Key Trends, Issues, and Strategies Report

Marin Countywide Plan Update

January 2003

Marin County
Community Development Agency

Alex Hinds, Director

Key Trends, Issues, and Strategies Report

January 2003

Attention:

This background report has been assembled with input from a variety of sources including volunteer committees, staff, and members of the public. The purpose of the document is to be a reference tool to identify issues and potential strategies for consideration and discussion during the preparation of the Marin County General Plan Update. The information and suggestions contained in this report have not been debated by nor adopted by the County of Marin nor any of its decision-making bodies.

Public Participation

The public is invited to participate in the process of updating the Plan in a number of ways. You can attend workshops and public meetings, send email and letters, and review and comment on this report and others on the Internet. For additional information, log on to the Countywide Plan update website at www.future-marin.org, or contact our staff as indicated below.

Copies of this report may be obtained by contacting:

Sophina Sadeek
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903
Phone (415) 499-7579 Email: ssadeek@co.marin.ca.us

A Web version of the report is available online at: http://www.future-marin.org

Printed on recycled paper

Marin Countywide Plan Update 2004

Working Groups

Built Environment

Sue Beittel
Mark Birnbaum
Raison Cain
Ken Eichstaedt
Tom Hinman
Debbie Hubsmith
Bill McCubbin
Betty Pagett
Alicia Retes
Tim Rosenfeld
James Stark
Chantel Walker
Patsy White
Cecilia Zamora

Economy, Equity, and Culture

Clark Blasdell
Virginia Brunini
Hilda Castillo
Katherine Crecelius
Kristene Cristobal
Faye D'Opal
Manny Fernandez
Darcy Hammons
Jim Henderson
Lisa Lord
Vinh O. Luu
Charles McGlashan
Byron Sigal
Michael Walker
Amy Wilson

Natural Systems

Robert Berner
Janet Brown
Katherine Cuneo
George Grossi
Randy Hayes
Jared Huffman
Penny Livingston-Stark
Kathy Lowrey
Peter Luchetti
Carol Misseldine
Don Neubacher
Carlos Porrata
Ellie Rilla
Ellen Straus

Sustainability

Meg Amaral
Sue Beittel
Clark Blasdell
Nona Dennis
Nancy Ducos
Jeffery Ehlenbach
Jim Goodwin
Grace Hughes
Arie Kurtzig
Luke McCann
Charles McGlashan
Linda Novy
Larry Rosenberger
Sim Van der Ryn

Marin County Community Development Agency

Staff

Alex Hinds, Director
Michele Rodriguez, Principal Planner
Carol Williams, Former Assistant Planning Director
Dan Dawson, Senior Planner
Barbara Collins, Affordable Housing Strategist
Kristin Drumm, Planner
Dawn Weisz, Planner
Sam Ruark, Assistant Planner
Larisa Roznowski, Planning Aide
Sophina Sadeek, Senior Clerk/Typist
Sharon Silver, Senior Clerk/Typist
Jeanne Shelton, Senior Clerk/Typist
Donald Allee, Senior Clerk/Typist

Consultants

Jeff Baird, Housing
Bob Berman, Environmental Quality
Lisa Bush, Agriculture and Environment
Suzanne Lampert, Economics
Bonnie Nelson, Transportation
David Strong, Agricultural Economics
Elissa Rabellino, Editor
Tim Rosenfeld, Energy
Laura Hall, Urban Designer

This page intentionally left blank.

Key Trends, Issues, and Strategies Report
Table of Contents

Table of Figures

Maps

Introduction

I. Introduction

The *Key Trends, Issues, and Strategies Report* is one of the principal background reports that will be used as a reference to update the Marin Countywide Plan. The report summarizes public and technical input from two years of community meetings and working group sessions. The report identifies trends, issues, and strategies affecting the future of Marin County in the three broad categories that will provide an organizing framework for the Plan: natural systems; the built environment; and the economy, equity, and culture. The report is to serve as a resource document, or "tool kit," to help shape the update of the Countywide Plan. The update to the Marin Countywide Plan is expected to be completed by 2004.

The natural systems section addresses environmental quality, environmental hazards, open space and trails, parks and recreation, and food and agriculture. The section on the built environment deals with transportation, housing, community design, community facilities, emergency preparedness, and community development. The section on the economy, equity, and culture focuses on a variety of socioeconomic issues, including the economy, social equity, public health, and the arts and cultural resources. Energy issues are addressed throughout the report.

