensure that such facilities will have ongoing maintenance.
- TR-2.c** ***Support Bicycle Stations and Consider Attended Parking.*** Encourage the development of bicycle stations, attended parking, and other attended bicycle parking support facilities at intermodal hubs, such as the San Rafael Transit Center, the future Southern Marin transportation hub, the Larkspur Landing Ferry Terminal; at future SMART



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rail stations; and for large public events to encourage people to “bike to transit.” Bike stations are full-service bicycle facilities providing secure and guarded “valet” bicycle parking in addition to other possible amenities, such as showers or bicycle rentals and repairs.

- TR-2.d** ***Fund Projects.*** Work with the Transportation Authority of Marin and the Bicycle Advisory Group to implement the *Marin County Unincorporated Bicycle and Pedestrian Master Plan*; include pedestrian and bicycle projects in the County Capital Improvement Program; and apply, where feasible, a portion of traffic mitigation fees toward improvements that will increase bicycle transportation and mitigate congestion. On-site improvements and those located near approved development are a priority.
- TR-2.e** ***Prioritize Completion of the North-South and East-West Bikeways.*** Work with applicable governmental agencies to identify gaps in the North-South and East-West Bikeways, and to place a high priority on obtaining funding for projects that complete these gaps.
- TR-2.f** ***Develop “Rails with Trails.”*** Continue to work with SMART to incorporate and fund a multi-use pathway that generally follows the proposed SMART railroad corridor.
- TR-2.g** ***Add Bicycle Lanes.*** Identify roads with shoulders wide enough to be designated as bicycle lanes, and, where feasible, stripe and sign appropriate roadway segments as bike lanes and bike routes.
- 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 United States, 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 multimodal connection between the San Rafael Transit Center and the 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 TAM and local school districts to ensure that children have safe walking and bicycling routes to school. Support TAM’s program to produce Safe Routes to School Plans for the county’s schools providing a required planning basis for the Measure A–financed Safe Pathways County Capital Improvement Program. Continue the TAM-managed 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.

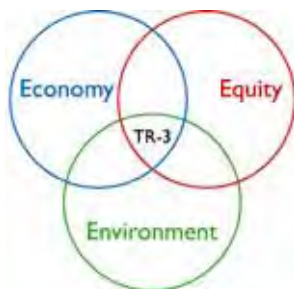


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- TR-2.k** *Consider Pedestrian Needs.* Work with local cities and towns to ensure that traffic signals are timed to allow safe and comfortable pedestrian crossing. Work with Caltrans to improve pedestrian access to freeway bus pads along Highway 101. Work with local communities and school districts to maintain and expand the Measure A-funded school crossing guard program.
- TR-2.l** *Complete Streets.* 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 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 for planning.
- 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 national Pilot efforts, including outreach and mode shift measurement. Encourage continued funding of Pilot activities in future federal transportation bills and other State and local funding sources, including regional funding streams.

What Are the Desired Outcomes?

GOAL TR-3



Adequate and Affordable Public Transportation. Provide efficient, affordable public transportation service countywide that meets the needs of everyone, including the elderly, disabled, and transit dependent (see Maps 3-10a, 3-10b, and 3-10c, Transit Corridors of Marin County).

Policies

- TR-3.1 Encourage and Support the Expansion of Local Bus and Ferry Services.** Encourage expansion and improvement of local bus and ferry services to all areas of the county.
- TR-3.2 Support Regional Transit Initiatives.** Promote rail service on the Northwestern Pacific Railroad right-of-way, a multi-use pathway that generally follows the rail corridor; expanded regional ferry service; and enhanced regional express bus services.



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- TR-3.3** **Develop Mixed-Use Intermodal Hubs.** Support and participate in the development of intermodal transit hubs that expand alternative transportation use.
- TR-3.4** **Support and Coordinate Paratransit Service.** Fund paratransit service and integrate it with fixed-route service, including school services, to efficiently meet the needs of transit-dependent persons.
- TR-3.5** **Support Bicycle Access to All Transit Systems.** Ensure that all new and existing transit systems provide for the storage of bicycles on transit as well as at transit centers.
- TR-3.6** **Reduce Congestion Due to Visitor Traffic in West Marin.** Coordinate with Caltrans; local, State, and federal parkland agencies; and local communities to provide alternatives to recreational automobile travel to recreational areas in West Marin.

Why is this important?

Americans living in public transit-intensive metropolitan areas save \$22 billion in transportation costs. Availability of good public transit increases transportation choices and decreases automobile use.

Environment: Every year, public transit saves more than 855 million gallons of gasoline, or 45 million barrels of oil. When less gas is used, Marin’s contribution to climate change is reduced. Widely used public transit also benefits the environment by improving air quality, reducing traffic congestion, and decreasing the ecological footprint.

Economy: Typically, State and local governments realize a 4% to 16% gain in revenues as a result of increases in business profits and personal income generated by public transportation investment. Public transit can increase mobility and access to goods and services, while improving commuting efficiency. Allocating public funds to a variety of transportation modes is a stronger investment than solely focusing on the needs of automobile travel.

Equity: For every dollar earned, the average U.S. household spends 18 cents on transportation. Ninety-eight percent of this goes toward buying, maintaining, and operating vehicles, which is the largest source of personal debt after home mortgages. Public transit can save American households thousands of dollars a year in transportation expenditures. Bus, ferry, and rail transit reduces the number of cars on the road, thereby enhancing quality of life both for riders and drivers with no feasible alternative to automobile travel. Transit that is affordable and available to all persons also helps ensure that socioeconomic differences will not preclude access to employment, recreation, commerce, and culture.

How will results be achieved?

Implementing Programs

- TR-3.a** **Increase Bus and Ferry Services.** Work with the Marin County Transit District, Golden Gate Transit District, Marin Office of Education, Marin Commission on Aging, and park agencies to increase the coverage and frequency of public bus and ferry services, and to develop and meet standards for local, school, paratransit, and



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visitor-serving bus and ferry service; and work with local cities and towns to meet the needs of Marin County.

- TR-3.b** *Provide Schedules and Shelters.* Encourage bus service providers to post current schedules and maps at all transit stops and other key locations, to make real-time arrival information available to riders, and to provide shelters that adequately protect riders from inclement weather.
- TR-3.c** *Provide Reduced-Cost Transit Passes.* Provide reduced-cost transit passes for students and other special needs groups, including homeless people, engaged in education and employment activities.
- TR-3.d** *Join in Regional Transit Initiatives.* Participate in planning for rail transportation through SMART, ferry service enhancements through the Water Transit Authority, and other regional transit expansion initiatives.
- TR-3.e** *Upgrade and Create Intermodal Hubs.* Work with cities and towns, transit providers, and other agencies to seek funding to upgrade and create intermodal hubs that facilitate seamless connections between transit services; are comfortable and convenient for pedestrians, bicyclists, transit users, and drivers; and, where feasible, provide secure bike parking and other services, such as convenience retail, real-time transit arrival information, way-finding information, short transfer distances, and quality design.
- TR-3.f** *Promote Transit-Oriented Development.* Amend the Development Code to encourage compact mixed-use development within one-half mile of intermodal hubs and future rail stations, and to offer flexible standards for affordable housing to create sufficient ridership to support such uses.
- TR-3.g** *Coordinate Paratransit.* Encourage the Marin County Transit District to provide information and referral service to paratransit riders and social service agencies, coordinate the operations of contractors to meet the needs of riders, and integrate paratransit effectively with fixed-route service to ensure adequate coverage and reduced reliance on fixed-route services.
- TR-3.h** *Implement a Traffic Reduction Program for Recreational Traffic to West Marin.* Collaborate with Caltrans; local, State, and federal parkland agencies; and local communities to benchmark existing traffic conditions on roads to West Marin and provide ongoing traffic monitoring during peak recreation periods on access routes to West Marin. Identify and implement alternatives to recreational automobile travel to recreation areas in West Marin, including, but not limited to, extended and expanded shuttle bus service, shuttle service to remote parking lots for early trip capture, travel advisory signage, and other similar measures.



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TR-3.i *Provide Shuttle Service to Transit.* Support the creation of shuttle service, corridor trolleys, and/or jitneys to collect riders for public transit (see AIR-3.1, AIR-4.b). Consider providing such service for inter-city-county streets.

What Are the Desired Outcomes?

GOAL TR-4

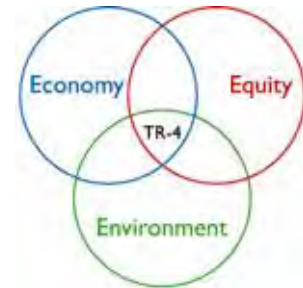
Protection of Environmental Resources. Minimize environmental disruption and energy use related to transportation.

Policies

TR-4.1 **Minimize Disturbance and Condemnation.** Limit environmental disruption and condemnation of land due to transportation projects.

TR-4.2 **Recycle and Conserve Energy.** Include recycled and energy-conserving materials for road construction and repair, where feasible.

TR-4.3 **Increase Clean-Fuel Vehicle Use.** Encourage switching from conventional cars and transit vehicles to zero-, partial zero-, or other low-emission vehicles.



Why is this important?

Biodiesel is a biodegradable alternative to petroleum diesel that substantially reduces air pollution. Asphalt-rubber, a blend of asphalt cement and reclaimed tire rubber, has superior engineering properties over conventional asphalt and keeps waste tires out of landfill. Use of energy-saving and recycled materials can lessen environmental impacts and create new economic opportunities.

Gas Mileage. While the average car in the United States has a gas mileage around 22 mpg, new hybrids and other fuel-efficient vehicles can travel more than 45 miles on a single gallon of gas. Increasing the average gas mileage of Marin's cars by 10 miles per gallon could reduce Marin's footprint by an area 60% the size of the county.

Environment: Utilizing recycled and energy-conserving materials, increasing clean-vehicle use, and avoiding the need for site disturbance and condemnation of additional property all contribute to the protection of environmental resources.

Economy: Pursuing alternative fuel sources creates employment opportunities and provides economic support for environmentally sound technologies. Consumers also save money when fuel costs are decreased or eliminated.

Equity: Use of clean-fuel vehicles reduces exposure to toxic emissions and related health impacts.



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“About 70 percent of green house gas emissions from transportation are from cars and trucks and two-thirds are generated within urban areas. The more urban areas extend outward, the more emissions grow.”

– David Suzuki, *Driven to Action – A Citizen’s Toolkit*

How will results be achieved?

Implementing Programs

TR-4.a *Limit Project Impacts.* Work with Caltrans and private transportation contractors to minimize environmental damage and storm water runoff through best management practices, and to avoid condemnation of private or publicly owned land in conjunction with transportation improvement projects.

TR-4.b *Use Recycled and Resource Efficient Materials.* Use resource efficient materials, such as rubberized asphalt concrete and pervious pavement, in road repair and construction wherever cost effective and feasible.

TR-4.c *Support Green Fuels.* Work with advocacy groups to promote the use of hybrid and low-emission vehicles and clean fuels (including biodiesel) as feasible based on cost and availability, set targets for increasing the proportion of clean-fuel vehicles in the County fleet, and encourage transit agencies to increase their use of clean-fuel vehicles.

TR-4.d *Encourage Zero-, Partial-Zero-, and Low-Emission Vehicle Use.* Publicize the State and federal approval of zero- and partial-zero-emission vehicles (with a fuel economy of at least 45 miles per gallon) to use HOV lanes. Support plug-in hybrid electric vehicles and new carbon neutral technologies.

TR-4.e *Support Alternative Fuels Vehicles.* Actively support infrastructure needed for alternative fuel vehicles, including fueling and charging stations. Review and consider revising applicable codes applying to refueling and recharging infrastructure. Support State, federal, and local efforts to increase fuel efficiency and reduce greenhouse gas emissions.



BUILT ENVIRONMENT ELEMENT

Figure 3-37 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
TR-1 Safe and Efficient Movement of People and Goods	•	•	•	•	•	•	•		•	•		•
TR-2 Increased Bicycle and Pedestrian Access	•	•	•	•	•		•			•		•
TR-3 Adequate and Affordable Public Transportation	•	•	•	•	•		•					•
TR-4 Protection of Environmental Resources	•	•	•	•	•	•	•			•		•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Commute modal split countywide.	70% drove alone and 30% used other modes as of 2000.	Decrease single-occupancy-vehicle share of modal split.
Combined daily pedestrian/bicycle share of modal split countywide.	10.9% in 2000 (1.7% bicycle and 9.2% pedestrian).	Increase the percentage of combined pedestrian and bicycle trips to 20% by 2020.
Commute modal split by County government employees.	82% drove alone, 10% carpooled, 5.5% bused, and 1% biked in 2003.	Decrease single-occupancy vehicle share of modal split.
Average congestion delay.	22% or 9,900 daily vehicle hours of congestion in 2000.	No or minimal increase by 2020.
Per capita gasoline fuel consumption countywide.	605 gallons of gasoline fuel per capita in 2000.	No or minimal increase by 2020.
Number of vehicles with a fuel economy of at least 45 miles per gallon countywide.	362 in 2002.	Increase the number of zero and partial zero emission vehicles with a fuel economy of at least 45 miles per gallon through 2020.
Number of vehicles with a fuel economy of at least 45 miles per gallon in County Fleet.	0 in 2000 including 80 sheriff vehicles.	Increase the number of vehicles with a fuel economy of at least 45 miles per gallon through 2020.
Vehicle miles traveled overall countywide (VMT).	2,764 million VMT in 2000.	No or minimal increase through 2015.
Miles of class I bicycle pathways in unincorporated areas. ²	3.5 miles of class 1 in 2000.	Increase to 5-10 miles by 2010 and 10-25 miles by 2015.
Miles of class II bike lanes in unincorporated areas. ²	2.25 miles of class 2 in 2000.	Increase to 4.5-10 miles by 2010 and 9-25 miles by 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.

²Since Measure A, regional measure 2.



BUILT ENVIRONMENT ELEMENT

Indicators	Benchmarks	Targets
Public transportation ridership share of modal split countywide.	11% (bus and ferry) in 2000.	Increase public transportation ridership by 2015 and then again by 2020.
Public transportation ridership share of modal split for county government employees.	5.5% (bus) in 2002.	Increase public transportation ridership by 2015 and then again by 2020.
Percent clean fuel buses operated by Golden Gate Transit.	0 in 2000 (131 of 195 in 2004).	Increase the number of clean fuel buses by 2010 and increase them again by 2015.



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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	Medium	Long term
TR-1.b - Allow Live-Work Arrangements.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
TR-1.c - Promote Transportation Alternatives.	DPW, TAM, MCTD	Existing budget, will require additional grants or other revenue ²	Medium	Med. Term
TR-1.d - Coordinate with Local Agencies.	DPW, TAM, MCTD	General fund, TAM budget, grants, transportation sales tax ²	Low	Ongoing
TR-1.e - Uphold Vehicle Level of Service Standards.	DPW, TAM	General fund, TAM budget	Medium	Immediate
TR-1.f - Analyze Multimodal Performance.	DPW, MCTD	Will require additional grants or other revenue ²	Medium	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
TR-1.h - Add Transportation Policies to Community Plans.	CDA, DPW, MCTD	Existing budget	Medium	Ongoing
TR-1.i - Adopt Flexible Parking Standards.	CDA, DPW	Existing budget, TLC/HIP fund, will require additional grants or revenue ²	High	Short term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



BUILT ENVIRONMENT ELEMENT

Program	Responsibility	Potential Funding	Priority	Time Frame
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, MCTD	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 revenue ²	Medium	Long term
TR-1.n - Obtain and Dedicate Transportation Funding.	DPW, TAM, MCTD	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, MCTD	Grants, transportation sales tax, will require additional grants or other revenue	Medium	Long term
TR-1.s - VMT Reduction Monitoring and Implementation and Transportation Demand Management Program.	TAM, DPW, CDA	Existing budget, will require additional grants or other revenue ²	High	Med. term
TR-1.t - Reduce Single Occupancy Trips.	DPW, Cities and Towns	Will require additional grants or other revenue ²	Medium	Med. term
TR-1.u - Create Car Share Program.	DPW, TAM, CDA	Will require additional grants or other revenue ²	Medium	Med. term
TR-2.a - Encourage Bicycling and Walking.	DPW, TAM, CDA, H&HS, MCTD	Existing budget, grants, transportation sales tax ²	High	Ongoing
TR-2.b - Adopt Standards for Pedestrian and Bicycle Access.	CDA, DPW, TAM	Existing budget	Medium	Medium term
TR-2.c - Support Bicycle Stations and Consider Attended Parking.	DPW, CDA, GGT, MCTD	General fund, grants ²	Medium	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
TR-2.d - Fund Projects.	DPW, TAM, MCTD	General fund, grants, transportation sales tax ²	Medium	Ongoing
TR-2.e - Prioritize Completion of the North-South and East-West Bikeways.	DPW, TAM, SMART, Caltrans, Cities and Towns	Grants, general fund ²	Medium	Ongoing
TR-2.f - Develop “Rails with Trails.”	DPW, TAM, SMART, Cities and Towns	Will require additional grants or other revenue ²	High	Ongoing
TR-2.g - Add Bicycle Lanes.	DPW, TAM	Existing budget and will require additional grants or other revenue ²	High	Ongoing
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, SMART	Federal funding and will require additional grants or other revenue ²	Medium	Long term
TR-2.j - Ensure Safe Routes to Schools.	DPW, TAM, MCTD	Transportation sales tax and will require additional grants or other revenue ²	Medium	Ongoing
TR-2.k - Consider Pedestrian Needs.	DPW, TAM	Federal funding and will require additional grants or other revenue ²	High	Ongoing
TR-2.l - Complete Streets.	DPW, TAM	Will require additional grants or other revenue ²	High	Ongoing
TR-2.m - Explore Funding Options.	DPW, TAM, MCTD	General fund, grants, transportation sales tax ²	High	Ongoing
TR-2.n - Implement Nonmotorized Pilot Transportation Program.	DPW	TAM, Federal funding	High	Ongoing
TR-3.a - Increase Bus and Ferry Services.	MCTD, GGTD	Will require additional grants or other revenue ²	High	Ongoing/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 ²	Medium	Long term



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Program	Responsibility	Potential Funding	Priority	Time Frame
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 Transit Initiatives.	DPW, TAM, MCTD	Will require additional grants or other revenue ²	High	Ongoing/Long term
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 ²	Medium	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	Existing budget and will require additional grants or other revenue ²	Medium	Long term
TR-3.h - Implement a Traffic Reduction Program for Recreational Traffic to West Marin.	DPW, TAM, MCTD	Will require additional grants or other revenue ²	Low	Long term
TR-3.i - Provide Shuttle Service to Transit.	TAM, MCTD	Will require additional grants or other revenue ²	Medium	Ongoing
TR-4.a - Limit Project Impacts.	DPW	General fund, grants, traffic mitigation fees, transportation sales tax ²	Low	Ongoing
TR-4.b - Use Recycled and Resource Efficient Materials.	DPW	Will require additional grants or other revenue ²	Medium	Ongoing/Long term
TR-4.c - Support Green Fuels.	CDA, DPW, MCTD, TAM	Will require additional grants or other revenue ²	High	Ongoing/Long term
TR-4.d - Encourage Zero, Partial-Zero and Low-Emission Vehicle Use.	CDA, MCTD, TAM	Existing budget	Medium	Ongoing
TR-4.e - Support Alternative Fuels Vehicles.	DPW, CDA, TAM	Existing budget and may require additional grants or revenue ²	Medium	Ongoing



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3.10 Noise

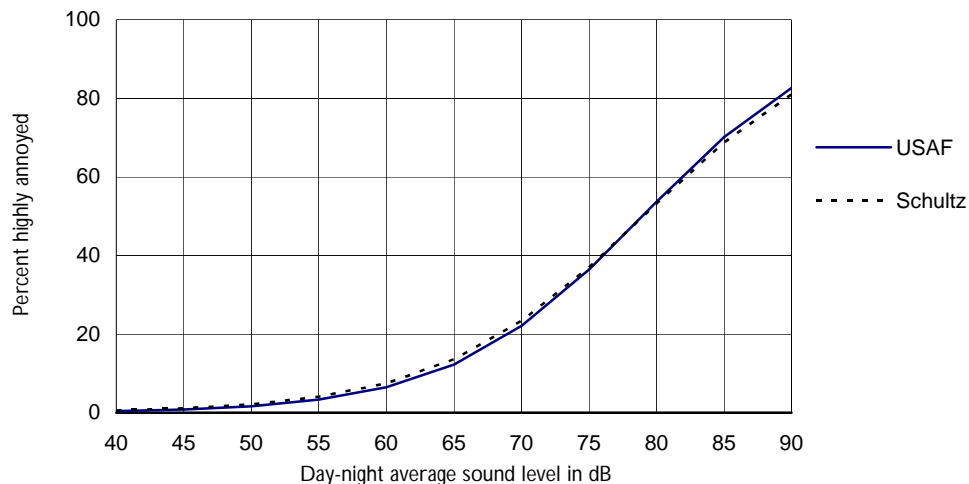
Background

Preserving quality of life requires mitigating the potential for noisy intrusions, but merely shutting out unwanted sound may not always be adequate. For example, buildings along busy roadways need to provide both comfortable acoustic environments and fresh air for their occupants. In addition, noise tends to be more tolerable over shorter time periods.

Vehicle traffic is the primary source of noise in Marin County, with the highest noise levels occurring along major roadways. Other significant local noise sources include aircraft, trains, mining activity, and construction. Estimates of future noise along major roadways can be projected based on estimates of future traffic, while changes in noise due to other sources may depend on a range of site-specific factors.

Minimizing the impact of noise on health and quality of life requires measuring current noise levels to identify existing problems. Noise is commonly described in *Ldn*, which expresses average sound level over a 24-hour period in decibels (dB), the standard measure of pressure exerted by sound. *Ldn* includes a 10 dB penalty for sounds between 10 P.M. and 7 A.M., when background noise is lower and people are most sensitive to noise.

Figure 3-39 Relationship Between Noise Levels and Annoyance (Schultz Curve)



Note: The most comprehensive and widely accepted evaluation of the relationship between transportation noise exposure (not exclusively aviation noise) and the extent of noise annoyance was one originally developed by Schultz (1978) and later updated by the U.S. Air Force (1992).

Source: 1992 Federal Interagency Committee on Noise.



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Because decibels are logarithmic units of measure, a change of 3 decibels is hardly noticeable, while a change of 5 decibels is quite noticeable and an increase of 10 decibels is perceived as a doubling of the noise level (see Figure 3-39). A change from 50 dB to 60 dB increases the percentage of the population that is highly annoyed at the noise source by about 7%, while an increase from 50 dB to 70 dB increases the annoyed population by about 25 percent. Sounds as faint as 10 decibels are barely audible, while noise over 120 decibels can be painful or damaging to hearing (see Figure 3-40). County residents are frequently exposed to noise ranging from 35 to 80 decibels.

Figure 3-40 Typical Noise Levels

Type of Noise or Environment	Decibels
Recording studio	20
Soft whisper; quiet bedroom	30
Busy open-plan office	55
Normal conversation	60-65
Automobile at 20 mph 25 ft. away	65
Vacuum cleaner 10 ft. away	70
Dump truck at 50 mph 50 ft. away	90
Gas leaf blower at 25 ft. away	100
Helicopter 200 ft. away	100
Train horn 100 ft. away	105
Claw hammer; jet takeoff 200 ft. away	120
Shotgun at shooter's ear	140

Noise will continue to be an important factor in the planning process as pressure increases to develop properties exposed to high noise levels and noisy activities occur near noise-sensitive receptors. The State sets acceptable noise levels for a variety of activities and types of land uses (in Figure 3-41, the “dB” measure indicates a reduction in the effects of low and high frequencies to simulate human hearing). The policies and programs in this Section of the Countywide Plan are intended to maintain appropriate noise levels and protect noise-sensitive land uses.

For the purposes of planning, the Noise Element contains information on the major noise sources identified in State planning law. It provides practicable noise contours for these major noise sources down to a level of annual average 60 Ldn. Annual average 60 Ldn is an appropriate benchmark for identifying and assessing noise problems, as this is the level above which outdoor noise levels are considered inappropriate in residential areas and at which interior noise levels in residential development will be unacceptable unless the windows are closed. Noise sources that do not generate noise levels in excess of an annual average Ldn of 60 dBA beyond the right-of-way line, in the case of highways, major local streets, and railroad rights-of-way, or the property line for stationary noise sources, are generally not included unless otherwise indicated.

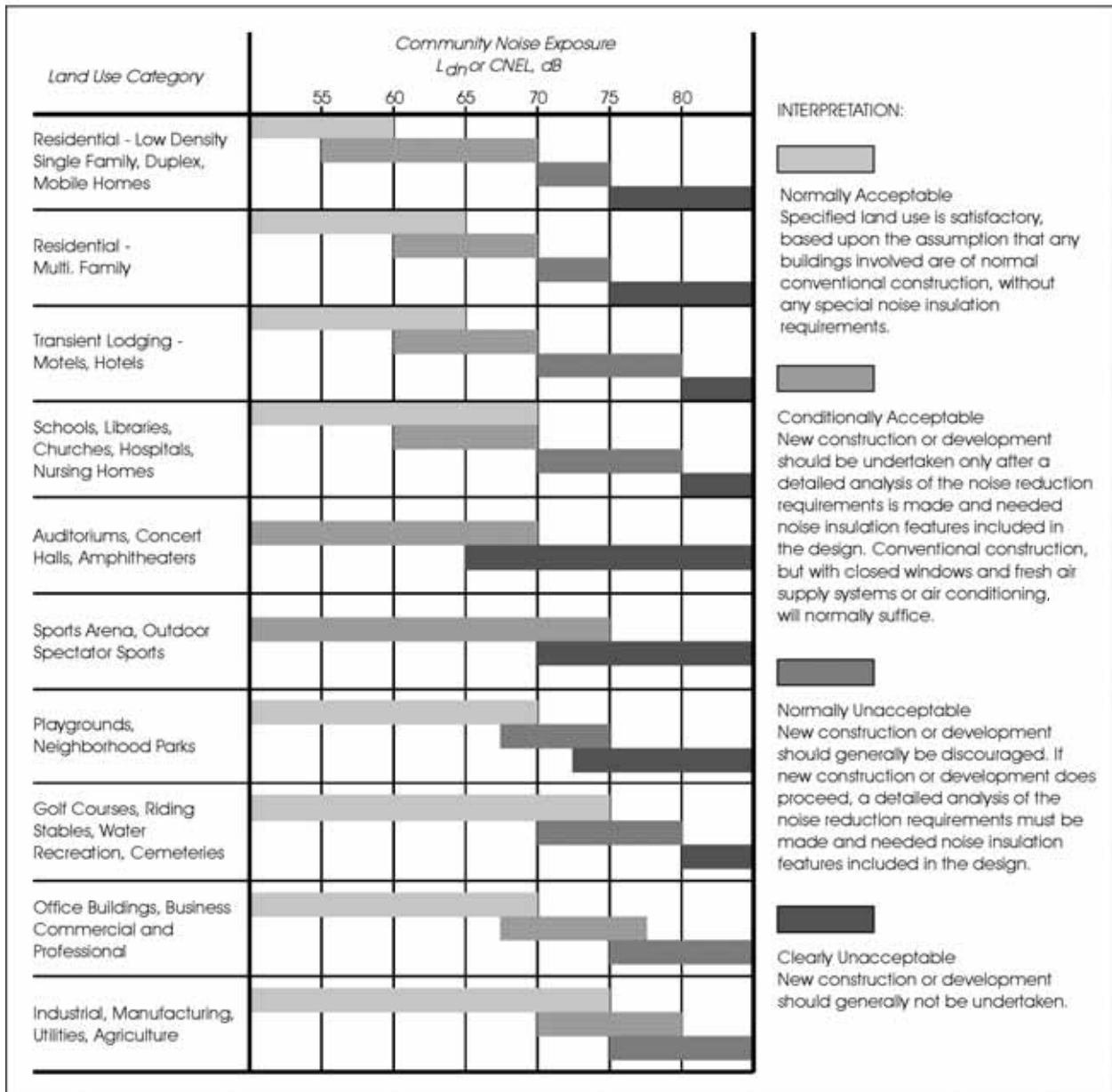
The major noise sources for which noise contours have been developed in Marin County include major highways (Highway 37, Highway 101, and Highway 1), and major county roads (including Sir Francis Drake Boulevard, Petaluma Point Reyes Road, Lucas Valley Road, Novato Boulevard, etc.), the San



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Rafael Airport, Gness Field, Richardson Bay Helipad, and potential future activity on the Sonoma-Marin Area Rapid Transit Line.

Figure 3-41 Acceptable Noise Levels



Source: California Office of Planning and Research, 1998 General Plan Guidelines.



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Existing and Future Noise Exposure

- ◆ **Traffic noise.** Traffic noise levels along the major highways, primary arterials, and major county roads have not changed significantly since 1987. Noise monitoring conducted in 2001 and repeated in 2005 (see Map 3-11, Locations of Long-Term Noise Measurements) shows little change from measurements taken at the same locations in 1987. Figure 3-42 shows the resulting Ldn measured at each location over the years. The change at the site located off Highway 101 at St. Vincent's Road was due to the fact that the location was moved closer to the freeway in 2001 and 2005 than it was in 1987. When adjusted for this change in distance, noise levels at this location are also within a decibel of those measured in 1987.

Future traffic projections for the highways, freeways, major arterials, and primary local county roads show that noise levels are expected to increase by, at most, 1 decibel over existing noise levels (due to the logarithmic nature of noise addition, a 20% increase in the traffic volume will result in only a 1 decibel increase in the average noise level). The resulting increase would be essentially undetectable to the human ear, and the future noise environment along the major roadways in Marin County is expected to be essentially the same as it is today. Map 3-12, Existing and Proposed Noise Contours, shows the projected future noise contours for the major roadways in Marin County. This map is available at the Marin County Community Development Agency Planning Division at a larger scale to evaluate the noise exposure at specific parcels.

- ◆ **Aircraft and airport operations noise.** Marin County has two general aviation airports: the Gness Field County Airport, north of Novato, and the San Rafael Airport, in northern San Rafael. Existing noise contours for Gness Field are shown on Map 3-13. Activity levels and associated noise generation have not changed substantially since 1986. Projected noise contours are shown on Map 3-14. Activity levels, regulated by a conditional use permit, and associated noise generation have not increased since 2003 at the San Rafael Airport and are not projected to increase in the future. Existing and projected noise contours are shown on Map 3-16.

The Richardson Bay Heliport provides a helicopter landing pad and seaplane rides. Activity at the Richardson Bay Heliport has not changed significantly since 1987, and activity levels continue at about 25 commercial takeoffs and landings per week. The noise exposure contours for the Richardson Bay Heliport are shown in Map 3-15. The annual average 60 Ldn contour clearly does not impact any existing noise-sensitive residential development, although noise generated by helicopters and seaplanes traveling to and from the heliport has been a source of annoyance to residents of the adjacent floating home marina.

San Rafael Airport is regulated under the jurisdiction of the City of San Rafael and is restricted by conditional use permit to a maximum of 100 based aircraft. Noise exposure contours associated with this population of aircraft have not varied since 1987. In fact, recent noise measurements have confirmed the location of the annual average 60 Ldn contour around the airport. Map 3-16 shows the location of the existing and future noise contours at San Rafael Airport.



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- ◆ **Flights to and from the Oakland and San Francisco International airports produce maximum passby levels of noise** within a range of 45 to 70 dBA when planes fly over Tiburon, Bolinas, and Point Reyes. On an annual average basis, however, the noise levels at all these locations are far below the annual average 60 Ldn standard used to define land use compatibility. Overflight noise from commercial aircraft may be a source of annoyance in the quieter areas of the county.
- ◆ **Railroad operations and ground rapid transit facilities noise.** The Northwestern Pacific Railroad runs through the northeastern portion of the county. However, current railroad use does not generate noise in excess of annual average 60 Ldn beyond the rail line's right-of-way. The Sonoma-Marín Area Rail Transit District (SMART) is proposing to begin operation of a commuter rail project along the Northwestern Pacific Railroad right-of-way between Cloverdale and the Larkspur Ferry terminal, a distance of about 71 miles. It is anticipated that there will be five stations in Marin County and that trains will run every 30 minutes during the peak period. There would be approximately 12 to 16 trains per day. It is anticipated that rolling stock will be a state-of-the-art diesel multiple unit built in the United States. These trains are much quieter than standard diesel locomotives. The train under consideration by SMART has been measured to generate a maximum passby sound level of 76-80 dBA at a distance of 50 feet from the passby. This level is similar to the noise level generated by a medium truck passing by at a similar speed.

Based on the activity level projected in the operations plan, however, the annual average 60 Ldn contour would be located within the right-of-way, and thus projected noise levels from SMART trains would comply with the standard for land use compatibility.

- ◆ **Industrial noise.** No industrial plants within the unincorporated county are known or projected to generate noise above annual average 60 Ldn beyond the property line. Noise generated by the San Rafael Rock Quarry has been a source of complaints from neighboring residents. Recent noise studies have been conducted and additional analysis is also scheduled to occur.
- ◆ **Other noise sources.** There are a number of other noise sources in the county, none of which is known to generate an annual average Ldn of greater than 60 dBA off-site. These include such noise sources as localized agricultural activities, dog kennels, and home maintenance activities.



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Figure 3-42 Roadway Noise Comparison, 1987 and 2001

Site Locations ¹	Present Land Use	Topography	Noise Source	Ldn Measured in 1987	Ldn Measured in 2001	Ldn Measured in 2005
LTR-1: Hwy 37 at Atherton Rd.	Industrial, Commercial	Flat/Surrounded by Hills	Hwy 37 Railroad	71	71	73
LT2: St. Vincent's Rd.	Agricultural, Residential, Institutional	Flat/Hills to the North	Hwy 101	56	62 ¹	63
LT3: Sir Francis Drake Blvd. near Woodacre	Residential, Commercial	Valley	Sir Francis Drake Blvd.	71	71 (August) 72 (December)	73
LT4: Petaluma Point Reyes Road South of Novato Blvd.	Agricultural, Commercial	Valley	Pt. Reyes/Petaluma Rd.	67	67	68
LT5: Hwy 1 South of Point Reyes Station	Residential, Commercial	Flat/Hills	Hwy 1	62	65	62
LT6: Flea Market(87) / Shopping Center(01) Parking Lot off Hwy 101 in South Marin Co.	Commercial	Flat	Hwy 101	75	76	76
LT7: Lucas Valley Rd.	Residential, Commercial	Valley	Lucas Valley Rd.	Site not measured in 1987	70	72
LT8: Hwy 1 North of Stinson Beach	Residential, Commercial	Inlet	Hwy 1	Site not measured in 1987	60	61
LT9: Novato Blvd. Near Stafford Lake	Recreational, Residential	Hills	Novato Blvd.	Site not measured in 1987	64	65
LT10: Hwy 101 at Atherton Ave. Exit	Residential, Commercial, Recreational	Flat	Hwy 101 Frontage Rd.	Site not measured in 1987	70	69

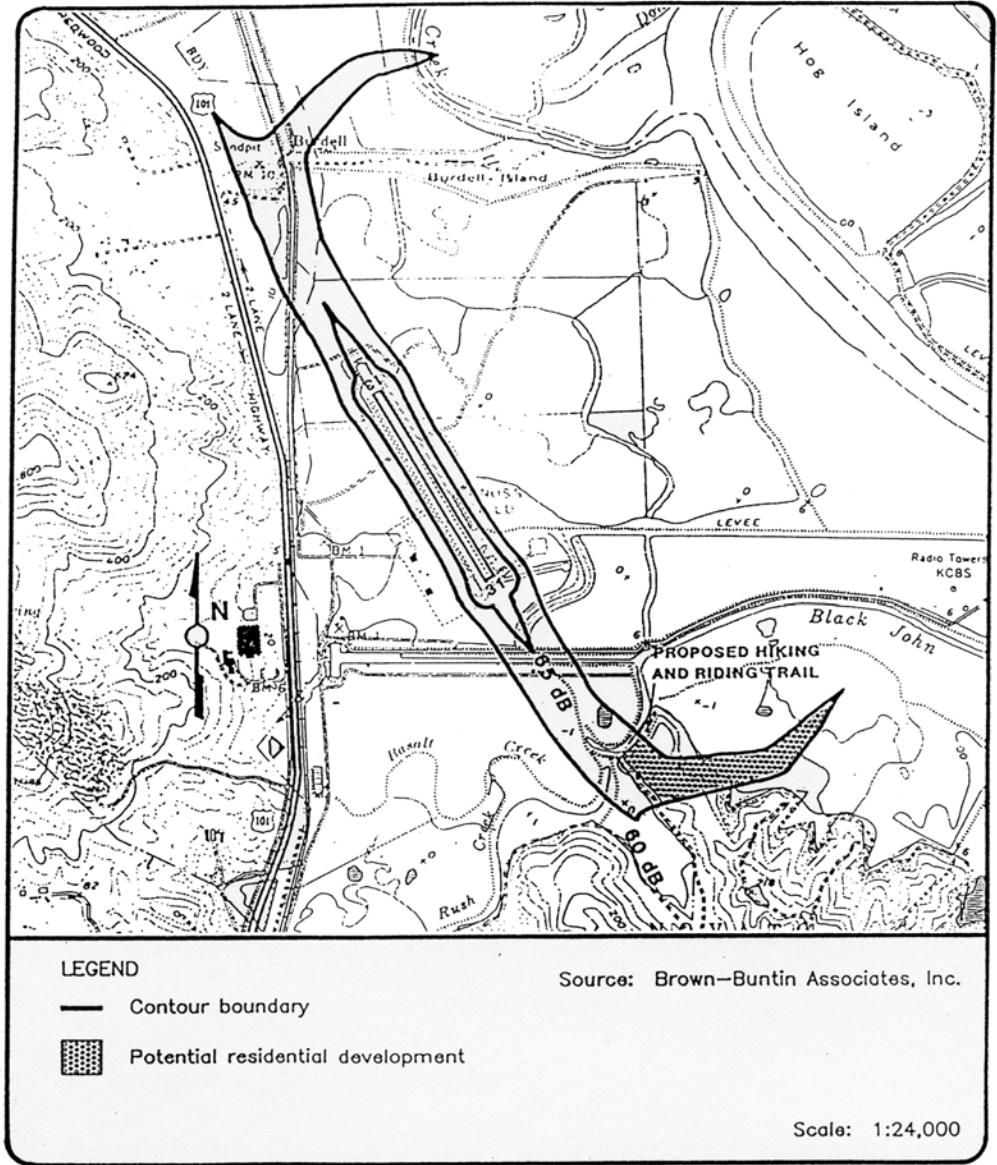
¹LTR-1, LT3, LT4, LT5, and LT6 are sites measured in 1987; the exact location of LT2 could not be repeated in 2001.

Source: 2002 Marin County Community Development Agency.



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Map 3-13. Existing Noise Contours for the Airport at Gross Field

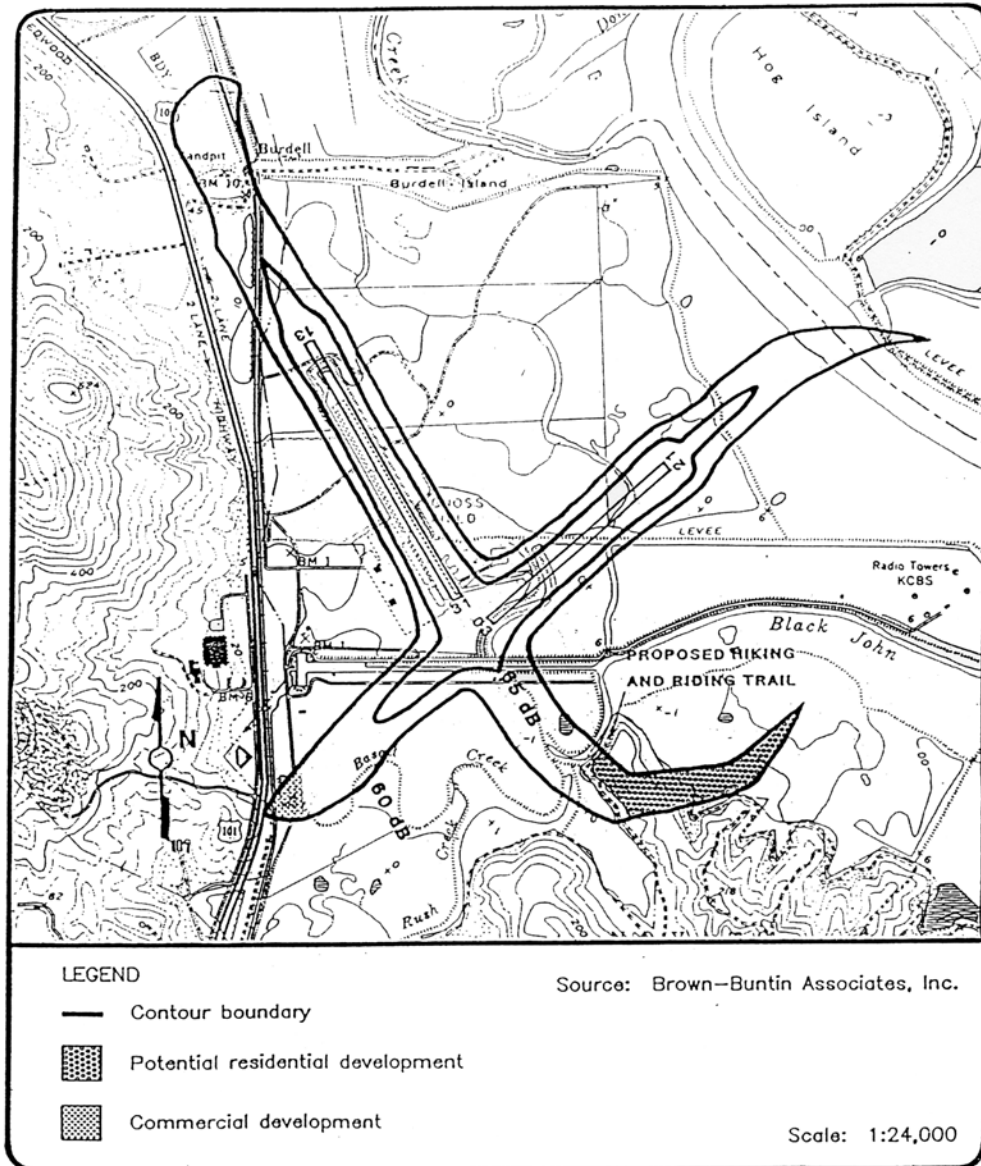


Source: Cortright & Seibold, confirmed 2005.
(Draft EIR/Environmental Assessment: Marin County [Gross Field] Airport, p. 6.41)



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Map 3-14. Projected Future Noise Contours for the Airport at Gnos Field

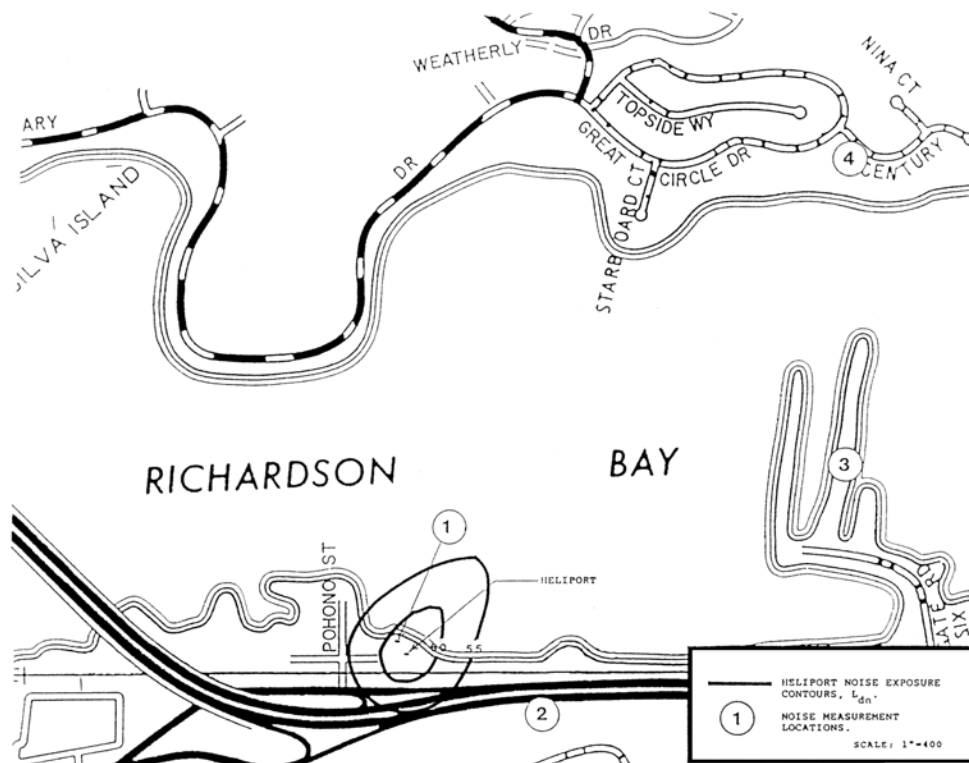


Source: Cortright & Seibold, confirmed 2005.
(Draft EIR/Environmental Assessment: Marin County [Gnos Field] Airport, p. 6.42.)



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Map 3-15. Existing Noise Contours for the Richardson Bay Heliport



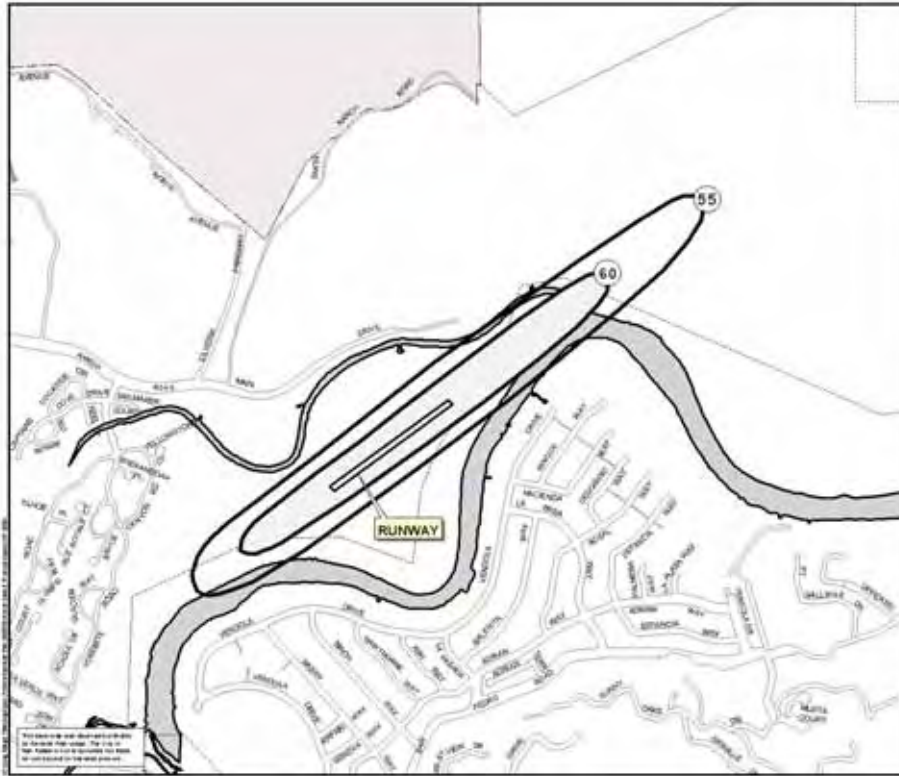
Source: Illingworth & Rodkin, confirmed 2005.

(Preparation of General Plan Noise Exposure Contours for the Commercial Heliport Located in Richardson Bay in Marin County, p. 8.)



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Map 3-16 San Rafael Airport Noise Contours



Source: City of San Rafael.
Note: Noise contours reflect conditions as of 2003.

What Are the Desired Outcomes?

GOAL NO-1



Protection from Excessive Noise. Ensure that new land uses, transportation activities, and construction do not create noise levels that impair human health or quality of life.

Policies

NO-1.1 Limit Noise from New Development. Direct the siting, design, and insulation of new development to ensure that acceptable noise levels are not exceeded.



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- NO-1.2 Minimize Transportation Noise.** Ensure that transportation activities do not generate noise beyond acceptable levels, including in open space, wilderness, wildlife habitat, and wetland areas.
- NO-1.3 Regulate Noise Generating Activities.** Require measures to minimize noise exposure to neighboring properties, open space, and wildlife habitat from construction-related activities, yard maintenance equipment, and other noise sources, such as amplified music.
- NO-1.4 Limit Sound Walls Along Highway 101.** Promote best available noise reduction technologies and alternatives to sound walls to mitigate noise along Highway 101.

Why is this important?

Planning to avoid noise is important for the well-being of people and animals. Reducing transportation noise to acceptable levels will be critical to siting housing near public transit.

Environment: Noise can impact local habitat in a natural setting by driving away key species that are part of the broader local ecosystem.

Equity: Noise can cause stress, disrupt sleep and other important activities, and cause health problems and auditory system damage. Enforcing uniform standards that comply with State-adopted guidelines for acceptable noise levels ensures that people in the county are protected from unwanted and excessive noise and have the opportunity to live, work, and rest in a healthy environment.

How will results be achieved?

Implementing Programs

- NO-1.a Enforce Allowable Noise Levels.** Through CEQA and County discretionary review, require new development to comply with allowable noise levels.

The Acceptable Noise Levels in Figure 3-41 shall be used as a guide for determining the appropriate type of new development in relation to its ambient noise environment. Figure 3-41 applies primarily to proposed development exposed to transportation generated noise and to existing development exposed to increases in transportation generated noise due to proposed development. The standards in Figure 3-41 shall also be used to determine allowable noise levels for commercial, industrial, agricultural, or other less-noise-sensitive land uses exposed to stationary source noise generated by new development.

The Benchmarks for Allowable Noise Exposure from Stationary Noise Sources in Figure 3-43 shall be used as a guide for establishing allowable noise levels produced by stationary noise sources. These standards shall apply to new residential projects and other noise-sensitive land uses proposed near stationary noise sources. The standards shall also apply to new stationary noise-generating development proposed near existing residential or other noise-sensitive land uses.



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It should be noted that the standards in Figures 3-41 and 3-43 are for purposes of planning and siting land uses. The standards are not a noise ordinance and are not to be used to achieve the same objectives as a noise ordinance. The standards are not to be used for regulating existing noise sources or enforcement concerning noise problems.

Figure 3-43 Benchmarks for Allowable Noise Exposure from Stationary Noise Sources

	Daytime (7 A.M. to 10 P.M.)	Nighttime (10 P.M. to 7 A.M.)
Hourly L_{eq} , dB	50	45
Maximum Level, dB	70	65
Maximum Level, dB (Impulsive Noise)	65	60

L_{eq} ("Equivalent Sound Pressure Level") is the constant sound energy that would produce the same noise level as actual sources that are fluctuating during the specified time period (one hour).

Guidelines for use of Figure 3-43:

1. The measurements are made at the property line of the receiving land use. The effectiveness of noise mitigation measures should be determined by applying the standards on the receptor side of noise barriers or other property line noise mitigation measures.
2. The nighttime standards apply only when the receiving land use operates or is occupied during nighttime hours.
3. Sound-level measurements to determine maximum level noise shall be made with "slow" meter response.
4. Sound-level measurements for impulsive noise sources shall be made with "fast" meter response. Impulsive noises are defined as those that have sharp, loud peaks in decibel levels but that quickly disappear. Examples include a dog's bark, a hammer's bang, and noise with speech or music content.
5. The allowable noise level standard shall be raised to the ambient noise level in areas where the ambient level already exceeds the standards shown in this table. For example, if the neighborhood already experiences daytime hourly noise levels of 60 dBA as an ambient condition, the noise level standard shall be raised to 60 dBA.
6. The allowable noise level shall be reduced 5 dB if the ambient hourly L_{eq} is at least 10 dB lower than the noise-level standard shown in this table. For example, if the neighborhood experiences daytime hourly noise levels of 40 dBA as an ambient condition, the noise level standard shall be lowered to 45 dBA.

NO-1.b

Comply with Acceptable Noise Levels. Require discretionary permits for residential and other noise-sensitive land uses proposed near noise sources that may exceed acceptable noise levels and/or benchmarks to provide acoustical analyses; and, if necessary, commit to measures to comply with the applicable standards set out in Program NO-1.a. Amend the Development Code to include these requirements.



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- NO-1.c ***Require Project-Specific Noise Mitigation.*** Require all development to mitigate its noise impacts where the project would
- ◆ raise the Ldn by more than 5 dBA;
 - ◆ raise the Ldn by more than 3 dBA and exceed the Normally Acceptable standard; or
 - ◆ raise the Ldn by more than 3 dBA and the Normally Acceptable standard is already exceeded.
- NO-1.d ***Set Additional Limits for Housing.*** Amend the Development Code to require the following maximum noise levels for all new residential units:
- ◆ Exterior – 60 dBA Ldn
 - ◆ Interior – 45 dBA Ldn
- NO-1.e ***Coordinate with Public Agencies.*** Work with local, regional, State, and federal agencies to address existing and potential noise impacts, such as vehicle tire sound production and aircraft overflight, and to determine appropriate mitigation measures necessary to meet Acceptable Noise Levels.
- NO-1.f ***Review Projects Near Gness Field.*** Review development proposals within the two-mile referral area of Gness Field for consistency with the noise criteria set forth in the Countywide Plan and the adopted Airport Land Use Plan.
- NO-1.g ***Plan for New Helipad.*** Require any proposed helipad to provide site-specific environmental review, including detailed noise and safety impact analyses and mitigation, prior to consideration.
- NO-1.h ***Anticipate Additional Rail Noise.*** Once the Sonoma-Marín Area Rail Transit District (SMART) selects a vehicle and evaluates the environmental impacts of proposed regional rail service, including noise impacts, update the Noise Section of the Countywide Plan to include a map showing noise contours along the railroad tracks, and work with SMART to determine appropriate mitigation measures necessary to meet acceptable noise levels.
- NO-1.i ***Regulate Noise Sources.*** Sections 6.70.030(5) and 6.70.040 of the Marin County Code establish allowable hours of operation for construction-related activities. As a condition of permit approval for projects generating significant construction noise impacts during the construction phase, construction management for any project shall develop a construction noise reduction plan and designate a disturbance coordinator at the construction site to implement the provisions of the plan.
- NO-1.j ***Consider Regulating Outdoor Amplified Music and Equipment.*** Evaluate the feasibility of adopting an ordinance regulating the type and time of use of outdoor amplified music and/or motorized outdoor equipment such as leaf blowers, generators, lawn



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mowers, trimmers, chain saws, and other gas-powered tools (special consideration shall be given to homeowners who perform their own work).

- NO-1.k** *Minimize Noise Impacts from Temporary Land Uses.* Amend the Development Code to include standards for temporary land uses, such as fairs or exhibits, that require mitigation of noise impacts on surrounding areas in conformance with State and County noise level guidelines for nearby land uses.
- NO-1.l** *Enforce Personal Watercraft Ban.* Continue to enforce the ban on personal watercraft in areas where such vessels have been prohibited.
- NO-1.m** *Limit Sound Walls.* Encourage Caltrans to consider utilizing alternatives to sound walls along Highway 101, such as landscaped berms, sloped walls, and other best technology. Amend the Development Code to include standards for construction of non-sound-wall noise mitigation structures. Consider the impacts of reflected noise resulting from sound wall installation.



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Figure 3-44 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of the goal in this section to the Guiding Principles.