The trends, issues, and strategies identified in the report have been assembled from a variety of sources. The process of gathering information began with public comments collected during 11 public workshops. There were also 15 meetings of four working groups. Additional public input was collected during the "Help Design the Future of Marin County" event held in February 2002.

Vision

Marin County intends to work toward the long term vision of becoming a sustainable county before the end of the 21st century. By drawing upon the best from the past and the present, we can plan communities designed to serve the needs of those who live and work within them, as well as sustain the natural systems that support life for future generations. While this vision will require a time frame and changes well beyond the scope of this Countywide Plan, establishing a program of indicators and targets will enable us to measure our progress toward more sustainable communities. Ongoing monitoring will also provide a forum to consider new or revised techniques as necessary to achieve our goals and objectives.

During the 21st century . . .

> Marin will become a place with dramatically reduced dependence upon fossil fuels, hazardous chemicals, and manufactured substances that accumulate in nature and harm life-sustaining systems. This vision includes the protection, restoration, and enhancement of watersheds, agriculture, air quality, and open space that will continue to enrich the lives of all species. Hazardous materials will not be released into the environment, and the concept of "waste" will be eliminated, as waste products will be converted into resources. We will not breathe harmful fumes from vehicle exhaust, and healthy, locally produced food without toxic residues will be available to the community.
>
> Marin residents will have the opportunity to live close to public transportation or to where they work, shop, or recreate. Our freeways will not be gridlocked, as our communities will be designed with many transportation choices. Homes will be heated, cooled and powered using intelligent design and renewable energy. Housing will be more affordable to the wide range of our workforce and our families. Housing choices will include mixed-use villages in our downtowns, above parking lots, within commercial areas, and near transit.
>
> Marin businesses and food growers will be supported through local purchasing. In turn, local agriculture and business will nourish and enrich their surrounding communities. We will enjoy a rich cultural diversity. There will be affordable choices for child and elder care in the workplace

and in the community. High quality education will be available to people of all ages, cultures and income levels equally. Support systems and housing will be in place to help those in need. Marin in the 21st century will be a place where community needs are met in fair, creative, and effective ways, where people know their neighbors, and where families can live, work and play in a safe, healthy, and just environment.

Guiding Principles

In May 1999, the Marin County Board of Supervisors adopted a recommendation from the Marin Economic Commission to address sustainability in the Marin Countywide Plan update. Subsequently, the Marin County Board of Supervisors determined that sustainability would be the overarching theme of the update. In late 2000, a working group consisting of 14 members of the public was convened to prepare a set of general principles to guide revisions to the Countywide Plan. This group met eight times over six months to review models from around the United States and the world, and proposed the guiding principles listed on the following pages.

I

MARIN COUNTYWIDE PLAN UPDATE
Interim Guiding Principles

Preamble

Meeting the needs of the present without compromising the future is the overarching theme of the Marin Countywide Plan. Marin County government is committed to lead by example, support public participation, and work in community partnerships to improve quality of life, using key indicators to measure progress. To design a sustainable future, we will adhere to the following:

Guiding Principles

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 to Marin County.

Examples of community indicators: Social, economic, and environmental indicators listed below; GPI (Genuine Progress Indicator: comprehensive, aggregate measure of general well-being and sustainability including economic, social, and ecological costs).

2. Use finite and renewable resources efficiently and effectively.

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

Examples of community indicators: Per capita waste produced and recycled; per capita use of energy, natural gas, and water; ecological footprint (measures per capita consumption of natural resources).

3. Reduce the release of hazardous materials.

We will make continual progress toward eliminating the release of substances that cause damage to living systems. We will strive to prevent environmentally caused diseases.

Examples of community indicators: Water and air quality; measurements of toxic levels; childhood cancer rates.

4. Steward our natural and agricultural assets.

We will continue to protect open space and wilderness, and enhance habitats and biodiversity. We will protect and support agricultural lands and activities, and provide markets for fresh, locally grown food.

Examples of community indicators: Acres of wilderness; acres of protected land; levels of fish populations; track special-status plants and animals; quantity of topsoil; active farmland by crop; productivity of acreage and crop value of agricultural land; acres of organic farmland.

5. Provide efficient and effective transportation.

We will expand our public transportation systems to better connect jobs, housing, schools, and 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.

Examples of community indicators:Vehicle-miles traveled; bus and ferry ridership and fares; person-miles traveled; community walkability; miles and use of bike paths.

6. Supply housing that is affordable to the full range of our workforce and 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 workforce housing, promote in-fill development, and reuse and redevelop underutilized sites.

Examples of community indicators: Jobs-housing balance; housing affordability; number of new housing units within walking distance of jobs or transit.

7. Foster businesses that provide a balance of economic, environmental, and social benefits.

We will 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.

Examples of community indicators: Taxable sales; retention and attraction of targeted businesses; job growth; unemployment rate; number of businesses with environmental management systems; hospitality revenues.

8. 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 well-paying jobs, and achieve economic independence.

Examples of community indicators: Education level of Marin residents; per-pupil expenditures; percentage of eligible voters who voted; high school dropout rate; percentage of high school graduates going to college or post-secondary training.

9. 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 enact programs to maintain, share, and appreciate our cultural differences and similarities.

Examples of community indicators: Racial diversity; diversity of community and corporate leadership; number of hate crimes; number and use of cultural resources such as museums and theaters.

10. Support public health, safety, and social justice.

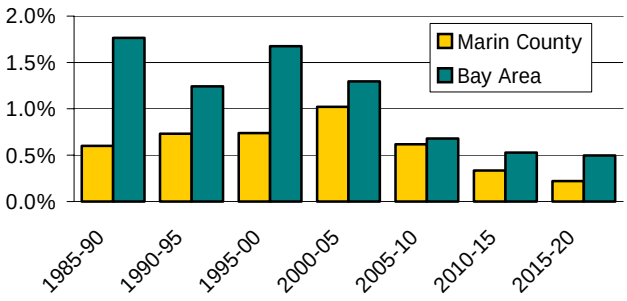
We will live in healthy, safe communities and provide equal access to amenities and services. We will particularly protect and nurture our children, our elders, and the more vulnerable members of our community.

Examples of community indicators: Income statistics; health statistics; percentage of uninsured (medical) population; longevity after retirement; volunteerism; crime rate; percentage of philanthropic contributions.

Marin Within the Region

Marin County accounts for only a small percentage of population growth in the Bay Area. The Bay Area's warm climate, beautiful setting, abundance of recreational activities, top universities, Fortune 500 businesses, and career opportunities attract people from around the world. While the Association of Bay Area Governments (ABAG) estimates that the population of the nine Bay Area counties is expected to grow by 1 million over the next 20 years, less than 3 percent of that growth will occur in Marin (Figure I-1). Between 2000 and 2020, Marin's population is projected to grow from 247,289 to 275,500, an increase of 11.4 percent. Marin's population-growth rate is lower than that of all the counties in the Bay Area except San Francisco.

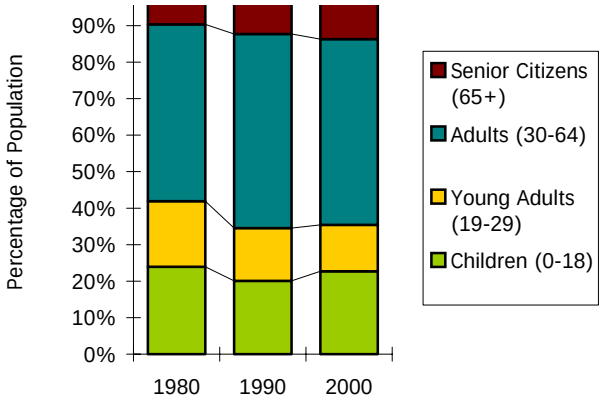
Figure I-1
Annual Population Growth, 1985-2020,
Averaged for Each Five-Year Interval



Source: 2001 Association of Bay Area Governments

One factor limiting growth in Marin is longstanding land use regulations focusing development within existing communities along the City-Centered Corridor. Of the county's 520 square miles of land area, only 11 percent is developed. The majority of the land is either in agricultural production, designated as open space or watershed areas, or in park lands, resulting in nearly half of the county's land area being in some form of protected open lands. Only 5 percent of additional land in Marin is potentially developable.

Figure I-2
Age Distribution



Source: United States Census Bureau

Marin residents are aging and living longer. According to ABAG, another factor limiting Marin's demographic growth is the county's aging population. The population of Marin continues to age, as both the median age and the percentage of people over the age of 65 continue to increase. The population of Marin has aged significantly since 1980, when the median age was 33.6 years. By 1990, the median age increased to 38.0 years, and it increased again to 41.3 years in 2000. The percentage of senior citizens has increased significantly, from 9.7 percent of the population in 1980 to 13.7 percent by 2000 (Figure I-2).