Goal	Guiding Principles	
NO-1 Protection from Excessive Noise	1. Link equity, economy, and the environment locally, regionally, and globally.	
	2. Minimize the use of finite resources and use all resources efficiently and effectively.	
	3. Reduce the use and minimize the release of hazardous materials.	•
	4. Reduce greenhouse gas emissions that contribute to global warming.	
	5. Preserve our natural assets.	•
	6. Protect our agricultural assets.	
	7. Provide efficient and effective transportation.	
	8. Supply housing affordable to the full range of our workforce and diverse community.	
	9. Foster businesses that create economic, environmental, and social benefits.	
	10. Educate and prepare our workforce and residents.	
	11. Cultivate ethnic, cultural, and socioeconomic diversity.	
	12. Support public health, safety, and social justice.	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Roadway noise levels at sites identified in Countywide Plan.	See CWP Roadway Noise Comparison dataset.	Increase no more than 2 decibels at identified sites through 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 3-45
Noise Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
NO-1.a - Enforce Allowable Noise Levels.	CDA, Sheriff	Existing budget	Medium	Ongoing
NO-1.b - Comply with Acceptable Noise Levels.	CDA	Existing budget	Medium	Short term
NO-1.c - Require Project-Specific Noise Mitigation.	CDA	Existing budget	High	Ongoing
NO-1.d - Set Additional Limits for Housing.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Short term
NO-1.e - Coordinate with Public Agencies.	CDA	Existing budget	Medium	Ongoing
NO-1.f - Review Projects Near Gness Field.	CDA	Existing budget	High	Ongoing
NO-1.g - Plan for New Helipad.	CDA	Existing budget	High	Ongoing
NO-1.h - Anticipate Additional Rail Noise.	CDA, SMART	Existing budget	High	Long term
NO-1.i - Regulate Noise Sources.	CDA	Existing budget	Medium	Immediate
NO-1.j - Consider Regulating Outdoor Amplified Music and Equipment.	CDA	Will require additional grants or revenue ²	Medium	Long term
NO-1.k - Minimize Noise Impacts from Temporary Land Uses.	CDA	Existing budget	Medium	Short term

¹ Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

² 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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
NO-1.1 - Enforce Personal Watercraft Ban.	Sheriff	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
NO-1.m - Limit Sound Walls.	CDA, Caltrans, TAM	Existing budget	Medium	Ongoing/ short term



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Recycling center.

3.11 Public Facilities and Services

Background

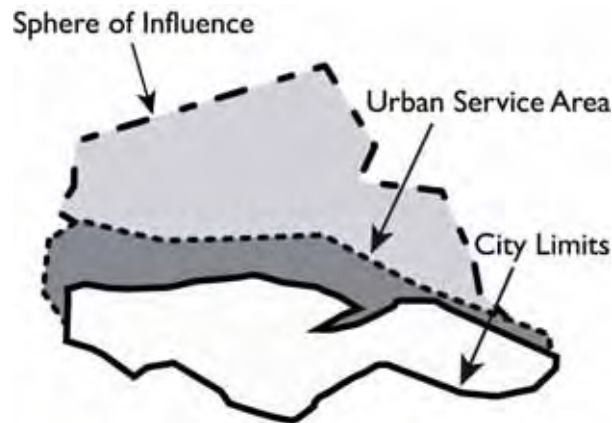
Public services are essential to support our existing communities. Because certain services may be more readily available in incorporated areas, many policies and programs in this and other sections of the Countywide Plan direct major construction activity toward the City-Centered Corridor and within incorporated cities and towns. Indeed, many unincorporated areas of the county could also be efficiently served by a city.



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The Local Agency Formation Commission (LAFCO) establishes a sphere of influence (SOI) for each city – its probable boundary and service area. Within each SOI is an urban service area, which is designated by LAFCO for each jurisdiction, where development can best be accommodated over the next 5 to 10 years. Development proposals in urban service areas are reviewed by both the affected city or town and the County, and unincorporated land within an urban service area may be annexed to the city at the time of development. Maps 3-17 through 3-30 locate each city’s SOI, urban service area, and public buildings. Figure 3-46 (see the Introduction, “Technical Background Reports and Other Supporting Documents”) lists special districts in Marin and their purposes.

Figure 3-46 Urban Service Area Concept



Because water is essential for our communities, our agricultural systems, and our environment, unsustainable patterns of development and water use will not be supported. A more dependable local supply of water can be achieved through a combination of recycled water, groundwater recharge, and less dependence on imported sources of water. This requires reuse, increased catchment and storage, watershed protection, improving groundwater recharge and conservation efforts, and maintaining high water quality.

The Marin Municipal Water District (MMWD) and North Marin Water District (NMWD) provide water to urban areas. Several small community water districts serve rural areas in West Marin. Three-fourths of MMWD supply comes from the local watershed and is stored in reservoirs. The remaining water comes via pipeline from the Russian River in Sonoma County. MMWD conducted a one-year desalination pilot project to evaluate the potential of water drawn from San Francisco Bay as an additional water source. NMWD water comes from Stafford Lake west of Novato and from the Russian River. Marin groundwater supplies are limited due to the presence of underlying bedrock and to saltwater intrusion in the few significant alluvial basins. Most agricultural operations in the county rely on impoundments, springs, and potable well water. The land use pattern proposed for this Plan update is to shift some future dwelling units from environmentally sensitive lands, which are often on septic and/or use well water, to locations within the City-Centered Corridor where public water and sewer



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systems are provided. The new housing type will increase mixed-use or medium to higher density housing located near transit. This is likely to result in less water use per unit but some increase in overall water usage in the MMWD service area.

The communities of Point Reyes Station, Olema, Inverness Park, and Paradise Ranch Estates utilize groundwater that is pumped from two wells adjacent to Lagunitas Creek. The wells serving the West Marin distribution system are founded in the alluvial aquifer that underlies the Lagunitas Valley and operated by the North Marin Water District. Significant aquifer recharge occurs through streambed infiltration along Lagunitas Creek. In average or wet years, the local watershed runoff and upstream reservoir releases provide more than sufficient recharge to meet the water use demands of the West Marin service area and to maintain instream flows for fish. The community water districts in Bolinas, Inverness, and Stinson Beach derive their water supplies from surface streams, via direct diversion to storage, treatment, and distribution facilities. The communities of Muir Beach and Dillon Beach rely on groundwater for their drinking water supplies.

There are nine sanitary treatment plants in the City-Centered Corridor, most of which connect to lines from more than one sanitary district. There are three districts in West Marin, each with sewer lines and a treatment facility. The County Environmental Health Services office regulates septic systems.

Approximately 18 solid waste sites exist in the county, the majority of which are closed. The only active disposal site in the county is Redwood Landfill, located north of Novato. West Marin Sanitary Landfill, north of Point Reyes Station, is inactive and no longer receives solid waste. Other active solid waste sites include a materials recovery facility, a large-volume transfer station, and a composting facility. Additional composting operations and facilities are anticipated to open in the county in the future. Solid waste collection is administered by 22 agencies, each of which uses one of five private haulers (one special district provides its own service).

When the existing Solid Waste Facilities Permit was issued in 1995, Redwood Landfill had an anticipated closure date of 2039. Estimates vary on the closure date of the landfill. More recent information based on expansion plans submitted by Redwood Landfill estimate that the landfill could reach capacity as early as 2019 or 2026 under current permit conditions. The proposed expansion plan estimates extended site life of the facility to approximately 2037, 2042, or 2051 depending on which alternative is selected. Increased recycling and resource recovery could also extend the life of the landfill. Although no new proposed landfill disposal sites have been identified, the *1995 Siting Element for Marin County and Its Cities* provides siting criteria and an evaluation process when the County considers expanding an existing facility or developing a new facility. This process, which identifies acceptable disposal sites, is also initiated in the event that less than 15 years of landfill capacity exists for the county.

The Marin County Hazardous and Solid Waste Joint Powers Authority implements a household hazardous waste program for all of Marin except the City of Novato, with a permanent collection facility in San Rafael and a periodic collection event in West Marin. The City of Novato, in conjunction with the Novato Sanitary District and Novato Disposal, operates its own hazardous waste program. The County, except for the City of San Rafael, regulates hazardous waste and materials handling through permitting, enforcement, and programs to ensure safe storage, treatment, and disposal. The City of San



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Rafael operates its own hazardous waste and material program. The potential impact of hazardous materials on people is discussed in the Public Health Section.

Demand for telecommunications facilities has led to increased installation of wireless service towers and other highly visible structures. The County Telecommunications Facilities Policy Plan provides guidance for allowing efficient development of telecommunications facilities while protecting environmental resources, scenic quality, and people.

Key Trends and Issues

Is it a problem for County land to be mixed in with cities and towns?

Islands of unincorporated territory exist in most Marin cities and towns. These enclaves can create problems for the provision of some public services. County personnel must travel through cities and towns to provide sheriff, fire, and other services. Confusion may arise in determining which agency has jurisdiction, and delivery of services may be inefficient.

Will more water be needed?

Water demand will increase as a result of new development. Since 1987, the Marin Municipal Water District (MMWD) has met all new demand through conservation and recycled water (demand management), despite a 10% increase in population and a 10% reduction in water supply to restore the Lagunitas Creek fishery. Demand is now again approaching the 1987 level – a level that led to rationing in the last drought and would have resulted in severe water shortages had that drought continued. At current increases in demand, MMWD projects an increasing deficit in supply that exceeds its estimates for what can be met through past methods of demand management. Furthermore, serious questions have arisen regarding reliability and the financial and environmental cost of increasing our reliance on Russian River water. MMWD is studying the potential of desalinating bay water and exploring with sanitary districts the feasibility of expanding their use of treated wastewater for irrigation. Conservation measures could help to avoid or defer the need for costly new water systems. MMWD and other water districts in the County are exploring new approaches to water conservation and demand management that could lead to significant savings in existing usage levels and could provide additional capacity for expected growth in demand.

Are we diverting more materials from landfills?

Landfill diversion rates are very high. Waste diversion rates from Marin landfills are among the highest in California. In 2002, 71% of all waste was diverted from landfills, compared with 24% in 1993 (Figure 3-47). Waste generation increased during that period from 371,279 tons to 410,607, representing an increase of 9.6%. Marin's population grew at a similar rate, contributing to the generation of solid waste. Because the State uses a different methodology for calculating waste generation, comparison between Marin County and the State is not possible. Figure 3-48 displays the State's recent trend.

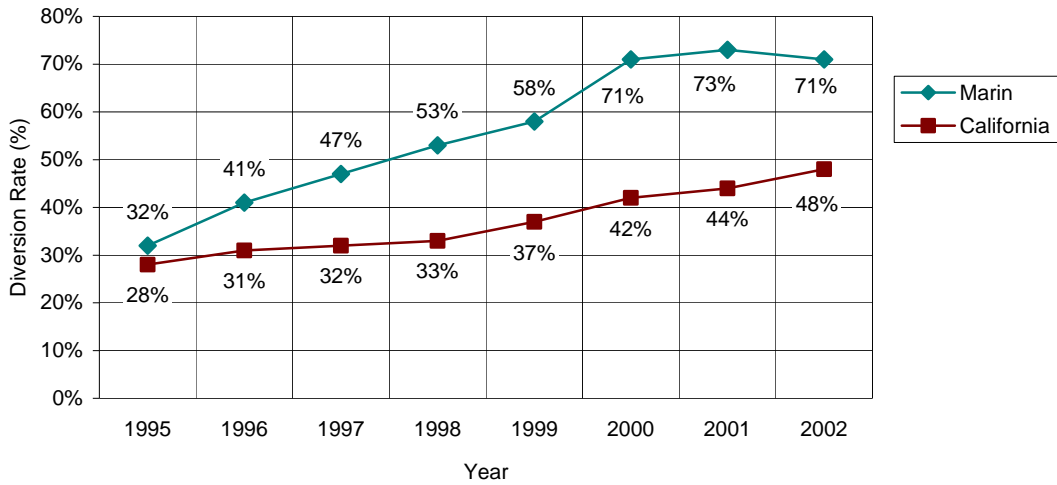
Do hazardous materials pose health risks?

Hazardous materials pose risks countywide. However, the urbanized part of the county is most susceptible to public health concerns from hazardous waste and materials, especially due to transport.



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**Figure 3-47
Solid Waste Diversion¹**

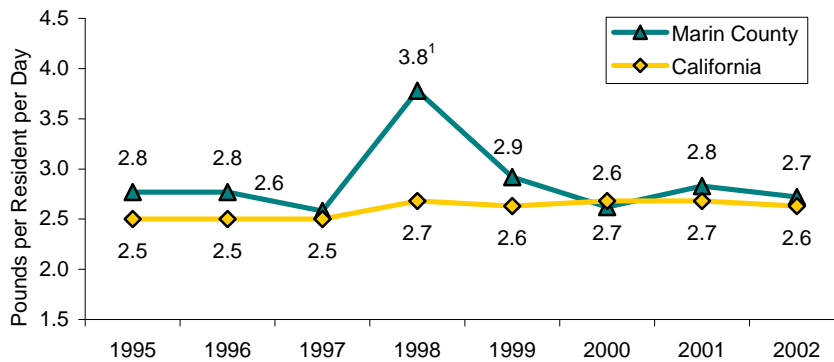


¹Comparable data on annual diversion disposal rates are not included because the State has continually modified the material types it includes in such measurements.

Source: California Integrated Waste Management Board [Marin];

<http://www.ciwmb.ca.gov/LGCentral/Rates/Graphs/RateTable.htm> [California]

**Figure 3-48
Residential Disposal (Pounds per Resident per Day)**



Source: California Integrated Waste Management Board.

¹1998 level is due to the demolition of the former Hamilton Air Force base.



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What Are the Desired Outcomes?

GOAL PFS-1



Adequate Public Facilities and Services. Provide basic public facilities to accommodate the level of development planned by cities and towns and the County.

Policies

PFS-1.1 Require Cost-Sharing. Require new development to pay for the infrastructure it requires and the public services it receives.

PFS-1.2 Plan Effectively to Minimize Costs. Plan public facilities in cooperation with service providers to minimize short- and long-term construction, operation, and maintenance costs.

PFS-1.3 Discourage Privatization and Commercialization. Encourage public ownership of utilities and public service facilities by not authorizing privatization of water, sewer, law enforcement, emergency service, school, and other essential services. Consider prohibiting corporate sponsorship and commercially driven naming rights of public facilities and lands as a means to fund maintenance and improvements.

PFS-1.4 Reduce Demand on Public Facilities. Reduce per capita and total demand for water and wastewater treatment, and enhance storm water management through integrated and cost-effective design, technology, and demand reduction standards for new development and redevelopment.

Why is this important?

The cost of infrastructure, such as water lines, sewer lines, and roadways, is sensitive to distance. Eleven percent of Marin County’s land area has been developed, primarily within cities and towns, while 84% of the county consists of parks, open space, watersheds, tideland, and agricultural land. Of the 5% of land potentially available for development, most is within a city, where infrastructure already exists. Coordination and cooperation are needed in planning for public facilities, since the agencies that control land use often are not the same as those that provide services.

Environment: Ensuring that the level of service and capacity of facilities does not exceed the amount of development projected in land use plans reduces impacts on local fiscal and environmental resources.

Economy: Studies have shown that it is more expensive to provide public facilities and services to developments that have sprung up in a haphazard or leapfrog manner. Local governments can save money by gradually expanding service from existing service areas in a rational and well-planned manner.

Equity: Requiring the cost of facilities that serve new development to be paid by those projects relieves existing residential and commercial ratepayers of a potentially unfair financial burden that could impair



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financial well-being and community economic health. Also, maintaining public facilities in public ownership ensures that costs are equitably shared.

How will results be achieved?

Implementing Programs

- PFS-1.a** *Require Fair-Share Contributions.* Obtain studies from service providers that determine the cost of providing public services and facilities to new development. Encourage special districts, schools, and cities, and towns to adopt development impact fees and require new development to pay those costs, including by providing needed facilities. Affordable housing developments that meet specified criteria may warrant full or partial fee reductions.
- PFS-1.b** *Plan for Service Expansion.* Work with LAFCO, cities and towns, and special districts to ensure that necessary public facilities and adequate water supply are in place prior to occupancy of new development and funded at levels that reflect their true short- and long-term costs (also see CD-6.c and PFS-2.a).
- PFS-1.c** *Prepare Naming and Sponsorship Guidelines.* Work with interested parties to establish a policy for naming rights and sponsorships regarding open space preserves, parks, and other public lands and facilities. Honorary and memorial naming should be considered as appropriate.
- PFS-1.d** *Reduce Demand on Public Facilities.* Assess and revise community development and facilities rules to incorporate least-cost (including environmental, economic, and societal costs) and integrated resources planning for water, wastewater, and storm water infrastructure.

What Are the Desired Outcomes?


GOAL PFS-2

Sustainable Water Resources. Assure a reliable, sustainable water supply for existing and future development while protecting the natural environment.

- PFS-2.1** **Conserve Water and Utilize Sustainable Sources.** Promote conservation to increase the responsible use and reliability of water supplies. Reduce the waste of potable water through efficient technologies, design, and management practices, and through better matching of the source and quality of water to the user's needs.



- PFS-2.2** **Mitigate Increased Water Demand in New Development.** Work with local water agencies to mitigate increases in water demand due to new development by supporting water efficiency programs that decrease demand by a similar amount.



Also see the Water Resources section for policies on watersheds, TMDL, graywater, and septic.

PFS-2.3 Manage Water Resources Sustainably. Manage water resources to ensure equitable amounts of clean water for all users, to support wildlife habitat, and to preserve natural resources within the sustainable limits of water supplies. (See also the Natural Systems and Agriculture Element, Water Resources Section.)

Linking Land Use and Water Supply Planning

Historically, land use planning has been undertaken with little regard for the availability of water supplies. To avoid further development without regard for adequate water resources, recent changes in California Government Code require increased coordination between land use and water supply planning. Water districts are now required to supply relevant planning agencies with their Urban Water Management Plans, and cities and towns and counties are required to communicate their development plans to water districts.

Two California Senate bills have set forth substantive “triggers” that dictate what level of development requires an exchange of information between planning and water agencies, and also a water supply assessment or verification for project approval.

SB 610

SB 610 requires a “water supply assessment” for any development project or related land use plan for 500 or more housing units, or any project that would demand the equivalent water use. The water supply assessment is a required section in any CEQA document prepared for the project (EIR or negative declaration).

The planning agency submits the plan to the local water agency (or agencies) and the water agency reports back whether or not they can reliably supply the project while at the same time covering all present and future demands. If the water agency cannot service the project with current and projected water supplies (taking into account normal, dry, and multiple dry years), new water sources need to be identified.

The Urban Watershed Management Plan (UWMP) may satisfy the water supply assessment, so long as the project being considered was encompassed in the long-range planning of the UWMP.

SB 221

SB 221 more often applies to subdivisions and specific plans and can be a “backstop” where adequate long-range water/land use planning and coordination has not taken place. A development project of 500 or more housing units (or equivalent) cannot be approved without written verification from the applicable water agency that an adequate water supply exists or will exist prior to project completion. Subdivisions of less than 500 units may fall under this requirement if the project would represent 10% or more of the number of connections for a small water agency.

Affordable housing and “in-fill” projects are exempt from SB 211

As with SB 610, the UWMP can demonstrate that there is available water supply, as long as the UWMP clearly states that the project was considered within the scope of the Plan and that adequate current and future water resources exist.



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Why is this important?

In the Marin Municipal Water District (MMWD), water use went from 25,210 acre-feet in 1991 to 30,700 in 2001, exceeding its annual operational yield of 28,600 acre-feet. Projections through 2020 are for water use to increase an additional 8,500 acre-feet per year beyond the current level.

Environment: The California Energy Commission estimates that 44 million tons of CO₂ emissions are expelled annually on average to provide the 44 million acre-feet of water used statewide. Conservation methods allow us to rely less on imported water, which requires more energy to transport than local sources. Reduced water consumption also leaves more water in natural systems to benefit the local environment, reduces our ecological footprint, and limits the amount of wastewater that must be disposed of.

Economy: In California, 19% of all electricity, 30% of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute, and use water and wastewater. Cost-saving conservation measures such as low-flow fixtures, drought-tolerant landscaping, and reuse of treated wastewater extend scarce supplies for all homes and businesses.

Equity: According to a 2006 poll conducted by the Charlton Research Company, 75% of Marin Municipal Water District customers are concerned that the area will likely suffer another serious drought in the near future. If the county experiences a drought, residents may have to cut their water usage by 65%. Because water is a precious resource, needed by everyone for drinking and a variety of other uses, sustainable water resource management is needed to help allow for an adequate water supply for all users.

How will results be achieved?

Implementing Programs

- PFS-2.a** *Support and Integrate Water Conservation Efforts.* Support 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 resource planning (see policies and programs under Goal WR-3 in the Natural Systems and Agriculture Element).
- PFS-2.b** *Minimize the Demand for Water in New Development.* Encourage everyone, such as service providers and service districts, to incorporate water, wastewater, and stormwater infrastructures on a least-cost basis, factoring in relevant environmental, economic, and social costs. Consider water-based services that reduce demand and draw on alternative supplies to be equivalent to new supplies. Water-based services include the application of state-of-the-art technology and practices; matching water quality to its end use; and financing local wastewater reuse in the same manner in which centralized water supply options are financed.
- PFS-2.c** *Promote Ahwahnee Principles for Water Supply.* Support guidelines for local water providers to enact programs that promote the Ahwahnee Principles for water supply. These should include investigations of new sustainable sources such as groundwater, surface water, recycled water, gray water, or desalination facilities that match water



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quantity and quality to the beneficial uses and the perfection or securing of additional water rights for the water purveyors.

- PFS-2.d** *Support Water Demand Planning.* Provide Countywide Plan buildout information in the form of letters to water supply purveyors to use in the development of their respective Urban Water Management Plans (UWMPs). Assist the water purveyors in the preparation of these UWMPs by reviewing these documents and providing comments. Initiate discussion with or letters to small water systems, which are not required by the California Water Code to prepare UWMPs because they have fewer than 3,000 connections, urging them to adopt use of the UWMP format for planning. The water shortage contingency plan portion of the UWMP would provide the means to identify shortages on a consistent basis, to define water shortage stages and appropriate response measures, and to develop relevant ordinances, resolutions, or rules to manage water shortages.
- PFS-2.e** *Conduct Water Planning Through LAFCO Studies.* Encourage the Local Agency Formation Commission to assess water supply and demand in their boundary area studies.
- PFS-2.f** *Initiate a Water Conservation Program.* Develop model water demand management programs using best practices, including the following:
- ◆ requiring water conservation on new constructions
 - ◆ requiring water conservation fixtures
 - ◆ 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 noninvasive 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 runoff. Encourage water agencies to conduct irrigation training workshops for homeowners and professionals.



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- PFS-2.j** *Upgrade West Marin Systems.* 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 Alwahnee 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.
- PFS-2.m** *Promote Onsite Rainwater Capture and Retention.* Encourage use of on-site rainwater capture, storage, and infiltration for irrigation and other nonpotable uses, and work with Environmental Health Services and water service providers to establish standards for rainwater quality and use. Ensure that catchments do not adversely affect habitat dependent on in-stream flow.
- PFS-2.n** *Conduct Groundwater Recharge Study.* Work with water suppliers to study the efficiency and cost-effectiveness of rainwater harvesting systems and infiltration and recharging patterns of groundwater aquifers to assess the feasibility of using direct precipitation collection to supplement existing water sources.
- PFS-2.o** *Assess Project Impacts to Surface Water and Groundwater.* Require documentation that new development projects (including installation of wells) with the potential to degrade or deplete surface water or groundwater resources will not adversely affect a basin or subbasin, including in-stream flows for aquatic habitat.
- PFS-2.p** *Investigate and Consider Appropriate Small-Scale Wastewater Reduction, Treatment Use Technologies.* Work with water agencies to resolve conflicting regulations regarding pretreated septic drip dispersal systems and appropriate graywater use, to evaluate the potential of small-scale portable graywater converter systems as possible sources for landscaping water, and to modify regulations as necessary to encourage safe graywater use (such as dual systems that employ graywater to support landscaping). (Also see Water Resource policies and programs.) Evaluate the potential to use



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waterless urinals, NSF-approved composting toilets, and other appropriate water saving technologies.

- PFS-2.q** *Adopt Tiered Billing Rates.* Encourage all Marin County water agencies to adopt the California Urban Water Conservation Council's Best Management Practice of tiered billing rates to encourage water conservation. Encourage the establishment of tiers that are based on conserving levels of per capita water use, rather than those based on historical non-conserving levels. Offer comprehensive conservation incentive programs to assist customers to achieve conserving levels of use.
- PFS-2.r** *Offset New Water Demand.* In water districts where there is insufficient water to serve new construction or uses requiring an additional water meter or increased water supply as determined by the district or Marin County, the County shall require new construction or uses to offset demand so that there is no net increase in demand. One or more of the following measures may be required to achieve no net increase in demand: use of reclaimed water; water catchments and reuse on site; water retention serving multiple sites; retrofits of existing uses in the district to offset increased demand; other such means. These measures should be achieved in partnership with the applicable water district and shall serve as evidence that an adequate, long-term, and sustainable water supply is available to serve the project.
- PFS-2.s** *Require Sustainable Water Supply.* No new construction or uses requiring an additional water meter or increased water supply as determined by the appropriate water district shall be approved without a specific finding, supported by facts in the administrative record, that an adequate, long-term, and sustainable water supply is available to serve the project. These measures should be achieved in partnership with the applicable water district.
- PFS-2.t** *Manage Groundwater.* Manage groundwater as a valuable and limited shared resource by protecting potential groundwater recharge areas and stream conservation areas from urban encroachment. The County shall use discretionary permits to control construction of impervious surfaces in important groundwater recharge areas. Potential recharge area protection measures at sites in important recharge areas may include, but are not limited to, the following:
- a. Restrict coverage by impervious materials and require use of pervious materials;
 - b. Limit building and parking footprints;
 - c. Require construction of percolation ponds on large-scale (4,000 square feet or greater) development project sites overlying identified recharge areas where development cannot be relocated outside the recharge area. Recognize that percolation ponds on small-scale sites may not be practical or feasible in terms of their development, maintenance, and management.



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What Are the Desired Outcomes?

GOAL PFS-3

Reduction, Safe Processing, and Reuse of Wastewater. Continue to enhance the Alternative Onsite Wastewater Monitoring Program. This program ensures the proper operation of alternative and innovative wastewater system designs. Continue to work with manufacturers, designers, installers, end users, and the Regional Water Quality Control Board to evaluate the effectiveness and capabilities of these alternatives to traditional septic system designs. Work with stakeholders to periodically update design guidelines and regulations in the light of evolving best practices.



Policies

- PFS-3.1** **Reduce Toxics in Wastewater.** Minimize the potential for pollution to water and other resources from sewage treatment.
- PFS-3.2** **Promote Alternative Wastewater Systems.** Enhance water quality through use of alternative wastewater treatment methods.
- PFS-3.3** **Reduce Storm Water Volume.** Implement appropriate upstream water-saving technologies to reduce storm water volumes and increase percolation. Increase permeable surfaces and encourage on-site percolation to reduce storm water volume and potential overflow of wastewater treatment facilities.


Why is this important?

Treatment of wastewater is essential for public health and environmental protection.

Environment: Up to 99% of harmful bacteria can be removed from wastewater when wastewater undergoes primary and secondary treatments. Proper treatment of wastewater precludes the spread of pathogens, contributes to maintaining and improving water quality, and allows soil organisms and plants to safely reuse water and nutrients in effluent.

Economy: In the United States, clean water supports a \$50 billion-a-year water-based recreation industry, \$300 billion a year in coastal tourism, a \$45 billion annual commercial fishing and shell fishing industry, and hundreds of billions of dollars a year in basic manufacturing. Safe processing of wastewater is essential for commercial development.

Equity: In drinking water, contaminants such as bacteria and viruses have the greatest chance of reaching levels high enough to cause acute health effects. Serious chronic health effects can occur after people consume contaminants such as solvents and pesticides at high levels. Efficient wastewater treatment can ensure clean and safe living and working conditions.



*“There’s no ‘away’
to throw things to.”*

– Donella Meadows,
The Global Citizen, 1991



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How will results be achieved?

Implementing Programs

- PFS-3.a** *Reduce Wastewater Volume.* Work with sanitary districts and Environmental Health to assess alternative point-source wastewater technologies, including State-approved graywater systems; NSF-approved waterless urinals and composting toilets; pervious surfaces for roads, driveways, and parking lots; and subsurface drip dispersal. Provide public information and update codes to promote safe, appropriate technologies. Urge water districts to consider volumetric billing and tiered water rate structure, and partner with waste disposal providers to reduce the volume of wastewater that must be treated.
- PFS-3.b** *Promote Water Conservation.* Encourage sanitary districts to support and participate in water conservation programs.
- PFS-3.c** *Update Septic Standards.* Continue to revise County septic regulations to streamline the regulatory process, prioritize monitoring of on-site wastewater systems, and provide incentives for homeowners to repair their systems.
- PFS-3.d** *Enforce Regulations.* Continue to update and enforce regulations for septic systems and groundwater wells that ensure that safe drinking water will continue to be available (see also WR-2.c and PFS-3.c).
- PFS-3.e** *Explore Wastewater Disposal Alternatives.* Work with sanitary districts and Environmental Health to provide public information and oversee well-monitored demonstration projects on composting toilets and other experimental methods for wastewater disposal.
- PFS-3.f** *Develop Appropriate Wastewater Treatment Technologies.* Work with sanitary districts to assess appropriate wastewater treatment technologies, including advanced biological treatments, living machines, bio-solid composting, and methane capture for electrical generation.

What Are the Desired Outcomes?

GOAL PFS-4



Efficient Processing and Reduced Landfill Disposal of Solid Waste. Minimize, treat, and safely process solid waste materials in a manner that protects natural resources from pollution while planning for the eventual reuse or recycling of discarded material to achieve zero waste.

Policies

PFS-4.1 Reduce the Solid Waste Stream. Promote the highest and best use of discarded materials through redesign, reuse, composting, and shared producer responsibility. Emphasize a closed-loop system of production and consumption.



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- PFS-4.2** **Protect Environmental Health.** Require the use of waste processing and disposal techniques that prevent the contamination or other impairment of natural resources.
- PFS-4.3** **Plan for Waste Transformation or Disposal.** Plan for the transformation or elimination of waste materials that cannot be reduced, recycled, or composted.
- PFS 4.4** **Promote Regulatory Efforts.** Support State legislative or regulatory efforts that will aid in achieving zero waste.

Why is this important?

Marin disposes of 216,211 tons of solid waste annually. Residential households produce 129,407 tons, and 110,236 tons originate from commercial and industrial businesses. Seventy-one percent of Marin’s solid waste is already diverted from landfills by recycling, composting, and other diversion programs. Reducing or eliminating the solid waste stream safely eliminates the need for additional landfill space, saves energy, reduces greenhouse gas emissions, reduces air and water pollution, conserves forests, and has economic benefits.

Environment: Every year in California, recycling reduces water pollution by 27,047 tons, saves 14 million trees, reduces air pollution by 165,142 tons, and reduces greenhouse gas emissions by an amount equal to taking 3.8 million passenger cars off the highway.

Economy: Marin County government pays \$289,723 in waste management fees annually. A reduced solid waste stream requires fewer financial resources and decreased investment in processing methods and disposal measures. Every ton of solid waste diverted from landfill through programs such as recycling results in \$275 in goods and services, and generates \$135 in sales.

Equity: In Marin County, the average resident disposes of 2.91 pounds of waste per day at home and 4.7 pounds per day at work. A reduced or eliminated solid waste volume contributes to cleaner living and working conditions. Proper transformation or disposal of solid waste also precludes the spread of harmful pathogens.

How will results be achieved?

Implementing Programs

- PFS-4.a** **Reduce Heavy Metal Deposits.** Encourage sanitary districts to employ technological solutions to reduce treatment plant accumulation of heavy metal deposits, such as mercury, zinc, and copper.
- PFS-4.b** **Divert Construction Waste.** Continue to implement the construction and demolition recycling waste ordinance to divert construction waste from landfills.
- PFS-4.c** **Reduce Waste at Landfill.** Continue to pursue aggressive recycling, resource recovery, and composting strategies to reduce the amount of waste diverted to landfill.
- PFS-4.d** **Offer Waste Materials Recycling Education.** Enact educational programs to inform residents about reuse, recycling, composting, waste to energy, and zero waste programs.



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- PFS-4.e** *Consider a West Marin Transfer Station.* Explore the feasibility of establishing a transfer station in West Marin.
- PFS-4.f** *Best Management Practices at Landfill.* Employ best management practices at the landfill facility, and incorporate effective new practices as they become available.
- PFS-4.g** *Coordinate with Water Providers.* Encourage sanitation districts to partner with water districts to reduce the volume of wastewater that must be treated, and to employ biological methods to treat solid waste.
- PFS-4.h** *Prepare a Siting Element.* The Marin Hazardous and Solid Waste Joint Powers Authority should prepare a Countywide Siting Element that provides a description of the areas to be used for development of adequate transformation or disposal capacity concurrent and consistent with the development and implementation of the Source Reduction and Recycling Elements.
- PFS-4.i** *Promote Product Redesign.* Pursue and support upstream redesign strategies to reduce the volume and toxicity of discarded products and materials, including biodegradable plastic bags, fast food containers, and utensils.
- PFS-4.j** *Stimulate Waste-Reuse Economic Activities.* Foster and support use of discarded products and waste materials to stimulate and drive local economic and workforce development.
- PFS-4.k** *Phase In Highest and Best Use of Products.* Improve downstream reuse/recycling of end-of-life products and materials to ensure their highest and best use.
- PFS-4.l** *Food Waste Collection Program.* The County should actively promote a curbside food waste collection program by integrating this measure into bid specifications.

What Are the Desired Outcomes?

GOAL PFS-5



Minimization of Telecommunications Facilities and Related Impacts.

Ensure that siting of telecommunications facilities avoids their undue proliferation and adverse effects on people and/or environmental or visual quality.

Policies

PFS-5.1 Implement the Telecommunications Facilities Policy Plan.

Require new telecommunication projects to be in accordance with the County Telecommunications Facilities Policy Plan.

- PFS-5.2** **Consolidate Telecommunications Facilities.** Ensure that telecommunications site users share and consolidate to the greatest extent possible all needed facilities, including buildings, access roads, parking areas, utilities, transmitters, towers, and antennas.



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Why is this important?

Some studies have linked telecommunication devices to headaches; earaches; blurring of vision; short-term memory loss; numbing, tingling, and burning sensations; sleep disorders; fatigue; and anxiety. Studies have shown that some types of telecommunication exposure may increase the risk of brain cancer and do biological damage through heating effects. Scientific studies show that prolonged exposure at very close proximity is necessary to produce such physical risks. Telecommunication facilities should be carefully located.

Environment: Potential adverse environmental impacts of telecommunication facilities may be minimized or mitigated with proper siting and restrictions on proliferation.

Economy: The visual qualities of a community may be enhanced if telecommunication facilities are hidden and/or kept to a minimum, retaining an unblemished viewshed that attracts people to the surrounding communities to live, work, and play.

Equity: Studies have shown that single and double strand DNA breaks in brain cells increased after exposure to radiofrequency (RF) emissions. Exposure to both continuous wave and pulsed RF emissions produced DNA damage. Double strand breaks, if not repaired, are known to lead to cell death. The potential risk of telecommunication facilities on human health can be prudently avoided through a precautionary approach and the careful siting of facilities.

How will results be achieved?

Implementing Programs

- PFS-5.a** ***Require Best Alternative Location.*** Require applicant to demonstrate that a proposed new telecommunication site is the only feasible or best alternative location. Require applicants for new telecommunication sites to provide technical information prepared by qualified professionals that sufficiently demonstrates that no other technically feasible site is available to provide adequate coverage, or that the site would avoid or lessen adverse impacts that are likely to occur at feasible alternative locations.
- PFS-5.b** ***Require Visual Impact Mitigation.*** Require any new telecommunications facility operator to reduce visual impacts through minimization of the number and size of structures, screening, and other appropriate mitigation, such as Stealth designs as detailed in the County Telecommunications Facilities Policy Plan.
- PFS-5.c** ***Require Visual Impact Studies.*** Require applicants of telecommunications facility projects to submit visual analyses that include photo-montage or photo-simulation techniques and/or erect story poles or similar devices to accurately depict potential visual impacts.
- PFS-5.d** ***Prohibit Installation of Facilities That Pose a Significant Threat.*** Prohibit installation or expansion of telecommunications facilities that would pose a significant threat to the health and survival of people, threatened or endangered species, or migratory birds, unless such facilities are necessary to protect public health, safety, or welfare.



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PFS-5.e ***Practice Prudent Avoidance.*** Locate telecommunication facilities away from schools, health facilities, and residential areas, unless no other feasible site is available.



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Figure 3-49 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
PFS-1 Adequate Public Facilities and Services							•	•	•		•	•
PFS-2 Sustainable Water Resources	•	•	•	•	•	•						•
PFS-3 Reduction, Safe Processing, and Reuse of Wastewater		•	•		•	•						•
PFS-4 Efficient Processing and Reduced Landfill Disposal of Solid Waste			•				•		•			•
PFS-5 Minimization of Telecommunications Facilities and Related Impacts	•		•		•							•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Per capita use of potable water.	299 gallons daily per capita in 2000.	No increase through 2020.
Per capita use of non-potable water for appropriate end-uses.	5 gallons daily per capita in 2000.	Increase through 2020.
Potable and non-potable water usage by County facilities.	123 acre feet potable water used and 48 non-potable acre feet used for a total of 171 acre feet used in 2000.	Decrease potable water use by 5% by 2020.
Per capita solid waste generation.	1.96 tons of waste per capita in 2000.	Decrease solid waste generation through 2020.
County Civic Center solid waste generation.	350.92 tons of waste were generated in 2000 while 269.02 tons were diverted from landfill.	Match any increase in solid waste generation with increased recycling through 2020.
Percent of solid waste diverted from landfills.	Diversion rate was 65% in 2000.	Increase diversion rate to 75% by 2010 and 80% by 2015.
Percent of County Civic Center solid waste diverted from landfills.	Diversion rate was 76.7% in 2000.	Maintain a diversion rate of 75% or higher.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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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 3-50
Public Facilities and Services Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
PFS-1.a – Require Fair-Share Contributions.	CDA, Water Districts, Marin Cities and Towns	Existing budget	Medium	Ongoing
PFS-1.b – Plan for Service Expansion.	CDA, LAFCO, Marin Cities and Towns	Existing budget, fees	Medium	Ongoing
PFS-1.c – Prepare Naming and Sponsorship Guidelines.	MCOSD, CAO	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PFS-1.d – Reduce Demand on Public Facilities.	Water Districts, Marin Cities and Towns, CDA	Will require additional grants or revenue ²	Medium	Long term
PFS-2.a – Support and Integrate Water Conservation Efforts.	Water Districts, CDA, Marin Cities and Towns	Existing budget, fees, grants	Medium	Ongoing
PFS-2.b – Minimize the Demand for Water in New Development.	Water Districts, CDA, Marin Cities and Towns	Existing budget	Medium	Ongoing
PFS-2.c – Promote Ahwahnee Principles for Water Supply.	Water Districts, CDA, Marin Cities and Towns	Existing budget	Medium	Short term
PFS-2.d – Support Water Demand Planning.	Water Districts, CDA, Marin Cities and Towns	Existing budget, grants, fees	High	Ongoing
PFS-2.e – Conduct Water Planning Through LAFCO Studies.	LAFCO, CDA, CWPA	Will require additional grants or revenue ²	Medium	Med. term
PFS-2.f – Initiate a Water Conservation Program.	Water Districts, CDA, MCOSD, Marin Cities and Towns	Existing budget, grants, fees	Medium	Long term

¹ Time frames include: Immediate (0–1 years); Short term (1–4 years); Med. term (4–7 years); Long term (over 7 years); and Ongoing.

² 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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
PFS-2.g - Promote Xeriscaping and Native Plants.	Water Districts, CDA, County Parks	Existing budget grants, fees	Medium	Ongoing
PFS-2.h - Promote Site Appropriate, Low-Water Use, and Drought Tolerant Native Plants in Public Facilities.	County Parks	Existing budget, grants	Medium	Ongoing
PFS-2.i - Promote Water Saving Irrigation.	CDA, Water Districts	Existing budget	Medium	Ongoing
PFS-2.j - Upgrade West Marin Systems.	West Marin Water Districts, CDA	Existing budget, grants, fees	Medium	Ongoing
PFS-2.k - Investigate Tomales Bay Groundwater.	West Marin Water Districts, TBWC, CDA	Will require additional grants or revenue ²	Low	Long term
PFS-2.l - Reduce Energy Use from Water Facilities.	MMWD, NMMWD, and Other Water Districts, CDA	Existing budget, grants, fees	Medium	Ongoing
PFS-2.m - Promote Onsite Rainwater Capture and Retention.	MMWD, NMMWD, and Other Water Districts, CDA	Existing budget, grants, fees	Medium	Ongoing
PFS-2.n - Conduct Groundwater Recharge Study.	MMWD, NMMWD, and Other Water Districts, CDA	Will require additional grants or revenue ²	Medium	Long term
PFS-2.o - Assess Project Impacts to Surface Water and Groundwater.	CDA, RWQCB	Existing budget, fees	Medium	Med. term
PFS-2.p - Investigate and Consider Appropriate Small-Scale Wastewater Reduction, Treatment Use Technologies.	CDA, Water and Sewer Districts, RWQCB	Existing budget and may require additional grants or revenue ²	Medium	Med. term
PFS-2.q - Adopt Tiered Billing Rates.	CDA, Water Districts	Existing budget	Medium	Med. term
PFS-2.r - Offset New Water Demand.	Water Districts, CDA	Existing budget and may require additional grants or revenue ²	High	Med. term
PFS-2.s - Require Sustainable Water Supply.	Water Districts, CDA	Existing budget and may require additional grants or revenue ²	High	Long term
PFS-2.t - Manage Groundwater.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term



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Program	Responsibility	Potential Funding	Priority	Time Frame
PFS-3.a - Reduce Wastewater Volume.	CDA, Water and Sewer Districts, RWQCB	Existing budget, grants, fees	Medium	Med. term
PFS-3.b - Promote Water Conservation.	CDA, Water and Sewer Districts	Existing budget, grants, fees	Medium	Ongoing
PFS-3.c - Update Septic Standards.	CDA	Existing budget	High	Ongoing
PFS-3.d - Enforce Regulations.	CDA	Existing budget	High	Ongoing
PFS-3.e - Explore Wastewater Disposal Alternatives.	Sewer Districts, CDA, RWQCB, Land Management Agencies	Existing budget	High	Short term
PFS-3.f - Develop Appropriate Wastewater Treatment Technologies.	Sewer Districts, CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PFS-4.a - Reduce Heavy Metal Deposits.	US EPA, California EPA, CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
PFS-4.b - Divert Construction Waste.	CDA	Existing budget	High	Ongoing
PFS-4.c - Reduce Waste at Landfill.	CDA	Existing budget	Medium	Med. term
PFS-4.d - Offer Waste Materials Recycling Education.	CDA, Hazardous Solid Waste JPA, Sanitary Landfill	Existing budget and may require additional grants or revenue ²	Medium	Med. term
PFS-4.e - Consider a West Marin Transfer Station.	CDA, Hazardous Solid Waste JPA, Sanitary Landfill	Will require additional grants or revenue ²	Medium	Long term
PFS-4.f - Best Management Practices at Landfill.	CDA, State Regulatory Agencies, Landfill Operators	Existing budget, grants, fees	High	Ongoing
PFS-4.g - Coordinate with Water Providers.	Water and Sewer Districts, CDA, California EPA	Existing budget, grants, fees	Medium	Long term
PFS-4.h -Prepare a Siting Element.	Hazardous and Solid Waste JPA	Will require additional grants or revenue ²	Medium	Long term
PFS-4.i - Promote Product Redesign.	CDA, State Regulatory Agencies	Will require additional grants or revenue ²	Medium	Ongoing / Long term



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Program	Responsibility	Potential Funding	Priority	Time Frame
PFS-4.j - Stimulate Waste-Reuse Economic Activities.	CDA	Will require additional grants or revenue ²	Medium	Ongoing / Long term
PFS-4.k - Phase In Highest and Best Use of Products.	CDA, State Regulatory Agencies	Will require additional grants or revenue ²	Medium	Ongoing / Long term
PFS-4.l - Food Waste Collection Program.	CDA, Solid Waste JPA	Will require additional grants or revenue ²	Medium	Ongoing / Long term
PFS-5.a - Require Best Alternative Location.	CDA	Existing budget	High	Ongoing
PFS-5.b - Require Visual Impact Mitigation.	CDA	Existing budget	High	Ongoing
PFS-5.c - Require Visual Impact Studies.	CDA	Existing budget	High	Ongoing
PFS-5.d - Prohibit Installation of Facilities That Pose a Significant Threat.	CDA	Existing budget	High	Ongoing
PFS-5.e - Practice Prudent Avoidance.	CDA	Existing budget	High	Ongoing



BUILT ENVIRONMENT ELEMENT

3.12 Planning Areas

Background

In addition to the four environmental corridors, there are seven planning areas that define Marin County. Six of the planning areas make up the City-Centered and Baylands corridors, and generally represent the watersheds that drain to the bay. The seventh planning area covers both the Coastal and Inland Rural corridors of West Marin (see Map 3-33, Planning Areas). The seven planning areas are

- ◆ Novato
- ◆ Las Gallinas
- ◆ San Rafael Basin
- ◆ Upper Ross Valley
- ◆ Lower Ross Valley
- ◆ Richardson Bay
- ◆ West Marin

Planning Area 1 — Novato

Background

The Novato planning area is generally bounded by Big Rock Ridge to the south, Stafford Lake to the west, the Sonoma County line to the north, and the Petaluma River and San Pablo Bay to the east. This area includes the City of Novato and Rancho Olompali State Park; the unincorporated communities of Green Point, Black Point, Bel Marin Keys, Loma Verde, and Indian Valley; and neighborhoods along Atherton Avenue and Vineyard Road. Black Point/Green Point and Indian Valley have adopted community plans.

Key Trends and Community Development Activities

- ◆ Population in the planning area increased from 49,985 in 1980 to 54,515 in 1990, decreasing to 54,506 in 2000. This reflects an overall increase of 9.0% over 20 years.
- ◆ The number of employed residents increased steadily during the same period, from 25,658 in 1980 to 30,538 in 1990 to 32,043 in 2000, a 24.9% increase overall.
- ◆ The number of jobs in the planning area has more than doubled in the past 20 years, from 13,783 in 1980 to 18,230 in 1990 to 27,879 in 2000, a 102% increase between 1980 and 2000. This resulted in a corresponding decrease in the number of employed residents per job from 1.86 in 1980 to 1.15 by 2000.
- ◆ There were 21,719 housing units in the planning area in 2000, of which 2,725 were in the unincorporated area.



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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, which includes office and research space, was completed in 1999. 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 nonresidential 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	Theoretical Buildout
Demographics				
Population	49,985	54,515	54,506	62,934
Households	17,462	20,812	21,178	24,868
Average Household Size	2.86	2.62	2.57	2.53
Employed Residents	25,658	30,538	32,043	36,601
Jobs	13,783	18,230	27,879	44,944
Employed Residents/Job	1.86	1.68	1.15	0.75
Land Use				
Housing Units	18,513	21,413	21,719	25,315
Novato	15,971	18,782	18,994	22,185
Unincorporated Area	2,542	2,631	2,725	3,130
Commercial/Industrial sq. ft.	<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	<i>Available</i>	375,153	309,320	473,492

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

Planning Area Goals and Policies

Within the planning area there are two adopted community plans: Black Point (1978) and Indian Valley (2003). Policies contained in those plans govern land use within those communities. Portions of Black Point may require amendment in accordance with Policy CD-4.1.

The following land use maps graphically represent land use policies for the planning area:



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<u>Map#</u>	<u>Area Covered</u>
1.1	North Novato (two maps)
1.2	West Novato
1.3	Indian Valley
1.4	Southwest Novato
1.5	Black Point
1.6	Bel Marin Keys
1.7	Loma Verde

What Are the Desired Outcomes?

GOAL PA-1

Land Use Policies for the Novato Planning Area. Specific policies for communities not covered by community plans in the Novato planning area are as follows:

- PA-1.1 Designate Land Use in North Novato.** Most of the lands east of the Northwestern Pacific Railroad tracks are within the Baylands Corridor. Lands north of Gness Field, Birkenstock, and the Buck Center and not within the Baylands Corridor are in the Inland Rural Corridor. Developed parcels not within the Baylands Corridor and south of Olompali State Park are in the City-Centered Corridor.
- Publicly owned lands shall be designated *open space*, exclusive of Gness Field, which shall retain its Industrial land use designation with a Public Facilities combining designation, consistent with the approved and planned development under the Airport Land Use Master Plan. Lands within the City-Centered Corridor and Baylands Corridor shall be designated for *industrial* use at an FAR of .04 to .35, with master plans required for development; for *planned residential* at a density of 1 unit per 1 to 10 acres; for *recreational-commercial* use at an FAR of .01 to .03; and *agriculture and conservation* at a residential density of 1 unit per 10 to 60 acres. Commercial uses on lands surrounding the airport shall be limited to those that are airport related or compatible with the airport.
- PA-1.2 Designate Land Use in West Novato.** Land use for West Novato shall include the following: *single-family residential*, ranging from 4 units per acre to 1 unit per 5 acres; *planned residential*, ranging from 1 unit per acre to 1 unit per 10 acres; and *agriculture*, ranging from 1 unit per 1 acre to 1 unit per 60 acres. Publicly owned open space is also designated.
- PA-1.3 Designate Land Use in Southwest Novato.** Land use in the Southwest Novato area shall include *agriculture* at 1 unit per 31 to 60 acres. Publicly owned open space is also designated.
- PA-1.4 Designate Land Use in Bel Marin Keys.** Portions of Bel Marin Keys such as tidal marshes and low-lying grasslands are within the Baylands Corridor. Agricultural land uses shall be designated as agriculture and conservation at a density of 2 to 10 acres per



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housing unit. In the developed portion of Bel Marin Keys, *multi-family residential* density shall be designated at 11 to 30 units per acre and *single-family* density at 1 to 7 units per acre.

Lands owned by the Coastal Conservancy undergoing wetland habitat restoration and other publicly owned lands shall be designated as *open space*.

PA-1.5 **Designate Land Use in Loma Verde.** Land use in Loma Verde shall include *single-family residential*, ranging from 7 units per acre to 1 unit per 5 acres. The Loma Verde School is designated as a public facility and *single-family residential* at 4 to 7 units per acre.

Planning Area 2 — Las Gallinas

Background

The Las Gallinas planning area includes the Lucas (Gallinas) and Santa Margarita valleys and is bounded by Big Rock Ridge to the north, the bay to the east, San Pedro Ridge to the south, and the Terra Linda Divide to the west. It includes Terra Linda, which is part of the City of San Rafael, and the unincorporated communities of Marinwood and Santa Venetia, along with the Los Ranchitos neighborhood. This area also includes the St. Vincent's School for Boys, Silveira Ranch, and China Camp State Park.

Key Trends and Community Development Activities

- ◆ Population in the planning area decreased from 26,788 in 1980 to 25,563 in 1990, and then increased to 28,615 in 2000, a net increase of 6.8% over 20 years.
- ◆ The number of employed residents increased between 1980 and 1990 from 14,239 to 16,778 but decreased to 16,157 by 2000. This reflects a 20-year increase of 13.5%.
- ◆ The number of jobs in the planning area increased from 13,789 in 1980 to 18,412 in 1990 but decreased to 16,275 in 2000, a net 18.0% increase, which reduced the number of employed residents per job from 1.03 to 0.99.
- ◆ There were 11,915 housing units in the planning area in 2000, 4,251 of which were in the unincorporated area.
- ◆ Nearly 5 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.



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

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

Sources: U.S. 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 and Silveira
2.5	Santa Venetia (two maps)
2.6	Los Ranchitos

What Are the Desired Outcomes?

GOAL PA-2

Land Use Policies for the Las Gallinas Planning Area. Specific policies for communities in the planning area are as follows:

- PA-2.1 Designate Land Use in Lucas Valley Environs.** Land use designations for the more rural portions of Lucas Valley (excluding the more urbanized area) shall include the following: *planned residential* at 1 unit per acre to 1 unit per 10 acres, and *agriculture* at 1 unit per acre to 1 unit per 60 acres. Open space is also designated. In addition, the third phase of the Lucasfilm project has an approved master plan and is considered



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legally vested. In the event the property owner does not wish to proceed with this final phase, alternatives such as employee and workforce housing – provided they do not increase peak-hour traffic impacts beyond that permitted by the master plan – will be explored.

PA-2.2 Designate Land Use in Lucas Valley. Land use designations for the more urbanized portions of Lucas Valley shall include *single-family residential*, ranging from 4 to 7 units per acre, and *general commercial* at an FAR of .1 to .2. Two sites shall be designated for use as *public facilities* or for *single-family residential* at 4 to 7 units per acre and *multi-family residential* at 5 to 16 units per acre.

PA-2.3 Designate Land Use in Marinwood. Land use designations for Marinwood shall include *single-family residential* at 7 units per acre to 1 unit per 5 acres; *multi-family residential* at 5 to 30 units per acre; *planned residential* at 1 unit per acre to 1 unit per 10 acres; *office commercial* at an FAR of .1 to .2; and *retail commercial* at an FAR of .1 to .4 and residential density of 10 to 30 units per acre. Land shall be designated for *open space* and *public facilities* or *single-family residential* at 4 to 7 units per acre.

The Marinwood Shopping Center has been identified as a reuse site because of its underutilization, dated architectural style, and limited tenant mix. Redevelopment of the center, which includes all parcels between Miller Creek Road, Marinwood Avenue, Highway 101, and Miller Creek, shall be designed as a cohesive unit subject to an approved specific or master plan. This plan shall create a central gathering place, target resident-serving retail uses and housing consistent with the proposed HOD, and incorporate best practices for mixed-use, sustainable, pedestrian-friendly design.

The Oakview property shall be designated for residential development only; no commercial uses shall be permitted, other than a residential care facility.

PA-2.4 Designate Land Use in Santa Venetia. Land use for Santa Venetia shall include *single-family residential* at 1 to 7 units per acre; *multi-family residential* at 1 to 30 units per acre; *planned residential* at 1 unit per acre to 1 unit per 1 to 10 acres; *general commercial* at an FAR of .05 to .1; *office commercial* at an FAR of .1 to .35; *retail commercial* at an FAR of .1 to .35; and *recreational commercial* at an FAR of .25 to .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.



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St. Vincent's and Silveira

Background

The St. Vincent's and Silveira area consists of approximately 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 770-acre Catholic Youth Organization/St. Vincent's School for Boys and the 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 and 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; the visual and aesthetic appearance of the area; its topography; its archaeological resources; its environmental resources; and the area's importance as a physical and visual separator between the cities of Novato and San Rafael (see 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 properties within a 100-year flood plain and their County land use designation, would limit an urban level of development in this area. Should these properties eventually be annexed into the City of San Rafael, the City could choose to consider development at higher densities.

Natural Systems Goals and Policies

There are a number of protected resource areas on the St. Vincent's and Silveira lands, which include: tidelands; diked baylands, of which a portion are owned by the Las Gallinas Valley Sanitary District and



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used for wastewater ponds and irrigation; Miller Creek and its riparian corridor; lands within the 100-year floodplain; and hills leading up to Pacheco Ridge at the northern boundary of the site.

What Are the Desired Outcomes?

GOAL SV-1

Environmental Protection.