ABAG estimates that the proportion of the region's population of people 65 years old and over will double in the next 20 years, while the proportions of the population less than 20 years old and of children less than 5 years old will decrease. The proportion of the Bay Area population age 65 and older increased from 9.7 percent in 1980 to 13.7 percent in 2000, about the same increase as Marin's. The portion of Marin's population 85 years and older has grown by 62 percent since 1990.

The percentage of children in Marin is decreasing as the population ages. The number of children decreased from 24 percent of the population in 1980 to 20.1 percent in 1990 and then increased to 22.7 percent in 2000. Although young adults were 18.0 percent of the population in 1980, they were only 12.7

percent by 2000. The adult (age 30–64) share of the population was 48.4 percent in 1980, peaking at 53.2 percent in 1990 and then decreasing to 50.9 percent in 2000.

Although the region's population is aging, life expectancy in the Bay Area continues to outpace life expectancy compared with the rest of California as well as the nation as a whole. Residents of the Bay Area have a life expectancy six months longer than that of people in other parts of California, and two years longer than in the United States as a whole.

Marin residents are living longer for a variety of reasons. One factor is the high level of income and education of residents. Residents are more knowledgeable about health care and preventive health measures and can afford to pay for health insurance. Improved nutrition and diet, exercise, less smoking, and access to modern medications are other factors that have produced a healthier, older population.

Long term job growth is anticipated in the Bay Area and in Marin, although there may be a shortage of Marin workers to fill jobs. Despite the recent downturns in the Bay Area economy, the long term forecast shows significant change. According to ABAG, the region already has an unusually high concentration of computer electronics, telecommunications, and computer software jobs. In addition, the Bay Area is also one of the leading regions for biomedical research and development. It is expected that the number of jobs in the region will increase by 1.1 million by 2020.

Job growth in Marin mirrors the trend in job growth for the Bay Area. Between 1990 and 2000, Marin added more than 15,500 jobs. ABAG projects that the county will add about 33 percent more jobs, which translates into 40,310 more jobs, over the next 25 years. Similarly, high technology and finance have been the fastest growing employment sectors in the county, although the service sector still continues to dominate Marin's economy.

Marin's aging population impacts the available workforce and the local economy. The retired senior population generally has less disposable income than people in the workforce, and the decrease in the share of the population age 30 to 64 means fewer Marin residents to fill local jobs.

The unemployment rate in the San Francisco Bay Area is the highest it has been in six years. This has also had an impact on consumer confidence. Between November 2000 and the end of 2001, the region's consumer confidence had decreased from the mid-130s to almost 80. The unemployment rate in Marin continues to remain low in comparison with the Bay Area, California, and U.S. averages. Because Marin has fewer people employed in volatile industries, such as construction and manufacturing, the county is not as affected as other areas when there is a downturn in the regional, state, or national economy.

The Bay Area's workforce is changing as well. The traffic congestion in the region and advances in technology may transform the office job of the future. Improved technology may bring about an increase in telecommuting: more people working from home, attending meetings via satellite, communicating with colleagues via email, and submitting assignments via dial-up modem, DSL, or cable modem.

Knowledge-based industry will contribute to the future of Marin's economy. ABAG projections indicate that approximately 18 percent of the Bay Area's workforce will be in knowledge-based industry, which drives innovation, economic growth, and job generation in the region. Marin is expected to absorb 19 percent of the total growth. The jobs typical of knowledge-based industry are in fields including computers, electronics, telecommunications, multimedia, movie and television production, biotechnology, environmental technology, and travel and tourism.

There will continue to be a high demand for housing in the region and in Marin. The Bay Area is well known for its tight housing market due to the high demand for housing. Only half a million dwelling units are expected to be added to the Bay Area's housing supply within the next 20 years. The projected population growth will only increase the demand for housing in the region. In Marin, this increased demand, coupled with limited supply, contributes to high housing prices.