Policies

- SV-1.1** **Designate Land in the Baylands Corridor.** Land in the St. Vincent's and Silveira area that is included in the Baylands Corridor, as shown on Map 2-5, is subject to Baylands Corridor policies. Lands owned by the Las Gallinas Valley Sanitary District and used for ponds and wastewater irrigation should be preserved.
- SV-1.2** **Designate Low-Intensity Uses in the Historic Diked Baylands.** Continue to use these lands predominantly for agriculture. Permit low-intensity uses that do not involve extensive fill, such as passive recreational activities, and environmental education. Preservation and restoration to tidal and seasonal wetlands is the long-term goal for the diked baylands east of the railroad tracks.
- SV-1.3** **Protect Wetlands.** Consistent with wetland conservation policies in the Natural Systems and Agriculture Element, locate development to avoid tidal and seasonal wetland areas so that existing wetlands are preserved. Provide a buffer area of upland habitat adjacent to wetlands.
- SV-1.4** **Maintain the Miller Creek Corridor.** Consistent with streamside conservation policies in the Natural Systems and Agriculture Element, maintain the Miller Creek corridor east of Highway 101 as an open channel and enhance the creek. Require minimum setbacks of 100 feet from the top of each bank. Protect Miller Creek as the centerpiece of the watershed and an important natural habitat area.
- SV-1.5** **Protect the Silveira Corridor.** Protect the Silveira Corridor on the Silveira ranch to provide for scenic vistas and to retain the natural ecological connections among grasslands, valley oaks, the Miller Creek riparian corridor, and diked tideland habitats.
- SV-1.6** **Preserve Natural Habitats and Their Connectivity.** Preserve the connectivity of the natural habitats of the site in a way that will enhance habitat diversity, enable wildlife movement, and protect the habitats of birds, other wildlife, and endangered animal and plant species.
- SV-1.7** **Preserve Trees.** Protect major native oak groves and specimen oak trees. Preserve the native oak woodlands on Pacheco Ridge. Preserve healthy and safe eucalyptus groves, which support colonies of monarch butterflies and colonial nesting birds such as heron rookeries, and/or are known raptor nesting sites. See also BIO-1.3 and BIO-1.e.



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- SV-1.8 Restrict Development in Flood and Geologic Hazard Areas.** Restrict development in areas identified as having potential flood or geologic hazards, including unstable slopes and bay mud areas, as necessary to ensure public health and safety.
- SV-1.9 Retain the Natural Drainage Swale.** Retain the drainage swale and its discharge sources in the northwest section of the St. Vincent's property. Improve the swale as a natural drainage feature and enhance it as a wildlife corridor connecting the uplands with the Miller Creek riparian corridor.
- SV-1.10 Prepare a Plan for Storm Water Drainage and Flood Protection.** Prepare an areawide storm water drainage and flood protection plan prior to development in the area.
- SV-1.11 Protect Ridge and Upland Greenbelt Lands.** Ensure that land use in areas shown as Ridge and Upland Greenbelt is consistent with Ridge and Upland Greenbelt policies. Maintain Pacheco Ridge in its natural state as a community separator and a habitat resource. Maintain connections between oak woodlands on Pacheco Ridge and the Miller Creek riparian community and bayland habitats.

Built Environment Goals and Policies

What Are the Desired Outcomes?

GOAL SV-2

Comprehensive Site Planning.

Policies

- SV-2.1 Urban Development.** Consistent with Policy CD-6.1, designate land uses and densities that discourage requiring extensions of urban levels of service beyond urban service areas.
- SV-2.2 Require Master Plan.** Require a master plan for new uses or a large reuse project based on an environmental review. Minor expansion of existing uses and minor compatible new uses may be allowed without a master plan, provided they do not increase the development intensity of either property. Any proposal for development in the St. Vincent's and Silveira area should respect the land, honor the legacy of the human settlements from the Miwok to the St. Vincent's School for Boys to the Silveira family, limit the amount of traffic to and from the site, and be planned for long-term sustainability.
- SV-2.3 Allow for a Mix of Uses.** A variety of low-intensity and institutional uses may be appropriate for the St. Vincent's and Silveira properties, depending on a comprehensive analysis of potential impacts and suitability.

Residential development should emphasize workforce and senior housing, especially for very low or low income households, and special needs housing, rather than large



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estates. Examples of agricultural uses are vineyards, orchards, organic farming, a model farm, and related uses. Agriculture-related and other institutions; places of worship, education, and tourism; and small-scale hospitality uses, such as a country inn, a health spa, a small-scale resort, or a bed and breakfast with a restaurant or café, could also be appropriate uses. Nonresidential uses may be permitted in lieu of some dwelling units if the nonresidential uses do not exceed an equivalent level of peak hour traffic for the residential dwelling units.

On the St. Vincent's property, adaptive reuse of the "H" Complex could include a health spa, other visitor-serving and recreational uses, and residential and live/work uses; office, personal service, and ground floor retail; public and quasi-public uses such as a youth organization, offices, pastoral, or other similar uses, a child care center, and nonprofit programs.

On the Silveira Ranch, retention and reuse of the ranch house is encouraged to recognize the building's history. Examples of future uses could include a meeting center, museum, bed and breakfast, or similar use. The area around the house could be used for agriculture, a park or model farm, agricultural tourism and small-scale resort uses, or other low-impact educational or recreational purposes.

SV-2.4 Cluster Development. New non-agricultural development (e.g., building footprints, roads, and parking) on either the St. Vincent's or the Silveira property shall be restricted to up to 5% of the land area of each property, or as determined through a site-specific analysis of agricultural and environmental constraints and resources, observing habitat protection policies including, but not limited to, streamside conservation, ridge and upland greenbelt, wetlands, tidelands, and community separation. Existing development shall not be counted toward the 5% restriction for the land area for each property.

In addition, development (e.g., educational/social service) on the St. Vincent's property should be clustered around the H complex, with the Chapel and the H complex buildings retained as the community center as determined by a master plan process.

SV-2.5 Establish Land Use Categories. The St. Vincent's and Silveira properties are assigned the Planned Designation – Agricultural and Environmental Resource Area land use category. Potential uses include agriculture and related uses, residential development, education and tourism, places of worship, institutional uses, and small-scale hospitality uses, as described more fully in SV-2.3.

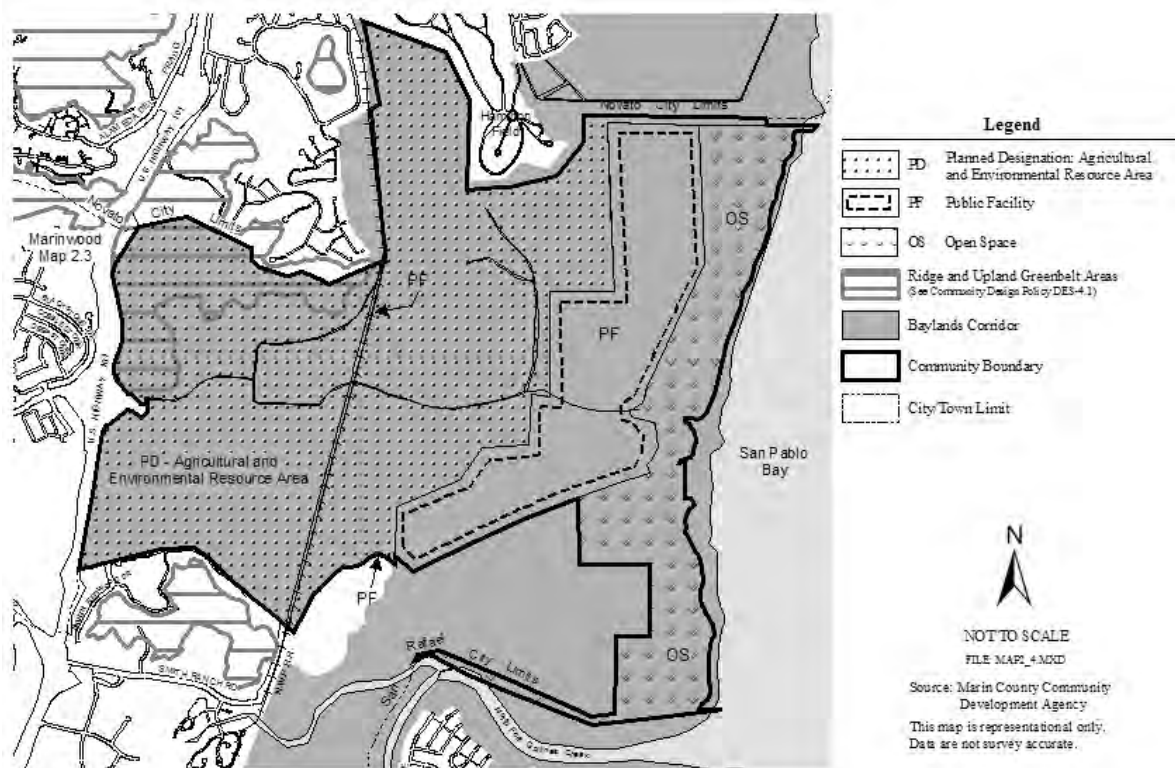
In addition to existing uses, a total of up to 221 dwelling units for the combined St. Vincent's and Silveira sites may be allowed consisting of up to 121 market-rate dwelling units plus up to 100 additional dwelling units for very low and/or low income households. Dwelling units shall be allocated proportionally to the respective St. Vincent's and Silveira areas, based on the total acreage of the St. Vincent's and Silveira sites as determined by the County at the time of the first application for development of more than four units or their equivalent.



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Within these standards, the master plan approval process will determine the specific development suitable for these properties, taking into consideration environmental constraints and the community benefits associated with providing a higher ratio of housing affordable to low and very low income persons and smaller residential unit sizes. Pursuant to the PD-Agricultural and Environmental Resource Area land use category, nonresidential uses, assisted senior housing, or other senior care facilities may be permitted in lieu of some dwelling units, provided that the impacts of the senior care and other nonresidential development on peak hour traffic do not exceed those projected for all residential development being replaced plus existing baseline trips.

St. Vincent's and Silveira Land Use Policy Map



SV-2.6 **Avoid Impact of Odors from Sewage Treatment Plant.** Avoid impacts associated with odors from the Las Gallinas Valley sewage treatment plant and ponds.

SV-2.7 **Consider Noise Impacts.** Consistent with noise standards established in the Noise Element, any development must provide acceptable outdoor noise levels. In order to



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preserve views of the area, a noise attenuation sound wall adjacent to the freeway shall be prohibited.

Design Goals and Policies

What Are the Desired Outcomes?

GOAL SV-3

Design Excellence.

Policies

- SV-3.1** **Ensure Sensitivity of Development.** Ensure that development is sensitive to the character of the land. Retain the existing natural topography to the greatest extent possible. Keep cut and fill to a minimum.
- SV-3.2** **Protect Existing Views.** Development shall not negatively impact existing views of Pacheco Ridge, the Chapel, the bucolic setting, and the bay as seen from Highway 101. The properties shall continue to function as a visual buffer separating the cities of San Rafael and Novato.
- SV-3.3** **Orient Development Toward Miller Creek.** In areas adjoining Miller Creek, development shall be set back from as well as oriented toward the creek in order to encourage preservation of the creek as an environmental resource. Development should not turn its back on the creek.
- SV-3.4** **Respect Historic Architecture.** There should be a sense of arrival at a place with both a history and a valued natural environment. Design shall respect the historic architectural style.
- SV-3.5** **Conserve Resources.** Site and design buildings to incorporate all feasible resource conserving features, such as solar orientation of streets and structures, native and drought tolerant landscaping, active and passive solar designs, and alternative and/or recycled construction materials for buildings.

Historical Resources Goals and Policies

What Are the Desired Outcomes?

GOAL SV-4

Cultural Resource Preservation.

Policies

- SV-4.1** **Preserve Historic Sites.** Preserve historic structures, particularly the chapel and the H complex on the St. Vincent's property, and the school building, which is a California



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historical landmark. Other St. Vincent’s facilities should be retained as desired by the Catholic Youth Organization and integrated into future development plans.

- SV-4.2 **Preserve Archaeological Sites.** Protect known archaeological resources on the Silveira property and ensure that any archaeological resources discovered during development review and construction will be protected.

Housing Goals and Policies

What Are the Desired Outcomes?

GOAL SV-5

Affordable and Senior Housing.

Policies

- SV-5.1 **Encourage Affordable Housing.** Within the maximum number of units permitted, encourage the provision of affordable units above and beyond minimum inclusionary requirements through a variety of mechanisms, including density bonuses, financing assistance, grants, and partnerships with affordable housing providers.
- SV-5.2 **Encourage Senior Housing.** Anticipate the aging of Marin by creating a vibrant senior community serving a range of housing and income from very low to market rate supportive care needs.

Transportation Goals and Policies

What Are the Desired Outcomes?

GOAL SV-6

Transportation Choices.

Policies

- SV-6.1 **Provide Transportation Improvements.** In accordance with Policy TR-1.5, provide necessary transportation improvements identified in the Transportation Section of the Built Environment Element in conjunction with development.
- SV-6.2 **Continue Bay Trail Connection.** Continue the Bay Trail connection from Hamilton through the south side of the properties to the Sanitary District, and locate it so as to avoid sensitive habitat.
- SV-6.3 **Integrate Pedestrian and Bicycle Paths.** Integrate pedestrian and bicycle paths throughout the developed areas. If feasible, extend the Marinwood walking trail under Highway 101 with a pedestrian walkway along Miller Creek.



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- SV-6.4 Encourage Bus Transit Service.** Encourage local bus or shuttle services to stop at a shelter in the plaza near the chapel to improve access.
- SV-6.5 Use Traffic-Calming Street Design.** Encourage development that incorporates traffic-calming and pedestrian-enhancing techniques of street design.

Socioeconomic Goals and Policies

What Are the Desired Outcomes?

GOAL SV-7

Continued Social Services.

Policy

- SV-7.1 Support St. Vincent's Social Services.** Support continuation of social services provided by St. Vincent's School for Boys.

Planning Area 3 — San Rafael Basin

Background

The San Rafael Basin planning area includes the City of San Rafael south of San Rafael Hill and San Pedro Ridge, north of the Southern Heights Ridge and San Quentin Ridge, and east of San Anselmo with the bay to the east. There are five unincorporated pockets within this planning area: California Park, Upper Sun Valley, Bayside Acres, Country Club, and Point San Pedro.

Key Trends and Community Development Activities

- ◆ Population in the planning area increased from 31,613 in 1980 to 34,823 in 1990 and 40,078 in 2000, an increase of 26.8% over 20 years.
- ◆ The number of employed residents increased during the same period from 17,323 to 18,611 to 22,083, a 27.4% increase.
- ◆ The number of jobs in the planning area increased 43.4% in 20 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.



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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	Theoretical Buildout
Demographics				
Population	31,613	34,823	40,078	50,341
Households	13,876	14,527	15,483	19,616
Average Household Size	2.28	2.40	2.59	2.21
Employed Residents	17,323	18,611	22,083	24,416
Jobs	19,570	24,136	28,073	36,289
Employed Residents/Job	0.89	0.77	0.79	0.67
Land Use				
Housing Units	14,280	15,119	15,913	20,249
San Rafael	13,568	14,513	15,284	19,370
Unincorporated Area	712	606	629	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: U.S. Census, Association of Bay Area Governments, Marin County Community Development Agency.

Note: Build-out does not assume any units at quarry.

Planning Area Goals and Policies

The San Rafael Basin Planning Area is primarily within the City-Centered Corridor. The following land use maps graphically represent land use policies for the planning area:

Map #	Area Covered
3.1	Upper Sun Valley
3.2	Point San Pedro
3.3	Bayside Acres/Country Club
3.4	California Park

What Are the Desired Outcomes?

GOAL PA-3

Land Use Policies for the San Rafael Planning Area. The following policies shall guide the development of land in the unincorporated portions of the San Rafael Basin Planning Area:

- PA-3.1** **Designate Land Use in Upper Sun Valley.** Land use in Upper Sun Valley shall include *single-family residential* at 2 to 4 units per acre and *planned residential* at 1 unit per 1 to 10 acres. Land is also designated for *open space* and *quasi-public use* (cemetery).



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The cemetery is also designated as *planned residential* at 1 unit per 1 to 10 acres. The farm adjacent to the cemetery should be annexed to the City of San Rafael at such a time that it is developed.

- PA-3.2 Designate Land Use in Point San Pedro.** Lands at the Point San Pedro Quarry shall be designated for *mineral resource conservation* during the period the quarry continues to operate. Applications for an updated quarry reclamation plan and updated quarry permit are currently pending. The quarry site shall also be designated Planned Designation-Reclamation Area in recognition of its potential future conversion to residential, marina, recreational, commercial, or similar uses consistent with the updated Quarry Reclamation Plan. Because the site is located within the sphere of influence for the City of San Rafael, the City will be provided the opportunity to annex the property and conduct future land use approvals. If the site remains subject to County jurisdiction, in order to comprehensively plan for alternative uses and provide a forum for public participation, a specific or master plan will be required to determine residential densities, commercial floor area, and habitat protection areas. No changes in density or land use intensities are proposed prior to approval of a specific or master plan. In order not to exceed current traffic levels, which include truck and other vehicle trips generated by quarry activity, the total number of dwelling units, or their equivalent in commercial or other uses, shall not exceed 75 dwelling units unless otherwise determined by a County-approved traffic study.
- PA-3.3 Designate Land Use in Bayside Acres and Country Club.** Land use for Bayside Acres and Country Club shall include *single-family residential* at densities ranging from 7 units per acre to 1 unit per 5 acres, and *recreational commercial* at an FAR of .005 to .01.
- PA-3.4 Designate Land Use in California Park.** Land use for California Park shall include *single-family residential* at densities ranging from 1 to 7 units per acre, *multi-family residential* at densities ranging from 1 to 30 units per acre, and *industrial* at an FAR of .1 to .33. Protect the freshwater wetlands in this area.

Planning Area 4 — Upper Ross Valley

Background

The Upper Ross Valley planning area includes the towns of Fairfax, Ross, and San Anselmo, as well as the unincorporated neighborhoods west and southwest of Fairfax and Sleepy Hollow.

Key Trends and Community Development Activities

- ◆ Population in the planning area decreased from 25,623 in 1980 to 24,196 in 1990 and increased again to 25,297 in 2000, a net decrease of 1.3% over 20 years.
- ◆ The number of employed residents increased during the same period from 13,500 to 13,687 to 14,459, a 7.1% increase.



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- ◆ The number of jobs in the planning area increased from 4,355 in 1980 to 6,065 in 1990 to 7,033 in 2000, a 20-year increase of 61.5%, resulting in a corresponding decrease in the number of employed residents per job, from 3.10 to 2.06.
- ◆ There were 10,823 housing units in the planning area in 2000, 1,192 of which were in the unincorporated area.
- ◆ Over 1.3 million square feet of commercial space are located in the planning area, of which only 2.4%, or 31,820 square feet, are in the unincorporated area.
- ◆ Baywood Canyon, a 17-home subdivision, was completed.
- ◆ A portion of Camp Tamarancho was acquired by the Open Space District.

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	Theoretical Buildout
Demographics				
Population	25,623	24,196	25,297	28,838
Households	10,420	10,171	10,504	12,090
Average Household Size	2.46	2.38	2.41	2.39
Employed Residents	13,500	13,687	14,459	17,208
Jobs	4,355	6,065	7,033	5,550
Employed Residents/Job	3.10	2.26	2.06	3.10
Land Use				
Housing Units	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	1,479
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: U.S. 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:

<u>Map #</u>	<u>Area Covered</u>
4.1	Sleepy Hollow
4.2	West Fairfax
4.3	Southwest of Fairfax



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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:

- PA-4.1** **Designate Land Use in Sleepy Hollow and Surrounding Community.** *Single-family residential* densities shall range from 7 housing units per acre to 1 unit per 5 acres. *Multi-family residential* densities shall range from 1 to 4 units per acre. *Planned residential* development shall range from 1 unit per 1 to 10 acres. Land shall be designated for *public facilities* or *single-family residential* at 1 to 2 units per acre and for *open space*.
- PA-4.2** **Designate Land Use West of Fairfax.** *Single-family residential* density shall range from 7 units per acre to 1 unit per 20 acres. *Multi-family residential* density shall range from 11 to 30 units per acre. *Planned residential* density shall range from 1 unit per 1 to 10 acres. *General commercial* FAR shall be .05 to .15. *Agricultural* land use shall be established at 1 housing unit per 31 to 60 acres. Land shall be designated for publicly owned *open space*.
- PA-4.3** **Designate Land Use Southwest of Fairfax.** *Single-family residential* density shall be established at 1 to 7 units per acre. *Planned residential* density shall be 1 unit per acre to 1 unit per 10 acres. *General commercial* FAR shall be .05 to .15. Land shall be designated for *open space*.

Planning Area 5 — Lower Ross Valley

Background

The Lower Ross Valley planning area includes lands south of Southern Heights and San Quentin Ridges, north of Corte Madera Ridge, and east of Phoenix Lake. It includes the City of Larkspur, the Town of Corte Madera, and the unincorporated communities of Kentfield, Greenbrae, San Quentin, and the Greenbrae Boardwalk. Kentfield and Greenbrae have an adopted community plan.

Key Trends and Community Development Activities

- ◆ Population in the planning area increased from 29,220 in 1980 to 31,451 in 1990 to 34,366 in 2000, an increase of 17.6% over 20 years.
- ◆ The number of employed residents increased during the same period from 14,313 to 16,585, a 15.9% increase.
- ◆ The number of jobs in the planning area has increased substantially, from 12,991 in 1980 to 20,589 in 1990 to 22,674 in 2000 (a 74.5% increase), which has decreased the number of employed residents per job from 1.10 to 0.73.



BUILT ENVIRONMENT ELEMENT

- ◆ There were 13,168 housing units in the planning area in 2000, 2,905 of which were in the unincorporated area.
- ◆ Nearly 5 million square feet of commercial space are located in the planning area, of which only 336,937 square feet are in the unincorporated area.
- ◆ The former Ross Hospital has been redeveloped into housing.
- ◆ Additional housing, much of it affordable, is under construction near Larkspur Landing.

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

Sources: U.S. 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:

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



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What Are the Desired Outcomes?

GOAL PA-5

Land Use Policies for the Lower Ross Valley Planning Area. The following policies are specific to areas not subject to the Kentfield plan policies:

- PA-5.1** **Designate Land Use in the Greenbrae Boardwalk.** Land shall be designated for *single-family residential* use at densities ranging from 2 to 7 units per acre. The railroad right-of-way shall be designated as a *public facility*. Land use for the Greenbrae Boardwalk area is shown on Land Use Map 5.2. The Greenbrae Boardwalk has significant wetland areas that should be protected.
- PA-5.2** **Designate Land Use in San Quentin.** San Quentin is expected to remain a state prison for the duration of this Countywide Plan and is therefore designated Public Facilities, reflecting its current use. No other designation or policy is established by this plan. However, should non-prison uses become feasible in the future, consideration could be given to development that is less than or equal to the energy and resource consumption and traffic generation of the current prison use.

Planning Area 6 — Richardson Bay

Background

The Richardson Bay planning area includes lands southeast of Mount Tamalpais, south of Corte Madera Ridge, and north of Fort Baker. It includes all of the Tiburon Peninsula; the cities of Belvedere, Sausalito, and Mill Valley; the Town of Tiburon; and the unincorporated communities of Strawberry, Marin City, and Tamalpais Valley, as well as the unincorporated neighborhoods of Alto, Homestead Valley, Almonte, Muir Woods Park, and the houseboat docks on Richardson Bay. There are adopted community plans for Marin City, Strawberry, and Tamalpais, which includes Tamalpais Valley, Homestead Valley, Almonte, and Muir Woods Park. The Marin City and Strawberry shopping centers, as well as the Tamalpais commercial area, are targeted for mixed-use opportunities. The planning area has been the subject of several recent studies, including the Richardson Bay Boat Dock Study, Comprehensive Transportation Management Plan and Community Development Activities, and analysis by LAFCO to address spheres of influence in the area.

Key Trends and Community Development Activities

- ◆ Population in the planning area decreased slightly from 47,983 in 1980 to 47,755 in 1990 and then increased to 52,094 in 2000, an increase of 8.6% over 20 years.
- ◆ The number of employed residents increased during the same period from 27,903 to 32,166, a 15.3% increase.
- ◆ The number of jobs in the planning area has increased significantly in the past 20 years, from 12,113 in 1980 to 15,050 in 1990 to 19,627 in 2000, a 62% increase. The number of employed residents per job decreased from 2.30 to 1.64.



BUILT ENVIRONMENT ELEMENT

- ◆ There were 25,092 housing units in the planning area in 2000, 9,343 of which were in the unincorporated area. This reflects a 12.0% increase in the total number of units and a 7.0% increase in the number of units for the unincorporated area since 1980.
- ◆ There are over 4.4 million square feet of commercial space located in the planning area, of which nearly 1.1 million square feet are in the unincorporated area.
- ◆ The Marin City USA project was completed with a retail center of 186,000 square feet, 85 ownership residential units, and 255 apartments. Of the units, 136 are designated as affordable.
- ◆ The Richardson Bay Dock and Boat Study, completed in 2000, identified approximately 75 existing boat docks and the potential for 7 additional individual boat docks that could be constructed without significant environmental impacts. In addition, approximately 150 boat docks have been identified in Paradise Cay along with plans for an increase to approximately 200 docks. Dredging districts in both the Strawberry and Paradise Cay communities continue to fund and conduct periodic maintenance dredging.
- ◆ The 100,000-square-foot Belvedere Place office buildings, located above Strawberry Center, were completed.
- ◆ The Fireside Motel affordable housing plan is under construction; it will provide 50 units, many of which are set aside for seniors.
- ◆ An expansion of Strawberry Village is complete and includes workforce housing above stores at the shopping center for the first time.
- ◆ The Waldo Point Harbor Master Plan was approved by the Board of Supervisors and the Bay Conservation and Development Commission.
- ◆ Ridgeland above Marin City were acquired and included in the Golden Gate National Recreation Area.
- ◆ The 30-unit Braun Court housing project was completed; it includes 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 under way for portions of the Marin City Community Service District area for a new community center, and commercial mixed-use residential project.



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

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

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

Planning Area Goals and Policies

Within the planning area there are three community plans: Marin City (1992), Strawberry (1982), and Tamalpais (1992). These provide specific policies that affect land use within the communities. The Marin City Redevelopment Plan of 1994 provides additional policy direction for portions of Marin City.

The following land use maps graphically represent land use policies for the planning area:

<u>Map #</u>	<u>Area Covered</u>
6.1	Tamalpais (five maps)
6.2	Marin City
6.3	Strawberry (two maps)
6.4	Waldo Point
6.5	Tiburon Peninsula



BUILT ENVIRONMENT ELEMENT

What Are the Desired Outcomes?

GOAL PA-6

Land Use Policies for the Richardson Bay Planning Area. The following policies shall guide the development of land in the unincorporated portions of the Richardson Bay Planning Area not subject to a community plan:

- PA-6.1** **Designate Land Use in Waldo Point.** *Floating home* density shall be designated at 4 to 7 units per acre. *Retail commercial* FAR shall be .2 to .63.
- PA-6.2** **Designate Land Use on the Tiburon Peninsula.** *Single-family residential* densities shall range from 7 units per acre to 1 unit per 5 acres. *Multi-family residential* densities shall range from 1 to 4 units per acre. *Planned residential* density shall range from 1 unit per 1 to 10 acres. Land within Tiburon's sphere of influence, such as the unincorporated islands along Paradise Drive, should be considered for annexation to the Town prior to development and should be developed in accordance with Town land use policies and densities.
- PA-6.3** **Designate Land Use in Marin City Community Service District.** The Marin City Community Service District Master Plan for reuse for a community center, amphitheater, employee and affordable housing, office, and commercial uses are recommended in the Plan with a land use designation of commercial/mixed use.

Planning Area 7 — West Marin

Background

The West Marin planning area generally consists of open space and agricultural lands and small villages located west of the City-Centered Corridor from Fort Cronkhite in the south to the Sonoma County line in the north. This area includes the Golden Gate National Recreation Area, Mount Tamalpais, the Mount Tamalpais Watershed, Muir Woods, the Point Reyes National Seashore, and Samuel P. Taylor and Tomales Bay State parks. It also includes many villages, including Bolinas, Dillon Beach, Inverness, Muir Beach, Nicasio, Point Reyes Station, Stinson Beach, and Tomales, each of which has its own community plan. The San Geronimo Valley also has a community plan and includes the villages of Forest Knolls, Lagunitas, San Geronimo, and Woodacre. Marshall is in the East Shore community plan area.

The U.S. Coast Guard, under the United States Department of Defense and the Department of Homeland Security, operates two military installations in Marin, located in Point Reyes Station and Point Bonita. The Point Reyes Station facility is part of the Coast Guard Communications Area Master Station Pacific (CAMSPAC), which provides communication services (such as medium and high frequency coverage, satellite coverage, and broadcast services) throughout the Pacific, in addition to weather warnings and safety information to commercial and recreational vessels, and acts as a distress notification center when mariners encounter difficulty. The 37-acre property mainly consists of 36



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family housing units plus offices for engineering and supply staffs. CAMSPAC also has a receiver site near Abbott's Lagoon in the Point Reyes peninsula, along with a transmitter site in Bolinas. Combined, both the Point Reyes and Bolinas sites include 53 medium and high frequency receivers and 12 antennas.

The 39-acre Point Bonita facility, which is owned and operated by the Coast Guard but managed by the National Park Service as part of the Golden Gate National Recreation Area (GGNRA), includes a Coast Guard-operated Vessel Traffic Service (VTS) radar/microwave tower and lighthouse. The Coast Guard monitors the movement of vessels through the Golden Gate Strait shipping channel and relays distress calls from commercial and recreational mariners to other USCG telecommunication sites in Point Reyes, on Mount Tamalpais, and on Yerba Buena Island. The main lighthouse building is open to the public, while the VTS tower facility is closed to public access.

Both of the Coast Guard facilities are designated as open space on the Land Use Policy Maps. Because the Point Bonita facility is within the GGNRA, expansion of the site is limited. The Coast Guard is proposing to replace and relocate the existing VTS tower with a new tower located 120 feet to the north. With the exception of the VTS tower, eventually most buildings will be turned over to the National Park Service for restoration and public access. In terms of land use, no expansion of the Point Reyes Station facility is proposed, although improvements may be made to some of the existing facilities on the property sometime in the future. An adjacent property was recently developed with a mixture of 36 market-rate and affordable housing units. Future development in the Point Reyes Station area is not expected to impact military readiness of the Coast Guard facility.

Key Trends

- ◆ West Marin's population increased from 11,356 in 1980 to 11,793 in 1990 to 12,334 in 2000, an increase of 8.6% over 20 years.
- ◆ The number of employed residents increased during the same period from 5,624 to 7,462, a 32.7% increase.
- ◆ The number of jobs in the planning area increased, from 1,252 in 1980 to 1,358 in 1990 to 1,409 in 2000, a 12.5% increase. When combined with the significant increase in employed residents, the number of employed workers to the number of jobs increased from 4.49 in 1980 to 5.30 in 2000, an 18% increase.
- ◆ There were 6,360 housing units in the planning area in 2000, up 26.4%, or 1,493 units, since 1980.
- ◆ Over 1.1 million square feet of commercial space is located in the planning area, most of which is associated with the Lucasfilm ranches within the Nicasio area and the balance scattered throughout the planning area's many villages.
- ◆ 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.



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- ◆ 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 Point 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 Point 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	Theoretical Buildout
Demographics				
Population	11,356	11,793	12,334	15,993
Households	4,329	4,818	4,964	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	5,528
Employed Residents/Job	4.49	5.06	5.30	1.87
Land Use				
Housing Units	5,657	6,095	6,360	7,307
Commercial/Industrial sq.ft.	<i>Census Data Not Available</i>	790,123	1,110,168	1,290,302

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

Planning Area Goals and Policies

The 10 community plans for the West Marin Planning Area provide land use policies for 13 villages and communities: Bolinas (1975), Dillon Beach (1989), East Shore (1987), Inverness (1983), Muir Beach (1978), Nicasio (1979), Point Reyes Station (2001), San Geronimo Valley (1997), Stinson Beach (1985), and Tomales (1977). The Bolinas Gridded Mesa Plan (1984) contains specific policies for the Mesa. The San Geronimo Valley and Nicasio community plan areas are in the Inland Rural Corridor, while the remainder are in the Coastal Corridor.

The following land use maps graphically represent land use policies for the planning area:



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Map #	Area Covered
7.1	Dillon Beach
7.2	Tomales
7.3	East Shore (two maps)
7.4	Northwest Marin (two maps)
7.5	Point Reyes Station
7.6	Inverness
7.7	Olema
7.8	Southwest Marin
7.9	Nicasio
7.10	San Geronimo Valley (five maps)
7.11	Bolinas
7.12	Stinson Beach
7.13	Muir Beach

What Are the Desired Outcomes?

GOAL PA-7

Land Use Policies for the West Marin Planning Area. The following are general policies for West Marin as a whole, as well as specific policies for areas not within a community plan boundary:

PA-7.1 Designate Lands for Agriculture. The County shall designate lands for agriculture at very low densities in the Inland Rural and Coastal corridors, and maintain these land use designations.

PA-7.2 Encourage Agriculture and Mariculture in the Coastal Zone. Support and encourage agriculture and mariculture in the Coastal Zone for the purposes of producing food, enhancing and restoring fisheries stocks, and contributing to the State’s economy. Retaining land in active agricultural production helps to keep alive Marin’s historic agricultural heritage. The need for mariculture sites in the waters of Tomales Bay should be balanced with the need to provide for other uses, such as commercial fishing, recreational clamming, and boating, and the need to protect coastal wildlife, water, and visual resources.

PA-7.3 Maintain Village Character. To maintain the character, heritage, and identity of the villages in West Marin, a community plan for each community shall be adopted. As needed, community plans shall be periodically revised.

PA-7.4 Maintain Village Boundaries. The following issues should be considered if changes in village boundaries are proposed as amendments to community plans:

Boundaries of existing developed areas. In some cases, infilling within these areas is the only expansion recommended.



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Boundaries within which villages should be allowed to expand in the future. Criteria setting these boundaries are described below.

Area of interest, boundaries for each village, outside the area of expansion but close enough that any development or use has significant impacts on the village. These boundaries will be set during the preparation of village plans.

Criteria used in setting village expansion area boundaries:

- ◆ boundaries of existing and proposed public open space (Golden Gate National Recreation Area, Point Reyes National Seashore);
- ◆ boundaries used in studies by the Community Development Agency and local planning groups;
- ◆ areas under agricultural zoning;
- ◆ service area boundaries of utility districts;
- ◆ watershed boundaries;
- ◆ natural barriers: terrain, water, cliffs, open space separating developed areas;
- ◆ man-made barriers: roads, dikes;
- ◆ adequate land to accommodate population growth projections and to allow flexibility and choice;
- ◆ existing subdivisions;
- ◆ floodplains and areas subject to seismic hazard.

PA-7.5 **Avoid Large-Scale Development.** Large-scale development within villages that would rapidly or drastically change the character of the village or require expensive new urban services should be discouraged, but social and economic diversity should be encouraged. The expansion of public utilities should be coordinated with Plan policies.

PA-7.6 **Encourage Diversity in Lot Size and Architecture.** Diversity in lot size and architecture should be encouraged.

PA-7.7 **Preserve Historic Structures.** Historic structures should be preserved, and the long-established character of village centers should be enhanced. The overall physical character of present villages should be protected from damage or rapid change. Of particular importance are historic buildings or areas that meet one or more of the following criteria:

- ◆ age
- ◆ a fine example of a particular style
- ◆ a work of a notable architect or builder
- ◆ the site of an historic event
- ◆ a building associated with a famous person
- ◆ industries or activities that are part of the history of the area

PA-7.8 **Allow Only Small-Scale Tourist Facilities.** No large tourist facility should be allowed in the villages, but some small tourist-oriented businesses may be permitted. Within



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villages and expansion areas, small-scale uses to serve visitors to major public recreation areas and tourist developments such as campgrounds, hotels, shops, and restaurants should be permitted, if they are consistent with local community plans.

- PA-7.9** **Designate Village Commercial Residential Designation.** Village commercial residential and coastal village commercial residential designations shall be established in West Marin villages. These designations shall allow flexibility in use, density, and FAR depending on parcel size and configuration, parking needs, mix of residential and commercial uses, and community plan policies. Standards shall be established in the Marin County Zoning Ordinance (Title 22) and shall be applied on a site-specific basis.
- PA-7.10** **Designate Lands Outside Community Plan Areas.** Land use outside community plan areas and the Point Reyes National Seashore and Golden Gate National Recreation Area shall be designated for *agriculture* at densities of 1 housing unit per 31 acres to 1 unit per 60 acres. Park and water district lands shall be designated as *open space*. Land shall be designated for *coastal commercial recreation* at an FAR, of .005 to .10.



BUILT ENVIRONMENT ELEMENT

Figure 3-58 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
PA-1 Land Use Policies for the Novato Planning Area				•								
PA-2 Land Use Policies for the Las Gallinas Planning Area				•								
SV-1 Environmental Protection		•		•	•							
SV-2 Comprehensive Site Planning	•	•	•	•	•	•	•	•	•		•	•
SV-3 Design Excellence	•	•		•	•	•					•	
SV-4 Cultural Resource Preservation	•					•					•	•
SV-5 Affordable Housing	•			•				•				•
SV-6 Transportation Choices	•			•			•				•	•



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Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
SV-7 Continued Social Services										•		•
PA-3 Land Use Policies for the San Rafael Planning Area					•							
PA-4 Land Use Policies for the Upper Ross Valley Planning Area					•							
PA-5 Land Use Policies for the Lower Ross Valley Planning Area					•							
PA-6 Land Use Policies for the Richardson Bay Planning Area								•				
PA-7 Land Use Policies for the West Marin Planning Area					•	•					•	



SOCIOECONOMIC ELEMENT



Marin County is known for its creativity, innovation, and high quality of life. This lifestyle depends a great deal on the beautiful natural setting and excellence of residential neighborhoods in Marin, as well as many other factors that affect how people learn, work, obtain goods and services, and play. The Socioeconomic Element of the Countywide Plan focuses on the people of Marin County and seeks to reinforce the complex connections between individual well-being, economic prosperity, community involvement, cultural richness, and the environment.



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Because a truly healthy community embraces and cares for its least fortunate members, the Socioeconomic Element emphasizes the need for universal health care, abundant child care, community policing, full civic participation, open access to information, education and the arts, proper nutrition and physical fitness. The Element seeks to enhance quality of life for everyone in Marin. Its policies and programs seek to improve conditions for disadvantaged and underrepresented groups, bolster a strong and diverse economy, and engender fair and just social relationships within the Marin community.

Below are the topics covered in this portion of the Countywide Plan:

- ◆ Economy
- ◆ Child Care
- ◆ Public Safety
- ◆ Community Participation
- ◆ Diversity
- ◆ Education
- ◆ Environmental Justice
- ◆ Public Health
- ◆ Arts and Culture
- ◆ Historical and Archaeological Resources
- ◆ Parks and Recreation

Topics related to environmental hazards, housing, transportation, noise, and community facilities are located in the Built Environment Element.

SOCIOECONOMIC





SOCIOECONOMIC ELEMENT

4.2 Key Trends and Issues

Economy

Marin County has enjoyed relative prosperity and economic diversity during the past decade. Many businesses have endured and prospered in Marin. However, some companies have grown to the extent that they have had difficulty finding adequate space and workers who can afford to live in Marin, and in some cases have moved out of the county. Increasing labor costs, traffic congestion, and a shortage of affordable housing have impacted local business viability. Agricultural operations generally have not benefited from trends that have buoyed other sectors of the economy.

Child Care

While the availability of licensed child care is increasing, demand continues to outpace supply for both infant and school-age children. Estimates from 2001 indicate that local providers could serve fewer than 10,000 of the more than 24,000 children countywide who needed care, and that this gap is most severe for infants (ages 0-2) and for after-school care. The need for child care is expected to grow as the cost of living in Marin remains high, the local employment base expands to include more women, and implementation of welfare reform continues. Projected job growth in lower-paying service and retail trade sectors is likely to increase the need for subsidized and affordable child care even further.

Public Safety

The area of public safety covers a variety of factors: law enforcement, fire protection, the criminal justice system, and emergency preparedness. Marin's crime rate has been consistently lower than the state's for many years. In addition, overall crime in the county has decreased slightly, from 7,533 reported instances in 1996 to 6,724 in 2005. However, although the number of domestic violence calls per capita is significantly lower than the state average, the proportion of physical abuse cases in Marin has been higher than the number of cases statewide since 1998.

Community Participation

The percentages of voter registration and election turnout are higher in Marin County than for the state as a whole. According to a 2001 survey, the percentage of county residents indicating that they spend time volunteering for charitable, political, and community service activities is higher than the national average. The same survey shows that charitable giving is well above the national average for organizations related to human services, the environment, and the arts and humanities; equivalent to the national average for educational organizations; and below the national average for religious and health organizations. However, not all segments of the population participate in civic activities such as voting, and minority groups are underrepresented in appointed community and advisory groups. In particular, there is not enough ethnically diverse participation in community decision making.

Diversity

The ethnic diversity of Marin's population is low but is increasing. In 1990, 88.7% of the population was white and 11.3% was African-American, Asian, Pacific Islander, or other races. People of Hispanic



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origin (who may be of any racial group) made up 7.8% of the population. According to the 2000 Census, the nonwhite population increased to 16% and the Hispanic population to 11.1%. The white population was 84%.

Education

The public education system stands ready to serve all children even though the resources are limited. While Marin County has one of the lowest dropout rates in the state, as long as one student drops out, there is room for improvement. Not all children have access to early education programs and to quality education. Educational inequities exist based on income, geography, and race. Graduation and dropout rates need to be monitored to determine how best to improve educational opportunities for traditionally underserved populations.

Environmental Justice

Environmental injustice is indicated by the disproportionate level of toxins and other health hazards affecting lower income communities. People in these areas are less able to afford pesticide-free food, and children are more likely to be exposed to lead-based paint and pollutants in the air, soil, and water. Some of the hazardous materials present in Marin (such as fuel and batteries) are produced and disposed of elsewhere, thereby creating additional health impacts in other (often less affluent) communities.



“At all levels and in all realms, people must have a say in the decisions that affect their lives.”

– The Environmental Justice and Climate Change Initiative

Public Health

Despite the general good health of county residents, some disturbing concerns face the Marin population. The breast cancer rate in Marin is among the highest in the United States, and other cancer rates are high, including that for prostate cancer. Obesity is prevalent among both adults and children. Targeted health issues in the county also include hepatitis C, heart disease, asthma, and environmental illnesses. Recent changes in Medicare may impact insurance coverage for the increasingly aging county population, who, along with other special needs groups, face a shortage of accessible and affordable care services.

Arts and Culture

Marin is a culturally rich community, and the arts industry is a strong contributor to the local economy and quality of life. In 1999, the arts industry in Marin employed roughly 2,200 persons. In 2000, approximately 22% of Marin households gave to the arts and humanities, compared with 11% nationally. Although wages in the arts industry remain relatively low, they increased 13% between 1998 and 1999 from an annual average wage of \$23,000 to \$26,000.



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Historical and Archaeological Resources

Marin County contains 630 recorded archaeological sites. These sites include settlements and villages, hunting camps, quarries, rock art, and trails associated with Native American habitation of the area. The distribution of known archaeological sites in the county is concentrated in urban areas and on the Point Reyes Peninsula.

Parks and Recreation

Parks and recreational amenities are critical to the quality of life, and therefore the economy. Marin County residents and visitors are fortunate to have access to nearly half of the land in the county as parks and open space, including approximately 500 miles of trails through much of this land. City, county, state and national parks offer a wide variety of recreational opportunities, from hiking and sightseeing to soccer, golf, and baseball. Visitors to Marin support a \$500 million per year tourism industry.



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SOCIOECONOMIC ELEMENT

4.3 Framework

The Vision

The 21st century in Marin will include a diverse and vital economy that is increasingly less dependent on fossil fuels, hazardous chemicals, and manufactured substances that accumulate in nature. Community members will enjoy rich cultural diversity and participate in community activities, recreation, and the arts. Affordable choices for housing and child and elder care in the workplace and in the community will complement high-quality education and services available to people of all ages, cultures, and income levels. Support systems will be in place to help those in need, and families will live, work, and play in a safe and healthy environment.

Topics in the Socioeconomic Element include:

Economy (see Section 4.4): Actions required to ensure economic vitality in Marin are described in this Section of the Countywide Plan. A diverse mix of commercial uses provides jobs, stimulates capital investment, and supports public services. Maintaining a strong economy will rely on retaining existing businesses and creating limited opportunities for them to expand, as well as appropriately attracting new commercial enterprises to the county. It also will require finding ways to provide goods and services needed by residents and visitors that currently are in short supply. (See the Housing and Transportation sections of the Built Environment Element for additional programs pertaining to the economy.)

Child Care (see Section 4.5): Increasing the number of child care facilities countywide will be encouraged through zoning and permitting revisions and incentives for developers and employers. Identifying appropriate sites for child care would also assist in the establishment of new facilities. Enhanced child care options will be encouraged further through school programs, training for providers and parents, and financial support.

Public Safety (see Section 4.6): Community involvement in public safety issues helps to keep Marin's neighborhoods safe. Participation will be encouraged in improved design and management of public facilities, fire protection, emergency preparedness, and crime control. Residents will be encouraged to be proactive in the identification of issues in their neighborhoods that may diminish safety, such as overcrowding, interpersonal disputes, and unreported crimes. Community educational, restorative justice, and neighborhood awareness programs will complement traditional law enforcement roles. Community involvement in crime control and improved design and management of public facilities will be encouraged to keep Marin's neighborhoods safe. Traditional law enforcement will be complemented by therapeutic and restorative concepts in the criminal justice system. Mandatory counseling for perpetrators and safe havens for victims of domestic violence can aid in post-abuse recovery, and community policing efforts may help prevent crime. Expansion of recreational and substance control programs, including those for youth, also may help reduce the threat of crime and foster community pride.

Community Participation (see Section 4.7): Groups that historically have not been as involved in the community need to be given opportunities for increased participation. Public meetings should be made



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accessible to all interested citizens through outreach, appropriate locations, translation, and child care. Balanced ethnic representation on County committees and commissions will also be needed.

Diversity (see Section 4.8): Diversity should be celebrated at community events, workplaces, and schools. Reaching out to, recognizing, and encouraging leadership among minority communities will go a long way toward including currently underrepresented groups in important decision making.

Education (see Section 4.9): Adequate educational opportunities will be sought through after-school and summer programs, and through adult education such as parenting and English as a Second Language (ESL) classes. Library programs may be enhanced through marketing and teen and adult volunteer involvement.

Environmental Justice (see Section 4.10): A healthy environment will be sought for all Marin residents through reduction of toxins, particularly those concentrated in lower income residential areas.

Public Health (see Section 4.11): Preventive treatment and universal access to care will be promoted by working with local health care agencies. Healthy lifestyles and living and work environments will be a primary focus of these programs.

Arts and Culture (see Section 4.12): Efforts will be undertaken to increase access to arts and culture in the county, heighten awareness of existing cultural resources, and expand opportunities for local artists and performers.

Historical and Archaeological Resources (see Section 4.13): Preservation of cultural and archaeological sites will be enhanced through requirements for surveying and protecting resources, and collaboration with other agencies.

Parks and Recreation (see Section 4.14): County parks will need to continue to provide opportunities for active recreation, including playing fields, swimming pools, golf courses, tennis courts, picnic areas, and children's playgrounds.



SOCIOECONOMIC ELEMENT

4.4 Economy

Background

Commercial activity creates income that allows people to pursue the lifestyles they value, and it generates revenue that pays for the services needed to maintain a safe and healthy environment. Therefore, economic vitality in Marin is integrally related to issues addressed throughout the Countywide Plan. For example, economic activity responds to, and creates demand for, changes in the land use pattern, while transportation infrastructure affects the ability of workers to travel to and from jobs, and the ability of businesses to receive and deliver goods and services.

A robust economy relies on a range of commercial activities broad enough to compensate for adversities in any one industry and to weather larger economic cycles. This Section of the Countywide Plan seeks to attract and retain businesses that provide goods and services needed locally in an environmentally aware manner, and that offer stable, living wage employment in interesting, pleasant, and healthy work environments close to employee residences or transit.

The policies, programs, and data presented in this Section derive from an Economic Element prepared in conjunction with the Marin Economic Commission (see the reference to *Marin Countywide Plan Supporting Documents* in the “Technical Background Reports and Other Supporting Documents” section of the Introduction to the Countywide Plan). Because only about 10% of Marin’s economic activity and 2% of its jobs¹ are located in the unincorporated county, the policies and programs in this Section will prove more effective if also adopted by local towns and cities.



Four Principles for Economic Sustainability

1. Plug the leaks. Where possible, stop the outflow of local dollars by producing goods locally that Marin residents consume, or using the ones we do import more efficiently.
2. Support existing businesses.
3. Encourage new local enterprise — for example, by adding value before exporting, and facilitating lending (through special micro-enterprise banks or other arrangements).
4. Recruit new businesses that are compatible with existing businesses. In this context, “compatible” means that a new business develops underutilized resources, meets needs unfulfilled by existing businesses, complements existing economic activities, and is consistent with community social and environmental values.

Source: *Rocky Mountain Institute’s Economic Renewal Program: An Introduction*, by Michael J. Kinsley.

¹Based on Association of Bay Area Governments (ABAG) 2002 projections. Because these projections assign employment and population to sub-county areas based on planning boundaries rather than city limit lines, estimates and projections for Corte Madera, Fairfax, Larkspur-Kentfield, Mill Valley, Novato, Ross, San Anselmo, San Rafael, Sausalito, Marin City, and Tiburon may also cover some of the surrounding unincorporated county.



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Key Trends and Issues

Is there enough commercial space?

Between 1989 and 2002, more than 6.5 million square feet of office, retail, and industrial space was built in the county. However, during that same period, more than 40 companies left Marin, vacating about 2.5 million square feet of primarily office space (7.2% of the total countywide). Since then, county commercial vacancy rates have steadily decreased. In 2006, commercial vacancy rates for office, retail, and industrial spaces stood at 16.4% and 2.8%, respectively.¹

Why is it difficult for businesses to locate and stay in Marin?

Commercial construction is becoming increasingly expensive, and the high cost of housing locally requires companies in Marin to pay higher wages than they might elsewhere. Reasons for businesses leaving include high rents, difficulty in recruiting and retaining employees due to the high cost of housing and long commute times, and increased cost of transporting goods along the often-congested City-Centered Corridor.

What kind of job base does Marin have?

The county job base – estimated at more than 120,000 workers in 2000 – continues to grow by more than 1% annually. Almost half of the employees in the county work in the service and retail sectors, and jobs are becoming more concentrated there. The ratio of jobs per household (more than 1.2 in 2000) is expected to increase, largely because housing costs require more than one income to support a household.

What special attributes do Marin businesses have?

Marin companies tend to be highly productive, and the average Marin worker produces 5% more revenue than the average U.S. worker. A high percentage of Marin County businesses have fewer than ten employees, and nearly one-quarter are home based. The Marin economy is also highly successful at creating jobs, with a 20-year job growth rate nearly 10% higher than the national and California averages. In addition, Marin continues to be a center of creativity and innovation, including examples ranging from the rise of the mountain bike industry to a high concentration of multimedia enterprises. Marin is also home to a higher-than-average concentration of artists, designers, small and home-based firms, and managerial and professional workers.

What kinds of businesses does the county need?

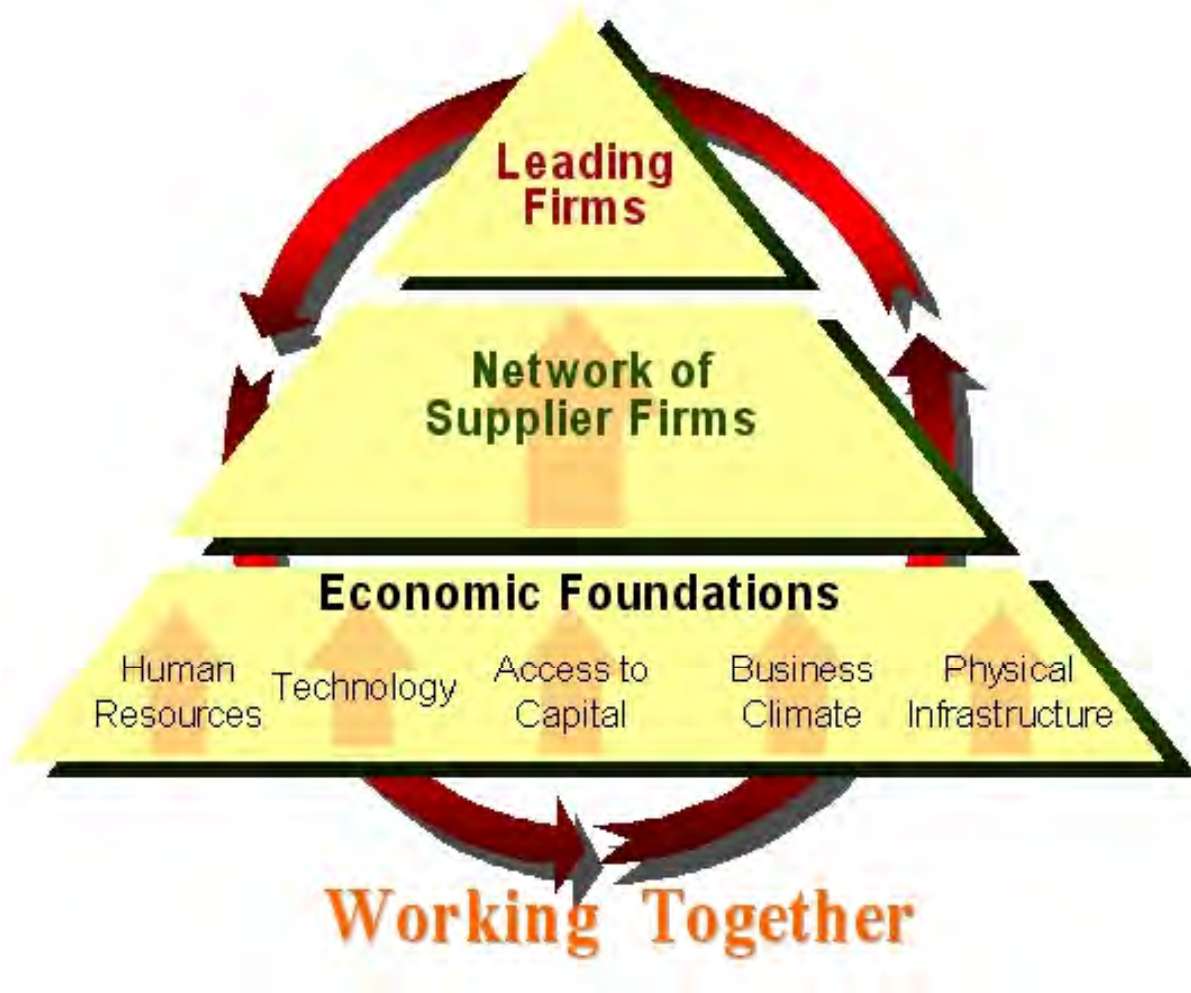
A Targeted Industries Study completed in January 2004 for the Marin Economic Commission and the Community Development Agency concluded that the County must be proactive in ensuring that both local-serving and broader-based businesses thrive, and that neither sector comes to dominate the local economy. The study determined that the industries listed in Figure 4-2 present growth opportunities that can help address the key economic development issues facing Marin: the need to more closely link jobs with housing, traffic congestion, land use constraints, and social inequity.

¹Source: Keegan & Coppin, Inc.



SOCIOECONOMIC ELEMENT

Figure 4-1 Business Building Blocks



What Are the Desired Outcomes?

GOAL EC-1

A Vibrant Economy. Establish and maintain a diverse and sustainable local economy.

Policies

- EC-1.1** **Attract and Retain Businesses.** Support businesses that contribute to a robust, viable, and sustainable economy, and are consistent with the goals and policies of the Countywide Plan.





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EC-1.2 Provide Land for Commercial Enterprise. Ensure that adequate and appropriate sites suitable for commercial uses are available.



“Wasting resources costs the earth and lowers your competitive edge.”

– Sustainable Business Team,
Government Office for the
South West, UK, 2000

EC-1.3 Promote Green Business. Support businesses that utilize environmentally sound practices.

EC-1.4 Implement the Recommendations of the Targeted Industries Study. Continue to refine the County’s overall economic agenda and identify specific action steps for updating and achieving the recommendations of the Targeted Industries Study.

EC-1.5 Consider the Impacts of Climate Change. Identify strategies to protect the economy from the impacts of sea level rise, natural disasters, and disease outbreaks.

Why is this important?

Retaining and attracting a diversity of businesses that are a good match with the goals and needs of the local community yields more local benefits.

Environment: The average piece of produce in California in 2001 traveled 1,494 miles to reach the consumer. Purchase and use of locally produced goods and services reduces transportation costs and impacts, and thereby reduces greenhouse gas emissions and our ecological footprint. Green business practices by local companies further reduce the environmental impacts of economic activity.

Economy: Purchase of locally produced goods and utilization of locally provided services recirculate dollars within the community, improving the health of the local economy and generating the greatest local benefit from each dollar spent.

Equity: Recirculation of local dollars increases the opportunity for local employment by demand for additional local services and products.

Figure 4-2 Existing and Targeted Businesses

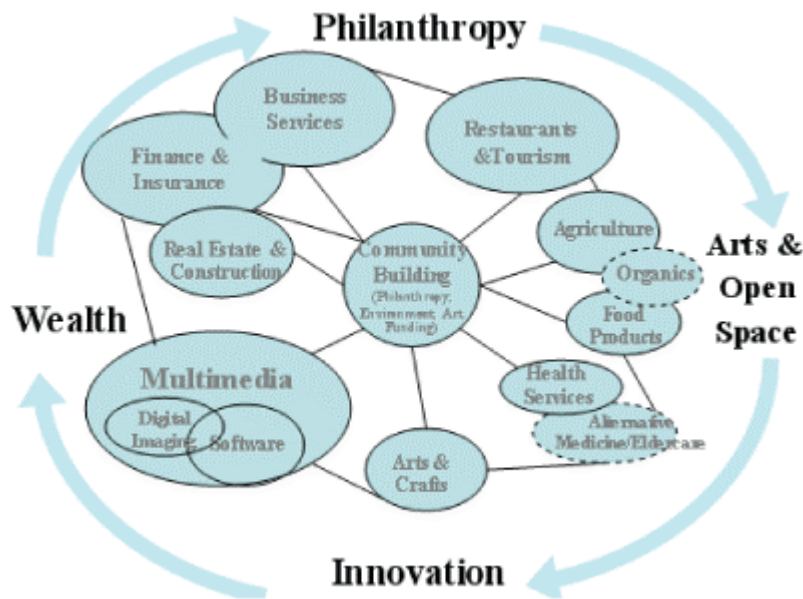
Existing Clusters	Targeted Businesses
Real Estate and Construction	Green Building
Business Services	Boutique Consulting Environmental Technology
Multimedia	Digital Imaging (Motion Pictures) Interactive Media and Game Development Engineering and Design Software



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Existing Clusters	Targeted Businesses
Finance and Insurance	Integrated Wealth Management Services Online Financial Services Personal Financial Advising
Restaurants and Tourism	Agri-Tourism Outdoor Recreation and Equipment Arts and Crafts
Health Services	Alternative Healing and Meditation Alternative Medicine Biotech Emergent Care
Agriculture	Organic Value-Added (Niche) Agricultural Products Food Product Manufacturing

Source: Marin Economic Commission, *Targeted Industries Study, 2004*.



How will results be achieved?

Implementing Programs

EC-1.a *Retain and Attract Appropriate Companies.* Work with local cities and towns, chambers of commerce, and other business groups to ensure that businesses' retention and attraction efforts are directed toward companies (see Figure 4-3) that will

- ◆ supply goods and services needed locally (especially if currently unavailable);
- ◆ create few or no adverse environmental impacts and participate in recycling and similar green business and sustainable partner programs;



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- ◆ contribute to social equity by providing for employee health insurance, child care, and other needs;
- ◆ provide jobs that reduce the need for residents to commute to work outside the county;
- ◆ offer employees options such as carpooling, transit subsidies, flexible hours, and home-based work that help ease vehicle dependency and traffic congestion;
- ◆ encourage and support affordable housing efforts;
- ◆ be locally owned businesses.

Figure 4-3 Targeted Industries Screening Criteria

Screening Criteria	
Economic	Above-average wages
	Locally owned businesses
	Emphasis on value-added activities
	Primary vs. secondary engine of growth ¹
	High productivity
	Occupational diversity and upward mobility
	Industry diversity
Environment	Average firm size ²
	Reduce dependence on inputs from other regions
	Employs local residents
	Telecommuting or transit friendly
	Allows flextime
	Potential sustainable partner
Equity	Creative and innovative
	Links to aging population
	Consistent with County goals and principles

Source: Marin Economic Commission, *Targeted Industries Study, 2004*.

EC-1.b *Streamline Minor Project Review.* Amend the Development Code to streamline review for minor projects with minimal environmental impact, such as interior tenant improvements, that enhance development for businesses targeted in program EC-1.a.

¹Businesses targeted for the county should include primary engines of growth (attracting wealth and investment to the region) rather than only secondary, local-serving activities.

²The average size of firms targeted for the county should be no bigger than the largest firms currently operating in Marin.



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Figure 4-4 Marin Target Industries

<p>Boutique Consulting</p> <ul style="list-style-type: none"> ◆ Information Technology ◆ Engineering ◆ Management ◆ Telecommunications ◆ Other Professional Fields <p>Environmental Technology</p> <p>Green Building</p> <ul style="list-style-type: none"> ◆ Architecture Services ◆ Research and Development ◆ Construction ◆ Links to Environmental Technology <p>Integrated Wealth Management</p>	<p>Personal Financial Advising</p> <p>Online Financial Services</p> <p>Interactive Media and Game Development</p> <p>Engineering and Design Software</p> <p>Organic Value-Added Agriculture Products</p> <p>Food Product Manufacturing</p> <p>Agri-Tourism</p> <p>Outdoor Recreation and Equipment</p> <p>Arts and Crafts</p> <p>Alternate Healing and Meditation</p> <p>Alternative Medicine</p> <p>Biotech</p> <p>Emergency Care Services</p>
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EC-1.c ***Facilitate Digital Infrastructure.*** Amend the County Development Code as necessary to facilitate installation of digital communications infrastructure for businesses.

EC-1.d ***Involve the Economic Commission.*** Support the work of the Marin Economic Commission to inform decision makers regarding economic policy.

EC-1.e ***Solicit Input from the Workforce Investment Board.*** Seek assistance from the Workforce Investment Board regarding the needs and recommendations for training and retraining the workforce.

EC-1.f ***Inventory Available Space.*** Work with local cities and towns, chambers of commerce, and real estate representatives to inventory existing business space, as well as vacant and underutilized commercial sites.



“In [our company], there is a direct link between the energy we consume and the emissions we release into the environment. Cutting energy consumption means reducing emissions – it’s a simple equation. And cutting energy consumption also makes good business sense. . . . [O]ne of the ways we become more competitive is by driving down energy costs by becoming more energy efficient.”

– Dan Paszkowski, Vice President,
Economic Affairs, Mining
Association of Canada (MAC)



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- EC-1.g** *Intensify Uses.* Encourage the Redevelopment Agency to pursue intensification and reuse of underutilized sites that further the goals and policies of the Countywide Plan.
- EC-1.h** *Encourage Transit-Oriented Development.* Work with local cities and towns to encourage patterns of commercial development that support use of public transit, including modifying development regulations to facilitate commercial and/or mixed use projects at sites near transit stops.
- EC-1.i** *Buy Green and Low-Packaging Products.* Purchase products from local green businesses (certified by appropriate authorities) and those that have minimal or no packaging and high recycled-material content; use renewable energy and environmentally friendly printing resources whenever possible.
- EC-1.j** *Promote Green Purchasing.* Encourage public agencies and private institutions to establish sustainable procurement programs through educational forums and access to information.



Sustainable Partner Business Standards include:

- ◆ Reduce environmental impacts by using closed-loop systems.
- ◆ Inventory greenhouse gas emissions and demonstrate a reduction of fossil fuel consumption.
- ◆ Enact a strong environmental purchasing policy.
- ◆ Provide on-site or subsidized nearby child care.
- ◆ Voluntarily comply with the Marin County “living wage” ordinance.
- ◆ Conduct education about environmental and sustainability issues.
- ◆ Commit to corporate philanthropy.

EC-1.k *Provide Assistance with Green Practices.* Expand the Green Business, Sustainable Partner, and Building Energy Efficient Structures (BEST) programs to provide technical and permitting assistance to businesses seeking to comply with environmental regulations (such as non-point pollution source water quality controls).

EC-1.l *Study Targeted Businesses.* Assess targeted businesses to determine the extent to which the industries are integrated into the fabric of Marin’s economy and the feasibility of further growth in Marin (see Figure 4-1).

EC-1.m *Partner with the Private Sector.* Initiate a collaborative process with the business community and others such as the College of Marin and the Buck Institute to implement the recommendations of the 2004 Targeted Industries Study, including business mentoring, telecommuting incubation, workforce preparation, jobs/housing initiatives, and cohesive County marketing strategies and programs.

EC-1.n *Facilitate Review for Targeted Uses.* Amend the discretionary review process as necessary to facilitate project review for desired uses targeted in program EC-1.a, and utilize the preapplication review to help proponents understand and navigate the review process.



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- EC-1.o** *Incorporate Economic Impacts of Climate Change into Planning.* Consider integrating economic disaster planning into disaster preparedness and mitigation plans, and analyze impacts to the economy from climate change.
- EC-1.p** *Implement Economic Programs.* Consider retaining an Economic Sustainability Specialist to implement economic programs.

What Are the Desired Outcomes?

GOAL EC-2

Social Equity in the Workplace. Ensure that all persons have access to meaningful employment with fair compensation, adequate benefits, and a decent work environment.



Policies

- EC-2.1** **Expand Job Opportunities.** Improve employment prospects for county residents.
- EC-2.2** **Lead by Example.** Implement socially responsible business practices that increase the health of the community and the productivity of County operations.

Why is this important?

Studies show that workers who are compensated fairly report a greatly enhanced sense of recognition for work. This is linked to increased job commitment, reduced turnover, and increased productivity. Productive members of the workforce are an essential component of a healthy economy and healthy community.

Economy: A study commissioned by the Economic Policy Institute in Washington, D.C. and carried out by researchers at the Johns Hopkins University determined that providing jobs with a living wage increases productivity and reduces job turnover significantly. High productivity and low job turnover contribute to a strong economy.

Equity: The poverty rate for residents of Marin County went from 6.4% in 1993 to 7.0% in 1997. The average Marin County wage in 2003 was \$47,013, while the median price of a home stood at \$657,500. Job training and work opportunities with benefits and good working conditions will improve the quality of life for many Marin residents.



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How will results be achieved?

Implementing Programs

- EC-2.a** ***Promote Job Training.*** Update publications listing available vocational and technical skills programs (including those in languages other than English spoken by a significant percentage of county residents), and work with the Marin Employment Connection to place unemployed residents (including youth) in appropriate skill enhancement programs.
- EC-2.b** ***Encourage Employment.*** Work with local public and private employment advocacy groups to encourage businesses, especially the County of Marin, to provide jobs for youth, senior citizens, people with disabilities, the homeless, and other traditionally underemployed groups.
- EC-2.c** ***Consider Employment Services for Day Laborers.*** Work with the Marin Employment Connection and other interested organizations to explore the creation of a community hiring hall or other employment services for day laborers.
- EC-2.d** ***Provide Employee Support Services.*** Strongly encourage the provision of employee support services, including child care, in conjunction with County approval of large mixed-use and commercial projects.
- EC-2.e** ***Offer a Range of Jobs.*** Offer part-time, entry level, intern, and job-sharing positions at the County.
- EC-2.f** ***Pay Living Wages.*** Provide fair compensation in accordance with the County living wage ordinance.
- EC-2.g** ***Offer Workplace Flexibility for Parents.*** The County of Marin should consider becoming a model employer by allowing working parents to share jobs and telecommute, and by providing on-site child care and/or child care subsidies.



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Figure 4-5 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
EC-1 A Vibrant Economy	•	•	•	•		•	•	•	•	•	•	•
EC-2 Social Equity in the Workplace	•	•		•				•	•	•	•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets ¹
Gross county production in major sectors: agriculture, retail, manufacturing, services, etc.	See Marin Profile dataset ² for 2000.	Increase 10% by 2020.
Rate of unemployment.	1.7% in 2000.	Remain in the lowest 10% of California counties through 2020.
Number of individuals below the poverty level.	15,601 individuals in 1999.	Track number of individuals below poverty level through 2020.
Number of certified green businesses.	0 in 2000.	Increase to 250 by 2010, and 400 by 2015.
Number of “Sustainable Partner” certified businesses.	0 in 2000.	Increase to 50 by 2015, and 100 by 2020.
County bond rating.	See dataset ³ for 2000.	No decrease in bond rating through 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.

²Available through the Marin County Community Development Agency.

³Available through the Marin County Tax Assessor’s office.



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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 4-6
Economy Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
EC-1.a - Retain and Attract Appropriate Companies.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
EC-1.b - Streamline Minor Project Review.	MEC, CDA	Existing budget	High	Short term
EC-1.c - Facilitate Digital Infrastructure.	CDA, Marin Telecommunications Authority (MTA)	Existing budget	Medium	Med. term
EC-1.d - Involve the Economic Commission.	MEC, CDA	Existing budget	High	Short term
EC-1.e - Solicit Input from the Workforce Investment Board.	MEC, CDA	Existing budget	High	Short term
EC-1.f - Inventory Available Space.	MEC, CDA	Existing budget and may require additional grants or revenue ²	High	Short term
EC-1.g - Intensify Uses.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EC-1.h - Encourage Transit-Oriented Development.	CDA, CWPA, TAM, Marin Cities and Towns	Existing budget	High	Ongoing
EC-1.i - Buy Green and Low-Packaging Products.	DPW, Other County Departments	Will require additional grants or other revenue ²	Medium	Long term
EC-1.j - Promote Green Purchasing.	DPW, CDA	Will require additional grants or other revenue ²	Medium	Long term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
EC-1.k - Provide Assistance with Green Practices.	CDA	Existing budget	High	Immediate
EC-1.l - Study Targeted Businesses.	MEC, CDA	Existing budget	High	Immediate
EC-1.m Partner with the Private Sector.	MEC	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EC-1.n - Facilitate Review for Targeted Uses.	CDA, MEC	Existing budget	Medium	Short term
EC-1.o - Incorporate Economic Impacts of Climate Change into Planning.	CDA, OES, and Disaster Council	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EC-1.p - Implement Economic Programs.	CDA, OES, and Disaster Council	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EC-2.a - Promote Job Training.	Workforce Investment Board (WIB), Marin Employment Connection, MEC	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EC-2.b - Encourage Employment.	WIB, MEC, HR	Existing budget	Medium	Long term
EC-2.c - Consider Employment Services for Day Laborers.	Marin Employment Connection and CBO's	Will require additional grants or revenue ²	Medium	Long term
EC-2.d - Provide Employee Support Services.	CDA, H&HS	Existing budget and may require additional grants or revenue ²	Medium	Short term
EC-2.e - Offer a Range of Jobs.	HR, All County Departments	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EC-2.f - Pay Living Wages.	All County Departments	Existing budget	High	Ongoing
EC-2.g - Offer Workplace Flexibility for Parents.	BOS, CAO, HR, H&HR	Will require additional grants or revenue ²	Medium	Long term



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4.5 Child Care

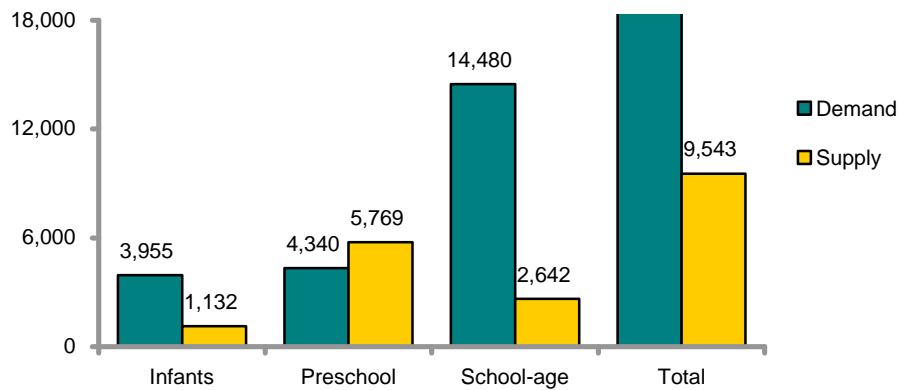
Background

Adequate child care is an essential component of the Marin social and economic fabric, and demand significantly exceeds the capacity of licensed providers (see Figure 4-7). Policies and programs intended to ease this shortage through employer provision of child care are contained both in this Section and in Section 4.4.



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Figure 4-7 Licensed Child Care Supply and Demand in Marin County, 2002¹



¹Based on supply data from *The 2003 Child Care Portfolio* and analysis by the Marin Child Care Commission. Demand data from 2000 Census.

Source: 2001 Marin County Child Care Commission.

Changes to County regulations can increase the availability of sites for child care provision, which is critical because existing locations are being lost. Subsidies also are needed to ensure that existing child care facilities can continue to operate and that new ones will have the opportunity to locate in Marin. New funding sources may be required to ensure quality child care for those who need it.

Key Trends and Issues

What are the economics of child care in Marin?

Child care is essential for labor-force participation and local economic development. Although licensed child care is a \$57.5 million industry in Marin County, parent fees alone cannot cover the full cost of care. Currently parent fees account for approximately 85% of the cost of licensed child care in Marin. Government subsidies account for less than 10% of Marin's licensed child care cost, and less than 1% is provided by the corporate sector.

Why aren't there more child care providers?

School facilities once used for child care are reverting to classroom use, and holding on to commercial and residential space for child care is proving difficult in the face of competition with other uses. Child care providers tend not to have experience with the development review process, which can impede establishment of new and expanded facilities. The low wages traditionally paid to child care workers coupled with the high cost of housing make it difficult to retain qualified staff.



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What Are the Desired Outcomes?

GOAL CH-1

Additional Child Care Facilities. Increase the number of child care facilities countywide.



Policies

- CH-1.1 Encourage Development of Affordable Child Care Facilities.** Facilitate establishment of affordable child care facilities in all residential zones and at appropriate community facilities.
- CH-1.2 Establish Child Care Requirements for Development.** Require on-site child care or in-lieu fees for child care in new public and private mixed-use and nonresidential development.
- CH-1.3 Streamline Permitting for Child Care Facilities.** Evaluate and determine how to expedite the permitting process for large family day care homes and child care facilities.
- CH-1.4 Provide Regulatory Incentives for Child Care Facilities.** Modify County regulations to explicitly encourage development of child care facilities.

Figure 4-8 Child Day-Care Chart

Standards	Small Family Child Care Homes	Large Family Child Care Homes	Child Care Centers
Zoning	Allowed within any single-family residence located in an agricultural or residential zoning district	Allowed within any single-family residence located in an agricultural or residential zoning district	Allowed in the zoning districts determined by Article II (Zoning Districts and Allowable Land Uses)
Permit Requirements	No land use permit required	Requires approval of a Large Family Day-Care Use Permit by the Zoning Administrator	Requires approval of a Child Day-Care Center Use Permit by the Zoning Administrator
Number of Children in Care	Eight or fewer children	Nine to 14 children	Fifteen or more children

Why is this important?

In Marin County, an estimated 25,232 children under 14 live in working families (that is, families with two working parents or a working single parent) that are likely to need care for their children. The demand for child care in Marin consistently exceeds the licensed supply.



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Economy: The combination of low wages paid to child care workers and the high cost of living in Marin County makes finding and retaining qualified child care staff a challenge. Encouraging child care facilities can help reduce employee turnover, which impacts both the quantity and quality of available child care. Added facilities also would boost the local economy by adding revenue and employment stability, and by contributing to employee satisfaction and productivity.

Equity: Low income families experience the brunt of the lack of child care. A weakened economy can precipitate cuts in subsidized child care for those who need it most. Increasing the availability of child care facilities will benefit all families, including lower income families.

How will results be achieved?

Implementing Programs

- CH-1.a** *Allow Child Care at Community Facilities.* Amend the Development Code to allow child care as a permitted use at places of worship, schools, and other appropriate community facilities.
- CH-1.b** *Establish a Child Care Nexus.* Conduct a study to quantify the impact of new nonresidential development on child care demand.
- CH-1.c** *Require Child Care Through Development Review.* Based on the outcome of the child care study (Program CH-1.b), adopt an ordinance requiring on-site child care or in-lieu fees for child care for new or redeveloped public and private nonresidential or mixed-use development.
- CH-1.d** *Expedite Application Review.* Amend the Development Code to reduce application requirements and review time for child care uses in residential zones.
- CH-1.e** *Designate a Review Guide.* Charge a planner in the Community Development Agency with coordinating child care facility applications and shepherding them through the project review process.
- CH-1.f** *Map Appropriate Sites.* Create a map that identifies appropriate locations for future child care facilities to help guide project proponents.
- CH-1.g** *Consider Fee and Permit Waivers.* Research and consider adopting a whole or partial fee waiver for child care facilities and determine whether large family day-care projects that meet specified standards should be exempt from use-permit requirements.
- CH-1.h** *Facilitate On-Site Child Care.* Amend the Development Code to exclude floor area ratio requirements for child care facilities in conjunction with a range of development projects.
- CH-1.i** *Reduce Parking Requirements.* Review the Development Code to reduce parking requirements for new projects or uses that include adequate child care facilities where appropriate.



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CH-1.j *Provide Amnesty.* Establish an “amnesty” program for large family day-care providers who do not yet have a use permit.

What Are the Desired Outcomes?

GOAL CH-2

Enhanced Child Care Options. Expand the range of available child care options.



Policies

CH-2.1 *Pursue Expanded Options.* Help coordinate efforts to broaden child care options in the county.

CH-2.2 *Encourage Subsidized Child Care.* Encourage financial support to supplement child care operations.

Why is this important?

In Marin County there were 26,352 children competing for 9,195 child care slots in 2000. The rate of available child care slots remained steady in Marin between 1996 and 2001, at 2.7 children per available slot. Affordable, high-quality child care is a component of our social infrastructure that is a necessity for working parents.

Economy: The need for child care is expected to grow as the local labor-force base expands to include more women. The need for affordable and subsidized child care is expected to grow as the local labor-force base expands in the lower-paying service and retail trade sectors. Projected job growth in the lower-paying service and retail trade sectors will increase the need for subsidized and affordable child care.

Equity: More than 500 children are eligible for state-subsidized child care, but have not received it and have been placed on the County’s waiting list because state funding is insufficient to cover their needs. Subsidizing child care will directly provide lower income households with better access to care. Broadening the options for child care, especially through the workplace, will allow children from a wider range of socioeconomic groups to receive adequate care.

How will results be achieved?

Implementing Programs

CH-2.a *Expand School Programs.* Work with the schools to enhance the availability of extended-day child care programs.

CH-2.b *Encourage Child Care at a Range of Facilities.* Work with local child care advocacy groups to promote child care at businesses, shopping centers, schools, colleges, places of worship, hospitals, and other appropriate locations.



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- CH-2.c** *Train Providers and Parents.* Work with the Marin Child Care Council and other community-based organizations to offer training and support for child care providers and parents.
- CH-2.d** *Offer Child Care to County Employees.* Explore and pursue the possible provision of child care at the Civic Center or other appropriate locations for County employees.
- CH-2.g** *Explore Funding Options.* Actively seek new funding sources for child care operations and to pay for additional affordable child care placements for low income persons.
- CH-2.h** *Review Incentive Options.* Consider financial incentives, such as tax credits, for employers that provide adequate child care.



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Figure 4-9 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
CH-1 Additional Child Care Facilities								•	•	•		•
CH-2 Enhanced Child Care Options				•				•	•	•		•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Child care supply and demand by age.	See Healthy Marin Partnership dataset for 2000.	Supply increases until it is within 10% of child care demand for all ages and income categories by 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-10
Child Care Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
CH-1.a - Allow Child Care at Community Facilities.	CDA	Existing budget	Medium	Short term
CH-1.b - Establish a Child Care Nexus.	Child Care Commission, CDA	Will require additional grants or revenue ²	High	Short term
CH-1.c - Require Child Care Through Development Review.	CDA	Existing budget	Medium	Med. term
CH-1.d - Expedite Application Review.	CDA	Existing budget	High	Short term
CH-1.e - Designate a Review Guide.	CDA	Existing budget	High	Short term
CH-1.f - Map Appropriate Sites.	CDA	Will require additional grants or revenue ²	Medium	Short term
CH-1.g - Consider Fee and Permit Waivers.	CDA	Existing budget and may require additional grants or revenue ²	High	Short term
CH-1.h - Facilitate On-Site Child Care.	CDA	Existing budget	Medium	Short term
CH-1.i - Reduce Parking Requirements.	CDA, DPW	Existing budget and may require additional grants or revenue ²	Medium	Short term
CH-1.j - Provide Amnesty.	CDA	Existing budget and may require additional grants or revenue ²	Low	Long term
CH-2.a - Expand School Programs.	Child Care Commission	Existing budget	Medium	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
CH-2.b - Encourage Child Care at a Range of Facilities.	Child Care Commission	Existing budget	High	Ongoing
CH-2.c - Train Providers and Parents.	Child Care Commission & MCCC	Existing budget	High	Ongoing
CH-2.d - Offer Child Care to County Employees.	H&HS, HR	Will require additional grants or revenue ²	Medium	Med. term
CH-2.f - Explore Funding Options.	Child Care Commission	Existing budget	High	Ongoing
CH-2.g - Review Incentive Options.	Child Care Commission	Existing budget and may require additional grants or revenue ²	Medium	Med. term



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San Rafael Police Department

4.6 Public Safety

Background

Marin residents can directly influence public safety. For example, residents can participate in community policing and restorative programs in cooperation with law enforcement agencies. Community policing involves residents in preventing crime by forming neighborhood watch groups and other cooperative ventures with local law enforcement agencies.

Restorative justice programs seek to repair harm, reduce risk, and build community by helping the offender to understand the harm caused to the victim



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and the community. Through various forms of mediation, the offender is better able to understand the depth and nature of his/her wrongdoing and to accept responsibility to the victim and community for repairing that harm. In return, the community is responsible for helping the wrongdoer develop competency to become a law-abiding, contributing member of the community. Examples of such programs are victim-offender mediation programs, neighborhood accountability boards, and problem-solving courts (domestic violence, mental health, drug courts, and teen courts).

Traditional criminal justice agencies (law enforcement, courts, prosecution and defense, and probation) continue to play an essential role in maintaining and promoting public safety for those who commit more serious or violent crimes, and for those for whom alternative efforts have failed. Maintenance of efforts to assist those who cycle through the criminal justice system and the programs that attempt to prevent this recycling are essential to community safety as well as to individual development of life skills. In Marin, resources should be focused on persons with mental and emotional issues and substance abuse problems that lead to domestic violence, child abuse, and other related crimes directly attributable to these problems. The use of incarceration at state and local levels should be used as a last-resort option and for serious and violent criminal behavior.

Effective emergency response requires sophisticated and coordinated efforts by local and State agencies, but it also depends on awareness and prompt action by citizens. The County maintains an Emergency Operations Plan that is intended to provide adequate preparation and agency response to natural or human-caused disasters that threaten the health or property of residents and businesses. The plan describes how emergency management will be coordinated; identifies personnel responsibilities and actions necessary to protect health and safety, property, and the environment; and details procedures before, during, and after a major event. However, the plan recognizes that during the first 72 hours following a major event, community members must be self-sufficient. Effective and timely public communication and awareness are therefore primary components of both the Emergency Operations Plan and this Section of the Countywide Plan.

Policies and programs addressing fire safety, emergency medical services, and hazardous materials storage and transport are contained in the Environmental Hazards Section of the Built Environment Element.

Key Trends and Issues

What crimes are most problematic in Marin?

Despite the relatively low and dropping rates for almost all types of crime in Marin, crime prevention in the county needs to be more widespread, especially with regard to child abuse and neglect, elder abuse, and domestic violence. While domestic violence occurs across all segments of the community, concerns have been raised regarding the correlation between domestic violence and substance abuse. The incidence of alcohol- and drug-related school offenses in Marin is high (4.2 per 1,000 enrolled) compared with the state average (3.7). Drunk-driving rates are very high as well.



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What kinds of emergencies and after-effects do residents need to prepare for?

Threats to life, property, and the environment in Marin County are increasing in variety and frequency. For example, the chance of a major earthquake (6.7 on the Richter Scale) hitting the Bay Area before 2030 is estimated at approximately 70%. Local governments are increasingly required to develop plans and procedures that address disaster-related issues, including sheltering special needs populations, complying with the Americans with Disabilities Act, mitigating economic losses including tourism, and addressing the mental and emotional needs of victims and responders.

What Are the Desired Outcomes?

GOAL PS-1

Safe Neighborhoods. Ensure that county neighborhoods remain safe places to live.

Policies

- PS-1.1** **Encourage Community Involvement in Crime Control.** Promote community policing and restorative justice programs, such as the County Adolescent and Adult Drug Courts; other problem-solving courts, such as domestic violence, mental health, and teen courts; the Victim-Offender Reconciliation Program (VORP); Neighborhood Accountability Boards; and other restorative programs. Support and encourage reporting of child and adult abuse and neglect.
- PS-1.2** **Improve Infrastructure to Discourage Crime.** Remedy any public facilities with problems that might encourage criminal activity, such as low lighting and blind spots that result from landscape features or fences.
- PS-1.3** **Analyze Implications of Sea Level Rise for Neighborhood Safety.** Analyze potential safety implications from sea level rise and prepare contingency plans in consultation with the Marin Disaster Council.



Why is this important?

The 2001 Marin Community Health survey found that 20% of young adults age 18–24 reported experiencing some type of physical violence or threat of violence within the past year.

Economy: Identifying and fixing infrastructure that invites crime can encourage residents to take pride in their neighborhoods and reduce vandalism, which historically has targeted natural and cultural resources as well as public and private property. Businesses can also benefit from crime-detering infrastructure, including safety measures such as adequate street lighting.

Equity: Marin has had a higher percentage of physical abuse cases than the state average since 1998. Involving the community in efforts to prevent crime and dealing with its effects on victims can help



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break down some of the socioeconomic barriers in the community that may contribute to criminal activity. Safe neighborhoods contribute to a high quality of life for all residents.

How will results be achieved?

Implementing Programs

- PS-1.a** *Educate the Public about Community Enforcement Techniques.* Work with criminal justice agencies and community groups to support programs that offer information about community policing, restorative justice, reporting of child and adult abuse and neglect, and other crime prevention techniques. Information should be provided in multiple languages understood by most of the affected community members.
- PS-1.b** *Involve Businesses in Neighborhood Watch.* Support efforts to strengthen and expand neighborhood watch programs, and ensuring that businesses participate in these programs.
- PS-1.c** *Ensure Adequate Lighting.* Upgrade street lighting in urbanized areas where specified by community plans to fulfill neighborhood safety needs, provided that unnecessary light and glare are avoided.
- PS-1.d** *Clean Up Neighborhoods.* Work with law enforcement agencies and community groups to promote cleanup, graffiti removal, and other neighborhood beautification efforts.
- PS-1.e** *Review Structure Designs.* Involve law enforcement agencies in review of the design of new and rehabilitated buildings, including lighting and landscaping, to identify ways to increase resident safety.
- PS-1.f** *Prepare Contingency Plans.* Work with the Bay Conservation and Development Commission (BCDC) and the Marin Disaster Council to analyze implications of sea level rise and increased violent storm events and flooding on neighborhood safety, and prepare contingency plans.



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What Are the Desired Outcomes?

GOAL PS-2

Decreased Crime. Reduce rates for all types of crime, including child abuse and neglect, elder and dependent abuse and neglect, domestic violence, juvenile offenses, physical and financial abuse of seniors, and hate indicator crimes.



Policies

- PS-2.1 Counteract Domestic Violence and Juvenile Crime.** Decrease the incidence of domestic violence, including child abuse and neglect, elder and dependent adult abuse and neglect, and crimes by or against youth.
- PS-2.2 Support Services for Mentally Ill Criminal Offenders.** Reduce the incidence of crimes by the mentally ill by continuing to support the Support and Treatment After Release (STAR) and mental health court programs.

Why is this important?

Since 1996, crime rates have steadily decreased in Marin County as well as in California. Some crimes are more predominant in Marin, however. Physical abuse cases are higher in Marin than the state average and hate crimes increased 6.3% between 1996 and 2001. Drug and alcohol treatment reduces drug use by 40% to 60%, reduces crime by 40% to 60%, and increases employment prospects by 40%.

Economy: For every \$1 spent on drug use prevention, communities save between \$4 to \$5 in costs for drug abuse treatment and counseling.

Equity: Thirty-seven percent of 11th graders in Marin report driving after drinking, higher than the California average of 23%. Seventy-nine percent of adults 18 and over in Marin currently drink alcohol, and 23% report binge drinking. In three out of four cases of domestic violence, the victim reported that alcohol or drugs had been a factor. Parental alcohol and drug abuse cases contribute to seven out of ten child abuse or neglect incidents as well as 75% of all foster care placements.

How will results be achieved?

Implementing Programs

- PS-2.a Continue Counseling.** Work with law enforcement agencies to establish mandatory counseling for all perpetrators of domestic violence.
- PS-2.b Enhance School Programs.** Work with schools to support and expand after-school recreation, youth mentoring, conflict resolution, team building, self-awareness, and community involvement programs.



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- PS-2.c** *Seek Funding for Youth Programs.* Continue and expand support through the Department of Health and Human Services, and other resources, of nonprofit organizations that administer youth mentoring programs.
- PS-2.d** *Support Youth Outreach Efforts.* Work with community and faith-based organizations to reach out to troubled youth.
- PS-2.e** *Provide Counseling to Troubled Youth.* Continue to support the use of mental health staff at juvenile hall and high schools to provide counseling.
- PS-2.f** *Seek Funding for and Create Community Restorative Justice Programs.* Educate community leaders and seek financial support from public and private agencies to establish and maintain programs that use restorative justice concepts.
- PS-2.g** *Continue Mental Health Training for Law Enforcement Agencies.* Continue the collaboration between County Health and Human Services staff and law enforcement personnel to provide training and education on methods for addressing mental health patients in the criminal justice system.
- PS-2.h** *Promote Alternatives to Jail for Mental Health Offenders.* Support efforts to strengthen and expand programs that provide assistance to people with mental health problems who enter the criminal justice system, such as the mental health court and Support and Treatment After Release (STAR) programs.

What Are the Desired Outcomes?

GOAL PS-3



Effective Emergency and Disaster Preparedness. Provide proper emergency and disaster preparedness services through effective and coordinated emergency management plans and procedures.

Policies

PS-3.1 Plan Thoroughly for Emergencies. Ensure that the County, its citizens, businesses, and services are prepared for effective response and recovery in the event of emergencies or disasters.

- PS-3.2 Safe Public Structures.** Protect public health and safety through appropriate siting and rehabilitation of public facilities.

Why is this important?

The probability for a major earthquake (6.7) occurring in the Bay Area before 2030 is estimated at approximately 70%. Effective response to emergencies, including earthquakes, fires, and weather-related events, has many benefits for the Marin community.



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Environment: Fire has become a greater hazard in Marin as fuel loads have increased due to suppression of natural fires and as residential development has occurred adjacent to wild lands. The well-being of the natural environment may depend heavily on response to major emergencies, such as hazardous materials release or wildfires.

Economy: The global cost of natural disasters is anticipated to top \$300 billion annually by 2025. The San Francisco earthquake of 1906 caused direct losses of about \$24 million and fire losses of about \$500 million, which is the 2004 equivalent of \$10 billion combined. Economic capacity to function depends on the ability to recover quickly and effectively from any major emergency or disaster.

Equity: The City-Centered Corridor, where people are most concentrated, is a high-risk area for emergencies. Most fires reported between 1990 and 1997 originated in the City-Centered Corridor. Effective emergency preparedness and relief are essential to ensure the long-term safety and health of people in our communities.

How will results be achieved?

Implementing Programs

- PS-3.a** *Maintain Effective Communication Systems.* Work with public safety and health and human services agencies countywide to maintain interagency and public communications systems that will provide mutual aid and be reliable during and following an emergency (including completing the Marin Emergency Radio Authority project).¹
- PS-3.b** *Maintain Adequate Response Resources.* Identify the need for and maintain adequate staffing levels, equipment, and resources, and undertake disaster preparedness training as necessary to provide essential emergency public services.
- PS-3.c** *Distribute Public Information.* Offer written materials that inform residents, businesses, and local groups about the current nature and extent of local safety hazards and emergency plans, including evacuation plans and procedures to accommodate special needs populations. Information should be provided in languages understood by most of the affected community members.
- PS-3.d** *Conduct Disaster-Awareness Efforts.* Establish an annual Emergency Preparedness Awareness Week, during which seminars are offered in schools and other civic and neighborhood locations to teach citizens how to prepare for potential emergencies. Encourage residents to go through the Community Emergency Response Training program so that they can serve as civilian volunteers during an emergency.
- PS-3.e** *Promote Community Involvement.* Work with neighborhood groups and other civic organizations to establish councils that will conduct a variety of disaster-preparedness functions, including emergency response training and removal of vegetation around

¹The Marin Emergency Radio Authority was established as a Joint Powers Authority to unify local communications systems.



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buildings in areas prone to wildland fire (also see Program EH-4.h in the Environmental Hazards Section).

- PS-3.f** *Promote Structural and Nonstructural Safety.* Provide and inform the public of the available educational guides promoting structural and nonstructural earthquake safety. Encourage natural gas safety, water heater bracing, and installation of automatic natural gas shut-off valves in buildings. Encourage retrofit of older buildings and securing nonstructural elements of a building to prevent the falling or throwing of objects.
- PS-3.g** *Locate Emergency Services Facilities Appropriately.* Locate and design emergency buildings and vital utilities, communication systems, and other public facilities so that they can remain operational during and after an emergency or disaster. Encourage that these structures and facilities are designed to be earthquake proof to ensure continuous operation even during extreme seismic ground shaking.
- PS-3.h** *Promote Agency Emergency Planning.* Encourage jurisdictions and institutions to create and adopt emergency response plans.
- PS-3.i** *Site Public Structures Safely.* Locate facilities necessary for the protection of public safety and/or the provision of emergency services away from areas subject to inundations, subsidence, or slope or ground failure in a seismic event as feasible. Prohibit placement of critical public facilities such as schools, hospitals, streets, communication systems, utility and public safety structures, and reservoirs in designated fault zones.
- PS-3.j** *Develop Evacuation Plans.* Work with agencies that provide emergency preparedness, response, and recovery services to formulate definitive plans and procedures for evacuation of hazard-prone areas.
- PS-3.k** *Ensure Seismic Design Regulations.* Continue to implement County ordinances to ensure that new construction meets California Building Code seismic design requirements, provides seismic shut-off devices, and anchors liquid petroleum gas tanks. Require geological assessment (for example, Soils Investigation and Geologic/Geotechnical reports) for grading permits to determine the effects of seismic ground shaking on proposed grading and associated new construction.



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What Are the Desired Outcomes?

GOAL PS-4

Decreased Exposure to Hazardous Materials. Reduce the risks to human and environmental health from hazardous materials.

Policy

PS-4.1 **Regulate and Reduce Hazardous Material Use.** Control the use and storage of hazardous materials to minimize their presence in, and potential dangers to, the community and environment.



Why is this important?

Materials that pose dangers to human health and the environment are used for many purposes. Storage, transport, and disposal of hazardous materials increase exposure to these materials. In 2005, 35,000 incidents were reported in the United States where hazardous materials in storage or transit were released into the environment.

Environment: Annually, more than 240 million gallons, or nearly 60% of the used motor oil generated by “do it yourself” oil changes in the United States, are disposed of in ways that damage our environment. One quart of motor oil released into a storm drain can contaminate over 250,000 gallons of water. Toxic spills and the release of hazardous materials cause devastating impacts on the natural systems that support life.

Economy: More than 500 Marin County businesses are regulated users of hazardous materials. The economic risk of using such materials is reduced by safely storing, transporting, and disposing of hazardous materials, and by developing and using alternative, less harmful products and processes.

Equity: The City-Centered Corridor has the greatest concentration of people and businesses in Marin. Schools, hospitals, high occupancy buildings, and nursing homes are especially vulnerable to hazardous material exposure. Lower income residents are often disproportionately impacted by exposure to hazardous materials.

How will results be achieved?

Implementing Programs

PS-4.a **Regulate Development Near Waste Sites.** Adopt specific regulations for development of land on or adjacent to a known solid or hazardous waste site.

PS-4.b **Regulate Hazardous Material Use.** Identify businesses that use, store, dispose of, or transport hazardous materials, and require them to follow measures that protect public health and safety.



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- PS-4.c** ***Restrict Transport.*** Work with federal and State agencies to require all transport of hazardous materials to follow approved routes.
- PS-4.d** ***Prepare for Hazardous Materials Incidents.*** Plan for response to an emergency involving a major release of hazardous materials (see Policy PS-3.1; also see the Environmental Justice Section of the Socioeconomic Element).
- PS-4.e** ***Precautionary Principle.*** Continue to implement the precautionary principle in County purchases and actions, which calls for a careful analysis and selection of the available alternatives presenting the least potential threat to human health and natural systems.
- PS-4.f** ***Reduce Hazardous Materials on County Property.*** Develop and implement a policy to reduce the use of hazardous materials in County buildings, on County property, and in County operations.
- PS-4.g** ***Promote Ecologically Friendly Products.*** Continue to evaluate and provide incentives for use of ecologically friendly products. This includes County procurement policies that give price preferences to recycled or post-consumer products, use of integrated pest management products that are nontoxic, and the promotion of green businesses that incorporate ecologically friendly products into their business operation.
- PS-4.h** ***Hazardous Materials Education.*** Continue to educate the public about the safe use, transport, and disposal of hazardous materials and encourage (for example, through incentive programs) the use of less-toxic substances in residential and County operations.
- PS-4.i** ***Hazardous Materials Disposal.*** Promote, educate, and encourage the public and businesses to properly dispose of any hazardous materials or waste at Marin County's permanent household hazardous waste collection facility.



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Figure 4-11 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
PS-1 Safe Neighborhoods	•				•		•	•	•	•	•	•
PS-2 Decreased Crime	•				•					•	•	•
PS-3 Effective Emergency and Disaster Preparedness	•		•	•	•		•			•	•	•
PS-4 Decreased Exposure to Hazardous Materials	•		•						•	•	•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Survey of public perception of safety in unincorporated areas.	89% in 2000 and 88% in 2004 reported feeling safe in their community.	No decrease through 2020.
Recidivism rates in unincorporated county for child endangerment bookings.	61% recidivism rate.	Decrease recidivism rate through 2020.
Recidivism rates for violent crime (number of perpetrators of violent crime, excluding simple assaults, who have been previously booked in Marin county for any offense).	68% recidivism rate.	No increase through 2020.
Juvenile crime rate.	58.9 in 2000.	No increase through 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-12
Public Safety Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
PS-1.a - Educate the Public About Community Enforcement Techniques.	Sheriff	Existing budget	Medium	Ongoing
PS-1.b - Involve Businesses in Neighborhood Watch.	Sheriff	Existing budget	Medium	Ongoing
PS-1.c - Ensure Adequate Lighting.	DPW, Community Service Districts (CSDs)	Will require additional grants or other revenue ²	Medium	Long term
PS-1.d - Clean Up Neighborhoods.	Sheriff	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-1.e - Review Structure Designs.	CDA, Sheriff	Existing budget, grants	High	Ongoing
PS-1.f - Prepare Contingency Plans.	Marin Disaster Council, OES, BCDC, and CDA	Existing budget, grants	High	Med. term
PS-2.a - Continue Counseling.	District Attorney's Office	Existing budget, grants	High	Ongoing
PS-2.b - Enhance School Programs.	Sheriff, H&HS	Existing budget and may require additional grants or revenue ²	Medium-high	Ongoing
PS-2.c - Seek Funding for Youth Programs.	Sheriff, H&HS, Probation	Existing budget and may require additional grants or revenue ²	Medium-high	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
PS-2.d - Support Youth Outreach Efforts.	Sheriff, H&HS, Probation	Existing budget and may require additional grants or revenue ²	Medium-high	Ongoing
PS-2.e - Provide Counseling to Troubled Youth.	Sheriff, H&HS, Probation	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-2.f - Seek Funding for and Create Community Restorative Justice Programs	Probation, Public Defender	Existing budget and may require additional grants or revenue ²	Medium	Long term
PS-2.g - Continue Mental Health Training for Law Enforcement Agencies.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-2.h - Promote Alternatives to Jail for Mental Health Offenders.	H&HS, Sheriff	Existing budget and may require additional grants or revenue ²	Medium-high	Ongoing
PS-3.a - Maintain Effective Communication Systems.	DPW, MERA	Existing budget, MERA bond	High	Immediate
PS-3.b - Maintain Adequate Response Resources.	All Departments	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PS-3.c - Distribute Public Information.	OES	Existing budget and may require additional grants or revenue ²	Low	Ongoing
PS-3.d - Conduct Disaster-Awareness Efforts.	OES	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PS-3.e - Promote Community Involvement.	OES	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-3.f - Promote Structural and Nonstructural Safety.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PS-3.g - Locate Emergency Services Facilities Appropriately.	CAO	Capital Projects Fund	High	Immediate



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Program	Responsibility	Potential Funding	Priority	Time Frame
PS-3.h - Promote Agency Emergency Planning.	OES	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-3.i - Site Public Structures Safely.	DPW, BOS	Will require additional grants or other revenue ²	High	Long term
PS-3.j - Develop Evacuation Plans.	OES, Local jurisdictions	Existing budget and may require additional grants or revenue ²	High	Immediate
PS-3.k - Ensure Seismic Design Regulations.	CDA, DPW	Existing budget and may require additional grants or revenue ²	High	Short
PS-4.a - Regulate Development Near Waste Sites.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
PS-4.b - Regulate Hazardous Material Use.	DPW	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-4.c - Restrict Transport.	Federal Department of Transportation, California Highway Patrol, CalTrans	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-4.d - Prepare for Hazardous Materials Incidents.	HazMat, JPA, DPW, OES	Existing budget, JPA contributions and may require additional grants or revenue ²	High	Ongoing
PS-4.e - Precautionary Principle.	All County Departments	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-4.f - Reduce Hazardous Materials on County Property.	DPW	Will require additional grants or other revenue ²	Medium	Long term
PS-4.g - Promote Ecologically Friendly Products.	BOS, CDA, DPW, other applicable departments	Existing budget and may require additional grants or revenue ²	High	Ongoing
PS-4.h - Hazardous Materials Education.	State, county and local jurisdictions	Will require additional grants or other revenue ²	Medium	Med. term



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Program	Responsibility	Potential Funding	Priority	Time Frame
PS-4.i - Hazardous Materials Disposal.	JPA, Novato Sanitary District	Will require additional grants or other revenue ²	Medium	Med. term



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Community Development Agency

4.7 Community Participation

Background

Community participation in public decision making is essential to good governance. Broad and informed participation creates healthy and just local government and community atmosphere. State and federal environmental justice laws and policies increasingly emphasize the need for full public participation in the decision-making process (see Section 4.10).

Ensuring public access to clear, timely, and appropriate information is an important first step in encouraging residents to participate in decisions that affect them. Meetings must be accessible to all interested persons, and the composition



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*“Everybody can be great.
Because anybody can serve.
You don’t have to have a
college degree to serve.
You don’t have to make your
subject and your verb agree
to serve. You don’t have to
know the second theory of
thermodynamics to serve.
You only need
a heart full of grace.
A soul generated by love.”*

– Martin Luther King

of each local decision-making body should be diverse enough to truly represent the community it serves.

Key Trends and Issues

Who is underrepresented in community dialogue?

Public forums for decision making have not typically offered information in languages other than English, nor have they always been held in places most convenient for people interested in a particular issue. Ethnic minorities, including recent immigrants, have not been represented on local advisory committees or decision-making bodies in proportion to their percentage of the overall population. Voices of frail older adults living alone or in institutions such as skilled-nursing facilities are often not heard at these forums, particularly seniors who are no longer able to drive.

What Are the Desired Outcomes?

GOAL CP-1



Broad and Diverse Participation. Incorporate all segments of the community in County planning efforts and local decision making.

Policies

CP-1.1 Provide Access for All. Take all feasible steps to ensure that everyone interested in participating in community forums has the materials necessary to contribute to informed decisions, as well as convenient access to meeting venues.

CP-1.2 Encourage Full Representation on Committees and Commissions. Encourage broad and diverse membership on County committees and commissions, and seek to include the underrepresented.

Why is this important?

While 72% of Marin residents reported voting in a local or statewide election during the past year, well above the national and state averages, older (91%) and longer-term residents (82%) are much more likely to vote than those ages 18 to 35 (52%), and newer residents (58%). Because community needs are best defined by the people who live and work there, increased participation is needed from sectors that are not as well represented.



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Environment: In Marin, plans and policies developed without widespread community involvement are more likely to result in environmental injustices and solutions that are not holistic.

Economy: Encouraging community stakeholder collaboration early in the process can facilitate decision making and lead to significant cost savings resulting from timely resolution of planning issues.

Equity: County actions will be more equitable and more likely to succeed if all segments of the community are included in the decision-making process. Widespread access to meeting venues and information in understandable formats can increase the community’s stake in and support for local decisions.

How will results be achieved?

Implementing Programs

CP-1.a *Inform and Engage the Community.* Employ a variety of techniques to inform and promote two-way communication with a broad and diverse range of the community about County decision-making meetings, including print, information technology, post, radio, and television.

CP-1.b *Ensure Convenience of Meetings.* Hold community meetings at locations and times convenient for community members desiring to provide input.

CP-1.c *Offer Translation Services.* Provide translation services upon request at Board of Supervisors and Planning Commission meetings, as well as at other appropriate government-sponsored community forums.

CP-1.d *Distribute Multilingual Materials.* Provide meeting notices and meeting materials in multiple languages, and publicize meetings in non-English media.

CP-1.e *Consider Providing Child Care at Meetings.* Evaluate the feasibility of providing child care upon request for members of the public wishing to attend Board of Supervisors and Planning Commission meetings, as well as at other appropriate government-sponsored community forums.

CP-1.f *Encourage Attendance by All Community Members.* Accommodate participation by youth, seniors, and persons with disabilities (including information for visually and auditorily impaired individuals) at Board of Supervisors, Planning Commission, and other County-sponsored meetings.



“You make a living by what you get, but you make a life by what you give.”

— Winston Churchill



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*“At all levels and in all realms,
people must have a say in the
decisions that affect their
lives.”*

– The Environmental Justice and
Climate Change Initiative

CP-1.g *Represent All Constituencies.* Reach out and recruit a wide range of community members for County committees and commissions, and work to achieve broad and diverse participation in rough proportion to the ethnic and gender makeup of Marin County.

CP-1.h *Encourage Turnover.* Modify County rules to encourage turnover of committee and commission members to increase representation of the communities they serve.



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Figure 4-13 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of this Section’s goal to the Guiding Principles.

Goal	Guiding Principles												
CP-1 Broad and Diverse Participation	•	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
										•		•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Voter turnout in general elections.	84.6% in 2000.	No decrease through 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-14
Community Participation Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
CP-1.a - Inform and Engage the Community.	All Applicable Departments	Existing budget and may require additional grants or revenue ²	High	Ongoing
CP-1.b - Ensure Convenience of Meetings.	All Applicable Departments	Existing budget	High	Ongoing
CP-1.c - Offer Translation Services.	All Applicable Departments	Will require additional grants or revenue ²	High	Ongoing
CP-1.d - Distribute Multilingual Materials.	All Applicable Departments	Existing budget and may require additional grants or revenue ²	High	Ongoing
CP-1.e - Consider Providing Child Care at Meetings.	All Applicable Departments	Will require additional grants or revenue ²	Medium	Ongoing
CP-1.f - Encourage Attendance by All Community Members.	All Applicable Departments	Existing budget and may require additional grants or revenue ²	High	Ongoing
CP-1.g - Represent All Constituencies.	All Applicable Departments	Existing budget and may require additional grants or revenue ²	High	Ongoing
CP-1.h - Encourage Turnover.	All Applicable Departments	Existing budget	Medium	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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4.8 Diversity

Background

Encouraging and celebrating diversity and cultivating a rich community fabric require supporting populations that have traditionally been underrepresented (Figure 4-15). Increased ethnic and cultural awareness, and understanding by the staffs of public agencies and nonprofit organizations, can do much to promote self-sufficiency and allow for leadership among minority groups.

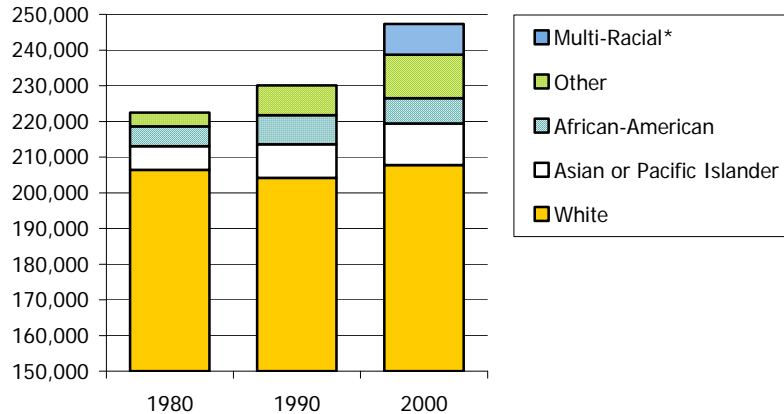
Cultural and economic vitality needs to be supported in neighborhoods with high proportions of minority residents. Specific needs of the recent-immigrant



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community, such as English as a Second Language classes and documentation assistance, should be met. This Section of the Countywide Plan seeks to ensure that people of all cultures, ethnicities, ages, genders, and sexual orientations feel welcome and integrated in Marin.

Figure 4-15 Racial Minority Populations in Marin



Source: 1980–2000 United States Census Bureau.
*Multi-Racial was added as a new category in the 2000 Census.

Key Trends and Issues

Is Marin really an integrated community?

Marin is growing in diversity, but community integration is not keeping pace. For example, parts of Novato, San Rafael, and Marin City house diverse communities, including a large proportion of the county’s Latino and African-American population, while many other communities are not nearly as heterogeneous. Some residents have expressed the belief that racial, ethnic, and cultural diversity are not adequately supported in Marin.

What Are the Desired Outcomes?

GOAL DIV-1



Celebrating Diversity. Support and enhance ethnic and cultural diversity.

Policies

DIV-1.1 Publicize Diversity. Celebrate and call attention to diversity through community dialogue, events, festivals, and public art installations.



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- DIV-1.2 Enhance Multilingual/Multicultural Capacity.** Provide County information in languages other than English, and offer services that are responsive to persons of diverse cultural and ethnic backgrounds.
- DIV-1.3 Promote Diversity in the Workforce.** Provide paid and volunteer job opportunities for people of diverse backgrounds, including economically, physically, and socially disadvantaged people.
- DIV-1.4 Promote Leadership in Minority Communities.** Encourage individuals from underrepresented minority groups to represent their communities, including by joining County staff, commissions, and boards.

Why is this important?

In 1990, 89% of the population was white, and 11% was African-American, Asian, Pacific Islander, or of other races. People of Latino origin (who may be of any racial group) composed 8% of the population. In 2000, the nonwhite population increased to 16% and the Latino population to 11%, while the white population decreased to 84%. Hate crimes decreased between 1998 and 2000, but were concentrated geographically in Novato (59 offenses), San Rafael (13), and the unincorporated areas of Marin (11).

Economy: Diversity in the workplace can extend economic benefits to the community by fostering a broad range of ideas and styles that resonate throughout the community.

Equity: Eighteen percent of housing complaints logged in Marin between 1999 and 2000 were based on race or ethnicity. A “Race Audit” conducted in 2000 concluded that an African-American person could encounter discrimination or difficulties when finding housing 47% of the time. Recognition and celebration of diversity as well as increased participation in decision making can increase equal opportunities in housing, education, and employment while improving quality of life.