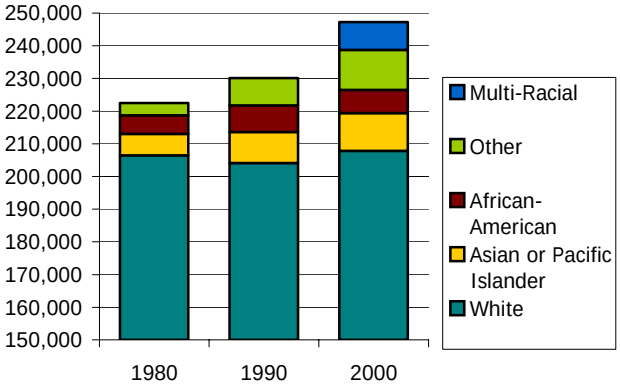
I

Marin is less ethnically diverse than the rest of the Bay Area. The ethnic makeup of the Bay Area is expected to significantly change within the next 20 years. ABAG projects that the proportion of the Bay Area population that is white will fall from 61 percent to 47 percent between 1995 and 2020. During the same period the Hispanic population is expected to grow from 16 percent to 24 percent, and the population of Asians and Pacific Islanders from 16 percent to 20 percent. The African American population is expected to remain around 9 percent.

Marin County is not as ethnically diverse as the rest of the region. In Marin, whites comprise 84 percent of the total population, followed by persons of Hispanic origin (11.1 percent), Asians or Pacific Islanders (4.7 percent), African Americans (2.9 percent), and other races (4.9 percent) (Figures I-3 & 4). The racial composition of the Bay Area, however, is 58.1 percent white, 19.5 percent Asian and Pacific Islander, 7.5 percent African American, 9.8 percent other races, and 4.9 percent multiracial.

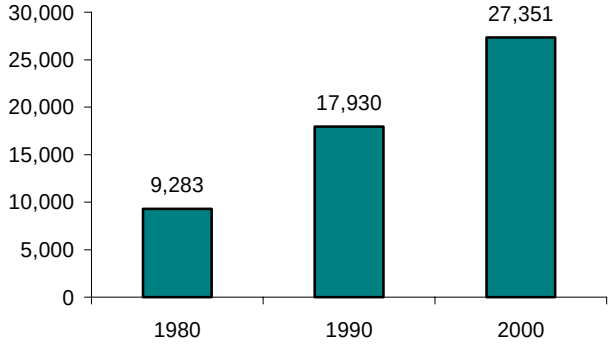
Change is gradually occurring in the ethnic makeup of Marin's population. While the population is becoming more diverse, Marin County is diversifying at a much slower rate than the rest of the Bay Area or California. A combination of factors may be influencing this, including housing costs and disparity in education levels, which in turn affects employment potential.

Figure I-3
Population Growth and Racial Distribution, Marin County, 1980–2000



Source: United States Census Bureau

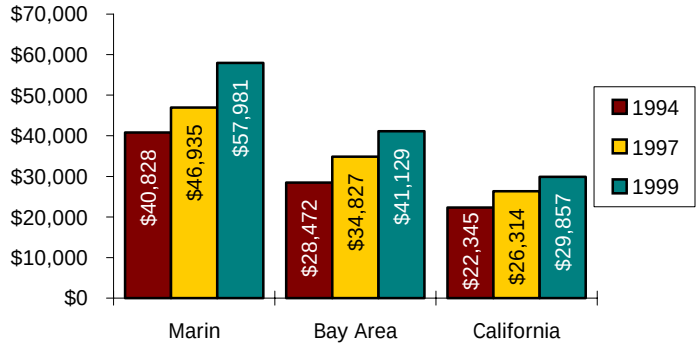
Figure I-4
Persons of Hispanic Origin, 1980–2000



Source: United States Census Bureau

Marin has the highest per capita income in California. In 1999 the per capita income in Marin was $57,981, compared with $41,129 for the Bay Area and $29,857 for the state (Figure I-5). Household income in Marin is also higher than in the Bay Area: $100,000 in 2000 compared with less than $80,000 for the Bay Area. Household income includes income from all income earners in the household. The growth in household income may indicate an increase in households where more than one person is employed. This may be a result of Marin's high cost of living, which requires a greater household income in order to afford to live in the area.

Figure I-5
Per Capita Personal Income



Source: Bureau of Economic Analysis

Development in the region is spreading outward from central cities. The relationship between central cities and suburbs has changed over the last few decades. The relationship between San

Francisco and Marin is no exception. Fifty years ago, cities were the location for major employers, museums, theaters, and homes for many people. Today those resources and the economic activities that surround them have dispersed and they will continue to disperse.

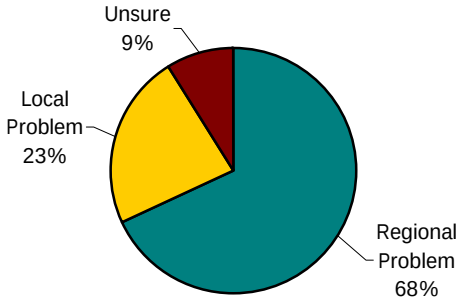
The region, rather than the city, is now the basic geographic unit in which goods and services are produced. Workers are hired from a regional labor pool. Transportation and infrastructure systems are regional.