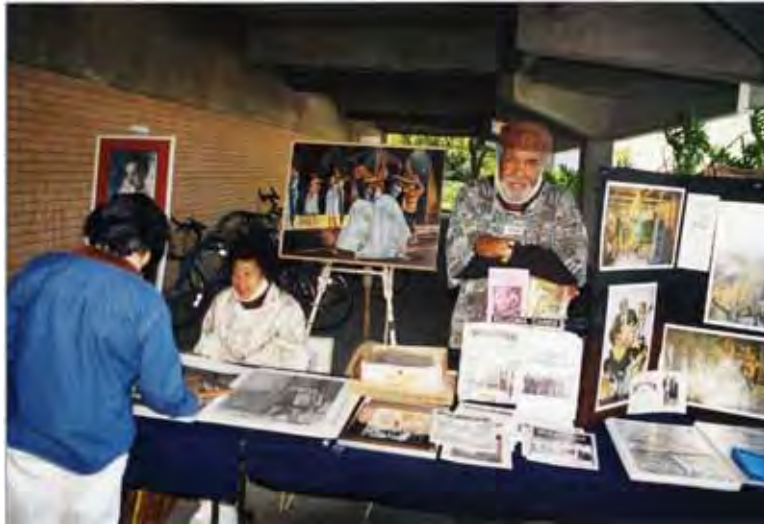
How will results be achieved?

Implementing Programs

- DIV-1.a Identify Spaces to Celebrate Diversity.** Locate public and private spaces, such as civic plazas and shopping malls, that may be used for cultural awareness activities, including festivals, art exhibitions, and poetry presentations.
- DIV-1.b Encourage Diversity-Oriented Organizations.** Support organizations that create art, organize events, and foster community dialogue about or promoting diversity.
- DIV-1.c Promote Diversity at Community Events.** Support community festivals that promote diversity, such as international day at the Marin County Fair.



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DIV-1.d *Encourage Advocacy Efforts by Local Groups.* Support the work of the Marin Human Rights Commission and other local diversity advocacy groups that focus on cultural diversity issues.

DIV-1.e *Promote Understanding in Schools.* Work with schools, colleges, and community groups and organizations, such as the Southern Poverty Law Center, to promote education about, and understanding of, various cultures and ethnic diversity.



“We must learn to live together as brothers, or perish together as fools.”

– Peter Schwartz

DIV-1.f *Publicize Diversity on the Internet.* Create a bulletin board on the County website where the community can advertise and discuss multicultural events.

DIV-1.g *Value Multilingual Skills.* Evaluate wages for multilingual County employees to ensure that they receive appropriate compensation.

DIV-1.h *Train Employees.* Expand efforts to make County services more culturally appropriate through the Cultural Competence Committee, including by expanding educational programs and training for County employees and officials.

DIV-1.i *Assist Recent Immigrants.* Provide access to programs, information, meeting space, and volunteer opportunities needed by recent immigrants, including English language instruction and work opportunities.

DIV-1.j *Ensure Equal Employment.* Support the efforts of the Marin County Affirmative Action Committee to achieve the goal of equal employment opportunity.



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- DIV-1.k** *Practice Fair Hiring.* Adhere to the Equal Employment Opportunity Policy/Affirmative Action Policy developed and adopted by the County.
- DIV-1.l** *Require Nondiscrimination by Contractors.* Ensure that agencies contracting with the County implement nondiscrimination policies and practices, and comply with the living wage ordinance.
- DIV-1.m** *Provide Volunteer Opportunities.* Offer volunteer positions to diverse populations through special programs in collaboration with community groups and the County Office of Education.



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Figure 4-16 Relationships of Goal to Guiding Principles

This figure illustrates the relationships of this Section’s goal to the Guiding Principles.

Goal	Guiding Principles											
DIV-1 Celebrating Diversity	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
								•	•	•	•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Diversity (age, gender, race, economic level) of County employees.	See Marin County Human Resources Department data.	Representation of employees from diverse backgrounds equals workforce availability as identified in the Equal Employment Opportunity Plan dated 2005-2010.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-17
Diversity Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
DIV-1.a – Identify Spaces to Celebrate Diversity.	Marin Center	Existing budget, Private Donations, and may require additional grants or revenue ²	High	Ongoing
DIV-1.b – Encourage Diversity Oriented Organizations.	Marin Center	Existing budget, Private Donations, and may require additional grants or revenue ²	High	Ongoing
DIV-1.c – Promote Diversity at Community Events.	Marin Center	Existing budget Donations	High	Ongoing
DIV-1.d – Encourage Advocacy Efforts by Local Groups.	BOS, HR	Existing budget	High	Ongoing
DIV-1.e – Promote Understanding in Schools.	County Office of Education, School District and CBO's	Existing budget and may require additional grants or revenue ²	High	Ongoing
DIV-1.f – Publicize Diversity on the Internet.	Marin Center and CBO's	Existing budget and may require additional grants or revenue ²	High	Ongoing
DIV-1.g – Value Multilingual Skills.	HR	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
DIV-1.h – Train Employees.	HR	Existing budget and may require additional grants or revenue ²	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
DIV-1.i - Assist Recent Immigrants.	Civic Center Volunteers	Existing budget	Medium	Ongoing
DIV-1.j - Ensure Equal Employment.	Human Resources, Equal Employment Division	Existing budget	High	Ongoing
DIV-1.k - Practice Fair Hiring.	Human Resources	Existing budget	High	Ongoing
DIV-1.l - Require Nondiscrimination by Contractors.	County Administrator's Office	Existing budget	High	Ongoing
DIV-1.m - Provide Volunteer Opportunities.	Civic Center Volunteers	Existing budget	Medium	Ongoing



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Marin County Department of Parks, Open Space, and Cultural Resources



4.9 Education

Background

Because educational institutions and programs are generally very successful in Marin, the Countywide Plan directs attention to policies and programs dealing with identified scholastic weaknesses in the county. In particular, this includes addressing educational inequities based on income, geography, and race. The need exists to expand after-school, adult, and other community-based educational programs, and to ensure that all students have access to nutritious meals at school.



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The responsibility to provide quality education involves a range of entities. Developers of new subdivisions have an obligation to dedicate land or pay fees for school purposes; school districts must provide sufficient classroom space and teaching personnel to meet State-mandated requirements; and the County, parents, and students can help shape school curriculum by participating in decision making at the school-district and State levels.



*“If you plan for a year,
plant rice. If you plan for
10 years, plant trees.
If you plan for 100 years,
educate your children.”*

– Chinese proverb

Key Trends and Issues

Which students are not receiving the full benefit of the education system?

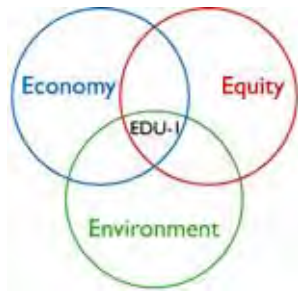
The high-quality education for which Marin is known is generally less accessible to students in rural areas, from lower income households, or in ethnic minority groups. Early education and extracurricular programs, counseling and other support services, and free or reduced-cost

school meals need to be made more widely available. Educational opportunities for recent immigrants in particular need improvement.

What Are the Desired Outcomes?

GOAL EDU-1

Adequate School Facilities. Ensure that adequate school¹ facilities are available to meet the needs of current and future Marin County residents.



Policy

EDU-1.1 Assist with School Planning. Coordinate with the school districts to determine appropriate locations and layouts for future facilities.

Why is this important?

Adequate school facilities are essential for providing a quality education for Marin students. Schools that are adequate and well designed promote a better learning environment.

Environment: While 70% of parents walked or biked to school, only 17% of their children do so today. Well-planned and properly located school facilities will ensure that education is readily accessible where students live, thus reducing gas emissions produced by school commutes.

Economy: College graduates are statistically more likely to have healthy children and to be involved with their children’s education both inside and outside of school. More than 90% of preschoolers

¹School refers to K-12 programs and institutions of higher education.



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whose mothers are college graduates are read to at least three times a week, compared with 76% of their counterparts whose mothers are high school graduates. A well-educated and healthy population will contribute to better-informed decision making, and will have productive and meaningful employment in the future.

Equity: In the San Rafael City Elementary and Sausalito Elementary schools, at least half of the students received free or reduced-cost meals, 50.0% and 56.1%, respectively, during the 2000–2001 school year. Providing sufficient classroom space, teaching equipment, and nutritious meals in enough locations to serve students equitably will help eliminate social inequities in schools and beyond, as students graduate, seek further education, and enter the workplace.

How will results be achieved?

Implementing Programs

- EDU-1.a** **Share Data.** Provide demographic data that schools and colleges can use in projecting facility needs.
- EDU-1.b** **Preserve Future Facilities Options.** Encourage school districts and colleges to lease facilities not currently needed for teaching to reserve those sites for future school needs; interim uses might include child care centers, recreation centers, community meeting places, private schools, offices, and art studios.
- EDU-1.c** **Consider Less-Populated Areas.** Work with school districts and colleges to ensure that quality and conveniently accessible education is available in all geographic areas of the county.
- EDU-1.d** **Monitor School Meal Programs.** Work with the schools to ensure that all students have affordable access to healthy meals, proper nutritional guidance, and alternatives to unhealthy and less nutritious food.

What Are the Desired Outcomes?

GOAL EDU-2

Ample Educational Opportunities. Ensure that all students in Marin have the best educational opportunities available.

Policies

- EDU-2.1** **Supplement Classroom Education.** Enhance preschool, school, and after-school educational programs.
- EDU-2.2** **Expand Adult Education.** Promote and enhance adult education, particularly for non-English speakers and for lower income individuals.





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EDU-2.3 Strengthen Library Programs. Support the ability of local libraries to provide expanded services to all persons.

EDU-2.4 Promote Climate Change Education. Assist in building understanding of sustainability and climate change issues in schools.



“Knowledge is the only kind of wealth that multiplies as you give it away.”

– Peter Schwartz

Why is this important?

Traditional classroom education alone cannot provide all of the educational skills and experience that students of all ages need and desire. Children who consistently participate in extracurricular activities are 70% more likely to attend college, 66% more likely to vote as young adults, and 50% more likely to volunteer.

Environment: Expanded educational opportunities may include training in environmental awareness addressing conservation and sustainable work and living practices, and other subjects that result in support for the environment.

Economy: Participation in extracurricular programs results in a broader range of knowledge and skills in students, which helps them to contribute more fully to the community workforce. A national study of 500 6th through 12th graders found that students who spent time in extracurricular activities were six times less likely to drop out of school, two times less likely to be arrested, and about 75% less likely to become involved in drug use. A young person who becomes a lifetime criminal costs society between \$1.4 million and \$1.7 million.

Equity: The Marin County Free Library system is expecting that visits to the library system will increase as the demographics of the county evolve. In particular, the number of visits from migrant and elderly populations is expected to grow. Additional educational programs can bring people of diverse backgrounds together in settings where mutual recognition and coordinated group efforts are often keys to individual success.

How will results be achieved?

Implementing Programs

EDU-2.a Promote After-School Programs. Work with school districts, community centers, and libraries to provide interesting and well-attended after-school educational activities.

EDU-2.b Enhance Literacy and English-Language Programs. Continue and expand the Marin Literacy program, and increase the number and capacity of English as a Second Language classes in the county.

EDU-2.c Offer Tutoring. Work with school districts to provide after-school tutoring opportunities, especially for children of lower income households.



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- EDU-2.d** *Include Sustainability and Diversity in School Curricula.* Encourage expansion of school and college curricula to include education about sustainability and diversity.
- EDU-2.e** *Support Access to Technology.* Promote placement and use of computers and other advanced educational tools in classrooms, libraries, and after-school settings, including for students who could not otherwise afford or gain access to such equipment.
- EDU-2.f** *Provide Summer Programs.* Support the expansion of summer camp opportunities and summer library programs, especially for children of lower income households.
- EDU-2.g** *Include Youth Input.* Work with the Marin County Youth Commission to review and make recommendations on scholastic policies that affect youth.
- EDU-2.h** *Encourage Financial Training.* Support the provision of free financial management education, especially for families with limited incomes.
- EDU-2.i** *Encourage Parent Education.* Support education for parents of youth through the Marin County Parent University.
- EDU-2.j** *Promote Volunteerism.* Engage older adults and youth as volunteers through Civic Center Volunteers in partnership with nonprofit organizations.
- EDU-2.k** *Prioritize Educational Opportunities for the Homeless.* Pursue scholarships and related programs to support homeless people in attending school, college, and training programs.
- EDU-2.l** *Support Library Services.* Promote, market, preserve, and expand library services and programs throughout Marin County in partnership with library support groups.
- EDU-2.m** *Improve Library Facilities.* Support the modernization and expansion of public library facilities as needed.
- EDU-2.n** *Enlist Volunteers to Supplement Programs.* Expand existing library programs, including after-school tutoring and/or homework help, by involving teen and adult volunteers from the Civic Center Volunteers Program.



“Education is for improving the lives of others and for leaving your community and world better than you found it.”

— Marian Wright Edelman, 2000



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- EDU-2.o** *Reach Out to Persons with Limited Access.* Provide appropriate library services, including homebound delivery, that make materials accessible to disabled individuals and seniors.
- EDU-2.p** *Encourage Climate Change Curricula.* Encourage nonprofits and school districts to develop curricula for increased understanding of sustainability and climate change issues by students.



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Figure 4-18 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
EDU-1 Adequate School Facilities	•			•			•			•	•	•
EDU-2 Ample Educational Opportunities	•									•	•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Level of educational attainment by ethnicity.	See Census dataset. ²	Level of educational attainment by ethnicity does not vary more than 30% by 2015, and 25% by 2020.
High school dropout rate by ethnicity.	3% or less variation by ethnicity in 2000.	Dropout rate does not vary more than 2% by 2015.
Number of items circulated annually by the 11 County-operated libraries per capita.	8.70 items in circulation per capita in 2000.	11 items per capita in 2010 and 11.5 items per capita in 2015.
Number of sessions on public-use computers at the 11 County-operated libraries.	177,578 sessions in 2003.	340,000 or more sessions in 2015, and 360,000 or more sessions in 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.

²Available through United States Census.



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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 4-19
Education Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
EDU-1.a - Share Data.	CDA, County Office of Education, School Districts	Existing budget	Medium	Ongoing
EDU-1.b - Preserve Future Facilities Options.	County Office of Education, School Districts	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EDU-1.c - Consider Less-Populated Areas.	County Office of Education	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EDU-1.d - Monitor School Meal Programs.	H&HS, County Office of Education	Existing budget and may require additional grants or revenue ²	High	Ongoing
EDU-2.a - Promote After-School Programs.	County Office of Education, School Districts, CBO's	Will require additional grants or revenue ²	Medium	Ongoing
EDU-2.b - Enhance Literacy and English-Language Programs.	Library & CBO's	Existing budget and may require additional grants or revenue ²	High	Ongoing
EDU-2.c - Offer Tutoring.	Civic Center Volunteers	Existing budget and may require additional grants or revenue ²	Medium	Short term
EDU-2.d - Include Sustainability and Diversity in School Curricula.	Environmental Education Council of Marin (EECOM), County Office of Education	Existing budget and may require additional grants or revenue ²	Medium	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
EDU-2.e - Support Access to Technology.	Office of Education	Existing budget and may require additional grants or revenue ²	High	Ongoing
EDU-2.f - Provide Summer Programs.	Municipal Park & Rec. Depts.	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EDU-2.g - Include Youth Input.	County Office of Education	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EDU-2.h - Encourage Financial Training.	CBO's (Marin Family Action)	Grants, other funding	High	Ongoing
EDU-2.i - Encourage Parent Education.	H&HS	Existing budget	Medium	Ongoing
EDU-2.j - Promote Volunteerism.	Civic Center Volunteers with CBO's (Volunteer Center)	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EDU-2.k - Prioritize Educational Opportunities for the Homeless.	H&HS	Will require additional grants or revenue ²	Medium	Long term
EDU-2.l - Support Library Services.	Library	Existing budget and may require additional grants or revenue ²	High	Ongoing
EDU-2.m - Improve Library Facilities.	Library	Will require additional grants or revenue ²	High	Long term
EDU-2.n - Enlist Volunteers to Supplement Programs.	Civic Center Volunteers	Existing budget	High	Ongoing
EDU-2.o - Reach Out to Persons with Limited Access.	Library	Existing budget and may require additional grants or revenue ²	High	Ongoing
EDU-2.p - Encourage Climate Change Curricula.	Marin Office of Education, CDA, and nonprofits	Existing budget and may require additional grants or revenue ²	Medium	Ongoing



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4.10 Environmental Justice

Background

Environmental justice is the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of criminal and environmental laws, regulations, and policies (California Government Code Section 65040.12). The Governor’s Office of Planning and Research coordinates environmental justice programs statewide, and the California Environmental Protection Agency establishes State environmental justice policies and standards.



The intent of environmental justice is to ensure that all persons are able to live in a safe and healthy environment. Identifying areas countywide where incompatible, intensive nonresidential uses are negatively impacting the quality of life is a critical step in combating environmental injustice. This Section of the Countywide Plan seeks to identify and eliminate environmental injustice in Marin. The Public Health Section of this Element contains policies and programs intended to reduce the overall volume and impact of toxic contaminants. The Public Safety Section of this Element contains policies and programs intended to foster safer communities.

“Environmental Justice means the fair treatment of people of all races, tribes and economic groups in the implementation and enforcement of environmental protection laws.”

– Redefining Progress, 2000

Key Trends and Issues

Are there areas in Marin that suffer from environmental injustice?

The 2001 Marin Community Health Survey results indicate that Marin residents experience sensitivities to environmental exposures. Allergies or sensitivities to chemicals were reported by 17% of adults, while 7% reported electromagnetic and radio frequency sensitivities. Women more often than men reported sensitivities to these exposures. Environmental sensitivities varied by annual household income, with 27% of lower income¹ individuals reporting chemical sensitivities versus 14% of higher income² individuals. Electromagnetic and radio frequency sensitivities were reported by 13% of lower income individuals, while 6% of higher income individuals reported sensitivities. Although local data is not currently available linking these sensitivities and adverse health outcomes, many County and community programs strive to ensure a safe and healthy environment for all individuals.

¹Under 200% of Federal Poverty Level.

²Over 300% of Federal Poverty Level.



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“The United States emits one quarter of the world’s gases that cause global warming.”

– U.S. Energy Information Administration, 2001

Is Marin County exporting environmental hazards?

Marin County has a relatively small number of businesses using or emitting hazardous material in large amounts. However, while Marin County is not home to businesses such as oil refineries or plastic manufacturers, most county residents and business owners use gasoline and plastics on a daily basis. These and other products used locally can impose health impacts on the communities where they are manufactured and where they are ultimately disposed of. This can also result in the export of environmental hazards to communities that may already be disproportionately impacted by toxins. In nearby Contra Costa County, for example, where

there are a number of oil-processing companies, 67,000 pounds of known carcinogens, 93,000 pounds of known developmental toxins, and 19,800 pounds of known reproductive toxins are released into the air annually.

What Are the Desired Outcomes?

GOAL EJ-1



Environmental Justice. Ensure that all persons in Marin live in a safe and healthy environment.

Policies

EJ-1.1 Identify and Target Impacted Areas. Use available measurement data to map locations with known toxins and other health-threatening pollutants.

EJ-1.2 Reduce the Effects of Toxins. Decrease the presence and impact of toxins, particularly in disproportionately impacted communities.

EJ-1.3 Avoid New Toxin Sources. Stringently evaluate the siting of facilities that might significantly increase pollution, especially near already disproportionately impacted communities.

EJ-1.4 Encourage County Participation in Decision Making. Significantly increase the role and influence in land use and environmental decisions of residents from disproportionately impacted communities.



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Why is this important?

In Bayview Hunters Point (Southeast San Francisco), 91% of the population is people of color and 30% earn less than \$15,000 per year. There are four times as many hazardous waste sites in Bayview Hunters Point as in any other part of San Francisco. Bayview Hunters Point is also home to a PG&E power plant, which generates some of the power used by Marin residents. Although Marin residents do not face any direct health impacts from the power plant, residents of Bayview Hunters Point may, as San Francisco Health Department figures indicate twice as many cervical cancer cases, twice as many breast cancer cases for African-American women under 50 years, and the highest rates of asthma hospitalization in California.

Environment: The United States is home to 4% of the world’s population but emits 20% of the carbon dioxide (CO₂) emissions that contribute to global climate change. In 2002, people in Marin consumed 133.9 million gallons of fuel, emitting 1.37 million tons of CO₂ into the air. The impact of Marin’s consumption is felt in places where fuel and other products are derived and processed and where Marin’s waste is exported.

Economy: US IKEA, a furniture producer with a store in the Bay Area, reduced energy demand through conservation and retrofitting, saving \$514,321 annually and avoiding an estimated 4.5 million pounds of CO₂ emissions. The hotel chain Scandic is saving \$1.4 million annually since 1996 by reducing energy and water costs while reducing annual CO₂ emissions by more than 10%. Businesses can benefit from relying on products and implementing business practices that do not expose workers and surrounding communities to toxins and the related negative health impacts.

Equity: In Marin, asthma rates for Latino children (13%) are higher than for white children (9.6%). Asthma rates for African-American adults (21.4%) are higher than for white adults (9.1%). Low income communities are less able to afford pesticide-free food, and children in low income families are more likely to be exposed to lead-based paint as well as toxins in the air, soil, and water.

How will results be achieved?

Implementing Programs

- EJ-1.a** *Investigate a Possible Nexus.* Compare locations with high levels of toxins and sites of businesses with Hazardous Waste Permits to census tract data on income and ethnicity to determine where any correlations may exist between toxins and disproportionately impacted communities.
- EJ-1.b** *Create a Brownfield Map.* Work with the Environmental Protection Agency and local jurisdictions to identify and create a map of brownfield sites in Marin County.



“People of color, indigenous peoples and workers bear a disproportionate health, social, and economic burden of a society addicted to a fossil fuel economy.”

– Dr. Robert Bullard



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EJ-1.c *Conduct Brownfield Education.* Provide education to elected officials and agency staff regarding the brownfield cleanup and development process and associated funding sources.

EJ-1.d *Support State Efforts.* Work with the State of California Environmental Protection Agency to establish appropriate mechanisms to identify and address environmental justice gaps in land use decisions.

EJ-1.e *Abate Toxins.* Where correlations are shown to exist between businesses with Hazardous Waste Permits and disproportionately impacted communities (Program EJ-1.a), take steps to abate the release of toxins into the environment by those businesses, including the following:

- ◆ create buffer zones around significant sources of risk; and
- ◆ relocate sources away from residential areas or sites with sensitive receptors, if feasible.

EJ-1.f *Coordinate Efforts to Reduce Exposure.* Encourage State and regional agencies and County staff to work with businesses, neighborhood groups, and schools to reduce toxic exposure in disproportionately impacted communities.

EJ-1.g *Deny Pollution-Source Proposals.* Amend the Development Code to incorporate the authority to withhold permits for new toxin sources.

Other CWP Goals Supporting Environmental Justice	
AIR - 1, 2, 3, 4	TR - 2, 3
AG - 1, 2, 3	PFS - 2, 3, 5
CD - 1, 2, 3	PS - 4
DES - 2	CP - 1
EN - 1, 2, 3	PH - 1, 3
MIN - 1	PK - 1

EJ-1.h *Require Pollution Analysis.* Amend the Development Code to require applications for new or modified facilities that may produce toxins to incorporate a pollution prevention analysis that includes:

- ◆ opportunities for replacing hazardous materials with substitute materials;
- ◆ prioritized selection of alternative materials (i.e., nontoxics are considered first, then the next-least-toxic material, etc.);
- ◆ clear justification for any proposal to use a material other than the least toxic available, based on a thorough analysis of all available alternatives;
- ◆ opportunities for using any hazardous material in a closed loop cycle.

EJ-1.i *Engage the Local Community.* Reach out to community members, leaders, and organizations, and environmental justice groups when considering land use actions that could affect local environmental and personal health.



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Figure 4-20 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of this Section’s goal to the Guiding Principles.

Goal	Guiding Principles																																		
EJ-1 Environmental Justice	•	1. Link equity, economy, and the environment locally, regionally, and globally.		•	2. Minimize the use of finite resources, and use all resources efficiently and effectively.		•	3. Reduce the use and minimize the release of hazardous materials.		•	4. Reduce greenhouse gas emissions that contribute to global warming.		•	5. Preserve our natural assets.			6. Protect our agricultural assets.			7. Provide efficient and effective transportation.		•	8. Supply housing affordable to the full range of our workforce and diverse community.		•	9. Foster businesses that create economic, environmental, and social benefits.			10. Educate and prepare our workforce and residents.		•	11. Cultivate ethnic, cultural, and socioeconomic diversity.		•	12. Support public health, public safety, and social justice.



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Amount of solid waste exported from Marin County annually.	34,594 tons in 2000.	No increase through 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-21
Environmental Justice Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
EJ-1.a - Investigate a Possible Nexus.	H&HS, CDA, CBO's	Existing budget, will require additional grants or revenue ²	Medium	Med. term
EJ-1.b - Create a Brownfield Map.	California DHS, CDA, Hazardous and Solid Waste JPA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EJ-1.c - Conduct Brownfield Education.	CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
EJ-1.d - Support State Efforts.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EJ-1.e - Abate Toxins.	California DHS, BAAQMD, CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
EJ-1.f - Coordinate Efforts to Reduce Exposure.	California DHS, BAAQMD, CDA, H&HS	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
EJ-1.g - Deny Pollution-Source Proposals.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
EJ-1.h - Require Pollution Analysis.	CDA	Existing budget	Medium	Med. term
EJ-1.i - Engage the Local Community.	CDA	Existing budget	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Healthy Marin Partnership Prevention Pavilion, Marin County Fair

4.11 Public Health

Background

Health is influenced by many factors outside the health care system. These factors, known as determinants of health, include social and physical environments, lifestyle, behavior, and genetics (see Figure 4-22). Successful efforts to address the determinants of health require a public health approach.

Public health focuses on the well-being of populations and communities, and on the principle that everyone is entitled to protection from the world's hazards and from unnecessary death and disability.¹

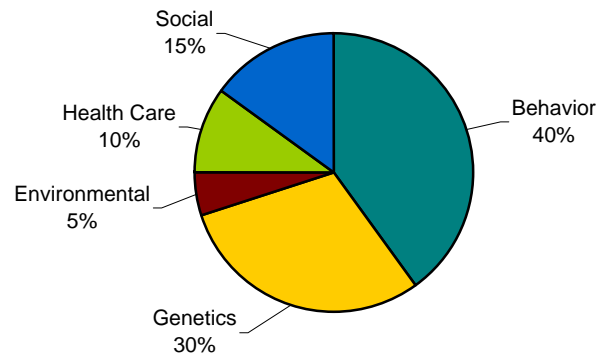
¹D. Beauchamp, *Public Health as Social Justice*.



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At its core, public health is about prevention and creating social, economic, and environmental conditions that support health. Promoting and protecting the health, safety, self-sufficiency, and well-being of a community requires a comprehensive, well-coordinated effort that employs multiple strategies and enlists many partners from the community. It is this combination of science, skills, and commitment directed to the maintenance and improvement of the health of all people through collective action that makes public health practices successful.

Figure 4-22 Determinants of Health, 2002 (for U.S. Population)



Source: *Health Affairs*, April 2002.

Policies, legislation, and organizational practices are powerful influences in shaping an individual's attitude. Therefore, strengthening someone's skills and knowledge alone may not be sufficient to prevent unhealthy, disease-causing behavior. Public health activities that focus exclusively on individual behavioral change isolated from broader community factors will have limited success. Any effort to improve the health of a community must be part of comprehensive efforts that include policies, programs, and organizational practices.

**Figure 4-23
Components for a Comprehensive Community Health Effort**

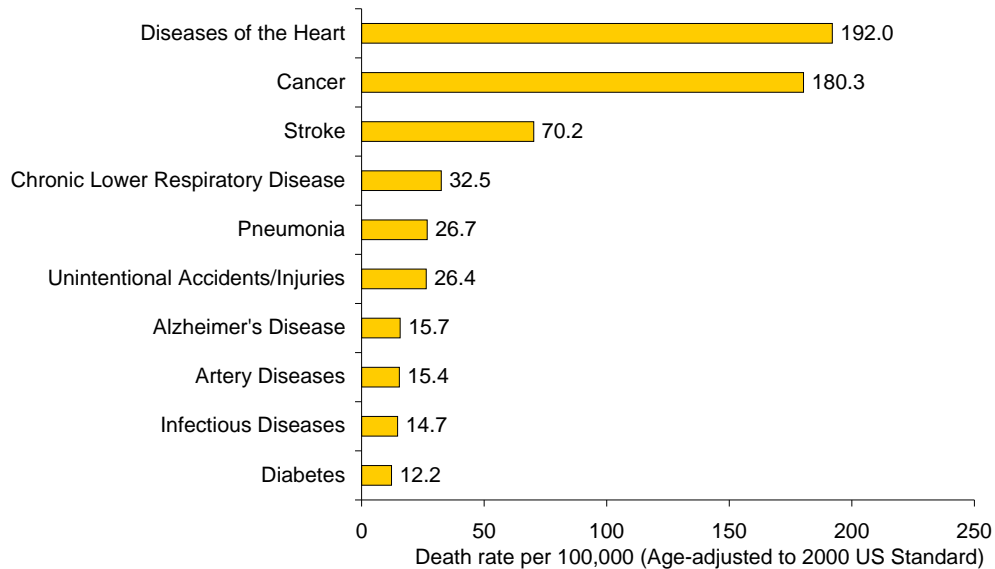
- ◆ Influencing policy and legislation
- ◆ Mobilizing neighborhoods and communities
- ◆ Changing organizational practices
- ◆ Fostering coalitions and networks
- ◆ Educating providers
- ◆ Promoting community education
- ◆ Strengthening individual knowledge and skills



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Since tobacco use, poor diet, lack of exercise, and alcohol consumption underlie the top 10 leading causes of death in Marin (see Figures 4-24 and 4-25), adopting healthy lifestyles that avoid such behaviors can prevent or reduce the devastating effects of chronic diseases such as heart disease, cancer, stroke, and diabetes.

Figure 4-24 Leading Causes of Death in Marin County, 2000^{1,2}



1. State of California, Department of Health Services Center for Health Statistics, *Death Statistical Master File, Marin County, 2000*.
2. State of California, Department of Finance, *2000 Population: 1997-2040 Population Projections by Age, Sex, and Race/Ethnic Detail, December 1998*.

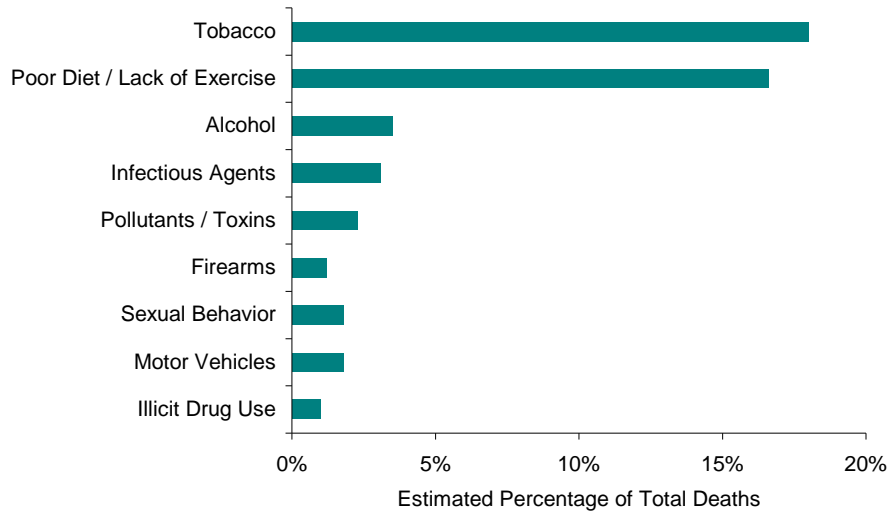
Local governments and their community partners are in a unique position to improve the public's health because of their capacity to establish public policies and educate the community, factors that are critical in influencing the conditions and norms that play a key role in chronic disease and death. For example, land use policies that restrict alcohol and tobacco outlet density have been associated with decreases in underage alcohol and tobacco use and reduced crime, including violence and DUI arrests.

Promoting and protecting the health, safety, self-sufficiency, and well-being of the Marin community requires controlling the availability, accessibility, acceptability, marketing, and promotion of tobacco, alcohol, food and nutrition options, and physical activity, while ensuring that affordable, appropriate, and quality services are accessible for all residents. Prevention efforts must be addressed in a comprehensive and coordinated manner, utilizing multiple strategies in multiple arenas and across populations, with a particular emphasis on low income and minority populations who face a higher prevalence of chronic conditions and increased health risk.



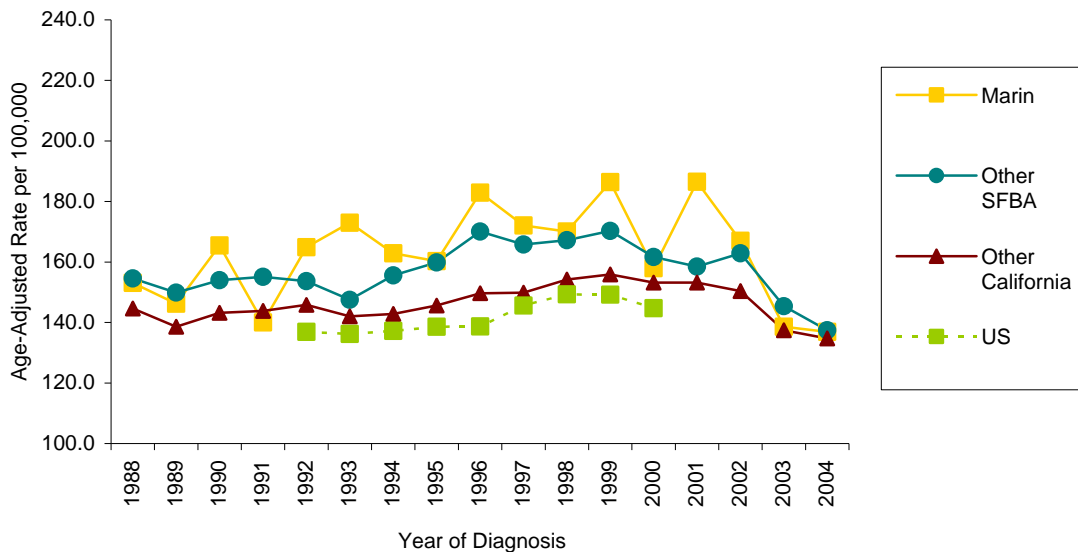
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Figure 4-25 Factors Underlying the Leading Causes of Death in the United States, 2000¹



¹Mokdad, A.H., Marks J.S., et al. *Actual Causes of Death in the United States 2000*. JAMA 2004; 291(10): 1238–1246.
 Note: Doesn't add up to 100% because list not exhaustive.

Figure 4-26 Breast Cancer Incidence Trends in Marin County¹



¹White non-Hispanic women, invasive cancers only.

Source: 2004 Northern California Cancer Center and California Cancer Registry.



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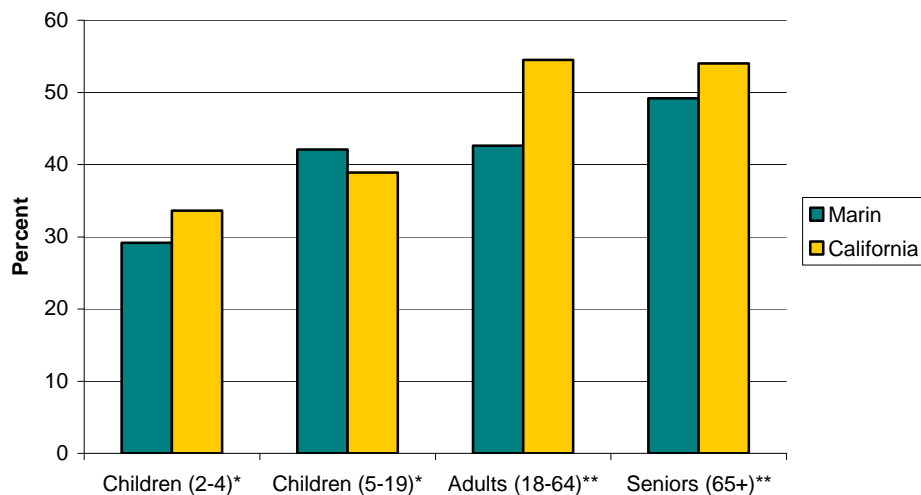
This Section of the Countywide Plan focuses on addressing the key determinants of health, namely the behavioral patterns that underlie the leading causes of death in Marin — alcohol consumption, tobacco use, poor diet, and lack of physical activity. Successfully influencing these behaviors requires a comprehensive approach that results in community norms and conditions that support individuals to make healthier choices. This Section will also address other determinants of health, including access to health care, and environmental factors, such as access to housing.

Key Trends and Issues

Are eating habits in Marin leading to obesity and other health problems?

Community Health Survey results indicated that Marin shares in the national obesity epidemic. The county is a long way from achieving the U.S. Healthy People 2010 goal of no more than 5% of children and adolescents being overweight and 15% of adults being obese (see Figure 4-27). Chronic diseases associated with obesity are also increasing. Factors contributing to obesity include poor eating habits, lack of physical activity, and school and community environments that make it difficult to access healthy foods and physical activity. For the senior population, concerns with obesity and unhealthy lifestyles are also alarming. The Marin Community Health Survey (2001) found that 50.7% of Marin adults over the age of 60 are overweight or obese, and only 34.7% of seniors eat five servings of fruits and vegetables daily. The survey also indicates that 17.2% of seniors 60 and older never get moderate physical activity.

Figure 4-27 Overweight Population in Marin



Data for Children 2–19 from 2002 Pediatric Nutrition Surveillance System. Data for those 18+ in California is from the California Health Interview Survey, and for Marin is Marin County Health Survey.

* Body Mass Index for age ≥ 85 th percentile based on 2000 Centers for Disease Control and Prevention growth chart percentiles.

** Body Mass Index ≥ 25 .

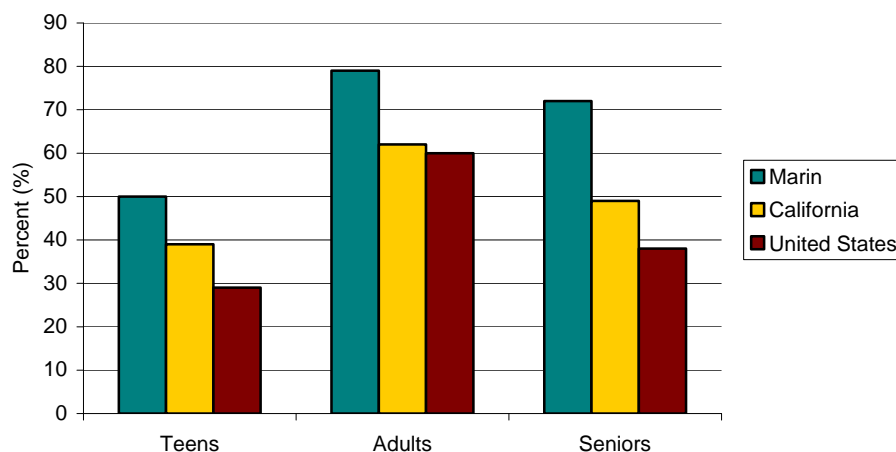


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Is alcohol consumption in Marin a major health issue?

The high rates of alcohol consumption among Marin teens, adults, and seniors merit serious concern. The California Healthy Kids Survey revealed that teenagers drink alcohol at levels that exceed both state and national averages for 30-day use and “binge drinking.” Alcohol use is associated with the top leading causes of death and injury among teens, including homicide, suicide, automobile crashes, fights, and alcohol-related sexual assault. In addition, pro-alcohol marketing and promotion influences, ease of youth access to alcohol, and high levels of alcohol consumption among adults all contribute to an environment saturated with permissive social norms around alcohol use and over-consumption. This issue is of particular concern among Marin’s senior population, as the California Health Interview Survey revealed that 72% of senior citizens reported drinking alcohol regularly and 6% reported drinking more than five drinks on any one occasion, exceeding state and national averages.

Figure 4-28 Alcohol — Use, Marin Teens, Adults, and Seniors



Sources: California Healthy Kids Survey (2005); California Student Survey (2005); Marin Community Health Survey (2005); California Health Interview Survey (2005); National Household Survey on Drug Abuse (2005).

Are young people in Marin still smoking?

Despite the success of the local and statewide tobacco control and prevention efforts, some Marin residents are still smoking. Local surveys, reports from school nurses and counselors, and statewide studies indicate that there is still progress to be made in the area of youth smoking. Aggressive tobacco industry marketing strategies have led to an increase in smoking among 18- to 24-year-olds (a 5% increase occurred in California between 1994 and 2000). Professional focus groups in Marin County in 2002 revealed increases in tobacco-marijuana blended products and marijuana smoking among youth.

The 15.3% of Marin adults who still smoke create secondhand smoke dangers for all residents, especially children. Children are most susceptible to problems associated with smoke, such as ear



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infections, eye irritation, congestion, asthma, throat irritation, pneumonia, bronchitis, and cancer. Exposure to secondhand smoke continues in cars, homes, building entrances, waiting lines, parks, bus stops, and other outdoor venues.

Do Marin residents have access to affordable, quality health care?

Affordability and availability are major issues. Persons from lower income families, especially children, are most likely to obtain care at emergency rooms and may not get needed preventive or ongoing health care, such as immunizations and vision and dental checks. Language and cultural barriers may also limit access to quality care. Even for families fortunate enough to have health insurance, lack of provider capacity can impede timely access to health services, particularly specialty and dental care. Twenty-three percent of Hispanic/Latino adults have no health care coverage, compared with 6.2% of Non-Hispanic White adults. Hispanics were significantly less likely to have health care coverage than any other ethnicity.

Approximately 3,300 Marin children currently lack health insurance and may have difficulty accessing health care, according to local data, including the Marin Community Health Survey, reports from School Nurses and School Linked Service caseworkers, data from the Child Health and Disability Program, as well as data compiled by Certified Applicant Assistors in the community. Of this number, approximately two-thirds are eligible for public insurance programs. This indicates a need for integrated and proactive outreach, enrollment, and retention efforts. The parents of these children often do not qualify for public health programs and cannot afford private health insurance. Also, according to the 2000 Marin Community Health Survey, 12.1% of Hispanic/Latino children have no health care coverage compared to 1.8% of Non-Hispanic White children, and 15.4% of children with household incomes under the Federal Poverty Level (FPL) had no health care coverage. Only 0.9% of children with household incomes 300% of the FPL had no health care coverage.

The quality of health care depends largely on health insurance. Coverage in Marin varies by age, income, and ethnicity (as reported in the 2001 Marin Community Health Survey). While more than 90% of Marin adults have health insurance, that number is less than 80% for persons 18 to 24. Only 64% of adults in low income households have health coverage. Only 76% of adults of Hispanic origin have health insurance. Although Medicare, and in some cases Medi-Cal, provide health care coverage for seniors, the Marin Community Health Survey found that 58% of Marin older adults 65 and older have no coverage for dental services, 38.8% have no coverage for mental health services, and 28.2% have no coverage for eye exams.

Are residential care housing and home care services for Marin's older adults affordable and available?

Home care for seniors needs to be more affordable and available. Growing older may mean increasing physical and mental impairments that can rob people of their independence. The Buck Institute for Age Research reported in its 1995 study *Health and Functioning in Marin* that one out of every four persons over the age of 85 had trouble bathing, while one in three had difficulty walking, and one in four over 75 needed assistance with at least one activity of daily living, such as shopping, housekeeping, and meal preparation. The aging of the population is placing pressure on the health care system and the provision of emergency medical services. Many older adults need treatment for discomfort or pain, and



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about one-third of county seniors experience some kind of disability. As demand and costs rise for in-home services and assisted living, spouses and families of seniors increasingly must serve as caregivers.

There is a shortage of residential care housing for low income seniors and people with special needs. Marin has only approximately 1,000 low income independent housing units with long wait lists for occupancy, while almost one in two county residents over 75 (about 8,000 persons) meets the very low income criteria set by HUD (less than \$40,000/year). While 79% of persons age 60 and older are homeowners in the county, some are struggling to maintain their homes and stay in them as long as possible. Many of the approximately 13,000 seniors who rent would qualify for affordable senior housing if more units were available.

What Are the Desired Outcomes?

GOAL PH-1



Reduced Rates of Obesity, Eating Disorders, and Chronic Disease Such as Heart Disease and Breast Cancer. Improve individual and community health through prevention, screening, education, and treatment strategies regarding nutrition and physical activity related health issues.

Policies

PH-1.1 Promote Nutrition Education and Access to Healthy Foods. Provide affordable healthy foods, and fresh, locally grown fruits and vegetables in schools and other public places.

- PH-1.2 Promote Physical Activity.** Increase opportunities for and interest in safe and pleasant physical activity.
- PH-1.3 Promote Healthy Environments.** Provide school and community environments and policies that foster healthy lifestyles and behavior.
- PH-1.4 Develop Disease Prevention and Management Programs.** Create collaborative community-based chronic disease screening, prevention, and management programs.

Why is this important?

Fifty-eight percent of adult men, 49% of seniors, 38% of boys, and 30% of girls between the ages of 2 and 17 are overweight or obese. Poor nutritional habits and lack of physical activity can lead to obesity, beginning the causal pathway of many chronic disease disorders such as diabetes, osteoporosis, heart disease, and hypertension; lack of cognitive development in children; and, in extreme cases, eating disorders and death.

Environment: Land use policies that protect and foster sustainable agricultural practices, diverse local food production, and local marketing support a physically healthy community.



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Healthy Marin Partnership Prevention Pavilion, Marin County Fair

Economy: Nationally, the public pays about \$39 billion a year, the equivalent of \$175 per person, for Medicare and Medicaid expenses that are obesity related (i.e., Type II diabetes, cardiovascular disease, and some types of cancer). Chronic disease disorders burden the economy with very high health care costs, are associated with both mental and physical failure, and result in a less productive workforce.

Equity: Inactivity and poor diet are beginning to approach tobacco use as the leading causes of death for Americans. Media and marketing practices aimed at promoting unhealthy foods and beverages, while idealizing certain body types, promote disordered eating behaviors. Across the country, 200 school districts have signed exclusive contracts with soft-drink companies to sell their beverages in schools. Policies that promote healthy eating and physical activity are therefore vital to health and social well-being. Adequate access to healthy foods and physical activity promotes healthfulness in children and families, and better academic performance in schools, and helps to prevent sickness and chronic disease for all residents.

How will results be achieved?

Implementing Programs

PH-1.a *Implement Policies That Promote Healthy Eating and Physical Activity.* Advocate and support policies that do the following: encourage sound nutrition, physical activity, and education programs in all schools, senior centers, and community-based organizations; work with local vendors and agricultural forums to develop access to and availability of affordable, quality, locally grown foods for schools and the community, especially for individuals with limited income or at risk of disease; promote organizational policies around providing healthy food options at meetings, in vending machines, and food concessions, and providing opportunities to engage in physical activity; support land



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use policies, zoning, and conditional use permit regulations to control the location and density of food and physical activity choices, including sidewalks, safe routes to schools, parks, gardens, etc., to promote healthier communities; advocate and support policies that restrict the availability, accessibility, placement, and promotion of low-nutrient-dense foods.

- PH-1.b** *Increase Access to Healthy Foods/Beverages.* Support neighborhood-oriented, specific sources of healthful foods, such as farmers' markets and local outlets. Support food banks, pantries, and other sources that help provide federal food assistance to low income residents so that all families, seniors, schools, and community-based organizations are able to access, purchase, and increase intake of fresh fruits, vegetables, and other nutritious foods.
- PH-1.c** *Collaborate on Breast Cancer Research.* Continue communications between the Buck Institute, Health and Human Services, and other interested organizations on the epidemiology of breast cancer and relevant research on the biology of breast cancer.
- PH-1.d** *Improve Access to Early Prevention – Screening and Treatment.* Promote reimbursement for and mobilize physicians, registered dietitians, and other qualified health care workers to screen and treat behaviors that may lead to obesity and/or eating disorders, breast cancer, and other preventable diseases. Make public education, social marketing, and media campaigns about the prevention and treatment of obesity and disordered eating a countywide priority. Continue public education regarding the risk factors for and early identification of breast cancer.
- PH-1.e** *Support School and Community Physical Fitness and Nutrition Education Programs.* Develop and sustain the Marin Nutrition Wellness and Physical Activity Collaborative, comprising schools, community groups, and organizations that can help implement and support school- and community-based nutrition and physical fitness programs and policies. Develop a strategic plan around funding and support for sustainable programs.
- PH-1.f** *Provide Reliable Information, Training, and Technical Assistance.* Support schools, senior centers, and community organizations in efforts to develop and implement nutrition and physical education standards and policies.

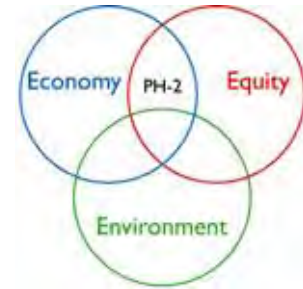


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What Are the Desired Outcomes?

GOAL PH-2

Communities Free of Tobacco and Alcohol Dependency, and Other Drug Abuse Problems. Reduce alcohol, tobacco, and other drug use by creating a social and physical environment that supports healthy choices, ensuring access to treatment services and enforcing existing regulations.



Policies

- PH-2.1 Adopt and Enforce Tobacco Control Laws.** Continue updating and enforcing tobacco control laws that pertain to location and retailing practices of tobacco stores (that sell to underage youth), smoking restrictions, and smoke-free home and workplace laws.
- PH-2.2 Reduce Youth Access to Alcohol.** Make alcohol less available, accessible, and acceptable to youth, and restrict promotion and placement of alcohol targeted at youth through updating and enforcing underage drinking laws, especially those that pertain to retail establishments and social settings.
- PH-2.3 Raise Awareness of Alcohol and Other Drug Issues.** Reduce positive associations and increase perceptions of harm among youth by changing social norms through supporting a comprehensive, evidence-based prevention approach that includes media, enforcement, education, and policy.
- PH-2.4 Expand Evidence-Based Prevention and Treatment Programs.** Ensure that alcohol and substance abuse prevention and treatment programs utilize best available practices.
- PH-2.5 Increase Tobacco Cessation Services.** Ensure that smoking cessation services are available to Marin residents.
- PH-2.6 Improve Access to Treatment Services.** Ensure that Marin residents have access to affordable, high-quality, culturally relevant, linguistically, geographically, and age-appropriate treatment services that reflect the needs of the population and drug abuse trends.



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Why is this important?

In 1998, the cost of drug abuse in the United States was \$143.4 billion. Comprehensive and effective prevention and treatment services can help ensure significant cost savings to society. Residents of Marin County are impacted by the health and social problems associated with alcohol and other drugs.



“Heightened smog levels trigger asthma attacks and pose health threats to children and the elderly in particular.”

—Natural Resources Defense Council, 2004

Economy: In California, currently the estimated cost of alcohol and other drug abuse to society is \$35 billion annually. This estimate only includes costs associated with loss of productivity, losses due to crime, health care costs, prevention and treatment services, and criminal justice costs. Reducing the health care burden from tobacco, alcohol, and substance use will increase the overall health of the community.

Equity: In 2002, the estimated number of persons ages 12 or older needing treatment for an illicit drug problem was 7.7 million in the United States. Locally, the disproportionately high rates of substance use and the general social acceptability of alcohol manifest themselves

in juvenile arrests, hospital discharges, and death rates above the state average. Smoking often leads to chronic diseases including lung, breast, and other forms of cancer, as well as to cardiovascular diseases such as stroke and heart attacks. Secondhand smoke contributes to pediatric diseases and hospitalizations, asthma, sudden infant death syndrome, and adult respiratory and cardiovascular diseases.

How will results be achieved?

Implementing Programs

- PH-2.a** ***Support Alcohol Policy Development.*** Promote policies that restrict the availability, accessibility, promotion, and placement of alcohol in proximity to youth. Collaborate with local law enforcement agencies, community coalitions, and Health and Human Services to consider adopting land use and alcohol policies, such as Social Host ordinances, conditional use permit ordinances, or related approved ordinances.
- PH-2.b** ***Encourage Enforcement of Alcohol Laws.*** Coordinate and collaborate with local law enforcement to conduct merchant education and compliance checks of establishments licensed with Alcohol Beverage Control.
- PH-2.c** ***Conduct Media Activities.*** Provide regular submissions to local radio, print, and televised media highlighting significant issues and trends related to alcohol and other drug use, as well as available prevention and treatment services.
- PH-2.d** ***Implement Responsible Beverage Service Programs.*** Form a local coalition of youth, parents, health advocates, the business community, law enforcement, and interested



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community members to establish and advocate for **Responsible Beverage Service** programs and policies, and train event hosts and establishments licensed with Alcohol Beverage Control in responsible sales and service practices.

- PH-2.e** *Provide Training and Technical Assistance.* Increase the capacity of service providers and other community partners by providing regular and ongoing training and technical assistance in areas including, but not limited to, the following: best practices for alcohol and other drug prevention and treatment, problem identification and referral, dual diagnosis, working with diverse populations, media advocacy, program evaluation, trends in alcohol and other drug use, and policy advocacy.
- PH-2.f** *Develop and Maintain Community Partnerships.* Participate in and support collaborative relationships that address relevant and related public health issues and are inclusive of nontraditional partners.
- PH-2.g** *Provide Tobacco Education.* Support public education programs regarding the hazards of tobacco use and secondhand smoke through media and educational events, and by encouraging incorporation of cessation and prevention programs into the protocols of community-based organizations.
- PH-2.h** *Enhance Youth Tobacco Prevention Programs.* Increase school- and college-based prevention programs to discourage tobacco addiction among youth and 18- to 24-year-olds, the fastest-growing group of smokers in California.



- PH-2.i** *Provide Smoking Cessation Programs.* Support efforts to provide residents with access to smoking treatment programs at hospitals and clinics, and through substance abuse treatment providers' community-based organizations, schools, colleges, and employers.



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- PH-2.j** ***Enforce Tobacco Control Laws.*** Maintain and enhance the partnership between local law enforcement and the County Environmental Health and Health and Human Services Tobacco Education Program to enforce regulations pertaining to smoking and selling tobacco to minors.
- PH-2.k** ***Seek Funding for Substance Abuse Prevention.*** Maintain a continuum of care and expand services using available funding sources to address prevention and treatment gaps.
- PH-2.l** ***Conduct Regular and Ongoing Evaluations.*** Perform program monitoring and evaluation to assess substance abuse prevention program performance, effectiveness, and alignment with desired outcomes.

What Are the Desired Outcomes?

GOAL PH-3



Adequate Access to Quality Health Care. Ensure that all community members have affordable and convenient access to a full range of primary, preventive, and specialty health care, including mental health, vision, and dental care.

Policies

- PH-3.1 Increase Provider Capacity.** Ensure that additional health care services are provided in a way that is culturally sensitive and linguistically appropriate for the diverse communities of Marin.
- PH-3.2 Increase Health Insurance Options.** Enhance funding for health insurance products for children and adults not eligible for publicly funded health programs, including support for state and national single payer systems.
- PH-3.3 Enhance Access to Public Benefit Programs.** Create integrated access to all health and public benefit programs in the community.
- PH-3.4 Increase Awareness of Preventive Health Care.** Promote and support cross-cultural education and awareness of the importance of a regular health care provider and preventive health care.
- PH-3.5 Enhance Access to Mental Health Programs.** Ensure a full range of mental health services — from outpatient to acute care — for the mentally ill.

Why is this important?

In 2001, there were 8,752 medical emergency illnesses in Marin. When routine preventive health care is inaccessible due to either lack of insurance or lack of provider capacity, care is given in the highest-



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cost setting. Adequate health care and insurance are essential to the overall vitality of the community because the high social and economic costs to society of incomplete care and coverage are tremendous.

Economy: Health insurance coverage reduces the probability that workers will change jobs by 26% to 31%. Providing full coverage can decrease health related absenteeism of employees by an average of 9%. Adequate access to health care reduces costs to the community by avoiding unnecessary hospitalizations and emergency room visits, and minimizes use of high-cost services such as skilled nursing home and in-home support services.

Equity: The poverty rate is steadily increasing in Marin despite a decrease in California and the nation. When residents cannot pay for health insurance coverage, they must choose between receiving no care or paying a higher cost during a medical emergency. Access to quality health care promotes good health in children from birth, supports learning in school-age children, and prevents unnecessary sickness, disability, and death for all residents.

How will results be achieved?

Implementing Programs

- PH-3.a** *Foster Collaboration.* Facilitate collaborative partnerships between County Health and Human Services, medical professionals, community-based agencies, and service providers, schools, and local funding agencies.
- PH-3.b** *Support Health Educational Opportunities.* Support and encourage training and educational opportunities in the health professions to meet the needs of an increasingly diverse population.
- PH-3.c** *Improve Access to Health Care.* Improve access to health care for underserved populations by expanding the children's health initiative; transitioning that initiative as feasible to include other underserved populations; developing a one-stop electronic application process that can be used to enroll clients in health insurance and other public benefit programs; and supporting State and national proposals for a single payer system.
- PH-3.d** *Improve Service Delivery and Utilization.* Develop proactive outreach and enrollment programs for insurance benefits; integrate case management services with primary medical care; support electronic medical record portability to improve utilization and quality of services; promote preventive care; and ensure insurance retention.
- PH-3.e** *Support Disease Prevention Education Programs.* Promote chronic disease self-management education, and support prevention programs, including prenatal services, tailored to the social and cultural perspectives of a diverse population.
- PH-3.f** *Employ a Precautionary Approach.* To guide disease prevention efforts in the county, utilize the Precautionary Principle, which calls for taking precautionary measures when an activity may threaten human health.

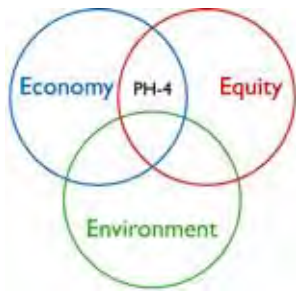


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PH-3.g *Support Mental Health Programs.* Encourage adequate funding to provide a full range of mental health treatment programs, support services, and psychiatric beds for the mentally ill, particularly for the severely and emotionally disturbed.

What Are the Desired Outcomes?

GOAL PH-4



Increase Access to Care and Services for Seniors Who Reside in Their Own Homes and Residents of Affordable Housing. Improve access to health care for individuals and groups that traditionally have difficulty obtaining adequate care and appropriate housing.

Policies

PH-4.1 Enhance Low income Independent Housing for Seniors. Continue to develop and expand senior housing services, such as the Division of Aging’s demonstration program, Healthy Mackey Terrace, at the Environmental Association for Housing’s (EAH) senior apartment complex in Novato.

PH-4.2 Improve Linkage Between Housing and Services. Advocate for improved linkages between housing providers and the County Health and Human Services Department.

PH-4.3 Expand Access to Private Home Care. Ensure that seniors and persons with special housing needs obtain adequate, affordable, in-home health care services.

PH-4.4 Promote Care for Seniors and Lower income Households. Encourage expansion of in-home care, assisted-living opportunities, and services to Healthy Families and Medi-Cal patients.

PH-4.5 Provide Opportunities to “Age in Place.” Provide increased opportunities for seniors and persons with disabilities to remain in their homes and communities.

PH-4.6 Plan for Climate Change. Plan for the public health implications of climate change, including disease and temperature effects.

Why is this important?

Adequate and affordable health care for everyone is essential to the functioning and health of the entire community. Increasingly, older adults are forced to leave the county to find affordable housing that includes appropriate care, and people with lower incomes or special needs encounter difficulty obtaining and paying for medical services and finding appropriate housing. Quality home care can make the difference between whether a person stays in his or her own home or whether he or she must move to a more restrictive housing environment, such as an assisted-living facility or a nursing home.



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Without adequate and affordable home care, increasing numbers of older persons will have to be institutionalized at much greater societal and personal cost.

Economy: The lack of affordable assisted living in Marin leaves older persons living in affordable senior housing complexes without adequate support and with no choice but nursing home care as they age and need more services. Rent for self-sufficient seniors at one of Marin County’s retirement residences costs an average of \$3,207 per month. Assisted-living facilities that provide protective oversight cost an average of \$3,689 per month or \$44,268 per year. Convalescent or nursing homes that provide full medical support can cost an average of \$54,000 a year. In contrast, home and community care with minimal supervision is more cost effective at only \$5,820 per year.

Equity: There is little to no affordable assisted living in Marin County. Prices for retirement residences and assisted-living facilities on average cost over \$3,000 a month. For the over 1,000 low income older persons living in senior housing in Marin, nursing home care may be the only choice when they need more assistance. Providing low-cost preventive services in senior housing complexes is more cost effective. It also supports an individual’s right to live as independently as possible.



How Will Results be Achieved?

Implementing Programs

- PH-4.a** *Co-locate Adult Day Health Care with Senior Housing.* Encourage efforts by EAH and Senior Access or others to develop new senior housing with on-site health care services.
- PH-4.b** *Improve Service Linkages.* Explore the financial feasibility of providing all residents in low income housing with access to a Service Coordinator.
- PH-4.c** *xpand Senior Services.* Amend the Development Code to allow senior day care services as a permitted use in residential zones, and use inclusionary housing requirements to develop a fund for services in existing low income housing.

Universal design promotes usability by all persons through features like the following:

- ◆ Entrances to homes without steps
- ◆ Hallways and doors that comfortably accommodate strollers and wheelchairs
- ◆ Lever door handles and doors of the appropriate weight
- ◆ Electrical outlets that can be accessed without having to move furniture
- ◆ Rocker-action light switches to aid people with a loss of finger dexterity
- ◆ Showers that can accommodate a wheelchair, and that have adjustable shower heads to accommodate people of different heights
- ◆ Kitchens with varying counter heights



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- PH-4.d** *Advocate for Affordable Assisted Living.* Advocate for level of care reimbursement methodologies to increase affordable assisted living, including for persons with mental illness.
- PH-4.e** *Improve Balance of Community and Institutional Care.* Seek a Home and Community-Based Services waiver to redress any inappropriate balance of community versus institutional care.
- PH-4.f** *Expand Affordable Housing for Seniors and People with Special Needs.* Advocate for the development of shared housing and other strategies and encourage universal design as an operating principle for housing providers, CDBG, and the Marin Community Foundation.
- PH-4.g** *Develop Models for Shared In-Home Supportive Services.* Explore options for in-home support services such as clustering provision times within a senior or disabled residence, and simplify approval procedures for shared services consumers.
- PH-4.h** *Expand Home Care Registry.* Maintain and expand the home care registry in Marin.
- PH-4.i** *Expand Home Care Services.* Pursue funding to subsidized home care for low income seniors, support wage increases, and offer training opportunities for home care workers, create an On-Call Emergency Home Care Back-Up System, and develop an assisted-management home care model.
- PH-4.j** *Lobby for Increased Medi-Cal Options.* Advocate for waivers to allow Medi-Cal payments for home- and community-based services.
- PH-4.k** *Provide Prescription Drug Assistance.* Continue Adult Social Service referrals for seniors to access resources for low-cost prescriptions via the intake information referral unit.
- PH-4.l** *Promote Universal Building Designs.* Encourage universal building design techniques that enable seniors and persons with disabilities to remain in their homes by implementing the recommendations within the Marin County Single Family Residential Design Guidelines and considering additional requirements when updating the Development Code.
- PH-4.m** *Identify Potential Responses to Climate Change.* Work with the Intergovernmental Panel on Climate Change (IPCC) and other leading health organizations to identify critical public health issues and identify potential responses necessary related to climate change.



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Figure 4-29
Countywide Plan Policies and Programs Related to the Senior Population

Section	Policy/Program Number	Description
2.6	Agriculture and Food	
	Program AG-2.n	Increase Access to Local, Quality Food for All
2.9	Trails	
	Program TRL-1.b	Develop Designation Criteria
	Policy TRL-2.5	Provide Access for Seniors and Persons with Special Needs
	Program TRL-2.i	Evaluate Existing Trails for Seniors and Disabled Access
	Program TRL-2.j	Distribute Information about Seniors and Disabled Access
3.4	Community Development	
	Policy CD-2.1	Provide a Mix of Housing
	Program CD-2.a	Increase the Affordable Housing Supply
	Program CD-2.b	Provide a Variety of Housing Types and Prices
	Program CD-2.c	Enact Zoning Changes
	Program CD-2.d	Identify and Plan Mixed-Use Sites
3.5	Community Design	
	Program DES-2.b	Universal Design
3.7	Environmental Hazards	
	Policy EH-2.3	Ensure Safety of High-Occupancy Structures
3.8	Housing	
	Program HS-2.d	Assist in Maximizing Use of Rehabilitation Programs
	Policy HS-3.10	Encourage Home Sharing
	Program HS-3.e	Modify Multi-Family Sites Zoning
	Program HS-3.f	Seek Increased Multi-Family Housing Opportunities
	Program HS-3.h	Encourage Co-housing, Cooperatives, and Similar Collaborative Housing
	Policy HS-3.28	Legalize Existing Second Units
	Policy HS-4.1	Cater to Special Needs Groups
	Program HS-4.c	Coordinate Efforts in the Effective Use of Available Rental Assistance Programs
	Policy HS-4.2	Provide Affordable Housing for Special Needs Households
	Policy HS-4.3	Offer Density Bonuses for Special Needs Households
	Policy HS-4.8	Link Health and Human Services Programs
	Policy HS-4.9	Provide Emergency Housing Assistance
3.9	Transportation	
	Program TR-2.b	Countdown Crossing
3.13	St. Vincent's/Silveira	
	Policy SV-2.3	Land Use Designations/Desired Outcomes
4.4	Economy	
	Program EC-2.b	Encourage Employment
4.7	Community Participation	
	Program CP-1.g	Encourage Attendance by All Community Members



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Section	Policy/Program Number	Description
4.9	Education	
	Program EDU-2.m	Reach Out to Persons with Limited Access
4.11	Public Health	
	Program PH-1.a	Implement Policies That Promote Healthy Eating and Physical Activity
	Program PH-1.c	Collaborate on Breast Cancer Research
	Program PH-1.d	Improve Access to Early Prevention-Screening and Treatment
	Program PH-1.e	Support School and Community Physical Fitness and Nutrition Programs
	Program PH-1.f	Provide Reliable Information, Training, and Technical Assistance
	Program PH-3.c	Streamline the Application Process
	Program PH-3.d	Improve Service Delivery and Utilization
	Policy PH-4.1	Enhance Low income Independent Housing for Seniors
	Policy PH-4.3	Expand Access to Private Home Care
	Program PH-4.a	Co-locate Adult Day Health Care with Senior Housing
	Program PH-4.b	Improve Service Linkages
	Program PH-4.c	Expand Senior Services
	Program PH-4.f	Expand Affordable Housing for Seniors and People with Special Needs
	Program PH-4.g	Develop Models for Shared In-Home Supportive Services
	Program PH-4.h	Expand Home Care Registry
	Program PH-4.i	Expand Home Care Services
4.12	Arts and Culture	
	Program ART-2.d	Encourage Arts Programs for Special Needs Groups
4.14	Parks and Recreation	
	Program PK-1.j	Meet Special Group Needs



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Figure 4-30 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
PH-1 Reduced Rates of Obesity, Eating Disorders, and Chronic Disease Such as Heart Disease and Breast Cancer												•
PH-2 Communities Free of Tobacco and Alcohol Dependency, and Other Drug Abuse Problems												•
PH-3 Adequate Access to Quality Health Care							•					•
PH-4 Increase Access to Care and Services for Seniors Who Reside in Their Own Homes and Residents of Affordable Housing							•	•				•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Percent of insured county residents.	92% in 2001.	No decrease by 2020.
Percent of insured County employees.	100% in 2000.	No decrease through 2020.
Percent of Medi-Cal users.	56% in 2000.	Achieve 60% users (out of eligible population) in 2015 and 65% in 2020.
Numbers of children/youth insured annually through Medi-Cal and Healthy Families.	5,235 in 2000.	Increase the number of children insured through 2020.
Number of servings of fruits and vegetables consumed daily by children.	53% of children ate five or more servings of fruit and vegetables in the day prior to the survey.	Percentage of children eating 5 or more servings of fruit and vegetables per day increases 10% by 2020.
Amount of time children in grade 11 spend engaged in physical activity.	53% of children exercised at least 20 minutes on at least 3 days per week in 2002.	Amount of time spent in physical activity by children-grade 11 increases by 10% in 2020.
Percent of population overweight and obese by age and gender.	See H&HS dataset.	Obesity decreases 10% by 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-31
Public Health Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
PH-1.a - Implement Policies That Promote Healthy Eating and Physical Activity.	H&HS, Schools; Community Partners	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-1.b - Increase Access to Healthy Foods/Beverages.	H&HS, Agriculture Commissioner, Farm Advisor	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-1.c - Collaborate on Breast Cancer Research.	H&HS, CBO's	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-1.d - Improve Access to Early Prevention-Screening and Treatment.	H&HS, Community Partners	Existing budget	High	Ongoing
PH-1.e - Support School and Community Physical Fitness and Nutrition Education Programs.	H&HS, Community Partners	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-1.f - Provide Reliable Information, Training, and Technical Assistance.	H&HS	Existing budget	High	Ongoing
PH-2.a - Support Alcohol Policy Development.	H&HS, CDA, Local Policymakers, Community Partners	Will require additional grants or revenue ²	High	Ongoing
PH-2.b - Encourage Enforcement of Alcohol Laws.	Local Law Enforcement; H&HS; CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
PH-2.c - Conduct Media Activities.	H&HS, Local Media	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-2.d - Implement Responsible Beverage Service Programs.	H&HS	Existing budget	High	Ongoing
PH-2.e - Provide Training and Technical Assistance.	H&HS	Existing budget	High	Ongoing
PH-2.f - Develop and Maintain Community Partnerships.	H&HS; Community Partners	Existing budget	High	Ongoing
PH-2.g - Provide Tobacco Education.	H&HS; Community Partners	Existing budget	High	Ongoing
PH-2.h - Enhance Youth Tobacco Prevention Programs.	H&HS; Education; Community Partners	Existing budget	High	Ongoing
PH-2.i - Provide Smoking Cessation Programs.	H&HS; Community Based Organizations; CBO's	Existing budget	High	Ongoing
PH-2.j - Enforce Tobacco Control Laws.	H&HS; Local Law Enforcement; CDA (EHS)	Existing budget	High	Ongoing
PH-2.k - Seek Funding for Substance Abuse Prevention.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-2.l - Conduct Regular and Ongoing Evaluations.	H&HS	Existing budget	High	Ongoing
PH-3.a - Foster Collaboration.	H&HS; Community Partners	Existing budget	Medium	Ongoing
PH-3.b - Support Health Educational Opportunities.	H&HS; Community Partners	Existing budget	High	Ongoing
PH-3.c - Improve Access to Health Care.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-3.d - Improve Service Delivery and Utilization.	H&HS; Community Partners	Existing budget and may require additional grants or revenue ²	High	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
PH-3.e - Support Disease Prevention Education Programs.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-3.f - Employ a Precautionary Approach.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-3.g - Support Mental Health Programs.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-4.a - Co-locate Adult Day Health Care with Senior Housing.	H&HS	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PH-4.b - Improve Service Linkages.	H&HS	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PH-4.c - Expand Senior Services.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
PH-4.d - Advocate for Affordable Assisted Living.	H&HS	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PH-4.e - Improve Balance of Community and Institutional Care.	H&HS	Existing budget	High	Ongoing
PH-4.f - Expand Affordable Housing for Seniors and People with Special Needs.	H&HS	Existing budget and may require additional grants or revenue ²	Medium	Ongoing
PH-4.g - Develop Models for Shared In-Home Supportive Services.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-4.h - Expand Home Care Registry.	H&HS	Existing budget and may require additional grants or revenue ²	High	Ongoing
PH-4.i - Expand Home Care Services.	H&HS	Existing budget	High	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
PH-4.j - Lobby for Increased Medi-Cal Options.	H&HS	Will require additional grants or revenue ²	Medium	Immediate
PH-4.k - Provide Prescription Drug Assistance.	H&HS	Existing budget	High	Ongoing
PH-4.l - Promote Universal Building Designs.	CDA	Existing budget	High	Ongoing
PH-4.m - Identify Potential Responses to Climate Change.	H&HS	Existing budget, grants	Medium	Med. term



SOCIOECONOMIC ELEMENT



4.12 Arts and Culture

Background

Arts and culture are key components of a healthy and interesting place. Arts and cultural activities have the potential to connect people within a community and tap into individual creativity. The intent of this Section is to help make the experience and practice of the arts and cultural opportunities accessible and available to everyone. Toward that end, professional artists need to be supported in their work, and art should be viewed as an integral part of a sustainable community, as well as a necessary part of educational and economic development.



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Marin is ripe with opportunities to participate in myriad arts and cultural experiences, including performance, dance, literature, poetry, music, cinema, painting, sculpture, photography, crafts, and much more, as detailed in Fig. 4-32a. The wide variety of arts-based and cultural organizations should be supported and encouraged to cultivate partnerships that promote involvement, education, and diversity through arts and cultural events.

Figure 4-32a A Listing of Some Arts-Based and Cultural Organizations in Marin

Cultural/Community Facilities and Programming	
I42 Throckmorton Theatre	Headlands Center for the Arts
Bay Area Discovery Museum	Marin Art and Garden Center
Bolinas Museum	Marin Center Veterans Auditorium
California Film Institute	Marin History Museum
Center Stage at Marin JCC	Marin Museum of the American Indian
Dance Palace, Point Reyes	O'Hanlon Center for the Arts
Downtown Art Center/Artworks Downtown	San Anselmo Playhouse
Falkirk Cultural Center	San Geronimo Valley Cultural Center
Gallery Route One	Tamalpa Institute
Hamilton Art Center	
Performing Arts	
Ali Akbar College of Music	Marin Shakespeare Company
Antenna Theatre	Marin Symphony Association
Belrose Café	Marin Theatre Company
Chaucer Theatre	Mountain Play Association
Marin Ballet	Ross Valley Players
Marin Center Presents	SingersMarin
Literary Arts	
Book Passage	Marin Poetry Center
Marin County Free Library	Marin Writers Center
Arts Education	
College of Marin	Stapleton School of Performing Arts
Dominican College	Young Imaginations
Marin California Poets in the Schools	Youth in Arts
Marin Dance Theatre	
Major Events	
Italian Street Painting Festival	Marin Symphony
Marin Art Festival	Mill Valley Fall Arts Festival
Marin County Fair	Mill Valley Film Festival
Marin County Open Studios	The Mountain Play
Marin Shakespeare Festival	Sausalito Art Festival



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Arts Services

Asian American Alliance of Marin	Marin Arts Council
Baulines Craft Guild	Marin Center Renaissance Council
Bread and Roses	Marin County Cultural Services Commission
DrawBridge	Marin Historical Society
Frank Lloyd Wright Civic Center Conservancy	Marin Society of Artists
Friends of Marin Center	

Key Trends and Issues

Is Marin a center of cultural creativity?

Marin is a home base for much of the music and cultural creativity that spread across the country in the 1960s. This included musicians such as Jerry Garcia, Phil Lesh, and Bob Weir of the Grateful Dead, and Janis Joplin, Carlos Santana, Maria Muldaur, and Bonnie Raitt, as well as cultural icons such as Donald McCoy. Today, the county remains home to many musicians, writers, artists, designers, and cultural icons. The creative legacy of George Lucas, Gary Fisher, Anne Lamott, Isabel Allende, Sim Van Der Ryn, Paul Hawken, Stewart Brand, and many others fosters a longstanding culture of iconoclasm, activism, cutting-edge thinking, and difference from the norm.





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Marin County is a center of world-class art and creativity where innovation is highly valued. In a ranking of all counties in the United States, Marin ranks number one in terms of individuals engaged in “creative” work (see Figure 4-32b). In terms of innovation, Marin County produced a higher percentage of patents per capita in 1999 than the state of California or the United States (see Figure 4-32c).

Figure 4-32b
Top 10 County Share of Workforce in Creative Occupations, 2000

County	State	Total Population	Total Employed	Rank Arts Share	Rank Management and Professional Share	Share of Total Employment	
						Arts, Design, Entertainment, Sports, and Media	Managerial and Professional Except Arts
Marin	CA	247,289	128,855	1	4	5.73%	46.79%
Boulder	CO	291,288	162,428	2	5	3.53%	46.65%
Santa Cruz	CA	255,602	129,380	3	33	3.10%	37.16%
Santa Barbara	CA	399,347	180,716	4	79	2.88%	32.48%
Leon	FL	239,452	122,840	5	12	2.88%	42.38%
Washtenaw	MI	322,895	172,373	6	6	2.72%	45.59%
Dane	WI	426,526	246,064	7	16	2.69%	40.93%
Alachua	FL	217,955	105,293	8	15	2.68%	41.32%
Sarasota	FL	325,957	135,419	9	113	2.63%	29.06%
Larimer	CO	251,494	136,903	10	36	2.61%	37.03%
U.S. Average						1.92%	31.73%

Source: Economic Competitiveness Group. Don Grimes, University of Michigan, based on U.S. Census occupational data. The arts employment is based upon individuals (residents) identifying themselves as working in “arts, design, entertainment, sports, or media” occupations.

The Marin County Fair also illustrates the high caliber of arts and cultural creativity being fostered in Marin. The Fair has won awards for many years and is considered to be on the cutting edge on many fronts. The Fair has included features ranging from a broad array of art exhibitors, a poetry slam, a world-class multimedia exhibition, and local student exhibitors.

How do art and culture in Marin contribute to the economy?

Creativity and innovation are precisely where much of the energy driving the economy comes from (Richard Florida, *The Rise of the Creative Class*, New York: Basic Books, 2002). In Marin County, the mutually reinforcing cycle among creativity, innovation, and wealth creation is well known. The tremendous synergies between the region’s values of philanthropy, open space preservation, support for the arts, and creativity result in an astounding degree of wealth creation, which in turn refuels the region’s ability to fund charitable causes, preserve open space, and fund the arts (see Figure 4-33). These traits are, and will continue to be, tremendous economic assets for the region. Where Silicon Valley converted technological expertise into marketable products that drive the world’s technological infrastructure, Marin County has translated artistic creativity into a world-renowned cluster of arts-based



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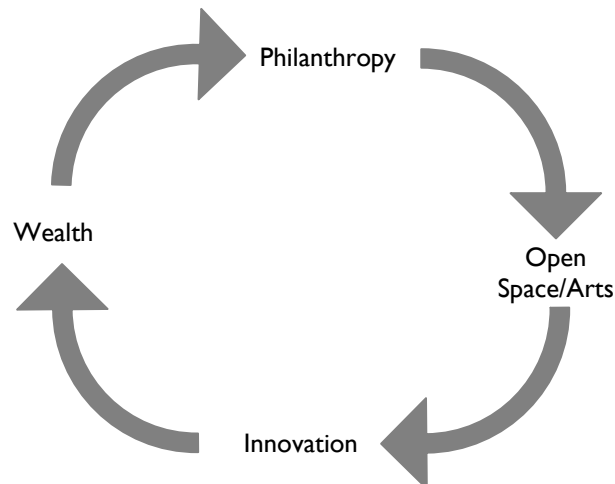
Figure 4-32c
Ratio of U.S. Patents per Person by County, 1999

County	Patents, 1999	Population, 1999	Ratio
Santa Clara	5,664	1,658,000	0.0034
San Mateo	1,153	698,300	0.0017
Santa Cruz	245	251,600	0.0010
Alameda	1,186	1,412,400	0.0008
Westchester, NY	614	937,279	0.0007
Marin	154	243,800	0.0006
San Francisco	393	762,400	0.0005
CA TOTAL	16,776	33,140,000	0.0005
US TOTAL	83,905	267,801,951	0.0003
Los Angeles	23,480	9,330,100	0.0003
Sarasota, FL	85	3,396,255	0.0003
Monterey	61	390,500	0.0002

Source: Economic Competitiveness Group. U.S. Patent & Trademark Office, U.S. Utility Patents Granted 1999, *A Technology Assessment & Forecast Report*, April 2000 Population data from Global Insight, 2003. This data is the most recent available.

innovation, from digital imaging to mountain bikes to Birkenstock to small, craft-based specialty products. In addition, arts and entertainment are a significant portion of the local economy: A 1997 Marin Arts Council survey showed that the combined annual operating budgets of 34 Marin arts organizations exceeded \$11 million, including more than \$5 million for employment.

Figure 4-33 Virtuous Cycle





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Is there enough support for and promotion of the arts and culture in Marin?

Support for the arts in Marin is very strong: A survey in 2000 by the Marin Community Foundation found that 22% of county households contributed financially to the arts and humanities, double the rate nationally. A 1997 Marin Arts Council survey found that more than 1,200 performances of over 700 productions were staged annually. However, many artists trained in the county move on to work elsewhere around the country, an indication that local funding efforts could be enhanced. Public funding for the arts has decreased, in part due to a decline in support from the California Arts Council. Marin Community Foundation arts funding has remained relatively steady as a total over the last 10 years but has constituted a smaller percentage of their total discretionary giving over time.

What Are the Desired Outcomes?

GOAL ART-1



Art and Culture as a Community Resource. Support the arts, local artists, and local arts and cultural organizations.

Policies

ART-1.1 Encourage the Arts and Cultural Events. Promote arts and culture through events and marketing.

ART-1.2 Support Local Artists and Cultural Creativity. Contribute to a community atmosphere and economic framework that appreciates, supports, and fosters the work of local artists and performers.

ART-1.3 Expand Arts and Culture Revenue. Expand and improve revenue streams for performing arts, libraries, and other revenue-generating art and culture venues.

ART-1.4 Install Public Art. Increase the presence of art in public spaces.

Why is this important?

Art enriches the community in many ways. Studies have shown that the presence of cultural organizations in a neighborhood stimulates residents' involvement in other civic activities, thus strengthening the fabric of the community.

Environment: Protection of the natural environment provides inspiration for many forms of art and has historically provided the basis for significant cultural artistic expression.

Economy: As of 1999, there were more than 2,200 people employed in arts-related industries in Marin. Nationally, of all travelers who included a cultural activity while on a trip in 1998, one-third of those added extra time to their trip to accommodate more cultural activity. This translates to 26.8 million adults adding some 14 million additional travel nights. Revenues from arts and culture will increase with further promotion and support.



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Equity: Studies of low income neighborhoods show that those with high cultural participation are much more likely to have significantly low delinquency and truancy rates. Arts and cultural activities strengthen communities while providing a highly tangible means of expressing both individuality and pride in the community, for artists and art appreciators alike.

How will results be achieved?

Implementing Programs

ART-1.a *Promote Arts and Culture.* Work with a wide range of organizations and other interested parties to support partnerships, publicize the arts, provide educational opportunities, and evaluate and eliminate potential barriers to attracting and retaining artists and arts and cultural groups.

ART-1.b *Support Community Efforts.* Work with neighborhood associations and other community organizations to encourage community arts and cultural programs and services.



ART-1.c *Create a Website to Promote Arts and Cultural Programming.* Include a comprehensive, countywide calendar of events, a facility inventory, and links to county arts and cultural resources.

ART-1.d *Maximize Use of County Facilities for Arts and Cultural Events.* Promote diverse, high-quality arts-related programs and services, including literature, poetry readings, and performing arts in parks, libraries, and other County facilities.

ART-1.e *Survey and Publicize Arts Landmarks.* Inventory significant arts landmarks and reference them in County publications.



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- ART-1.f** *Host Events.* Hold performances and exhibitions by accomplished local and visiting artists, and provide professionally curated exhibition and gallery spaces for high-caliber artists in County facilities.
- ART-1.g** *Involve Artists in Design.* Include an artist on design teams assembled for planning public projects.
- ART-1.h** *Foster a Poet Laureate Program.* Work with literary organizations to establish a Marin County Poet Laureate program.
- ART-1.i** *Find Sites for Public Art.* Encourage placement of art in public spaces, including formulating an inventory of potential sites.
- ART-1.j** *Support Artist Housing.* Encourage the creation of mixed-use and live/work units for artists in Marin.
- ART-1.k** *Establish a Public Art Nexus.* Conduct a study to evaluate Public Art Nexus requirements.
- ART-1.l** *Require Public Art.* Amend the Development Code to require public art (or in-lieu fees) as a component of new development projects.
- ART-1.m** *Promote Artistic Streetscapes and Signs.* Amend the Development Code to encourage artistic signs and streetscape features in both public and private development projects.



- ART-1.n** *Enhance the Marin Center.* Allocate funds to operate, preserve, and expand access to the arts and cultural services at the Marin Center and its public grounds.



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ART-1.o *Consider Improved “Open Studios” Standards.* Evaluate potential standards that would support continued “Open Studio” events while minimizing their impact on residential neighborhoods.

What Are the Desired Outcomes?

GOAL ART-2

Participation in the Arts and Cultural Activities. Encourage and support participation in arts and cultural activities by all populations in the county.

Policy

ART-2.1 **Encourage Participation in the Arts and Cultural Events.** Ensure that everyone in Marin has ample opportunity to participate in arts and cultural events.



Why is this important?

Among neighborhoods that were considered “blighted” during the 1990s, those with an active cultural scene were more likely to see their poverty rate drop. Cultural creativity has long been a key ingredient to the Marin lifestyle, and opportunities for broad participation in artistic activities can provide added benefits throughout the county.

Economy: Arts and cultural activities play a significant role in Marin’s economy. Approximately 22% of Marin households contribute to the arts and humanities, compared with 11% nationally. Greater participation in and support of arts and cultural activities can contribute to a stronger local economy.

Equity: Many art and cultural activities represent a low-cost opportunity for all community members to participate. Differences in income, cultural background, and even language should not pose a barrier for anyone seeking access to and enjoyment of arts and culture.





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How will results be achieved?

Implementing Programs

- ART-2.a** ***Provide Discounts.*** Make arts and cultural programming available to all ages, populations, and cultural and socioeconomic backgrounds. Utilize a sliding scale to allow all persons to access County-owned or County-operated facilities, and work with Friends of Marin Center to expand the subsidized voucher program that offers reduced-cost tickets to events for the artists, performers, and elderly, youth, low income, and disabled populations.
- ART-2.b** ***Promote Arts as Recreation.*** Work with the Marin County Office of Education to include art classes in community recreation programs.
- ART-2.c** ***Encourage Learning Opportunities in the Arts.*** As space is expanded at Marin Center and appropriate facilities, include learning opportunities for arts and cultural development.
- ART-2.d** ***Encourage Arts Programs for Special Needs Groups.*** Encourage integration of arts into programs at senior and assisted-living centers, and facilities for youth, disabled, and lower income persons.
- ART-2.e** ***Expand Arts Education.*** Work with schools to attract students to art, music, and cultural classes and programs (also see policies and programs under Goal EDU-2 in the Education Section of this Element).
- ART-2.f** ***Support Cultural Events.*** Promote in-depth awareness of the diverse cultures of Marin County. Work with a variety of groups to organize programs that celebrate and promote cultural heritage, customs, and awareness (also see the goals, policies, and programs in the Diversity Section of this Element).
- ART-2.g** ***Provide Public Venues.*** Continue to sponsor arts and cultural events at County facilities, and identify strategic public spaces for the promotion of the arts and culture, including public art and community gathering.
- ART-2.h** ***Support Public Art.*** Explore stable, long-term funding sources to continue the installation and maintenance of art in public spaces, such as endowments and partnerships with private organizations.
- ART-2.i** ***Consider Funding for the Arts.*** Investigate the feasibility of establishing an arts fund. Make this fund available to support arts and cultural facilities, improvements, and programming.



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What Are the Desired Outcomes?

GOAL ART-3

Enhance Marin Center. Encourage and support the Renaissance Partnership in redesigning and rebuilding Marin Center to serve as a cultural focal point in Marin.



Policies

- ART-3.1** **Improve County Campus.** Complete studies and consulting work that lead the County of Marin toward implementing elements of the Master Plan and a renovated campus.
- ART-3.2** **Lead Marin Center Renaissance.** Lead and support strategic planning efforts of Marin Center Renaissance Partnership.

Why is this important?

The Marin Center is a valuable community asset that can be further developed to house a variety of cultural and artistic activities.

Economy: In the United States, the arts industry generates \$134 billion annually in economic activity, supports 4.9 million jobs, and returns more than \$24 billion in total government revenue. In addition, 65% of U.S. travelers include cultural events on their trips. A renovated Marin Center campus could draw people from all over the Bay Area for theater, music, and art. Some will dine in Marin restaurants and stay in local hotels. In addition, building renovation and construction will provide jobs for local residents.

Equity: Since the county owns and controls Marin Center, activities should be available and accessible to the whole Marin County community.

How will results be achieved?

Implementing Programs

- ART-3.a** ***Involve Community in the Renaissance Project.*** Continue meetings of the Renaissance Partnership Steering Committee to review and champion efforts to move the planning process forward.
- ART-3.b** ***Keep Supervisors Informed.*** Present the new Marin Center Master Plan to the Board of Supervisors for regular updates, as program and design elements are developed in upcoming phases.
- ART-3.c** ***Use an Integrated Approach at Marin Center.*** Include an integrated approach to the Marin Center Master Plan, inclusive of a range of “cultural center” facilities, from the library to innovative performance space to high-quality gallery spaces.



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Figure 4-34 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
ART-1 Art and Culture as a Community Resource	•								•	•	•	
ART-2 Participation in the Arts and Cultural Activities									•	•	•	
ART-3 Enhance Marin Center	•								•		•	



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Number of art exhibits at County facilities.	12 in 2000.	Increase to 24 by 2010 and 29 in 2020.
Number of artists participating in the fine arts exhibit at the Marin County Fair.	1,210 artists participated in 2000.	Increase 20% by 2015 and 30% by 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-35
Arts and Culture Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
ART-1.a - Promote Arts and Culture.	Cultural Services Commission (CSC), MC & CBO's	Existing budget, Private contributions and may require additional grants or revenue ²	High	Ongoing
ART-1.b - Support Community Efforts.	CSC, MC & CBO's	Existing budget, Private contributions and may require additional grants or revenue ²	High	Ongoing
ART-1.c - Create a Website to Promote Arts and Cultural Programming.	CSC, MC & CBO's	Private contributions	High	Short term
ART-1.d - Maximize Use of County Facilities for Arts and Cultural Events.	CSC & MC	Fees	High	Ongoing
ART-1.e - Survey and Publicize Arts Landmarks.	CSC, MC & CBO's	Volunteers/donated time	Low	Med. term
ART-1.f - Host Events.	CSC, MC & CBO's	Existing budget, Private contributions and may require additional grants or revenue ²	High	Ongoing
ART-1.g - Involve Artists in Design.	1. CAO, CDA 2. DPW	1. Existing budget, Private Contributions, and may require additional grants or revenue ² 2. Will require additional grants or revenue ²	1. Medium 2. Low	1. Ongoing 2. Long term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
ART-1.h - Foster a Poet Laureate Program.	CSC, CBO's	Existing budget, Private contributions and may require additional grants or revenue ²	Medium	Immediate
ART-1.i - Find Sites for Public Art.	CSC, CDA MC	Existing budget, fees, and may require additional grants or revenue ²	Medium	Long term
ART-1.j - Support Artist Housing.	CSC, CDA, MC, MCF	Will require additional grants or revenue ²	Medium	Long term
ART-1.k - Establish a Public Art Nexus.	CSC, CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
ART-1.l - Require Public Art.	CDA	Existing budget	Medium	Long-term
ART-1.m - Promote Artistic Streetscapes and Signs.	CDA	Existing budget	Low	Long-term
ART-1.n - Enhance the Marin Center.	MC	Existing budget and may require additional grants or revenue ²	High	Short term
ART-1.o - Consider Improved "Open Studio" Standards.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
ART-2.a - Provide Discounts.	Friends of Marin Center with CBO's	Existing budget, Private contributions, and may require additional grants or revenue ²	High	Ongoing
ART-2.b - Promote Arts as Recreation.	CSC, Parks & Recreation, CBO's	Existing budget	Medium	Ongoing
ART-2.c - Encourage Learning Opportunities in the Arts.	MC, CSC, CBO's	Will require additional grants or revenue ²	Low	Long term
ART-2.d - Encourage Arts Programs for Special Needs Groups.	CSC, H&HS, CBO's	Existing budget, Private contributions, and may require additional grants or revenue ²	High	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
ART-2.e - Expand Arts Education.	CSC	Will require grants, Private contributions	Medium	Ongoing
ART-2.f - Support Cultural Events.	CSC, CBO's	Will require grants, Private contributions, fees & sponsorships	High	Ongoing
ART-2.g - Provide Public Venues.	CSC, MC	Existing budget, Private contributions, sponsorships, and may require additional grants or revenue ²	High	Ongoing
ART-2.h - Support Public Art.	CSC	Will require additional grants or revenue ²	Low	Long-term
ART-2.i - Consider Funding for the Arts.	CSC	Will require grants, Private contributions, fees & sponsorships	Low	Long-term
ART-3.a - Involve Community in the Renaissance Project.	CAO, MC	Existing budget and may require additional grants or revenue ²	High	Ongoing
ART-3.b - Keep Supervisors Informed.	MC	Existing budget	High	Ongoing
ART-3.c - Use an Integrated Approach at Marin Center.	MC	Existing budget and may require additional grants or revenue ²	High	Ongoing



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4.13 Historical and Archaeological Resources

Background

Historic preservation is crucial to maintaining Marin's identity, character, and links to the past. For thousands of years, Marin County was home to the Coastal Miwok Indians, who left behind a rich legacy in various archaeological sites throughout the county. This civilization came to an abrupt end when European settlers arrived in the early 1800s. However, the Coastal Miwok still exist as the Federated Indians of Graton Rancheria (FIGR), including the Coast Miwok and Southern Pomo, and they continue to have a rich cultural heritage that includes, among other things, basket making, dances and ceremonies, and a complex and intricate language.



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Rural areas in West Marin are defined by historic ranches and small towns. Historic residential and commercial architectural styles in the county are typically Greek Revival, Queen Anne, Italianate commercial, and Bungalow. Inland, a string of small towns along the bay were first developed as vacation spots and later as homes for commuters who worked in San Francisco. Many of these towns, including Fairfax, Larkspur, and Sausalito, have done an excellent job of maintaining their historic character and historic downtowns. Typical historic styles in these area are Shingle Style, Arts and Crafts, Mission Revival, Italianate, and Modern (see Figure 4-36). Well-known architects who built in Marin include Julia Morgan, Bernard Maybeck, Willis Polk, Frank Lloyd Wright, and Joseph Eichler, among others.

Strong importance is placed upon preserving Marin’s many historical and archaeological resources (see Map 4-1). These resources deserve effective protection, including thorough requirements for conducting site-specific investigations prior to new development. Historical and archaeological resources also need to be mapped accurately. This section of the Countywide Plan calls for enhancing collaboration among a variety of interested organizations and identifying potential funding opportunities that will help preserve historical and archaeological resources in the county.

Figure 4-36 Historic Architectural Styles of Marin County

Greek Revival: Dates from the 1850s and consists of simple shapes, sharp lines, and doors and windows at regular intervals. Example: Presbyterian Church in Tomales.
Queen Anne: Mid- to late 1800s; it is marked by lots of ornamentation and detailing. Examples: many of the residences in Point Reyes Station.
Italianate: From 1840 to 1880, this style was used primarily for commercial structures on main streets; it typically has a false front with brackets beneath the cornice line. Example: Inverness Post Office.
Shingle Style: Arrived in California in the late 1800s and was characterized by the use of unpainted wooden shingles. Examples: Sausalito Woman’s Club, Mill Valley Outdoor Art Club.
Mission Revival: From the early to mid-20th century; this style is defined by wide arches, low-lying roofs, and stucco façades. Examples: Sand Castle Foresters’ Hall and the Grandi Building in Point Reyes Station.
Western Stick: Typical in the Bay Area from the late 1890s until the 1920s. Known for its wood detailing, wood shingles, porches, and larger windows, which are necessarily the same size. Examples: residences in Mill Valley, Larkspur, Sausalito, and Fairfax.
California Bungalow: Popular in the 1920s and marked by an open floor plan, front porches, a raised foundation, use of natural materials and attention to detail. Examples: Historic residences in Mill Valley, Larkspur, Sausalito, and Fairfax.
Modern: Originated in the late 1940s to 1950s and used simple lines to truly express the use of materials. Examples: Eichler homes, the Civic Center.



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Key Trends and Issues

Are historical and archaeological resources in jeopardy in Marin?

In recent years, Marin County has seen a loss of its historical resources due to demolition and substantial alterations to historic structures. In rural areas this has occurred where large private family compounds replaced historic ranches. In the City-Centered Corridor this has occurred in historic subdivisions where smaller historic homes have been replaced or were substantially altered.

The majority of archaeological sites in the county exist in the rural areas and inland along the bay. However, these resources remain at risk. Marin County contains many historic vistas that are endangered by future development, including rock outcroppings, groves of historic trees, and views along ridgelines. Increased tourism in Marin may also impact historic and archaeological resources if they are not carefully managed.



State and Federal Historical Organizations and Agencies

California Historical Society: The society provides historic resources, educational programs, and exhibitions to the general public about the history of California.

State Historic Preservation Office: This is a resource providing technical and training assistance both to the County and to owners of historic properties.

National Historic Register: This is a federally recognized list of historically significant resources and properties throughout the country.

Figure 4-37 Marin Historical and Archaeological Organizations and Repositories

Marin Historical Organizations:

- ◆ Marin History Museum
- ◆ Sausalito Historical Society
- ◆ Fairfax Historical Society
- ◆ Mill Valley Historical Society
- ◆ San Anselmo Historical Commission
- ◆ Tomales Regional History Center
- ◆ Ross Historical Society
- ◆ Novato Historical Guild
- ◆ Angel Island: Immigrant Journeys of Chinese Americans
- ◆ FIGR: Sacred Sites Protection Committee
- ◆ Northwest Archaeology Center
- ◆ Anne T. Kent California Room
- ◆ Tiburon Heritage and Arts Commission

Note: This is a partial listing.



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What Are the Desired Outcomes?

GOAL HAR-1



Historical Resource Protection. Identify and protect archaeological and historical resources as major contributors to quality of life and community vitality in Marin.

Policies

HAR-1.1 Preserve Historical Resources. Identify archaeological and historical resource sites.

HAR-1.2 Document Historical Information. Provide documents, photographs, and other historical information whenever possible to be catalogued in the Anne T. Kent California Room in the Marin County Free Library.

HAR-1.3 Avoid Impacts to Historical Resources. Ensure that human activity avoids damaging cultural resources.

HAR-1.4 Participate in Historical Preservation Efforts. Work with federal, State, and local agencies, and interested individuals, groups, and educational organizations to obtain funding and employ other methods to preserve archaeological and historical sites.

HAR-1.5 Regulate Alteration of Historical Buildings. Limit the ability to modify historical structures, and require development to respect the heritage, context, design, and scale of older structures and neighborhoods.

Why is this important?

In addition to honoring those who came before us, State law requires protection of archaeological and historic resources. Preservation is important to maintaining community identity.



Environment: Historic building restoration and archaeological site preservation efforts enhance overall environmental quality. When downtowns are revitalized, historic neighborhoods are restored, and buildings are rehabilitated, there is less need to get lumber from forests for new homes, and less pressure to pave over farmland.



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Economy: Maintaining a community's historical character contributes to economic vitality by making the community more attractive to visitors and residents. Also, adaptive reuse of historical properties for businesses encourages investment. Preserved historic buildings are assets to a community over time, not only because of the services provided within, but because of the unique contribution of their architecture to the look and feel of a community.

Equity: In California, owners of historic homes can save between 40% and 60% annually in property taxes (ref: California State Office of Historic Preservation). Owners of historic homes in lower income areas can receive financial assistance to safeguard the historical integrity of these resources.

How will results be achieved?

Implementing Programs

- HAR-1.a** *Map Resource Areas.* Update the County sensitivity map (not site specific) that identifies potential locations of archaeological resources, and survey and evaluate existing archaeology resources every three years (while maintaining confidentiality regarding the location of archaeological sites). Consult with FIGR as appropriate in map updates.
- HAR-1.b** *Inventory Historical Resources.* Prepare a comprehensive survey of historic buildings and buildings of architectural significance in compliance with federal and State standards for designating historical resources and buildings.
- HAR-1.c** *Nullify Outdated Regulations.* Repeal ordinance 1589 (adopted 1967), which has since been superseded by State and federal environmental regulations and County procedures to protect archaeological deposits.
- HAR-1.d** *Require Archaeological Surveys for New Development.* Require archaeological surveys conducted on site by a State-qualified and FIGR recommended archaeologist for new development proposed in areas identified as potential resource locations on the County sensitivity map (see Program HAR-1.a).
- HAR-1.e** *Require Permanent Protection.* Require development at an archaeological site to, where feasible, avoid the resource and provide permanently deeded open space that incorporates the resource.
- HAR-1.f** *Involve Appropriate Authorities.* Refer development proposals on or near cultural resource sites to the California Archaeological Inventory, the Northwest Regional Office of the California Historical Resources Information System, and/or Native American representatives, as appropriate.
- HAR-1.g** *Create a County Historical Commission.* Establish a Historical Preservation Commission (or expand an existing commission) to prepare a cultural resource preservation plan in partnership with the County Historical Society and to review



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projects related to historical resources. Include a representative from the FIGR on the Historical Commission.

- HAR-1.h** *Seek Certified Local Government Status.* Once a survey of historical and archaeological resources is conducted pursuant to federal standards (Programs HAR-1.a and HAR-1.b) and a County Historical Commission is established (Program HAR-1.g), apply to the State Department of Historical Preservation to become a Certified Local Government that can participate directly in federal and State historical preservation programs.



© Nancy Peale

Native American rock carving

- HAR-1.i** *Seek Funding to Protect Resource Sites.* Apply to federal, State, and local sources for funds to acquire historic resource sites for parks or other public purposes and to preserve artifacts.
- HAR-1.j** *Facilitate Community Development Block Grant Funding.* Assist low income owners of historical homes with obtaining low-interest loans for renovation through the Federal Community Development Block Grant program.



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- HAR-1.k** *Promote Incentives for Restoration.* Inform owners of eligible properties about, and encourage them to apply for, local, State, and federal incentives for preservation and restoration of historical and cultural resources, such as the following:
- ◆ County Redevelopment Agency acquisition or bond financing;
 - ◆ conservation (“facade”) easements or preservation contracts with tax abatement benefits;
 - ◆ federal tax credits for restoration work on income producing properties; and
 - ◆ State Heritage Fund grants to cities and towns, counties, districts, local agencies, nonprofit organizations, and Native American tribes.
- HAR-1.l** *Adopt Preservation Guidelines.* Adopt guidelines for preservation of structures of local historical or architectural interest, and historical trees and other landscape elements.
- HAR-1.m** *Require Design Compatibility.* Require projects on sites with or adjacent to cultural resources to complement the appearance of those resources and provide adequate buffers to protect them from potential adverse impacts.
- HAR-1.n** *Allow Flexibility in Standards for Restoration.* Amend the Development Code to allow flexibility in on-site parking and setback provisions to facilitate restoration of historical structures (provided any variance from standards does not conflict with ensuring public health and safety).
- HAR-1.o** *Promote Adaptive Reuse.* Amend the Development Code to allow an appropriate range of reuse options for older buildings, including mixed-use redevelopment.
- HAR 1.p** *Consultation Regarding Confidentiality of Important Sites.* If land designated or proposed to be designated as open space contains a historical resource (as defined in Public Resources Code section 21084.1), with cultural significance, the County shall conduct consultations with FIGR. The purpose of the process is to determine the level of confidentiality required to protect the cultural resource and to provide an appropriate level of dignity in any management plan.

What Are the Desired Outcomes?

GOAL HAR-2

Community Involvement in Historical Preservation. Increase public awareness of local history and historical sites, and the need to protect these resources.

Policy

- HAR-2.1** **Encourage Recognition of Significant Sites.** Support efforts by community members, including owners of property with historical significance, to learn about and seek preservation and protection of these resources.





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Why is this important?

Community involvement is key to maintaining historical resources and properties. Historic preservation has been shown to stimulate community involvement and foster community spirit, while making communities economically viable.

Environment: According to a national survey conducted by the American Institute of Architects, more than 20% of Americans rank historic preservation as a priority of utmost importance. Development proposals that could adversely affect archaeological and historical resources should require a higher level of scrutiny.

Economy: Forty-six percent of the almost 200 million total U.S. travelers in 1998 included a cultural, arts, heritage, or historical activity while on a trip. Improving and promoting Marin's historical resources and listing these significant properties on the federal or State Historical Register will attract visitors to the area and bring business to bolster the economy during the following year.

Equity: Partnering with private sector groups and individuals strengthens the bonds that make Marin a robust community. The pride that community members take in preserving resources contributes to overall quality of life. People benefit from aesthetic improvement to streetscapes and key historical sites.

How will results be achieved?

Implementing Programs

- HAR-2.a** ***Nominate Historical Resources.*** Work with local historical societies to nominate significant historical resource sites for listing in the federal or State Historical Register, including buildings more than 50 years old that
- ◆ exemplify, embody, or reflect key elements of the county's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history; and/or
 - ◆ are identified with persons or events significant in local, state, or national history.
- HAR-2.b** ***Partner with Owners of Historical Buildings.*** Work with private owners of landmark structures to support rehabilitation of historical buildings.
- HAR-2.c** ***Install Markers and Plaques.*** Place historical markers on County roadways and plaques at significant structures to attract and inform the public about important historical sites and events.
- HAR-2.d** ***Promote Native American Awareness and School Enrichment.*** Work with tribal members and the Marin Museum of the American Indian to promote educational programs about Native American history and culture for children, families, and adults, as well as school enrichment and summer camp programs.
- HAR-2.e** ***Support Development of Educational Materials.*** Work with local historical societies and other resource agencies to develop educational programs and to prepare and



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distribute materials describing local history and specific sites (except as restricted by State guidelines).

- HAR-2.f** *Support Local History Education and Preservation.* Maintain the Anne T. Kent California Room at the Marin Civic Center as a historical information resource, and work with local historical societies to maintain reference libraries of restoration techniques, trades resources, and successful preservation projects.
- HAR-2.g** *Preserve Cultural History.* Expand the existing Carla Ehat Oral History Program for the Anne T. Kent California Room to document and create new oral histories from Marin residents.
- HAR-2.h** *Promote Educational Events.* Participate in preservation-related activities such as National Historical Preservation Week in May.
- HAR-2.i** *Implement SB 18 Tribal Consultation Requirements.* In accordance with the new State Law SB 18, require tribal consultation prior to adopting or amending any general plan, community plan, or specific plan.
- a. Send proposal information to the Native American Heritage Commission (NAHC) and request contact information for tribes with traditional lands or places located within the geographic areas affected by the proposed changes.
 - b. Contact each tribe identified by NAHC in writing and provide them the opportunity to consult about the proposed project.
 - c. Organize a consultation with tribes that respond to the written notice within 90 days.
 - d. Refer proposals to adopt or amend the Countywide Plan, community plan, or specific plans to each tribe included on the NAHC list at least 45 days prior to the proposed action.
 - e. Provide notice of a public hearing at least 10 days in advance to tribes and any other persons who have requested that such notice be provided.



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Figure 4-38 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
HAR-1 Historical Resource Protection	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
HAR-2 Community Involvement in Historical Preservation		•							•	•		



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicator	Benchmark	Target
Number of historic properties listed in the State & Federal Register.	41 federal and 13 State sites were listed in 2004.	Continue to increase through 2020.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-39
Historical and Archaeological Resources Program Implementation

Program	Responsibility	Potential Funding	Priority	Time Frame
HAR-1.a - Map Resource Areas.	CDA, FIGR	Existing budget and may require additional grants or revenue ²	Medium	Med. term
HAR-1.b - Inventory Historical Resources.	CDA, FIGR	Existing budget, and may require additional grants or revenue ²	Low	Long term
HAR-1.c - Nullify Outdated Regulations.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Short term
HAR-1.d - Require Archaeological Surveys for New Development.	CDA	Existing budget	High	Immediate
HAR-1.e - Require Permanent Protection.	CDA	Existing budget	High	Immediate
HAR-1.f - Involve Appropriate Authorities.	CDA	Existing budget	High	Ongoing
HAR-1.g - Create a County Historical Commission.	Marin County Historical Society (MCHS), FIGR, other CBO's, BOS	Will require additional grants or revenue ²	Medium	Long term
HAR-1.h - Seek Certified Local Government Status.	CDA, CBO's, MCHS	Existing budget	Medium	Med. term
HAR-1.i - Seek Funding to Protect Resource Sites.	MCHS, other CBO's	Will require additional grants or revenue ²	Medium	Long term
HAR-1.j - Facilitate Community Development Block Grant Funding.	CDA	Existing budget	High	Ongoing

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
HAR-1.k - Promote Incentives for Restoration.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
HAR-1.l - Adopt Preservation Guidelines.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Long term
HAR-1.m - Require Design Compatibility.	CDA	Existing budget and may require additional grants or revenue ²	Medium	Med. term
HAR-1.n - Allow Flexibility in Standards for Restoration.	CDA, DPW	Existing budget and may require additional grants or revenue ²	Medium	Long term
HAR-1.o - Promote Adaptive Reuse.	CDA	Existing budget	Medium	Med. term
HAR-1.p - Consultation Regarding Confidentiality of Important Sites.	Department of Parks and Open Space, CDA	Existing budget and may require additional grants or revenue ²	High	Ongoing
HAR-2.a - Nominate Historical Resources.	CBO's, FIGR	Will require Private Donations, Grants and other revenue ²	Medium	Ongoing
HAR-2.b - Partner with Owners of Historical Buildings.	MCHS, other CBO's, CDA	Existing budget and may require additional grants or revenue ²	Medium	Long term
HAR-2.c - Install Markers and Plaques.	MCHS, other CBO's, FIGR	Private Donations and Grants	Medium	Long term
HAR-2.d - Promote Native American Awareness and School Enrichment.	Marin Museum of the American Indian, Schools, Marin Cities and Towns, FIGR	Grants, Fees and Private Donations	High	Ongoing
HAR-2.e - Support Development of Educational Materials.	MCHS, FIGR, other CBO's	Private Donations and Grants	Medium	Ongoing
HAR-2.f - Support Local History Education and Preservation.	Library, California Room	Existing budget and may require additional grants or revenue ²	High	Ongoing
HAR-2.g - Preserve Cultural History.	Libraries, CBO's	Private Donations and Grants	Medium	Ongoing



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Program	Responsibility	Potential Funding	Priority	Time Frame
HAR-2.h - Promote Educational Events.	MCHS, FIGR, other CBO's	Private Donations and Grants	Medium	Med. term
HAR-2.i - Implement SB 18 Tribal Consultation Requirements.	CDA	Existing budget	High	Ongoing



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4.14 Parks and Recreation

Background

Marin County has multiple roles and responsibilities concerning parks and recreation. It is a direct service provider at County-owned parks and coordinates with cities and towns, special districts, and other park agencies to identify community park needs and ways to enhance park and recreation services and facilities. Through the development review process, the County must also ensure that new projects provide adequate recreational opportunities for their residents.



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This section of the Countywide Plan focuses on augmenting and improving active recreation facilities in Marin. (See the Open Space Section in the Natural Systems and Agriculture Element for programs regarding lands managed primarily for habitat and scenic values, and lower-impact, passive recreation. Also see the Natural Systems and Agriculture Element, Map 2-17, Marin County Open Space and Parks.) County and city parks in Marin already provide a variety of active recreation amenities, including playing fields, pools, golf courses, tennis and volleyball courts, skate parks, and children’s playgrounds. County Service Areas and special districts manage additional park and recreation facilities, as do some school districts.



“In my view, wholesome pleasure, sport, and recreation are as vital to this nation as productive work and should have a large share in the national budget.”

– Walt Disney

Key Trends and Issues

Does Marin have enough developed recreation facilities?

State law allows cities and counties to acquire parkland through dedication or payment of in-lieu fees during subdivision review (Government Code Section 66477, known as the Quimby Act), and to purchase surplus school sites for recreation if public lands in the vicinity are not adequate to meet community outdoor recreation needs (Education Code Sections 17485–17500). The Novato, Las Gallinas, Upper and Lower Ross Valley, and West Marin Planning Areas fall short of the Quimby standard of 3 to 5 acres of parkland per 1,000 residents

(see Figure 4-41). The County is even further from reaching the National Park Association requirement of 10 acres per 1,000 residents. The demand for a wide range of developed facilities for active recreation continues to grow.

Figure 4-40 Recreation Standards and Guidelines

Recreation Facilities	Recommended Number of Units per Population	Existing Number of Units per Marin County Population ¹	Recommended Service Radius
Swimming Pools	1 per 20,000	1 per 17,650	15 to 30 minutes travel time
Golf	1 per 25,000	1 per 49,500	½ to 1 hour travel time
Baseball	1 per 5,000	1 per 7,500	¼ to ½ mile
Soccer	1 per 20,000	1 per 31,000	1 to 2 miles
Football	1 per 20,000	1 per 31,000	15 to 30 minutes travel time
Basketball	1 per 5,000	1 per 12,350	¼ to ½ mile
Tennis	1 court per 2,000	1 per 2,100	¼ to ½ mile
Running Track (1/4 mile)	1 per 20,000	1 per 31,000	30 to 60 minutes travel time

¹Includes facilities open to the public only.
Source: National Recreation and Park Association, 2001.



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Figure 4-41
Park Acreage by Planning Area (Excluding Schools) Compared with
Quimby Act and National Park Association Requirements

Planning Area	Developed ¹ Park Acreage	Quimby Act Requirements (5 acres per 1,000 people)	Quimby Act Surplus or Deficit	National Requirements (10 acres per 1,000 people)	National Requirements Surplus or Deficit
1. Novato	153	273	(120)	545	(392)
2. Las Gallinas	60	143	(82)	286	(225)
3. San Rafael Basin	211	200	11	400	(189)
4. Upper Ross Valley	124	128	(4)	256	(132)
5. Lower Ross Valley	74	170	(95)	340	(265)
6. Richardson Bay	262	260	2	521	(285)
7. West Marin	45	62	(17)	123	(78)
Total in Marin County	932	1,236	(304)	2,473	(1,541)

¹Developed for the purpose of active recreation. Includes city-owned parks.

Source: 2003 Marin County Community Development Agency and 2000 United States Census.

What Are the Desired Outcomes?

GOAL PK-1

A High-Quality Parks and Recreation System. Provide park and recreation facilities and programs to meet the various needs of all county residents.



Policies

- PK-1.1** **Conduct and Coordinate Park Planning.** Develop park and recreation facilities and programs to provide for active recreation, passive enjoyment, and protection of natural resources as a complement to local, state, and national parks and open space in Marin.
- PK-1.2** **Consider User Needs, Impacts, and Costs.** Plan and develop any needed new park and recreation facilities and programs to meet the desires of the community and protect environmental resources.
- PK-1.3** **Protect Park Resources from Impacts of Climate Change.** Identify strategies to protect park resources from the effects of climate change, such as violent weather, plant loss or change due to moisture and temperature changes, and sea level rise.



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Why is this important?

Several planning areas in Marin County fall short of the Quimby Recreation Act standard of 3 to 5 acres of parkland per 1,000 residents. The County is even further from reaching the National Park Association requirements of 10 acres per 1,000 residents. Parks provide places for active recreation near where people live at little or no cost to park users.

Environment: According to a 2002 study conducted by the Responsive Management research firm, 64% of Americans consider it very important to conserve and protect open space. Providing park facilities for active recreation within the community has the potential to reduce demand and conflict in open space and other areas managed for natural resource purposes. In addition, use of sustainable design principles and recycled materials in parks reduces impacts on natural resources.

Economy: Recreation throughout the United States is a multi-billion dollar industry. In the United States, sales of outdoor gear, footwear, and other accessories total more than \$18 billion annually. Over the last 15 years, consumer spending on recreation and entertainment has increased from 6.5% to 10.5%. Marin County contributes through a multitude of local sports shops that sell supplies for soccer, baseball, golf, tennis, fishing, and other recreational pursuits. Parks throughout the county are critical in providing access to these activities.

Equity: Parks represent a low-cost opportunity for recreational endeavors, allowing all people an equal opportunity to participate. The development of a master plan for parks can address the dynamics of a changing population and recommend appropriate recreational opportunities.

How will results be achieved?

Implementing Programs

PK-1.a *Update the Parks Master Plan.* Update the County Parks Master Plan to assess current facilities, determine appropriate locations for new facilities, and explore funding options.



*“You cannot save the land
apart from the people
or the people apart from
the land.”*

– Wendell Berry

PK-1.b *Assess User Needs.* Monitor use of County parks, periodically assess user needs for all socioeconomic segments of the population, and contact other local park and recreation providers regarding their user needs.

PK-1.c *Support Local Agencies.* Support park and recreation planning efforts by cities and towns, special districts, and other public agencies. Pursue assistance in formulating funding packages and obtaining funding; negotiate with school districts, developers, or other potential recreation providers for recreational opportunities.



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- PK-1.d** *Explore Options with Local Agencies.* Work with cities and towns and schools to determine how their facilities contribute to meeting park and recreation needs in Marin, and to determine which school fields and other recreation facilities may remain available to county residents for use during non-school hours.
- PK-1.e** *Replace Closed Facilities.* Encourage and join efforts to replace closed facilities that were operated by other local jurisdictions or the private sector.
- PK-1.f** *Prepare an Acquisition Plan.* For each proposed new park site, complete an acquisition plan that addresses user needs, access modes, alternative sites, environmental impacts, and financing options.
- PK-1.g** *Prepare an Impact Assessment.* Complete an analysis for each proposed facility that identifies significant resource values and provides a plan for management of vegetation, wildlife, and water resources (if applicable).
- PK-1.h** *Develop Master Plans for Individual Parks.* Prepare a master plan and a capital improvement plan for each acquired park area that includes a site development plan, phasing for development, estimated cost for each phase and long-term operation and maintenance, estimated revenue generation, and funding sources for development.
- PK-1.i** *Conduct a Facilities Inventory.* Conduct a detailed facilities inventory (which would augment the information in Figure 4-41).
- PK-1.j** *Meet Special Group Needs.* Ensure that parks are designed to meet the needs of youths, seniors, and people with disabilities, and annually review special programs targeting those groups, revising them as appropriate.
- PK-1.k** *Consider Group Camping and Picnic Needs.* Identify areas appropriate for overnight camping by groups with permits from the County, and provide group picnic areas as needed.
- PK-1.l** *Consider Garden Sites.* Study the feasibility of allowing community gardens in some park areas, and create a garden pilot program.
- PK-1.m** *Minimize Toxins.* Protect the health of park visitors by utilizing the least toxic means available of reducing weeds and other pests to acceptable levels where appropriate.



“Parks are at the center of a community’s character; they reflect and strengthen the sense of place and identity that makes cities fit places for people to live.”

– Conservation Foundation, 1972



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- PK-1.n** ***Renovate Fields.*** Continue periodic renovations of existing recreational fields as needed.
- PK-1.o** ***Prepare Naming and Sponsorship Guidelines.*** Work with interested parties to evaluate the potential benefits and liabilities of accepting funding for naming rights and sponsorship arrangements regarding parks and recreational facilities. Consider prohibiting corporate naming rights that would commercialize public lands and facilities, although continued honorary and memorial naming should be considered as appropriate.
- PK-1.p** ***Explore Use of Artificial Turf.*** Explore the use of artificial turf for McInnis Park fields and other high-use fields.
- PK-1.q** ***Renovate Boat Launches.*** Renovate the two existing boat launches maintained by the County.
- PK-1.r** ***Consider Mooring Opportunities.*** Evaluate the demand for and feasibility of providing additional boat mooring locations in areas subject to recreational use, including Richardson and Tomales bays, and the future reclamation of the San Rafael Rock Quarry.
- PK-1.s** ***Improve Americans with Disabilities Act (ADA) Accessibility at Parks.*** Upgrade bathrooms, stairways, and parking areas to improve the ADA accessibility of park facilities.
- PK-1.t** ***Continue Ongoing Park Maintenance Programs.*** Continue ongoing management and maintenance programs to ensure the long-term protection of existing park resources and park infrastructure. Explore opportunities for cost savings and innovation that meet the objectives of protecting Marin County parks.
- PK-1.u** ***Protect Environmentally Sensitive Park Areas.*** Protect undeveloped natural park areas such as Tiburon Uplands and Gallinas Creek at McInnis Park, and reassess existing park areas to determine whether they should be re-designated as open space. Where necessary, work with local fire management agencies to reduce fuel loads in an environmentally sensitive manner.
- PK-1.v** ***Prepare Contingency Plans.*** Analyze risks to park resources from violent weather, plant and aquatic changes, and sea level rise, and prepare appropriate contingency plans.



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Figure 4-42 County-Operated Park and Recreation Facility Types

Planning Area	Facility Name	Facility Type	Total Acres	Restrooms (incl. portables)	Turf Area (developed turf)	Developed Picnic Areas	Trails	Open Space/Natural Areas	Parking (and/or street parking)	Historical Feature	Dogs Off Leash	Playground	Vista Points	Pool
1. Novato	Stafford Lake	R	139.0	x	x	x	x	x	o			x		
	Black Point Boat Launch	BL	2.00	x		x			o					
	Novato Multi-Use Path	P	5.60				x	x						
2. Las Gallinas	Pueblo Park ¹	M	2.00						✓			x		
	Candy's Park ¹	M	0.1			x			✓			x		
	Castro Park ¹	N	1.49		x	x			✓			x		
	Adrian Rosall Park ¹	M	0.70		x	x			✓					
	McInnis Park	R	75.00	x	x	x	x	x	o				x	
	Lagoon Park	C	10.00	x	x	x	x		o	x		x		
	Mission Pass Multi-Use Path	P	0.46				x	x	✓					
3. San Rafael Basin	McNear's Beach Park	R	55.00	x	x	x	x		o	x			x	x
4. Upper Ross Valley	Deer Park	C	30.00	x		x	x	x	o					
5. Lower Ross Valley	Creekside Park	C	25.65	x	x	x	x	x	✓			x		
	Creekside Multi-Use Path	P	2.75	x			x	x	✓					
6. Richardson Bay	Mill Valley/Sausalito Path	P	20.66				x	x	✓					
	Paradise Beach Park	R	19.00	x	x	x	x	x	o	x			x	
	Tiburon Uplands	NP	24.00				x	x	✓			x	x	
7. West Marin	Whitehouse Pool	F	22.00	x			x	x	o				x	
	Chicken Ranch Beach	B	3.00	x			x	x	o				x	
	Agate Beach	B	7.00	x			x	x	o				x	
	Bolinas Park	N	1.00	x					✓					
	Forest Knolls Park	N	0.60			x			✓			x		
	Village Green ²	C	2.00		x	x	x		✓					
	Miller Park Boat Launch	BL	6.00	x		x			o				x	
Upton Beach	B	4.00						✓						
Total Acres			459.02											

Key: ✓ = Street o = Lot ¹ Funded by CSA #18 (Las Gallinas Valley). R = Regional Park; M = Mini Park; N = Neighborhood Park; C = Community Park; BL = Boat Launch; P = Multi-Use Path; NP = Nature Preserve; F= Fishing Access; B = Beach
² Funded by CSA #33 (Stinson Beach).



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Figure 4-43 Relationships of Goal to Guiding Principles

This figure illustrates the relationships of this Section’s goal to the Guiding Principles.

Goal	Guiding Principles											
PK-1 A High-Quality Parks and Recreation System	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources, and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, public safety, and social justice.
	•		•		•							•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Number of neighborhood, community, and regional parks in County government jurisdiction in acres per capita.	459 acres in 2000.	Acquire 40 acres by 2010 and develop 10 acres; acquire an additional 40 acres by 2015 and develop 20 acres.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frames for achieving targets and program implementation.



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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 4-44
Parks and Recreation Program Implementation**

Program	Responsibility	Potential Funding	Priority	Time Frame
PK-1.a - Update the Parks Master Plan.	County Parks	Will require additional grants or revenue ²	High	Short term
PK-1.b - Assess User Needs.	County Parks	Will require additional grants or revenue ²	High	Short term
PK-1.c - Support Local Agencies.	County Parks	Existing budget	Low	Med. term
PK-1.d - Explore Options with Local Agencies.	County Parks	Existing budget	Medium	Med. term
PK-1.e - Replace Closed Facilities.	County Parks	Will require additional grants or revenue ²	Low	Long term
PK-1.f - Prepare an Acquisition Plan.	County Parks	Existing budget	Medium	Med. term
PK-1.g - Prepare an Impact Assessment.	County Parks	Existing budget	Medium	Med. term
PK-1.h - Develop Master Plans for Individual Parks.	County Parks	Will require additional grants or revenue ²	High	Med. term
PK-1.i - Conduct a Facilities Inventory.	County Parks	Will require additional grants or revenue ²	High	Short term
PK-1.j - Meet Special Group Needs.	County Parks	Existing budget and may require additional grants or revenue ²	Medium	Short term
PK-1.k - Consider Group Camping and Picnic Needs.	County Parks	Will require additional grants or revenue ²	Medium	Med. term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

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.



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Program	Responsibility	Potential Funding	Priority	Time Frame
PK-1.l - Consider Garden Sites.	County Parks	Existing budget	Medium	Med. term
PD-1.m - Minimize Toxins.	County Parks	Existing budget	High	Ongoing
PK-1.n - Renovate Fields.	County Parks	Existing budget	High	Ongoing
PK-1.o - Prepare Naming and Sponsorship Guidelines.	County Parks	Existing budget	Medium	Med. term
PK-1.p - Explore the Use of Artificial Turf.	County Parks	Will require private donations, Bonds, Grants	High	Ongoing
PK-1.q - Renovate Boat Launches.	County Parks	Will require additional grants or revenue ²	High	Med. term
PK-1.r - Consider Mooring Opportunities.	RBRA & State of California	Existing budget and may require additional grants or revenue ²	Low	Long term
PK-1.s - Improve ADA Accessibility.	County Parks	Existing budget and may require additional grants or revenue ²	High	Ongoing
PK-1.t - Continue Ongoing Park Maintenance Programs.	Department of Parks and Open Space	Existing budget and may require additional grants or revenue ²	High	Ongoing
PK-1.u - Protect Environmentally Sensitive Park Areas.	Department of Parks and Open Space	Existing budget and may require additional grants or revenue ²	High	Med. term
PK-1.v - Prepare Contingency Plans.	Department of Parks and Open Space	Will require additional grants or revenue ²	Medium	Long term



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**Figure 5-1
Special-Status Animal Species Known or Suspected from Marin County**

Common Name (<i>Scientific Name</i>)	Status Federal/State	Habitat
Amphibians/Reptiles		
Green sea turtle (<i>Chelonia mydas</i>)	FT / -	Open ocean.
Loggerhead sea turtle (<i>Caretta caretta</i>)	FT / -	Open ocean.
Leatherback sea turtle (<i>Dermochelys coriacea</i>)	FE / -	Open ocean.
Northwestern pond turtle (<i>Clemmys marmorata marmorata</i>)	SC / CSC	Streams/ponds/lakes.
California tiger salamander (<i>Ambystoma californiense</i>)	FT/CSC	Breeds in pools and adults occupy surrounding grasslands/open woodlands.
California red-legged frog (<i>Rana aurora draytonii</i>)	FT / CSC	Forests/woodlands/grasslands and streamsides.
Foothill yellow-legged frog (<i>Rana boylei</i>)	SC / CSC	Streams with rocky substrate.
Birds		
Tricolored blackbird (<i>Agelaius tricolor</i>) (nesting colony)	SC / CSC	Freshwater marsh and surrounding fields.
Great egret (<i>Ardea alba</i>) (rookery)	- / -	Colonial nester in large trees.
Great blue heron (<i>Ardea herodias</i>) (rookery)	- / -	Colonial nester in trees, cliffsides, marshes.
Burrowing owl (<i>Athene cunicularia</i>) (burrow sites)	- / CSC	Open grasslands/scrub.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>) (nesting)	FT / CSC	Nesting along sandy beaches and shorelines.
Northern harrier (<i>Circus cyaneus</i>) (nesting)	- / CSC	Nesting in marsh and low shrubs.
Black swift (<i>Cypseloides niger</i>) (nesting)	SC / CSC	Nesting on cliffs and behind falls.
Yellow warbler (<i>Dendroica petechia brewsteri</i>) (nesting)	SC / CSC	Nesting in willows and riparian cover.
Snowy egret (<i>Egretta thula</i>) (rookery)	- / -	Colonial nester in trees, cliffsides, near marshland.
White-tailed kite (<i>Elanus leucurus</i>) (nesting)	SC / FP	Nesting in grassland/marshland with trees.
Tufted puffin (<i>Fratercula cirrhata</i>)	- / CSC	Colonial nester on offshore islands/cliffs.
Salt marsh common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	SC / CSC	Salt and brackish-water marsh.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	- / ST; FP	Coastal salt marsh.
Black-crowned night heron (<i>Nycticorax nycticorax</i>) (rookery)	- / -	Colonial nester in trees/shrubs near marshland.
Ashy storm-petrel (<i>Oceanodroma homochroa</i>) (rookery)	SC / CSC	Colonial nester on offshore islands.
Osprey (<i>Pandion haliaetus</i>) (nesting)	- / CSC	Nesting in trees associated with water bodies.
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	FE/SE; FP	Coastal/bay shorelines and open water.
California clapper rail (<i>Rallus longirostris</i>)	FE / SE	Salt and brackish marsh.



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Common Name (<i>Scientific Name</i>)	Status Federal/State	Habitat
<i>obsoletus</i>		
California least tern (<i>Sterna antillarum brownii</i>)	FE/SE; FP	Coastal/bay shorelines and open water.
Northern spotted owl (<i>Strix occidentalis caurina</i>)	FT / -	Forest and woodland.
Fish		
Tidewater goby (<i>Eucyclogobius newberryi</i>)	FE/ CSC	Brackish water, marsh/bays.
Tomales roach (<i>Lavinia symmetricus ssp. symmetricus</i>)	- / CSC	Tributaries of Tomales Bay.
Coho salmon (<i>Oncorhynchus kisutch</i>)	FT / SE	Spawns in freshwater streams.
Chinook salmon (<i>Oncorhynchus tshawytscha</i>)	FT/	Spawns in freshwater streams.
Steelhead trout (<i>Oncorhynchus mykiss</i>)	FT/CSC	Spawns in freshwater streams.
Invertebrates		
Tomales isopod (<i>Caecidotea tomalensis</i>)	- / -	Freshwater marsh/ponds.
Monarch butterfly (<i>Danaus plexippus</i>) (colonies)	- / -	Overwinters in blue gum eucalyptus.
Black abalone (<i>Haliotis cracherodii</i>)	C/-	Rocky intertidal zone and ocean waters.
White abalone (<i>Haliotis sorenseni</i>)	FE/-	Rocky intertidal zone and ocean waters.
Williams' bronze shoulderband (<i>Helminthoglypta arrosa williamsi</i>)	- / -	Known only from Hogg Island.
Peninsula coast range shoulderband snail (<i>Helminthoglypta nickliniana awania</i>)	- / -	Known only from Point Reyes headland.
Ricksecker's water scavenger beetle (<i>Hydrochara rickseckeri</i>)	- / -	Aquatic habitat/pools and ponds.
Mission blue butterfly (<i>Icaricia icarioides missionensis</i>)	FE / -	Shrubs/grasslands with lupine host.
San Bruno elfin (<i>Incisalia mossii bayensis</i>)	FE/-	Coastal scrub with stonecrop host plant.
Bumblebee scarab beetle (<i>Lichnanthe ursina</i>)	- / -	Coastal dunes.
Tiburon micro-blind harvestman (<i>Microcina tiburona</i>)	- / -	Serpentine outcrops near spring/seeps.
Myrtle's silverspot (<i>Speyeria zerene myrtleae</i>)	FE / -	Scrub/grassland with larval host.
California freshwater shrimp (<i>Syncais pacifica</i>)	FE / SE	Freshwater streams with undercut banks.
Mammals		
Pallid bat (<i>Antrozous pallidus</i>)	- / CSC	Roosts in protected locations.
Point Reyes mountain beaver (<i>Aplodontia rufa phaea</i>)	- / CSC	Springs/ seeps with dense cover.
Guadalupe fur seal (<i>Arctocephalus townsendi</i>)	FT /ST; FP	Open ocean, beaches.
Sei whale (<i>Balaenoptera borealis</i>)	FE / -	Open ocean.
Blue whale (<i>Balaenoptera musculus</i>)	FE / -	Open ocean.
Finback whale (<i>Balaenoptera physalus</i>)	FE / -	Open ocean.
Townsend's western big-eared bat (<i>Corynorhinus townsendii townsendii</i>)	- / CSC	Roosts in protected locations.
Grey whale (<i>Eschrichtius robustus</i>)	FE / -	Open ocean.
Right whale (<i>Eubalaena glacialis</i>)	FE/-	Open ocean.
Stellar sea lion (<i>Eumetopias jubatus</i>)	FT / -	Open ocean, beaches.



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Common Name (<i>Scientific Name</i>)	Status Federal/State	Habitat
Greater western mastiff-bat (<i>Eumops perotis californicus</i>)	SC/CSC	Roots in protected locations.
Southern sea otter (<i>Enhydra lutris nereis</i>)	FT / FP	Near shore marsh habitat.
Humpback whale (<i>Megaptera novaeangliae</i>)	FE/-	Open ocean.
Long-eared myotis bat (<i>Myotis evotis</i>)	SC/-	Roosts in protected locations.
Fringed myotis bat (<i>Myotis thysanodes</i>)	SC/	Roots in protected locations.
Long-legged myotis bat (<i>Myotis volans</i>)	SC/-	Roots in protected locations.
Yuma myotis bat (<i>Myotis yumanensis</i>)	SC/-	Roots in protected locations.
Sperm whale (<i>Physeter catodon</i>)	FE/-	Open ocean.
Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE / SE; FP	Coastal salt marsh.
Angel Island mole (<i>Scapanus latimanus insularis</i>)	- / CSC	Coastal scrub/prairie on Angel Island.
Point Reyes jumping mouse (<i>Zapus trinotatus orarius</i>)	- / CSC	Coastal scrub/grassland from Point Reyes.



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Figure 5-2
Special-Status Plant Species Known or Suspected from Marin County

Common Name (<i>Scientific Name</i>)	Status Federal/ State/CNPS	Habitat
Pink sand-verbena (<i>Abronia umbellata</i> ssp. <i>breviflora</i>)	SC / - / 1B	Coastal dunes/stand.
Blasdale's bent grass (<i>Agrostis blasdalei</i>)	SC / - / 1B	Coastal dunes/scrub/prairie.
Point Reyes bent grass (<i>Agrostis clivicola</i> var. <i>punta-reyesensis</i>)	SC / - / -	Coastal scrub/prairie/coniferous forest.
Sonoma alopecurus (<i>Alopecurus aequalis</i> var. <i>sonomensis</i>)	FE / - / 1B	Freshwater marsh/riparian scrub.
Napa false indigo (<i>Amorpha californica</i> var. <i>napensis</i>)	- / - / 1B	Forest/chaparral/woodland.
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	- / - / 1B	Coastal bluff scrub/woodland/grassland.
Mount Tamalpais manzanita (<i>Arctostaphylos hookeri</i> ssp. <i>montana</i>)	SC / - / 1B	Chaparral/grassland.
Marin manzanita (<i>Arctostaphylos virgata</i>)	- / - / 1B	Coniferous forest/chaparral.
Coastal marsh milk-vetch (<i>Astragalus pycnostachyus</i> var. <i>p.</i>)	- / - / 1B	Dunes/marshes/swamps.
Point Reyes blennosperma (<i>Blennosperma nanum</i> var. <i>robustum</i>)	SC / SR / 1B	Coastal prairie/scrub.
Small groundcone (<i>Boschniakia hookeri</i>)	- / - / 2	Coniferous forests.
Thurber's reed grass (<i>Calamagrostis crassiglumis</i>)	SC / - / 2	Coastal scrub/freshwater marsh.
Tiburon mariposa lily (<i>Calochortus tiburonensis</i>)	FT / ST / 1B	Serpentine grassland.
Coastal bluff morning glory (<i>Calystegia purpurata</i> ssp. <i>saxicola</i>)	- / - / 1B	Dunes/coastal scrub.
Swamp harebell (<i>Campanula californica</i>)	SC / - / 1B	Bogs/ferns/marshes in coniferous forest.
Flaccid sedge (<i>Carex leptalea</i>)	- / - / 2	Bogs/fens/meadows/seeps.
Lyngbye's sedge (<i>Carex lyngbyei</i>)	- / - / 2	Marshes/swamps.
Tiburon Indian paintbrush (<i>Castilleja affinis</i> ssp. <i>neglecta</i>)	FE / ST / 1B	Serpentine grassland.
Humbolt Bay owl's clover (<i>Castilleja ambigua</i> ssp. <i>humboldtensis</i>)	SC / - / 1B	Coastal salt marsh.
Mount Vision ceanothus (<i>Ceanothus gloriosus</i> var. <i>porrectus</i>)	SC / - / 1B	Coniferous forest/coastal scrub/prairie.
Mason's ceanothus (<i>Ceanothus masonii</i>)	SC / SR / 1B	Chaparral/serpentine.
San Francisco Bay spineflower (<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>)	SC / - / 1B	Coastal scrub/prairie/dunes.
Woolly headed spineflower (<i>Chorizanthe cuspidata</i> var. <i>villosa</i>)	- / - / 1B	Coastal scrub/prairie/dunes.
Robust spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>)	FE/-/1B	Woodlands, coastal dunes/scrub.
Sonoma spineflower (<i>Chorizanthe valida</i>)	FE / SE / 1B	Coastal prairie.
Franciscan thistle (<i>Cirsium andrewsii</i>)	- / - / 1B	Forest/coastal bluff scrub/prairie/coastal scrub.
Mount Tamalpais thistle (<i>Cirsium hydrophilum</i> var. <i>vaseyi</i>)	SC / - / 1B	Forest/chaparral.
Raiche's red ribbons (<i>Clarkia concinna</i> ssp. <i>raichei</i>)	SC / - / 1B	Coastal bluff scrub.



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Common Name (<i>Scientific Name</i>)	Status Federal/ State/CNPS	Habitat
Round-headed Chinese houses (<i>Collinsia corymbosa</i>)	- / - / 1B	Coastal dunes.
Point Reyes bird's beak (<i>Cordylanthus maritimus ssp. palustris</i>)	SC / - / 1B	Coastal salt marsh/dunes.
Soft bird's beak (<i>Cordylanthus mollis ssp. mollis</i>)	FE / SR / 1B	Coastal salt marsh.
Baker's larkspur (<i>Delphinium bakeri</i>)	FE / SR / 1B	Coastal scrub.
Yellow larkspur (<i>Delphinium luteum</i>)	FE / SR / 1B	Chaparral/coastal scrub/prairie.
Western leatherwood (<i>Dirca occidentalis</i>)	- / - / 1B	Forest/chaparral/woodland.
Supple daisy (<i>Erigeron supplex</i>)	- / - / 1B	Coastal bluff scrub/prairie.
Minute pocket-moss (<i>Fissidens pauperculus</i>)	- / - / 1B	Forest floor along coast.
Fragrant fritillary (<i>Fritillaria liliacea</i>)	SC / - / 1B	Coastal scrub/prairie/grassland.
Dune gilia (<i>Gilia capitata ssp. chamissonis</i>)	- / - / 1B	Dunes/coastal scrub.
Woolly-headed gilia (<i>Gilia capitata ssp. tomentosa</i>)	- / - / 1B	Coastal bluff scrub/outcrops.
Dark-eyed gilia (<i>Gilia millefoliata</i>)	- / - / 1B	Coastal dunes.
San Francisco gumplant (<i>Grindelia hirsutula var. maritima</i>)	- / - / 1B	Coastal bluff scrub/coastal scrub/ grassland.
Diablo helianthella (<i>Helianthella castanea</i>)	- / - / 1B	Forest/chaparral/woodland/coastal scrub/grassland.
Short-leaved evax (<i>Hesperexax sparsiflora var. brevifolia</i>)	- / - / 2	Coastal bluff scrub/dunes.
Marin western flax (<i>Hesperolinon congestum</i>)	FT / ST / 1B	Chaparral/grassland.
Santa Cruz tarplant (<i>Holocarpha macradenia</i>)	FT / FE / 1B	Coastal prairie/coastal scrub/ grassland.
Kellogg's horkelia (<i>Horkelia cuneata ssp. sericea</i>)	SC / - / 1B	Coniferous forest/coastal scrub/ chaparral.
Point Reyes horkelia (<i>Horkelia marinensis</i>)	SC / - / 1B	Coastal scrub/prairie/dunes.
Thin-lobed horkelia (<i>Horkelia tenuiloba</i>)	- / - / 1B	Coastal scrub/chaparral.
Baker's goldfields (<i>Lasthenia macrantha ssp. bakeri</i>)	- / - / 1B	Coniferous forest/coastal scrub.
Perennial goldfields (<i>Lasthenia macrantha ssp. macrantha</i>)	- / - / 1B	Coastal bluff scrub/dunes/coastal scrub.
Beach layia (<i>Layia carnosae</i>)	FE / SE / 1B	Coastal dunes.
Tamalpais lessingia (<i>Lessingia micradenia var. micradenia</i>)	SC / - / 1B	Chaparral/grassland in serpentine.
Mason's lilacopsis (<i>Lilacopsis masonii</i>)	SC / SR / 1B	Fresh and brackish marsh.
Coast lily (<i>Lilium maritimum</i>)	- / - / 1B	Forest/prairie/coastal scrub/marshes/swamps.
Point Reyes meadowfoam (<i>Limnanthes douglasii ssp. sulphurea</i>)	SC / SE / 1B	Freshwater marsh/prairie/seeps.
Large-flowered linanthus (<i>Linanthus grandiflorus</i>)	SC / - / 4	Coastal bluff scrub.
Tidestrom's lupine (<i>Lupinus tidestromii</i>)	FE / SE / 1B	Coastal dunes.
Marsh microseris (<i>Microseris paludosa</i>)	- / - / 1B	Forest/woodland/coastal scrub/ grassland.
Baker's navarretia (<i>Navarretia leucocephala ssp. bakeri</i>)	- / - / 1B	Woodland/seeps/pools/grassland/ forest.



MARIN COUNTYWIDE PLAN

Common Name (<i>Scientific Name</i>)	Status Federal/ State/CNPS	Habitat
Marin County navarretia (<i>Navarretia rosulata</i>)	- / - / 1B	Coniferous forest/chaparral.
White-rayed pentachaeta (<i>Pentachaeta bellidiflora</i>)	FE / SE / 1B	Grassland on serpentine.
North Coast phacelia (<i>Phacelia insularis</i> var. <i>continentis</i>)	- / - / 1B	Coastal bluff scrub/dunes.
Point Reyes rein orchid (<i>Piperia elegans</i> ssp. <i>decurtata</i>)	- / - / 1B	Coastal bluff scrub only from Point Reyes National Seashore.
Hairless popcorn flower (<i>Plagiobothrys glaber</i>)	/ / 1A	Meadows/seeps/marshes/swamps.
North Coast semaphore grass (<i>Pleuropogon hooverianus</i>)	SC / ST / 1B	Forest/steeps.
Marin knotweed (<i>Polygonum marinense</i>)	SC / - / 3	Marshes/swamps.
Tamalpais oak (<i>Quercus parvula</i> var. <i>tamalpaisensis</i>)	- / - / 1B	Coniferous forest only on Mount Tamalpais.
California beaked-rush (<i>Rhynchospora californica</i>)	SC / - / 1B	Bogs/marshes/seeps/coniferous forest.
Point Reyes checkerbloom (<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>)	- / - / 1B	Marshes/swamps.
Marin checkerbloom (<i>Sidalcea hickmanii</i> ssp. <i>viridis</i>)	SC / - / 1B	Chaparral.
Purple-stemmed checkerbloom (<i>Sidalcea malviflora</i> ssp. <i>purpurea</i>)	- / - / 1B	Forest/prairie.
Santa Cruz microseris (<i>Stebbinsoseris decipiens</i>)	SC/-/1B	Forest/chaparral/coastal scrub/prairie.
Tamalpais jewel-flower (<i>Streptanthus batrachopus</i>)	SC / - / 1B	Coniferous forest/chaparral.
Mount Tamalpais jewel-flower (<i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i>)	- / - / 1B	Chaparral/grassland.
Tiburon jewel-flower (<i>Streptanthus niger</i>)	FE / SE / 1B	Grassland on serpentine.
Showy Indian clover (<i>Trifolium amoenum</i>)	FE / - / 1B	Grassland/coastal bluff scrub.
San Francisco owl's clover (<i>Triphysaria floribunda</i>)	SC / - / 1B	Coastal prairie/grassland.

STATUS DESIGNATIONS

Federal:

FE = Listed as “endangered” under the federal Endangered Species Act.

FT = Listed as “threatened” under the federal Endangered Species Act.

PE = Proposed for federal listing as “endangered.”

PT = Proposed for federal listing as “threatened.”

C = A candidate species under review for federal listing. Candidates include taxa for which the USFWS has sufficient biological information to support a proposal to list as endangered or threatened.

SC = Species of concern; formerly considered a candidate species for listing by the USFWS.

State:

SE = Listed as “endangered” under the California Endangered Species Act.

SR = Listed as “rare” under the California Endangered Species Act.

ST = Listed as “threatened” under the California Endangered Species Act.

CP = California fully protected species; individual may not be possessed or taken at any time.

CSC = Considered a species of special concern by the CDFG; taxa have no formal legal protection, but nest sites and communal roosts are generally recognized as significant biotic features.

CNPS:

1A = Plants of highest priority; plants presumed extinct in California.

1B = Plants of highest priority; plants rare and endangered in California and elsewhere.



MARIN COUNTYWIDE PLAN

- 3 = Plants requiring additional information; a review list.
- 4 = Plants of limited distribution; a watch list.

MARIN COUNTYWIDE PLAN

CWP Glossary

Accessible Housing. Housing units accessible and adaptable to the needs of the physically disabled.

Accessory Structure. A structure that is physically detached from, secondary and incidental to, and commonly associated with the primary structure or use.

Accessory Use. A subordinate use that is incidental to the principal use on the same lot or building site.

Acres (Gross). The entire acreage of a site, generally excluding perimeter roadways but including interior roadways and easements and areas below the high-tide line.

Acres (Net). The developable portion of a site, after excluding public or private road rights-of-way, public open space, and primary floodways.

Adaptive Reuse. The conversion of obsolescent or historic buildings to provide the opportunity for new uses within a community, such as the conversion of a former hospital or school to residential or mixed use, or the conversion of a bank building to a store or office.

Adequate Sites. Pursuant to State law, having sufficient land zoned to meet regional “fair share” housing unit allocations. In their housing elements, cities and counties need to identify an inventory of land suitable for residential development, including vacant sites and underutilized sites.

Adjacent. Having a common border.

Adverse Impact. A negative consequence for the physical, social, or economic environment resulting from an action or project.

Affordability. The generally accepted banking/governmental standard for determining whether a person can afford housing means spending no more than 30% of one’s gross monthly household income on housing costs, which for owner housing would include principal, interest, utilities, and insurance. For example, a beginning schoolteacher earning \$26,750 per year can afford to pay up to \$668 per month for housing. A police officer or firefighter earning \$42,800 per year can afford up to \$1,070 per month. *See “Income Levels” and “Income Limit (Housing).”*

Affordable Housing. Dwelling units that are rented or sold at rates that are affordable to households of moderate, low, or very low income. Housing is considered affordable when a household pays less than 30% of its gross monthly income (GMI) for housing, including utilities.

Agency. A governmental entity, department, office, or administrative unit responsible for carrying out regulations.



GLOSSARY

Agricultural Diversification. A system of farming that encourages production of a variety of plants and animals and their products, as opposed to monoculture or large-scale specialization. Advocates of diversification argue that it provides greater income stability.

Agricultural Preserve. Land designated for agriculture or conservation. *See* “*Williamson Act*.”

Agricultural Production. The commercial production of agricultural crops as defined above.

Agricultural Production and Stewardship Plan. A plan that identifies existing and proposed agricultural uses and resources for a property. The intent of these plans is to demonstrate the following: (1) the long-term agricultural use of the property will be preserved; (2) agricultural infrastructure has been established or will be enhanced; (3) agricultural uses proposed in connection with the residence are appropriate to the site; (4) sound land stewardship has been implemented or will be enacted; and (5) at least 90% of the usable land of the property will be engaged in agricultural production.

Agricultural Viability. The collective success and/or ongoing effectiveness of agricultural operations and enterprises.

Agricultural Worker Housing. Any attached or detached dwelling unit used to house agricultural workers and their family members, including temporary mobile homes. For the purposes of calculating density, no more than one food-preparation area shall be provided for each agricultural worker housing unit.

Agriculture. The breeding, raising, pasturing, and grazing of livestock for the production of food and fiber; the breeding and raising of bees, fish, poultry, and other fowl; and the planting, raising, harvesting, and producing of agricultural, aquacultural, horticultural, and forestry crops.

Agri-tourism. A business conducted by farmers or ranchers on their working agricultural operation for the enjoyment and education of visitors. It is intended to promote farm products and to generate additional or supplemental farm income.

Air Pollution. Concentrations of substances found in the atmosphere that exceed naturally occurring quantities and are undesirable or harmful.

Air Quality. Federal and state standards for emissions of locally generated pollutants: carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and total suspended particulates.

Air Rights. The right to the use of air space over property owned by another. Air rights are granted for space above an existing right-of-way, parking lot, or other type of property. Air rights can be sold or leased and a platform built over the existing use, where new development can be constructed.

Alluvium. A general term for the sediments laid down in riverbeds, floodplains, lakes, fans at the foot of a mountain slope, and estuaries during relatively recent geologic times.



GLOSSARY

Alquist-Priolo Earthquake Fault Zone. A regulatory zone, delineated by the State Geologist, within which site-specific geologic studies are required to identify and avoid fault rupture hazards prior to subdivision of land and/or construction of most structures for human occupancy.

Ambient. Surrounding on all sides; used to describe measurements of existing conditions with respect to traffic, noise, air, and other environments.

Amenity. A feature that increases attractiveness or value. Examples of amenities include public open space adjacent to or near a building or group of buildings, aesthetically pleasing architecture, good schools, bicycle lanes, and storage spaces.

Anadromous Fish. Species of fish that mature in the ocean and migrate into streams to spawn.

Aquaculture. The raising and harvesting of aquatic organisms, including shellfish, mollusks, crustaceans, kelp, and algae.

Aquifer. An underground, water-bearing layer of earth, porous rock, sand, or gravel, through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a water supply.

Archaeological. Relating to the material remains of past human life, culture, or activities.

Arterial. A major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to properties.

Assisted Housing. Generally multi-family rental housing, but sometimes single-family ownership units, whose construction, financing, sales prices, or rents have been subsidized by federal, State, or local housing programs.

Assisted Housing Developments. Multi-family rental housing that receives governmental assistance under federal programs, State and local multi-family revenue bond programs, local redevelopment programs, the federal Community Development Block Grant Program, or local in-lieu fees. The term also includes multi-family rental units that were developed pursuant to a local inclusionary housing program or used to qualify for a density bonus.

Bankfull. Indicates the height (or stage) of a stream that just fills the stream channel.

Barrier-Free Design. Design that provides access for persons with physical disabilities. *See "Universal Design."*

Base Flood. In any given year, a 100-year flood that has a 1% likelihood of occurring and is recognized as a standard for acceptable risk.



GLOSSARY

Baylands. Lands within or adjacent to a bay and touched by tidal action, as well as lands that the tides would encompass in the absence of any levees or other constructed structures. Baylands include tidal flats, tidal marsh, lagoons, and diked lands.

Below-Market-Rate (BMR) Housing. Housing that is sold or rented at a price that is below the prevailing rate for equivalent housing units within the same community.

Bicycle Lane (Class II facility). A corridor expressly reserved for bicycles on a street or roadway in addition to any lanes for use by motorized vehicles.

Bicycle Path (Class I facility). A paved route not on a street or roadway and expressly reserved for bicycles traversing an otherwise unpaved area. Bicycle paths may parallel roads but typically are separated from them by landscaping.

Bicycle Route (Class III facility). A facility shared with motorists and identified only by signs. A bicycle route has no bicycle pavement markings or lane stripes.

Bikeway. A term that encompasses bicycle lanes, bicycle paths, and bicycle routes.

Biodiesel. A domestically producible, nontoxic, biodegradable, renewable fuel made from vegetable oil, methanol, and a catalyst (usually sodium hydroxide or potassium hydroxide). The vegetable oils primarily used in the United States are soy, canola, and rapeseed. Biodiesel contains no petroleum, but it can be blended with petroleum diesel in any ratio or used without petroleum.

Biogas. Biogas energy is recovered methane from landfills or agricultural operations used to power an engine or a turbine.

Biological Diversity, Biodiversity. The number and abundance of species found within a common environment. This includes the variety of genes, species, and ecosystems, and the ecological processes that connect everything in a common environment.

Biotic Community. A group of living organisms characterized by a distinctive combination of both animal and plant species in a particular habitat.

Brownfield. A piece of industrial or commercial property that has been abandoned, is idle, or is underused, and often is environmentally contaminated, especially one considered a potential site for redevelopment.

Buffer. A land area that is designed to block or absorb unwanted impacts to the area beyond the buffer. Buffers generally allow for some flexibility of use within the designated area, with restrictions increasing closer to the protected resource.

Building Height. The greatest vertical distance from finished grade to the roof, excluding architectural features such as chimneys.



GLOSSARY

Buildout. Development of land to its full potential or theoretical capacity as permitted under current or proposed planning or zoning designations.

Business Incubator. A center that supports new and growing businesses under one roof, offering a wide range of business training, support programs, flexible leases, and shared equipment in a professional working environment.

California Environmental Quality Act (CEQA). A State law, originally enacted in 1970, that requires public agencies to document and consider the environmental effects of a proposed action before a decision is issued. See California Public Resources Code Sections 21000, et seq.

California Housing Finance Agency (CHFA). A State agency, established by the Housing and Home Finance Act of 1975, that is authorized to sell revenue bonds and generate funds for the development, rehabilitation, and conservation of low and moderate income housing.

Canopy. (1) The part of any stand of trees represented by the tree crowns. Typically refers to the uppermost layer of foliage but can be used to describe lower layers in a multistoried forest. (2) The projection of a roof structure beyond the exterior of a building, such as an eave or porch roof.

Capital Improvements Program (CIP). A program, administered by a city or county government, that schedules permanent improvements, usually for a minimum of five years in the future, to fit the projected fiscal capability of the local jurisdiction. The program generally is reviewed annually for conformance to and consistency with the General Plan.

Carbon Dioxide. A colorless, odorless, nonpoisonous gas that is a normal part of the atmosphere.

Carbon Monoxide. A colorless, odorless, highly poisonous gas produced by automobiles and other machines with internal combustion engines that imperfectly burn fossil fuels such as oil and gas.

Census (U.S.). The official decennial enumeration of the population conducted by the federal government.

Channelization. (1) The straightening and/or deepening of a watercourse for purposes of storm runoff control or ease of navigation. Channelization often includes lining of stream banks with a retaining material such as concrete. (2) At the intersection of roadways, the directional separation of traffic lanes through the use of curbs or raised islands, which limit the paths that vehicles may take through the intersection.

Charrette. Any collaborative session in which a group of designers and interested parties drafts a solution to a design problem. In urban planning, the charrette has become a technique for consulting with all stakeholders while integrating the aptitudes and interests of a diverse group of people.

Circulation. The movement of people and goods within a region.



GLOSSARY

City. *City* with a capital *C* generally refers to the government or administration of a city. *City* with a lowercase *c* may mean any city or may refer to the geographical area of a city (e.g., the city's bikeway system).

Climate Change. Any long-term significant change in measures of climate such as temperature, precipitation, or wind. Possible causes include changes in natural factors, natural processes, and/or human activities.

Closed-Loop Systems. Reusing materials to achieve zero waste. Such systems incorporate any used material into new products to reduce the need for raw material and eliminate all waste being disposed of or transmitted into the environment.

Clustered Development. Development in which a number of dwelling units are placed in closer proximity than usual or attached with the purpose of retaining an open space area.

Coastal County. A county, or city and county, that lies, in whole or in part, within the coastal zone. *See "Coastal Zone."*

Coastal-Dependent Development or Use. Any development or use that requires a site on or adjacent to the sea to be able to function at all.

Coastal Development Permit. A permit for any development within the coastal zone that is required pursuant to the California Coastal Act.

Coastal Plan. The California Coastal Zone Conservation Plan prepared and adopted by the California Coastal Zone Conservation Commission and submitted to the governor and the Legislature on December 1, 1975, pursuant to the California Coastal Zone Conservation Act of 1972.

Coastal-Related Development. Any use that is dependent on a coastal-dependent development or use.

Coastal Zone. The land and water area of the State of California from the Oregon border to the border of the Republic of Mexico, extending seaward to the State's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea, or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards.

Cohousing. A type of shared housing arrangement. Cohousing developments have individual units with kitchens combined with a common kitchen and meeting room. They may also include such common features as child care facilities, artist studios, darkrooms, and woodworking shops. Cohousing developments are normally organized as condominiums, although they can also be organized as cooperatives.

Collector. A street for traffic moving between arterial and local streets, generally providing direct access to properties.



GLOSSARY

Colluvium. Rock, organic debris, and soil accumulated at the foot of a slope.

Commercial. A land use classification that permits facilities for the buying and selling of commodities and services.

Community Development Block Grant (CDBG). A grant program administered by the U.S. Department of Housing and Urban Development (HUD) on a formula basis for entitlement communities and by the State Department of Housing and Community Development (HCD) for non-entitled jurisdictions. This grant allots money to cities and counties for housing acquisition and rehabilitation and community development, including public facilities and economic development.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events with weighting factors of 5 and 10 dBA (see “dBA”) applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for the greater sensitivity to noise during these hours.

Community Park. A park that serves a population of 10,000 to 30,000 within a three-mile radius and usually contains specialized facilities such as swimming pools, tennis courts, community centers, and sports field complexes.

Community Redevelopment Agency. A local agency created under California redevelopment law or a local legislative body that has elected to exercise the powers granted to such an agency for the purpose of planning, developing, re-planning, redesigning, clearing, reconstructing, and/or rehabilitating all or part of a specified area with residential, commercial, industrial, and/or public (including recreational) structures and facilities. The redevelopment agency’s plans must be compatible with adopted community general plans.

Community Separator. Landforms such as hills, ridgelines, watercourses, floodplains, or other environmentally sensitive areas that have served to physically separate communities. *See “Ridge and Upland Greenbelt.”*

Community Service Area. A geographic sub-area of a city or unincorporated area used for the planning and delivery of parks, recreation, and other human services based on an assessment of the service needs of the population in that sub-area.

Community Services District. A special district with taxing authority and an elected board of directors used to provide public services.

Condominium. As defined by Civil Code Section 1351(f), a development where undivided interest in common in a portion of real property is coupled with a separate interest in space called a unit, the boundaries of which are described on a recorded final map, parcel map, or condominium plan. The area within the boundaries may be filled with air, earth, or water, or any combination, and need not be physically attached to any land except by easements for access and, if necessary, support.



GLOSSARY

Congestion Management Program (CMP). A mechanism employing growth management techniques, including traffic level of service standards, development mitigation programs, transportation systems management, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development. All cities and counties with urbanized areas are required to adopt and update a Congestion Management Program.

Congregate Housing. Long-term supportive housing in a group setting, which includes independent living and sleeping accommodations in conjunction with shared dining and recreational facilities. Residents of congregate care facilities occupy individual apartments, most of which include kitchens, although these may be minimal.

Connectivity. The degree to which similar habitats are linked.

Conservation. The management of natural resources to prevent waste, destruction, or neglect.

Conservation Contract. *See "Williamson Act."*

Conservation Easement. *See "Easement, Conservation."*

Contract-Restricted Land. Land with development potential restricted by contract, such as the Williamson Act for agricultural lands, or transfer of development rights from designated open space.

County. *County* with a capital *C* is the County of Marin. *County* with a lowercase *c* refers to the geographical area of Marin County.

Countywide Planning Agency (CWPA). A panel composed of representation from the Marin County Board of Supervisors and each of the 11 cities and towns. The CWPA reviews land use policy recommendations of a countywide nature.

Cover. Any feature that conceals wildlife or fish. Cover may be dead or live vegetation, boulders, or undercut stream banks. Animals use cover to escape from predators and other threats, to rest, to feed, and to breed.

Creek. *See "Stream."*

Critical Facility. A facility that either (1) provides emergency or essential services or (2) houses or serves many people who would be injured or killed in case of disaster damage to the facility. Examples include hospitals, fire stations, police and emergency services facilities, utility facilities, and communications facilities.

Critical Habitat. An area designated for the survival and recovery of federally listed threatened or endangered species.

Cumulative Effects. Effects on the environment that result from separate, individual actions that collectively become significant over time and with increasing individual contribution.



GLOSSARY

Cumulative Impact. As used in CEQA, refers to two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts.

Dam Inundation Area. An area of potential flooding from dam rupture in the event of an earthquake or major storm. The California Dam Safety Act requires that counties plan for such a failure.

dB. Decibel, a unit used to express the relative intensity of sound as it is heard by the human ear.

dBA. The “A-weighted” scale for measuring sound in decibels that weighs or reduces the effects of low and high frequencies in order to simulate human hearing. Each increase of 10 dBA intensifies the noise tenfold and doubles the perceived loudness.

Dedication. A donation by an owner or developer of private land for public use and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. A city or a county often makes dedication of land for roads, parks, school sites, or other public uses a condition of approval of a development.

Deed Restricted. A Deed of Trust recorded against the title of a property, usually required as a condition of approval or purchase, specifying the terms of use, level of affordability, or other agreed conditions of a property. Affordable housing is often established through a deed restriction that stipulates the income eligibility of buyers/renters, the duration of affordability, and the level of equity increase allowed at sale.

Defensible Space. (1) In firefighting and prevention, a 30-foot area of noncombustible surfaces separating urban and wildland areas. (2) In urban areas, open spaces, entry points, and pathways configured to provide maximum opportunities to rightful users and/or residents to defend themselves against intruders and criminal activity.

Density Bonus. The allocation of development rights that allow a parcel to accommodate additional square footage or additional residential units beyond the maximum for which the parcel is zoned, usually in exchange for the provision or preservation of an amenity at the same site or at another location. Under California law a housing development may be eligible to receive a density bonus of 20% to 35% for very low or lower income households and senior housing. Additional benefits for reduced parking, reductions in site development, incentives, or concessions may be required. Units must remain affordable for no less than 30 years.

Density, Control of. A limitation on the occupancy of land. Density can be controlled through zoning in the following ways: use restrictions, minimum lot-size requirements, floor area ratios, land use intensity ratios, setback and yard requirements, minimum house size requirements, ratios comparing number and types of housing units to land area, limits on units per acre, and other means. Allowable density often serves as the major distinction between residential districts.

Density (Residential). The number of dwellings per acre of lot area, unless otherwise stated, for residential uses. Densities specified in the general plan may be expressed in units per gross acre or per net acre. *See “Acres, Gross” and “Acres, Net.”*



GLOSSARY

Density Transfer. A way of retaining open space by concentrating densities, usually in compact areas adjacent to existing urbanization and utilities, while leaving unchanged historic, sensitive, or hazardous areas. *See “Transfer of Development Rights.”*

Design Review. Regulations and a public review process intended to preserve and enhance the natural beauties of the land and the built environment, maintain and improve the relationship between development and the amenities and attractiveness of an area or neighborhood or an area, and stimulate creative design and innovative use of materials.

Developable Acres, Net. The portion of a site that can be used for density calculations. Public or private road rights-of-way are not included in the net developable acreage of a site. *See “Acres, Net.”*

Developable Land. Land that is suitable as a location for structures and that can be developed free of hazards to and without disruption of or significant impact on natural resource areas.

Development. Any activities occurring on land and in or under water including placement or construction of any solid material or structure; construction of roadways and other infrastructure; discharge or disposal of dredged material or any other waste materials; grading, dredging, or mining; subdivision or change in the density or intensity of use of land; change in the intensity of use or water; construction, reconstruction, demolition, or alteration to the size of any structure, public or private; and the removal or harvesting of vegetation for other than agricultural purposes but excluding routine repair and maintenance activities.

Development Application. A request for approval of a project requiring discretionary action, including but not limited to Master Plans, Precise Development Plans, Tentative Maps and Subdivisions, Design Review, Use Permits, Variances, and Tidelands Permits. Development applications do not include ministerial permits and actions such as building permits.

Development Code. The Marin County Development Code, Title 22 of the Marin County Code, consisting of the County’s zoning and subdivision regulations.

Development Fee. *See “Impact Fee.”*

Development Permit. Any entitlement, as described in the Development Code, including, but not limited to Design Review, Floating Home Adjustment Permits, Use Permits, Temporary Use Permits, Tidelands Permits, Variances, Master Plans, or Precise Development Plans.

Development Rights. The right to develop land by a landowner who maintains fee-simple ownership over the land, or by a party other than the owner who has obtained the rights to develop. Such rights are usually expressed in terms of density allowed under existing zoning. For example, one development right may equal one unit of housing or may equal a specific number of square feet of gross floor area in one or more specified zoning districts. *See “Interest, Fee,” “Interest, Less-Than-Fee,” and “Transfer of Development Rights.”*

Development Rights, Transfer of (TDR). *See “Transfer of Development Rights.”*



GLOSSARY

Differential Settlement. Uneven settlement that occurs with time or during earthquake shaking in poorly consolidated granular soils adjacent to bedrock. Loss of strength or the loss of water and sand through liquefaction often does not occur evenly over broad areas. Thus the ground settles different amounts in adjacent spots. Differential settlement can be very destructive to buildings.

Diked Bay Marshlands. Lands originally subject to tidal action or within the historic limits of a bay that are now separated from the bay by a dike, levee, or other protective structure.

Disabled. See *“Persons with Disabilities.”*

Discretionary Decision. As used in CEQA, an action taken by a governmental agency that calls for the exercise of judgment in deciding whether to approve and/or how to carry out a discretionary project.

Discretionary Project or Permit. A project or permit that the decision-making body may approve, approve with conditions, or deny. See *“Development Application.”*

Diversion. The direction of water in a stream away from its natural course.

Duet (Residential). A detached building divided into two units sharing a common wall, which is designed for occupation as the residence of two families living independently of each other. Similar to a duplex except the connected units are on separate lots.

Duplex. A detached building under single ownership that is designed for occupation as the residence of two families living independently of each other.

Dwelling or Dwelling Unit. A room or group of internally connected rooms that have sleeping, cooking, eating, and sanitation facilities, but not more than one kitchen, which constitute an independent housekeeping unit, occupied by or intended for one household on a long-term basis. Types of dwellings include single-family dwellings, two-family dwellings, multifamily dwellings, mobile homes, condominiums and townhouses, and floating homes.

Easement. The right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have an easement on private property allowing the company to install and maintain utility facilities.

Easement, Conservation. A tool for acquiring open space with less than full-fee purchase, whereby a public agency buys only certain specific rights from the landowner. These may be positive rights (providing the public with the opportunity to hunt, fish, hike, or ride over the land), or they may be restrictive rights (limiting the use to which the landowner may devote the land in the future).

Easement, Scenic. A tool that allows a public agency to use an owner’s land for scenic enhancement, such as roadside landscaping or vista preservation.

Ecological Footprint. A measurement of the use of natural resources expressed as the number of acres of biologically productive area used to support one person.



GLOSSARY

Ecology. The interrelationships of living things to one another and to their environment, or the study of these interrelationships.

Ecosystem. An arrangement of living and non-living things, and the forces that influence them. Living things include plants and animals. Non-living parts of ecosystems may be rocks and minerals, as well as manmade features such as structures and roadways. Forces affecting ecosystems include weather, fire, disease, and human-induced changes, such as habitat removal to accommodate agricultural and urban development.

Ecotone. The transition zone between two biotic communities, such as between oak woodlands and grasslands.

EIR/EIS. See “*Environmental Impact Report*” and “*Environmental Impact Statement.*”

Elderly Housing. Typically one- and two-bedroom apartments or condominiums designed to meet the needs of persons 62 years of age and older, or, if more than 150 units, persons 55 years of age and older, and restricted to occupancy by them.

Emergency Shelter. A facility that provides immediate and short-term housing and supplemental services for the homeless. Shelters come in many sizes, but an optimum size is considered to be 20 to 40 beds. Supplemental services may include food, counseling, and access to other social programs.

Eminent Domain. The right of a public entity to acquire private property for public use by condemnation and the payment of just compensation.

Emission Standard. The maximum amount of a pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Employee Housing. An accessory residential dwelling unit or dwelling units located in, or adjacent to, a commercial building on a parcel having a primary commercial land use and occupied by an employee or employees of the commercial use(s) on the same property or a family member who is actively engaged in such commercial use.

Endangered Species. A species of animal or plant is considered to be endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes.

Energy Conservation Versus Energy Efficiency. Energy conservation connotes “doing without” in order to save energy, rather than using less energy to do the same thing. For example, turning off lights, turning down the air conditioner, and making fewer vehicle trips are all conservation measures. Energy efficiency means using less energy/electricity to perform the same function, such as installing lighting that uses less electricity, installing additional insulation, and switching to a vehicle with better gas mileage.



GLOSSARY

Environment. The physical conditions that exist within an area that will be affected by a proposed project. The conditions include land, air, water, minerals, flora, fauna, noise, and objects of historical or aesthetic significance. (CEQA definition.)

Environmental Assessment. A preliminary evaluation of site resources, conditions, and policy considerations including a composite development constraints and capabilities analysis prepared prior to filing of a development application for undeveloped, agricultural, or redevelopment lands and adjacent water areas located within the Baylands Corridor and Bayfront Conservation Zone, pursuant to the Development Code and Marin County Environmental Impact Review Guidelines. The environmental assessment is intended to guide preparation of development plans and assist in public agency review of such plans. The assessment may be later used in conjunction with describing the environmental setting section of an environmental review document, but is not a document prepared pursuant to the California Environmental Quality Act (CEQA).

Environmental Impact Report (EIR). A report required by the California Environmental Quality Act (CEQA) that assesses all the environmental characteristics of an area and determines what effects or impacts will result if the area is altered or disturbed by a proposed action. *See “California Environmental Quality Act.”*

Environmental Impact Statement (EIS). A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and cites alternative actions.

Environmental Justice. The fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

Environmentally Sensitive Area. Any area in which plant or animal life or habitats are either rare or especially valuable because of their special nature or role in an ecosystem, and which could be easily disturbed or degraded by human activities and developments.

Erosion. The process by which soil and rock are detached and moved by running water, wind, ice, and gravity.

Estuary. The lower course of a river or stream where tidal influence is noticeable; the mixing zone of fresh and salt waters near the mouth of a river or stream.

Exaction. A contribution or payment required as an authorized precondition for receiving a development permit; usually refers to mandatory dedication (or fee in lieu of dedication) requirements found in many subdivision regulations.

Expansive Soils. Soils that swell when they absorb water and shrink as they dry.

Expressway. A highway with full or partial control of access with some intersections at grade.



GLOSSARY

Fair Market Rent. The rent, including utility allowances, determined by the U.S. Department of Housing and Urban Development for purposes of administering the Section 8 Existing Housing Program.

Family. (1) Two or more persons related by birth, marriage, or adoption (as used by the U.S. Bureau of the Census). (2) One or more persons occupying a dwelling and living as a single, domestic housekeeping unit, as distinguished from a group occupying a hotel, motel, club, or fraternity or sorority house.

Farmland Security Zone Contract. A contract between a private landowner and a county that enforceably restricts land to agricultural uses. The minimum initial term is 20 years. This type of contract offers landowners greater property tax reduction than a Williamson Act contract. Land restricted by a farmland security contract is valued for the purpose of property assessment at 65% of its Williamson Act valuation or 65% of its Proposition 13 valuation, whichever is lower. *See “Williamson Act.”*

Farmland Soils of Statewide Importance. Soils similar to “Prime Farmland Soils,” but with minor shortcomings, such as greater slopes, or with less ability to hold and store moisture.

Fault. A fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side. A fault zone is a zone of related faults, which commonly are braided, but which may be branching. A fault trace is the line formed by the intersection of a fault and the earth’s surface. *Active Fault:* A fault that has exhibited surface displacement within the Holocene Epoch (approximately the past 11,000 years). *Potentially Active Fault:* A fault that shows evidence of surface displacement during the Quaternary Period (the last 2 million years).

Fee/Fee Waiver. A fee or exaction charged on new commercial and/or residential development to generate funding for infrastructure development and public improvements, based on the impact that the new development would have on existing facilities. “Fee waivers” that reduce or eliminate local development fees are sometimes allowed for affordable housing developments or other types of development for which the fee would constitute a substantial hardship.

Fill. A deposit of earth material placed by artificial means; any act by which earth, sand, gravel, rock, or any other material is placed, pushed, dumped, pulled, transported, or moved to a new location above the natural surface of the ground, on top of the stripped surface, or in a submerged area.

Finding(s). The result(s) of an investigation and the basis upon which decisions are made. Findings are used by government agents and bodies to justify action taken by the entity.

Fire Flow. Term firefighters use to describe how much water can be delivered by a water system through one or more hydrants to fight a fire at a specific location. Also used to state the optimum amount (standard) of water flow that firefighters require for a theoretical fire at a specific location.



GLOSSARY

Fire Hazard Zone. An area where, due to slope, fuel, weather, or other fire-related conditions, the potential loss of life and property from a fire necessitates special fire protection measures and planning before development occurs.

Five-Minute Response Time. The critical time period for responding to a structural fire. Temperatures reach a level sufficient to cause significant damage within five minutes of a fire's outbreak.

Flood Control. Measures that are taken to increase the hydrologic capacity of a natural watercourse or to create new manmade channels or reservoirs to drain and contain precipitation that otherwise exceeds the capacity of the watercourse, in an effort to reduce flood damage, usually to manmade improvements.

Flooding. A rise in the level of a water body or the rapid accumulation of runoff, including related mudslides and land subsidence, that results in the temporary inundation of land that is usually dry. Riverine flooding, coastal flooding, mud flows, lake flooding, alluvial fan flooding, flash flooding, levee failures, tsunamis, and fluvial stream flooding are among the many forms that flooding takes.

Flood Insurance Rate Map (FIRM). For each community, the official map on which the Federal Emergency Management Agency has delineated areas of special flood hazard and the risk premium zones applicable to that community.

Flood, 100 Year. Based on historical data, the magnitude of a flood expected to occur on the average every 100 years. Hence, the 100-year flood has a 1% chance of occurring in any given year.

Floodplain. The relatively level land area on either side of the banks of a stream regularly subject to flooding. The part of the floodplain subject to a 1% chance of flooding in any given year is the 100-year floodplain and is designated as an "area of special flood hazard" by the Federal Emergency Management Agency.

Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the "base flood" without cumulatively increasing the water surface elevation more than one foot. No development is allowed in floodways.

Floor Area Ratio (FAR). The gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built.

Food Security. Physical and economic access by all people at all times to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Foothills. Low hills near the base of a mountain or mountain range.

Footprint; Building Footprint. The area in square feet occupied by the base of a structure, not including upper floors.



GLOSSARY

Fragmentation. The process of fragmenting or isolating similar habitat types, or opportunities for plant and animal dispersal across the landscape. Habitat can be fragmented naturally or from construction of barriers such as roadways, intensive development, filling of creeks, and obstruction of wildlife movement corridors.

Freeway. A highway serving high-speed traffic with no crossings interrupting the flow of traffic (i.e., no crossings at grade).

Fuel Break. Strategically located modification zone, usually a long strip, where vegetative fuels are reduced in volume and maintained so as to produce a reduction of fire intensity if a wildfire burns into it.

General Plan (The Marin Countywide Plan). A compendium of a city's or a county's policies regarding its long-term development in the form of maps and accompanying text. The general plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by the governing body of the local jurisdiction. In California, the general plan has seven mandatory elements (circulation, conservation, housing, land use, noise, open space, and safety) and may include any number of optional elements (such as community facilities and parks and recreation).

Geographic Information System (GIS). A system of computer hardware, software, and procedures designed to support the capture, management, manipulation, analysis, modeling, and display of spatially referenced data for solving complex planning and management problems.

Geological. Pertaining to rock or solid matter.

Geologic Review. The analysis of geologic hazards, including all potential seismic hazards, surface ruptures, liquefaction, landsliding, and the potential for erosion and sedimentation.

Goal. An expression of community values and desired outcomes; a sought-after end state that is not quantifiable or time dependent.

Granny Flat. See "*Second Unit.*"

Grasslands. Land reserved for pasturing or mowing in which grasses are the predominant vegetation.

Graywater. Household wastewater from baths, showers, non-kitchen sinks, and washing machines. Installing a water treatment system for treating graywater for reuse requires a permit from the State. Wastewater from toilet and kitchen sink is considered "blackwater" and goes directly into the sewage system because it can contain viruses, bacteria, high levels of organic waste, or harmful chemicals.

Greenbelt. Significant open space lands at the periphery of an urbanized area.

Green Building. A whole-systems approach to building design, construction, and occupancy. Site, energy, water, resources, materials, indoor air quality, and financial feasibility are all analyzed for environmental impact, health effects, and cost effectiveness.



GLOSSARY

Green Business. A business that has been certified for reducing energy use, water use, and waste generation.

Ground Failure. Mudslide, landslide, liquefaction, or soil compaction.

Groundwater. Water under the earth's surface, often confined to aquifers capable of supplying wells and springs.

Groundwater Recharge. The natural process of infiltration and percolation of rainwater from land areas or streams through permeable soils into water-holding rocks that provide underground storage (aquifers).

Guidelines. General statements of policy direction around which specific details may later be established.

Habitat. The physical location or type of environment in which an organism or biological population lives or occurs.

Habitat Diversity. The number of different types of plant and wildlife habitats within a given area.

Hazardous Building. A building that may be hazardous to life in the event of an earthquake because of partial or complete collapse. Hazardous buildings may include (1) those constructed prior to the adoption and enforcement of local codes requiring earthquake-resistant building design; (2) those constructed of unreinforced masonry; (3) those which exhibit any of the following characteristics: exterior parapets or ornamentation that may fall on passersby; exterior walls that are not anchored to the floors, roof, or foundation; sheeting on roofs or floors incapable of withstanding lateral loads; large openings in walls that may cause damage from torsional forces; lack of an effective system to resist lateral forces; or nonductile concrete frame construction.

Hazardous Material. Any substance that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment it is released into, in the workplace or the environment. The term includes but is not limited to hazardous substances and hazardous wastes.

Heavy Rail Transit. Service generally operates along a fully grade-separated rail line that crosses over or below city streets.

High Occupancy Vehicle (HOV). Any vehicle with two or more persons (e.g., a carpool, a vanpool, a bus).

High Occupancy Vehicle (HOV) Lane. A lane of a freeway or highway reserved during certain hours for high occupancy vehicles.

Highway. High-speed, high-capacity, limited-access roadway serving regional and countywide travel.



GLOSSARY

Historic, Historical. A building or site that is noteworthy for its significance in local, state, or national history or culture; its architecture or design; or its works of art, memorabilia, or artifacts.

Historic Preservation. The preservation of historically significant structures and neighborhoods in order to facilitate restoration and rehabilitation of the building(s) to a former condition.

HOME Investment Partnership Act. A formula-based federal block grant program with funds to be spent only on housing and intended to provide incentives for the acquisition, construction, and rehabilitation of affordable rental and home ownership. HOME requires local governments to provide matching funds, though the matching ratio depends on the specific uses to which HOME funds are to be put.

Homeless. Persons and families who lack a fixed, regular, and adequate nighttime residence. The homeless include those staying in temporary or emergency shelters or who are accommodated with friends or other with the understanding that shelter is being provided as a last resort.

Home Occupation. The conduct of a business within a dwelling, or within an accessory building located on the same site as the dwelling, employing the occupant of the dwelling, with the business activity being subordinate to the residential use of the property.

HOPWA (Housing for Persons with AIDS). A federal government program that provides funds for the acquisition, rehabilitation, conversion, lease, and repair of facilities to provide housing and services for persons with AIDS.

Hotel or Motel. A facility in which guest rooms or suites are offered to the general public for lodging for compensation.

Household. Persons, related or unrelated, who occupy a single housing unit.

Housing and Community Development Department of the State of California (HCD). The agency responsible for reviewing city and county housing elements, for administering federal funds for non-entitlement jurisdictions, and for various State programs funded through housing bonds.

Housing and Urban Development, U.S. Department of (HUD). A cabinet-level department of the federal government that administers housing and community development programs.

Housing Element. One of the seven State-mandated elements of a local general plan. It assesses the existing and projected housing needs of all economic segments of the community; identifies potential sites adequate to provide the amount and kind of housing needed; and contains adopted goals, policies, and implementation programs for the preservation, improvement, and development of housing. Housing elements must be updated every five years.

Housing Overlay Designation. A land use overlay designation to encourage and facilitate the development of affordable housing on select commercial, multifamily residential, and public properties that meet the criteria established by the overlay. Its purpose is to facilitate the review and approval of



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such housing and mixed-use developments. The overlay designation occurs in conjunction with the underlying land use designation.

Housing Trust Fund. A fund to provide money for development or rehabilitation of affordable housing with revenue from a variety of sources, which may include in-lieu fees, linkage fees, grants, contributions, or dedicated revenue from a tax or other governmental source.

Housing Unit. The place of customary abode of a person or family. A housing unit may be a single-family dwelling, a multi-family dwelling, a condominium, a modular home, a mobile home, a cooperative, or any other residential unit considered real property under State law. *See “Dwelling or Dwelling Unit,” “Family,” and “Household.”*

Hydrocarbons. A family of compounds containing carbon and hydrogen in various combinations, emitted into the atmosphere from manufacturing, storage and handling, or combustion of petroleum products, and through natural processes. Certain hydrocarbons interact with nitrogen oxides in the presence of intense sunlight to form photochemical air pollution.

Hydrology. A science dealing with the properties, distribution, and circulation of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere.

Impact Fee. A development fee levied on the developer of a project by a city, county, or other public agency as compensation for otherwise unmitigated impacts produced by the project.

Impervious Surface. Surface through which water cannot penetrate, such as a roof, road, sidewalk, or paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff.

Implementation. Actions, procedures, programs, or techniques that carry out policies.

Inclusionary Housing/Zoning. Programs that require a percentage of low and moderate income housing to be provided in new market-rate residential developments.

Indicator. A nonbinding measurement taken at regular intervals using a similar methodology that will assist in demonstrating movement toward or away from the goals and policies of the Countywide Plan.

Infill Development. Development of vacant land (usually individual lots or leftover properties) within areas that are already largely developed.

Income Levels. Income categories defined with respect to the area median income and adjusted for household size.

- ◆ *Very Low Income Households.* Households earning less than 50% of the median household income.
- ◆ *Low Income Households.* Households earning 50% to 80% of the median household income.



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- ◆ **Lower Income Households.** Defined by California Housing Element law as households earning less than 80% of the median income.
- ◆ **Moderate Income Households.** Households earning 80% to 120% of the median income.
- ◆ **Above Moderate Income Households.** Households earning over 120% of the median household income.

Income Limit (Housing). Maximum amounts that low or moderate income families may earn to qualify for subsidized rental housing or a low-interest mortgage. Limits are calculated by the U.S. Department of Housing and Urban Development (HUD) and are based on family size and geographic location.

Infrastructure. Public services and facilities such as sewage disposal systems, water supply systems, other utility systems, and roads.

Integrated Pest Management. A decision-making process for managing pests that uses monitoring to determine pest injury levels, and combines biological, cultural, mechanical, physical, or chemical tools and other management practices to control pests in a safe, cost-effective, and environmentally sound manner that contributes to the protection of public health. This method uses extensive knowledge about pests, such as infestations, thresholds, life histories, environmental requirements, and natural enemies to complement and facilitate biological and other natural control of pests. The method involves the use of non-chemical pest control methods, and careful use of least toxic chemical methods when non-chemical methods have been exhausted or are not feasible.

Interjurisdictional. Coordination between two or more jurisdictions.

Intermodal Transit Hub. A junction where transfers can be made from one mode of transportation to another.

In-Lieu Fee. A fee paid to the County by developers in lieu of providing required on-site improvements, inclusionary units or lots, or parkland, in compliance with the Marin County Code.

Institutional Use. A publicly owned structure accommodating a public facility, or a private structure designed and operated as a church, hospital, school, or similar facility, that cannot be considered a residential, commercial, or industrial activity.

Interest, Fee. Entitles a landowner to exercise complete control over use of land, subject only to government land use regulations.

Interest, Less-Than-Fee. The purchase of interest in land rather than outright ownership; includes the purchase of development rights via conservation, open space, or scenic easements. *See "Development Rights," "Easement, Scenic," and "Lease."*

Intermittent Stream. *See "Stream."*



GLOSSARY

Issue. An important unsettled community matter or problem that is identified in a community's general plan and addressed by the plan's policies and implementation programs.

Jobs/Housing Balance. The number of persons working and living in a community. The balance is often expressed as a ratio.

Jobs/Housing Ratio. A numerical relationship between the number of jobs and the number of housing units in a jurisdiction.

Jobs/Housing Linkage Programs. Fees or incentives that local governments place on new nonresidential developments to offset the impact that new employment has on housing needs within a community.

Joint Powers Authority (JPA). A legal arrangement that enables two or more units of government to share authority in order to plan and carry out a specific program or set of programs that serves both units.

Land Banking. The purchase of land by a local government for use or resale at a later date. "Banked lands" have been used for development of low and moderate income housing, expansion of parks, and development of industrial and commercial centers.

Land Capability Classification (U.S. Natural Resources Conservation Service). A grouping of soils into classes (I-VIII), subclasses, and units according to their suitability for agricultural use, based on soil characteristics and climatic conditions.

Landmark. (1) A building, site, object, structure, or significant tree, having historical, architectural, social, or cultural significance and marked for preservation by the local, State, or federal government. (2) A visually prominent or outstanding structure or natural feature that functions as a point of orientation or identification.

Landscaping. Planting, including trees, shrubs, and ground covers, suitably designed, selected, installed, and maintained to enhance a site or roadway permanently.

Landslide. Downslope movement of soil, rocks, water, and debris, which typically occurs during an earthquake or after heavy rainfall.

Land Use. The purpose for which land or a building thereon is occupied.

Land Use Regulation. A term encompassing the regulation of land in general and often used to mean those regulations incorporated in the general plan as distinct from zoning regulations, which are more specific.

Ldn. Day-Night Average Sound Level. The A-weighted average sound level for a given area (measured in decibels) during a 24-hour period with a 10 dB weighting applied to nighttime sound levels. The Ldn is approximately numerically equal to the CNEL for most environmental settings. *See "Community Noise Equivalent Level (CNEL)."*



GLOSSARY

Lead Agency. Under CEQA, the public agency principally responsible for carrying out or approving a project.

Lease. A contractual agreement by which an owner of real property (the lessor) gives the right of possession to another (a lessee) for a specified period of time (term) and for a specified consideration (rent).

Level of Service (LOS). A qualitative measure describing the efficiency of a traffic stream and the way such conditions are perceived by persons traveling in a traffic stream. Level of service measurements describe variables such as speed and travel time, freedom to maneuver, traffic interruptions, traveler comfort and convenience, and safety. Measurements are graduated, ranging from level of service A (representing free flow and excellent comfort for the motorist, passenger, or pedestrian) to level of service F (reflecting highly congested conditions for motorists and pedestrians with stop-and-go traffic that exceeds the capacities of streets). Levels of service can be determined for freeways, multilane highways, two-lane highways, signalized intersections, intersections that are not signalized, arterials, and transit and pedestrian facilities.

Life Estate. The right of an individual to use or get income from property as long as that person is alive. The specific rights in a life estate are specified in a trust document that establishes the life estate.

Light Rail Transit. Streetcars or trolley cars that typically operate in mixed traffic and in nonexclusive, at-grade rights-of-way. Vehicles are self-propelled by electricity or diesel power and usually operate in one- or two-car trains.

Linkage. See *“Jobs/Housing Linkage Programs.”*

Liquefaction. The transformation of loose, wet soil from a solid to a liquid state often as a result of strong ground shaking during an earthquake.

Local Agency Formation Commission (LAFCO). A commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities.

Local Coastal Element. The portion of a general plan applicable to the coastal zone.

Local Coastal Program. A local government’s program for the coastal zone, including land use plans, zoning ordinances, zoning district maps, and, within sensitive coastal resource areas, other implementing actions.

Local Scenic Highway. A segment of a state or local highway or street that a city or county has designated as “scenic.”

Local Street. A street providing direct access to properties and designed to discourage through-traffic.



GLOSSARY

Manufactured Housing. Residential structures that are constructed entirely in the factory. Manufactured homes built under guidelines of the U.S. Department of Housing and Urban Development (HUD) and installed on a foundation must be subject to the same permit approval process and criteria as a conventional dwelling on the same lot.

Marin County Development Code. See “*Development Code.*”

Master Plan. A development application and process for phased projects, projects involving multiple parcels, and other projects in which a coordinated development plan is appropriate, as required by the Development Code.

Mean Sea Level. Average altitude of the sea surface for all tidal stages.

Median Household Income. The point at which half of the County’s households earn more and half earn less.

Micro-hydro. Micro-hydro turbines use the energy of falling water to create electricity. MMWD and NMWD have hydro-power potential at their reservoirs.

Mineral Resource. Land on which known deposits of commercially viable mineral or aggregate deposits exist. This designation is applied to sites determined by the State Division of Mines and Geology as a resource of regional significance and is intended to help maintain quarrying operations and protect the quarry from encroachment of incompatible land uses. Minerals are any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum. Gold, sand, gravel, clay, crushed stone, limestone, diatomite, salt, borate, and potash are examples of minerals.

Mini-Park. A very small park, play space, or sitting area serving a neighborhood or housing development.

Mitigation Measure. An action or series of actions designed to avoid or reduce the adverse impact or effect of a development or capital project.

Mixed Use. Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or co-located on a single site in an integrated development project with functional interrelationships and a coherent physical design. A single site may include contiguous properties.

Mobile Home. A trailer, transportable in one or more sections, that is certified under the National Manufactured Housing Construction and Safety Standards Act of 1974, and that is over 8 feet in width and 40 feet in length, with or without a permanent foundation and not including recreational vehicles, commercial coaches, or factory-built housing. A mobile home on a permanent foundation is considered a Single Family Dwelling. (See “*Manufactured Housing*” and “*Modular Unit.*”)



GLOSSARY

Mode Split. The percentage share of total trips for each mode of transportation, such as drive alone, carpool, or public transit. For example, an “18% transit share” means that transit is used for 18 out of 100 trips from home to work.

Modular Unit. A factory-fabricated, transportable building or major component designed for use by itself or for incorporation with similar units on-site into a structure for residential, commercial, educational, or industrial use. A modular unit does not have any chassis or permanent hitch to allow future movement. (See “*Mobile Home*” and “*Manufactured Housing*.”)

Monitoring Plan. A jurisdiction’s plan and annual progress report for monitoring progress made toward meeting Housing Element goals. The current update is for the period January 1999 through June 30, 2006.

Multi-Family Housing. Attached dwelling units available to multiple households, including duplexes, triplexes, apartments, and condominiums.

Multiple Family Building. A detached building designed and used exclusively as a dwelling by three or more families occupying separate suites.

National Environmental Policy Act (NEPA). A federal law establishing national environmental policy, a council on environmental quality, and requirements for environmental impact statements for development projects.

National Flood Insurance Program. A national program that authorizes the sale of federally subsidized flood insurance in communities where such flood insurance is not available privately.

National Historic Preservation Act. A federal law that established a National Register of Historic Places and the Advisory Council on Historic Preservation, and that authorized grants-in-aid for preserving historic properties.

National Register of Historic Places. The official list, established by the National Historic Preservation Act, of sites, districts, buildings, structures, and objects significant in the nation’s history or whose artistic or architectural value is unique.

Natural Resource. A material source of wealth, such as timber, fresh water, or a mineral deposit, that occurs in a natural state.

Natural Resource, Nonrenewable. An inanimate resource that does not increase significantly with time and the use of which diminishes the total stock (e.g., minerals, fossil fuels, and fossil water).

Natural Resource, Renewable. A resource that can be replaced by natural ecological cycles or sound management practices (e.g., forests and plants).

Neighborhood Park. A park with a minimum size of 5 to 20 acres serving one or more neighborhoods with a population of 2,000 to 5,000 within a radius of one-half mile.



GLOSSARY

Nexus. A connection or linkage.

Nitrogen Oxide. A reddish brown gas that is a byproduct of combustion and ozone formation processes. Often referred as NO_x, this gives smog its “dirty air” appearance.

Node. A hub of activity.

Noise. Any sound that is undesirable because it interferes with speech and hearing or is intense enough to damage hearing or is otherwise annoying.

Noise Attenuation. Reduction of the level of a noise source using a substance, material, or surface, such as earth berms and/or solid concrete walls.

Noise Contour. A line connecting points of equal noise level as measured on the same scale.

National Scenic Byway. A segment of a state or Interstate highway route that the United States Forest Service has designated as a scenic byway or that another federal agency has designated as a national scenic and recreational highway.

Nonrenewable Natural Resource. See “*Natural Resource, Nonrenewable.*”

Office Use. The use of land by general business offices, medical and professional offices, or administrative or headquarters offices for large wholesaling or manufacturing operations, and research and development.

Official County Scenic Highway. A segment of a state highway identified in the Master Plan of State Highways eligible for Official Scenic Highway designation and designated by the director of the State Department of Transportation (Caltrans).

Open Coastal Waters and Coastal Waters. The open ocean overlying the continental shelf and its associated coastline. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries.

Ordinance. A law or regulation set forth and adopted by a governmental authority, usually a city or county.

Overlay. A designation on the general plan land use map or zoning map that modifies the basic underlying designation in a specific manner.

Ozone. A tri-atomic form of oxygen (O₃) created naturally in the upper atmosphere by a photochemical reaction with solar ultraviolet radiation. In the lower atmosphere, ozone is a recognized air pollutant that is not emitted directly into the environment but is formed by complex chemical reactions between oxides of nitrogen and reactive organic compounds in the presence of sunlight, and becomes a major agent in the formation of smog.



GLOSSARY

Paratransit. Transportation systems such as jitneys, carpools, van pools, taxi service, and dial-a-ride arrangements.

Parcel. A lot or contiguous group of lots in single ownership or under single control that may be considered a unit for purposes of development.

Park. Open space land primarily for recreation.

Parkway. (1) An expressway or freeway designed for noncommercial traffic only, usually located within a strip of landscaped park or natural vegetation. (2) A landscaped strip between the curb and sidewalk, primarily found in residential neighborhoods for the purpose of planting street trees.

Peak Hour/Peak Period. A daily period during which traffic volume is highest on a roadway, usually in the morning and evening commute periods.

Peak Load Water Supply. The supply of water available to meet both domestic water and firefighting needs during the particular season and time of day when domestic water demand on a water system is at its peak.

Permaculture. An ecological design science that works on a restorative approach to watersheds, natural building, agriculture, wildlife, economics, and community.

Permitted Use. A use of land that is allowed within a particular general plan land use or zoning designation.

Persons with Disabilities. People with a wide range of physical and mental conditions that may affect their ability to function independently.

Persons per Household. The average number of persons in a household.

Pesticide. Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. The term *pesticide* applies to insecticides, herbicides, fungicides, and various other substances used to control pests. Under United States law, a pesticide is also any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Photovoltaics. Solar electric systems that use the sun's energy to generate electricity by moving electrons.

Planning and Research, Office of (OPR). A governmental division of the State of California that has among its responsibilities the preparation of a set of guidelines for use by local jurisdictions in drafting general plans.

PM-2.5 and PM-10. Inhalable particulate matter, which refers to a wide variety of solid or liquid particles in the atmosphere, including smoke, dust, aerosols, and metallic oxides. PM-2.5 is particulate matter 2.5 microns or less in diameter, and PM-10 is particulate matter 10 microns or less in diameter.



GLOSSARY

Policy. A statement derived from a goal that represents the jurisdiction’s adopted position and guides action by decision-making bodies.

Pollutant. Any introduced gas, liquid, or solid that makes a resource unfit for its normal or usual purpose.

Pollution. The presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.

Pollution, Non-Point. Sources for water pollution contributed from many small sources that cannot be easily identified individually but collectively degrade water quality.

Pollution, Point. In reference to water quality, a discrete source from which pollution is generated before it enters receiving waters, such as a sewer outfall or an industrial waste pipe.

Poverty Level. As defined by the U.S. Census, families and unrelated individuals are classified as being above or below the poverty level based on a poverty index that provides a range of income cutoffs or “poverty thresholds” varying by size of family, number of children, and age of householder. The income cutoffs are updated each year to reflect the change in the Consumer Price Index.

Precautionary Principle. A principle that, when an activity raises threats of harm to human health or the environment, precautionary measures should be taken to eliminate or minimize potential hazards and their onset. In this context, the proponent of an activity rather than the public should bear the burden of proof.

Prescriptive Right. A right of public access that is acquired over private lands through use and is essentially an easement over real property that comes into being without the explicit consent of the property owner. The term recognizes that the use must continue for the length of the prescriptive period before a public easement comes into being. In California the prescriptive period is five years.

Preserve. (Noun.) An area in which beneficial uses in their present condition are protected, such as a nature preserve or an agricultural preserve. *See “Agricultural Preserve.”*

Prime Farmland Soils. Soils with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. These soils have the quality needed to produce sustained high yields given an appropriate growing season and adequate moisture supply.

Program (or “Implementing Action”). A specific action, procedure, or technique used to carry out a Countywide Plan policy.

Quimby Act. A provision of the California Government Code (Section 66477) that permits a local jurisdiction to require the dedication of land for neighborhood and community recreation and/or the payment of an in-lieu fee as a condition of approval of a tentative or parcel map.



GLOSSARY

Recreation, Active. A type of recreation or activity that requires the use of organized play areas such as softball, baseball, football, and soccer fields; tennis and basketball courts; and children's play equipment.

Recreational Trails. Public areas that include pedestrian trails, bikeways, equestrian trails, boating routes, trails, and areas suitable for use by physically handicapped people; trails and areas for off-highway recreational vehicles; and cross-country skiing trails.

Recreation, Passive. A type of recreation or activity that does not require the use of organized play areas.

Recycle. The process of extraction and reuse of materials from waste products.

Redevelop. To demolish existing buildings or to increase the overall floor area existing on a property or both, irrespective of whether a change in land use occurs.

Redevelopment Agency. See "*Community Redevelopment Agency.*"

Redevelopment Project. An activity undertaken by a redevelopment agency set up under California law to revitalize blighted areas as defined by the Health and Safety Code.

Regional. Activities or economies at a scale greater than that of a single jurisdiction and affecting a broad homogeneous area (e.g., the Bay Area region, which comprises the nine counties surrounding the San Francisco Bay).

Regional Housing Needs. A quantification by a regional or State agency of existing and projected housing need, by household income group, for all localities within a region.

Regional Park. A park typically 150 to 500 acres in size focusing on activities and natural features not included in most other types of parks, and often based on a specific scenic or recreational opportunity.

Rehabilitation. The repair, preservation, and/or improvement of substandard buildings.

Renewable Energy. Energy generated from naturally renewable sources such as the sun, wind, water, and earth's heat. Examples of renewable energy systems include solar thermal, photovoltaics (solar electric), wind energy conversion systems (WECS), geothermal (earth heating), hydroelectric under 30 kW, tidal power, and biodiesel.

Renewable Natural Resource. See "*Natural Resource, Renewable.*"

Residential. Land designated in a general plan and zoning ordinance for buildings consisting of dwelling units.

Residential (Multiple Family). Usually three or more dwelling units on a single site.



GLOSSARY

Residential (Single-Family). A single dwelling unit on a building site.

Responsible Agency. As defined by CEQA guidelines, responsible agencies are public agencies other than the lead agency with the power of discretionary approval.

Restoration. Actions taken to improve a degraded ecosystem to achieve a desired, healthy, and functioning condition.

Retrofit. To add materials and/or devices to an existing building or system to improve its operation or efficiency.

Revegetation. The reestablishment of plant cover by either natural or artificial means, such as reseeding.

Rezoning. An amendment to the map and/or text of a zoning ordinance to effect a change in the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel or land area.

Richter Scale. A measure of the size or energy release of an earthquake at its source. Because the scale is logarithmic, the wave amplitude of each number on the scale is 10 times greater than that of the previous whole number.

Rideshare. A travel mode other than driving alone, such as buses, rail transit, carpools, and vanpools.

Ridge and Upland Greenbelt. In the eastern portions of the county, the uppermost portions of ridges and hills, and associated wooded hillsides, identified in the Community Design Section of the Built Environment Element. *(See Map 3-4.)*

Ridgeline. A line connecting the highest points along a ridge and separating drainage basins or small-scale drainage systems from one another.

Right-of-Way. A strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roadways, railroads, and utility lines.

Riparian. Associated with or dependent upon a river, stream, or other water body.

Riparian Habitats. Areas of riparian vegetation that are characterized by plant species that occur along and adjacent to fresh water courses, including perennial and intermittent streams, lakes, springs, and other bodies of fresh water. Riparian habitats include transitional zones between land and water and are distinguished by characteristic woody trees and shrubs, a variety of important ecological functions, and generally high wildlife habitat values.

Riparian Lands. The vegetative and wildlife areas adjacent to perennial and intermittent streams that are delineated by the existence of plant species normally found near fresh water.

Riparian Vegetation. Vegetation associated with a watercourse and relying on the higher level of water provided by the watercourse. Riparian vegetation can include trees, shrubs, and/or herbaceous plants.



GLOSSARY

Woody riparian vegetation includes plants that have tough, fibrous stems and branches covered with bark and composed largely of cellulose and lignin. *Herbaceous riparian vegetation* includes grasses, sedges, rushes and forbs – broad-leaved plants that lack a woody skeleton.

Runoff. The portion of rain or snow that does not percolate into the ground and is discharged into streams.

Rural Expressway. A roadway in a non-urbanized area, which may or may not have multiple lanes in each direction, and designed for higher travel speeds with limited cross traffic and driveways.

Sanitary Sewer. A system of subterranean conduits that carries refuse liquids or waste matter to a facility where the sewage is treated. *See “Septic System” and “Storm Drainage.”*

Satellite Work Center. A remote office between residential neighborhoods and business locations established by a single employer or a group of employers where employees can work at the beginning and end of the day and thereby avoid commuting to the main office during hours of heavy traffic.

Scenic Easement. *See “Easement, Scenic.”*

Scenic Highway Corridor. The visible area outside the highway's right-of-way, generally described as “the view from the road.”

Scenic Highway/Scenic Route. A highway, road, drive, or street that in addition to its transportation function provides opportunities for the enjoyment of natural and manmade scenic resources, and access or direct views to areas or scenes of exceptional beauty or historic cultural interest.

Section 8 Rental Assistance Program. A federal rent subsidy program administered by the Department of Housing and Urban Development (HUD), which is one of the main sources of federal assistance for low income households. The program operates by providing “housing assistance payments” to owners, developers, and public housing agencies to make up the difference between the “fair market rent” of a unit (set by HUD) and the household's contribution toward the rent, which is calculated at 30% of the household's adjusted gross monthly income. Section 8 includes programs for new construction, existing housing, and substantial or moderate housing rehabilitation.

Sea. The Pacific Ocean and all harbors, bays, channels, estuaries, salt marshes, sloughs, and other areas subject to tidal action through any connection with the Pacific Ocean.

Second Unit. A self-contained living unit, either attached to or detached from, and in addition to, the primary residential unit on a single lot. Sometimes called a *granny flat* or *in-law unit*.

Sediment. Solid material settled from suspension in a liquid.

Seiche. An earthquake-induced wave in an enclosed body of water such as a lake, reservoir, bay, or harbor.



GLOSSARY

Seismically Induced Surface Rupture. A break in the ground's surface and associated deformation resulting from the movement of a fault.

Seismic Hazard Zone. A regulatory zone, delineated by the State Geologist, within which site-specific geologic, soils, and foundation engineering studies are required to identify and avoid earthquake-caused ground-failure hazards, or selected other earthquake hazards, prior to subdivision of land and for construction of most structures for human occupancy.

Senior Housing. Typically one- and two-bedroom apartments or condominiums designed to meet the needs of persons 62 years of age and older, and restricted to occupancy by them.

Sensitive Coastal Resource Areas. Identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity. "Sensitive coastal resource areas" include the following: (a) special marine and land habitat areas, wetlands, lagoons, and estuaries; (b) areas possessing significant recreational value; (c) highly scenic areas; (d) archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer; (e) special communities or neighborhoods that are significant visitor destination areas; (f) areas that provide existing coastal housing or recreational opportunities for low and moderate income persons; (g) areas where divisions of land could substantially impair or restrict coastal access.

Sensitive Receptor. A facility in which a number of individuals are highly susceptible to the adverse effects of air pollutants or noise.

Sensitive Resources. Wildlife species that are officially designated as rare, threatened, or endangered, or as a species of special concern, pursuant to federal or State law, and sensitive wildlife habitats.

Sensitive Wildlife Habitats. Areas designated, precisely mapped, and officially adopted, pursuant to federal, State, or local law, that are essential to maintenance of native wildlife populations, providing breeding habitat, protective cover, and/or movement opportunities for dispersal, retreat, or foraging activities. Sensitive wildlife habitats include but are not limited to riparian corridors, estuaries, marshes, and other wetlands, nesting and roosting locations, and overwintering areas for migratory species.

Septic System. An on-site sewage disposal system consisting of a septic tank, and a soil infiltration leach field, evapotranspiration mound, or other approved disposal facility.

Setback. The distance by which a structure must be separated from a lot line. Setbacks from private streets and driveways are measured from the edge of the easement.

Settlement. (1) A drop in elevation of a ground surface caused by settling or compacting. (2) A gradual downward movement of an engineered structure due to compaction. Differential settlement is uneven settlement where one part of a structure settles more or at a different rate than another part.

Shared Housing. Shared housing generally means an arrangement in which two or more unrelated people, each with private sleeping quarters, share a house or an apartment for the purpose of social



GLOSSARY

contact, mutual support, and assistance, to pursue a common purpose and/or to reduce housing expenses.

Significant Effect. A beneficial or detrimental impact on the environment, including but not limited to changes in an area's air, water, and land resources.

Siltation. (1) The accumulating deposition of eroded material. (2) The gradual filling in of streams and other bodies of water with sand, silt, and clay.

Single-Family Dwelling (Attached). A dwelling unit occupied or intended for occupancy by only one household that is structurally connected with at least one other such dwelling unit, including duets and townhomes.

Single-Family Dwelling (Detached). A dwelling unit occupied or intended for occupancy by only one household that is structurally independent from any other such dwelling unit or structure intended for residential or other use, excluding a second unit.

Single Room Occupancy (SRO) Hotels and Efficiency Apartments. Types of affordable private housing for single and elderly low income people and for new arrivals to an area. An SRO room usually is small, between 80 and 250 square feet. It typically has a sink and a closet but shares a bathroom, shower, and kitchen with other rooms. An efficiency apartment also is small but contains a small cooking area and bathroom.

Site Assessment. An analysis of the environmental setting of developed or undeveloped land, including but not limited to sensitive wildlife habitats and sensitive resources, such as baylands, wetlands, stream and riparian systems, and special-status species and species of concern. A site assessment may also include findings regarding potential environmental effects resulting from a development application, and recommendations for measures that may avoid or minimize such effects.

Slope. Land gradient described as the vertical rise divided by the horizontal run and expressed in percent.

Slope Stability. The likelihood of slope failure (a landslide) based on five factors: slope angle, soil characteristics, degree of saturation, human activity, and seismic activity.

Smart Growth. Refers to strategies that encourage development in existing communities where schools, shops, and transit already exist while conserving open space, farmland, and natural habitat. Through this model, medium to higher density and mixed-use development are encouraged along current and future transit corridors as well as downtown areas. Putting housing close to transit and shops is especially important for lower income workers, seniors, and others who can't drive or do not own a car. And increasing densities means transit systems will be better utilized.

Soil. The unconsolidated material on the immediate surface of the earth created by natural forces, which serves as a natural medium for growing land plants.



GLOSSARY

Solar. Solar energy uses the sun's energy to provide heat, light, hot water, and electricity for homes, businesses, and industry.

Solar Access. The provision of direct sunlight to an area specified for solar energy collection when the sun's azimuth is within 45 degrees of true south.

Solar System, Active. A system using a mechanical device, such as a pump or fan, and energy in addition to solar energy to transport a conductive medium (air or water) between a solar collector and the interior of a building for the purpose of heating or cooling.

Solar System, Passive. A system that uses direct heat transfer from thermal mass instead of mechanical power to distribute collected heat. Passive systems rely on building design and materials to collect and store heat and to create natural ventilation for cooling.

Solid Waste. Unwanted or discarded material that is not a liquid or gas, including organic wastes, paper products, metals, glass, plastics, cloth, brick, rock, soil, leather, rubber, yard wastes, and excluding sewage and hazardous materials.

Special Districts. Districts established under California law and through LAFCO in order to provide special services, such as water and sewer, street lighting, and other services, to the residents within the district boundaries.

Special Needs. Persons who are physically, mentally, and/or developmentally disabled; victims of domestic violence; homeless persons or those at risk of becoming homeless, including youth; chronic substance abusers; individuals exiting from institutional settings; chronically ill persons; persons disabled by HIV/AIDS or mental illness; and displaced teenage parents (or expectant teenage parents).

Special-Status Species. A species of animal or plant that is (1) listed in Title 50, Code of Federal Regulations, Section 17.11 or Section 17.2, pursuant to the Federal Endangered Species Act designating species as rare, threatened, or endangered; (2) listed in Sections 670.2 or 670.5, Title 14, California Administrative Code; or (3) considered rare or endangered under Section 15380 of the CEQA Guidelines.

Specific Plan. A detailed plan for the systematic implementation of the general plan, for all or part of the area covered by the general plan, as authorized by Government Code Sections 65450, et seq.

Sphere of Influence (SOI). The probable ultimate physical boundaries and service area of a local agency (city or district) as determined by the Local Agency Formation Commission (LAFCO) of a county.

State. State with a capital *S* refers to the State of California. *State* with a lowercase *s* refers to the geographical area of California.

Storm Drainage. A system of subterranean conduits that carries storm water runoff to an outfall in a body of water.



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Storm Water Runoff. Surplus surface water generated by rainfall that does not seep into the earth but flows overland to flowing or stagnant bodies of water.

Stream. A natural or once natural flowing open drainage channel with an established bed and bank. These consist of perennial, intermittent, and ephemeral streams, including open waterways that have been restored, modified, or channelized, but do not include ditches, culverts, or other above- or below-ground conduits constructed specifically for storm drainage function. Perennial and intermittent streams, shown as solid or dashed blue lines (or purple lines) on the most recent appropriate USGS quadrangle sheets, and ephemeral streams as defined below, are subject to Stream Conservation Area protection policies. *See “Stream Conservation Area (SCA).”*

Stream Conservation Area (SCA). A setback from the bank of a natural watercourse, which is intended to protect the active channel, water quality, and flood control functions and associated fish and wildlife habitat values along streams.

Stream, Ephemeral. A watercourse that carries only surface runoff and flows during and immediately after periods of precipitation.

Stream, Intermittent. A watercourse that is temporally intermittent or seasonal and that flows during the wet season, continues to flow after the period of precipitation, and ceases surface flow during at least part of the dry season. Intermittent streams are typically shown as a dashed blue line on USGS quadrangle maps.

Stream, Perennial. A watercourse that flows throughout the year (except for infrequent or extended periods of drought), although surface water flow may be temporarily discontinuous in some reaches of the channel, such as between pools, typically shown as a solid blue line on USGS quadrangle maps. (Perennial streams can be spatially intermittent but flow all year.)

Streets, Local. Streets not shown on the Countywide Plan circulation map or diagram with the primary purpose of providing access to fronting properties.

Streets, Major. The transportation network that includes a hierarchy of freeways, arterials, and collectors servicing through traffic.

Subdivision. The division of any unit or portion of land shown on the latest equalized Marin County assessment roll as a unit or contiguous units, even if it is separated by roads, streets, utility easement, or railroad rights-of-way. Subdivision includes a condominium project, as defined in Section 1351 (f) of the Civil Code, and a community apartment project, as defined in Section 1351 (d) of the Civil Code.

Subdivision Map Act. Division 2 (Sections 66410, et seq.) of the California Government Code that vests in local legislative bodies the regulation and control of the design and improvement of subdivisions, including the requirement for tentative and final maps.

Subsidence. The gradual, local settling or sinking of the earth's surface with little or no horizontal motion. *See “Settlement.”*



GLOSSARY

Succession. The process of replacement of one plant community with another. Conditions of the prior plant community (or successional stage) create conditions that are favorable for the establishment of the next state. Human-induced changes, such as fire suppression or vegetation management, can sometimes alter the process of natural succession.

Sustainability. For the purpose of the Countywide Plan, sustainability is defined as aligning our built environment and socioeconomic activities with the natural systems that support life. In the long run, sustainability means adapting human activities to the constraints and opportunities of nature. Central to this definition is meeting the needs of both the present and the future.

Target. A nonbinding, quantifiable outcome that has been identified to help measure progress in achieving the objectives of the Countywide Plan.

Telecommunications. The transmission of information from one point to one or more points using radio frequency signals.

Telecommuting. Working at home or in a location other than the primary place of work and communicating with the workplace and conducting work via wireless or telephone lines, using modems, fax machines, or other electronic devices in conjunction with computers.

Tidal. Tidal energy systems use the energy of waves, rising/falling tides, or the flow of water through a venturi to power a turbine. San Francisco is pursuing a tidal energy system, and Marin is exploring the idea with them.

Tidelands. Lands regularly subject to tidal action, between lowest low water and highest high water but exclusive of lands within floodplains, and subject to inundation due to potential upstream events.

Top of Bank. The elevation at which flow spills out of a stream channel and onto the floodplain.

Topography. Configuration of a surface, including its relief and the position of natural and built features.

Total Maximum Daily Load (TMDL). The amount of a contaminating substance allowed in a body of water according to criteria of the Federal Water Pollution Control Act. The TMDL regulations are designed to limit contaminants flowing into the San Francisco Bay Estuary.

Townhouse; Townhome. A one-family dwelling in a row of at least three such units in which each unit has its own front and rear access to the outside, no unit is located over another unit, and each unit is separated from any other unit by one or more common and fire-resistant walls. Townhouses usually have separate utilities; however, in some condominium situations, common areas are serviced by utilities purchased by a homeowners association on behalf of all townhouse members of the association.

Traffic Mitigation Fee. A fee levied on new development projects to collect funds to provide each development's fair share of traffic facilities needed to serve all new development.



GLOSSARY

Traffic Model. A mathematical representation of traffic movement within an area or region based on observed relationships between the kind and intensity of development in specific areas.

Trail. An unpaved, single-track pathway, generally traversing parklands or open space.

Trailhead. Trail connection to paved roadways.

Transfer of Development Rights (TDR). The process established by Chapter 22.34 (Transfer of Development Rights), which allows some or all of the number of dwelling units potentially allowed by the zoning applicable to a “donor” site to be transferred and built on another “receiving” site, in addition to the number of units potentially allowed by the zoning of the receiving site. *See “Density Transfer.”*

Transitional Housing. Shelter provided to the homeless for an extended period, often as long as 18 months, and generally integrated with other social services and counseling programs to assist in the transition to self-sufficiency through the acquisition of a stable income and permanent housing.

Transit-Oriented Development (TOD). Moderate to higher density development, located within easy walking distance of a major transit stop, generally with a mix of residential, employment, and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.

Transit, Public. A system of regularly scheduled buses, trains, and/or ferryboats available to the public on a fee-per-ride basis.

Transportation Demand Management (TDM). A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle. The TDM reduces the number of persons who drive alone on the roadway during the commute period and increases the number in carpools, in vanpools, in buses and trains, walking, and biking.

Transportation System Modeling. *See “Traffic Model.”*

Transportation Systems Management (TSM). A comprehensive strategy developed to address the problems caused by additional development, increasing trips, and a shortfall in transportation capacity. TSM focuses on more efficiently utilizing existing highway and transit systems rather than expanding them. TSM measures are characterized by their low cost and quick implementation time frame, and may include computerized traffic signals, metered freeway ramps, and one-way streets.

Trip. A one-way journey that proceeds from an origin to a destination via a single mode of transportation; the smallest unit of movement considered in transportation studies. A trip has one “production end” (an origin often from home) and an “attraction end” (destination). *See “Traffic Model.”*



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Trip Generation. The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing local transportation system. Household trip generation is correlated with destinations that attract household members for specific purposes.

Tsunami. A wave, commonly called a tidal wave, caused by an underwater seismic disturbance, such as sudden faulting, landslide, or volcanic activity.

Uniform Building Code (UBC). A national, standard code that sets forth minimum standards for construction.

Uniform Housing Code (UHC). State housing regulations governing the condition of habitable structures with regard to health and safety standards and that provide for the conservation and rehabilitation of housing in accordance with the Uniform Building Code (UBC).

Unincorporated Community. A concentration of structures and population within the unincorporated areas of the county identified in the Countywide Plan as a community.

United States Geological Survey (USGS). An agency of the federal government that is the source for science about the earth, its natural and living resources, natural hazards, and the environment.

Universal Design. Consists of operating principles that promote the design of buildings and spaces to meet the needs of all people, young and old, abled and disabled, by creating comfortable surroundings that suit a lifetime of changing needs for the occupants. Universal design features are generally standard building products or features that have been installed differently, selected carefully, or modified to allow ease of use by a larger population, including children, older people, and people with disabilities. Some examples of universal building design include eliminating steps at building entrances, designing wider doorways, using lever or loop-type handle designs for doors and drawers that require no gripping or twisting to operate, and placing electrical receptacles higher than usual above the floor.

Urban Service Area. An area that represents a legal, orderly expansion of urban development patterns and where a city or town is able to provide urban services.

Use Permit. The discretionary and conditional review of a land use on a site or in a building or facility.

User Fee. A fee levied on the user of a service or amenity.

Vehicle Miles Traveled (VMT). A key measure of overall street and highway use. Reducing VMT is often a major objective in efforts to reduce vehicular congestion and achieve regional air quality goals.

View Corridor. The line of sight – identified as the height, width, and distance – of an observer looking toward an object of significance to the community; the route that directs the viewer’s attention.

Viewshed. The area within view from a defined observation point.



GLOSSARY

Volume-to-Capacity Ratio (V/C). A measure of the operating capacity of a roadway or intersection, in terms of the number of vehicles passing through divided by the number of vehicles that theoretically could pass through when the roadway or intersection is operating at its designated capacity. At a V/C ratio of 1.0 the roadway or intersection is operating at capacity. If the ratio is less than 1.0, the traffic facility has additional capacity. A ratio greater than 1.0 will cause the peak hour of traffic to elongate into a *peak period*. See “*Peak Hour/Peak Period*” and “*Level of Service*.”

Wastewater Irrigation. The process by which wastewater that has undergone primary, secondary, or tertiary treatment is used to irrigate land.

Watercourse. Natural or once-natural flowing (perennially or intermittently) water, including rivers, streams, and creeks. Includes natural waterways that have been channelized but does not include ditches, culverts, or other above- or below-ground conduits constructed for storm drainage function and sewage systems.

Watershed. The total area above a given point on a watercourse that contributes water to the flow of the watercourse; the entire region drained by a watercourse.

Weatherization. Provision of insulation, weatherstripping, caulking, and other improvements to reduce heat loss from buildings.

Wetland, Jurisdictional. An area that meets the criteria established by the U.S. Army Corps of Engineers (Corps or COE) for a Wetlands (as set forth in their *Wetlands Delineation Manual*). Such areas come under the jurisdiction of the Corps of Engineers for permitting certain actions such as dredge and fill operations.

Wetlands. Areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and, under normal circumstances, that do support a prevalence of vegetation typically adapted for life in saturated soil conditions. These can include saltwater and freshwater marshes, brackish marshes, swamps, vernal pools, and seasonal wetlands. The Army Corps of Engineers and/or Regional Water Quality Control Board have jurisdiction over wetlands and unvegetated “other waters,” which can include mudflats, lakes, ponds, and open waters of bays, lagoons, and ocean. The California Department of Fish and Game has jurisdiction over wetlands and other waters associated with the bed and bank of creeks and streams, and the shoreline and open water habitat of nontidal water bodies. In the Coastal Zone, wetlands can include the presence of hydrophytes (plants typically found in wet habitats) and hydric (wet) soils.

Wildland Fire. A fire occurring in a suburban or rural area that contains uncultivated lands, timber, range, watershed, brush, or grasslands. This includes areas where there is a mingling of developed and undeveloped lands.

Wildlife Corridor. A continuous land area or natural feature such as a stream, shoreline, or ridge top used for wildlife movement.

Wildlife Nursery Area. Locations used for breeding and rearing of young by fish and wildlife.



GLOSSARY

Wildlife Refuge. An area maintained in a natural state for the preservation of both animal and plant life.

Williamson Act (California Land Conservation Act of 1965). Formally the California Land Conservation Act of 1965, this Act was designed as an incentive to retain prime agricultural land and open space in agricultural use, thereby slowing its conversion to urban and suburban development. The program entails a 10-year contract between the County and an owner of land whereby the land is taxed on the basis of its agricultural use rather than the market value. The land becomes subject to certain enforceable restrictions, and certain conditions need to be met prior to approval of an agreement.

Wind. Wind generators are turbines, which use the energy in the motion of the wind to make mechanical energy, which is then converted to electrical energy. Wind is the least-expensive method of generating electricity, and there is enough potential wind energy in the United States to power the entire country. (NREL)

Wind Energy Conversion System. Use of wind as an energy resource through a generation and conversion system such as a windmill.

Workforce Housing. Housing affordable to those in public service or quality of life occupations that are bound to a community and who earn less than 120% of the Area Median Income as defined by the U.S. Department of Housing and Urban Development.

Xeriscape. A sustainable landscape that conserves water and is based on sound horticultural practices. The word is derived from the Greek word *xeros*, meaning “dry,” and *scape*, from the word *landscape*.

Zoning. The division of a city or county by legislative regulations into zones, which specify allowable uses for real property and size restrictions for buildings within these areas. Zoning implements land use policies of the Countywide Plan.

Zoning District. An area identified on the County Zoning Map within which certain uses of land and structures are permitted, and regulations are defined and specified by the Development Code, Title 22 of the Marin County Code.

Zoning, Incentive. The awarding of bonus credits to a development in the form of allowing more intensive use of land if public benefits – such as preservation of greater than the minimum required open space, provision for low and moderate income housing, or plans for public plazas and courts at ground level – are included in a project.

Zoning, Inclusionary. See “*Inclusionary Housing/Zoning.*”

Zoning Map. The official map or maps of Marin County that identify the specific zoning districts located in the unincorporated areas of the county. The Zoning Map is on file with the Marin County Community Development Agency.



GLOSSARY

Zoning Ordinance. An ordinance authorized by Section 65850 of the Government Code, or, in the case of a charter city, a similar ordinance enacted pursuant to the authority of its charter. [California Coastal Act §30122.]