According to ABAG, 60 percent of the land available for residential development between 1995 and 2020 is earmarked for single-family homes. Housing more affordable in price tends to be built far from jobs and public transit on the periphery of the region, where land costs are relatively low. ABAG indicates that a significant portion of the land anticipated for development is on the periphery of the region because land there is less expensive. Most of this land is earmarked for single-family residential development at very low densities. Residential and commercial/industrial development is being pushed geographically outward.

Traffic congestion in the Bay Area is increasing. Most daily automobile trips made by Bay Area residents are less than five miles and are trips to the grocery store, gym, day-care center, or a child's school or sports practice. Between 1980 and 1990, a 45 percent decrease in the cost of gasoline per mile encouraged more people to drive. Despite significant public investment in public transportation, the number of people driving alone to work grew by 35 percent during the same period. Modern subdivision design has not encouraged walking or cycling, and driving a car is often the only safe way to travel from home to various activity centers.

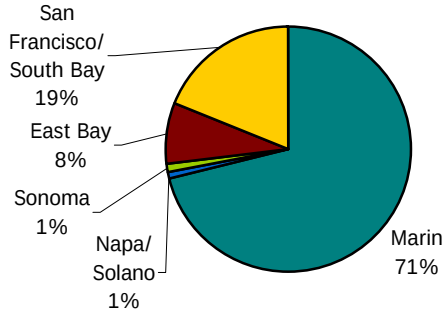
The majority of people interviewed in a Marin County survey believe that traffic congestion is more a regional than a local problem to resolve (Figure I-6). However, the data shows that 71 percent of all vehicle trips starting in Marin also end in Marin. The next most frequent destination is San Francisco and the South Bay, with 19 percent of trips (Figure I-7).

Figure I-6
Traffic Congestion: A Local or Regional Problem?



Source: 2000 Marin County Congestion Management Agency

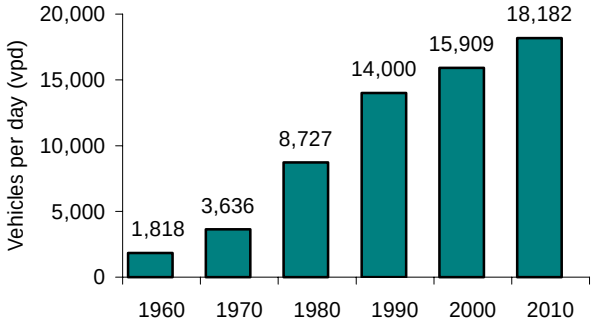
Figure I-7
Destination of Vehicles Originating in Marin County, 1999



Source: 2000 Nelson \Nygaard/Marin County Congestion Management Agency

There is a perception that much of the traffic congestion on Highway 101 is from Sonoma County commuters traveling through Marin. Traffic data indicates that there has been a 281 percent increase in the number of one-way vehicle trips from Sonoma to Marin over the last 50 years (Figure I-8). Slightly fewer than half the vehicle trips originating in Sonoma County are going to Marin County destinations (Figure I-9). In fact, the proportion of trips destined to Marin and San Francisco from Sonoma is expected to decrease as Sonoma County further develops its own job base. However, trips to Marin from Sonoma, Napa and other counties will continue to grow as Marin is still a major destination with a significant lack of affordable housing (Nelson\ Nygaard).

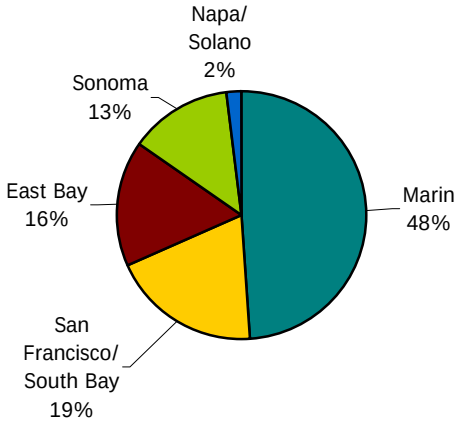
Figure I-8
Total Daily One-Way Vehicle Trips from Sonoma to Marin



Source: Nelson\Nygaard/Marin Congestion Agency

In the Bay Area there is a relationship between income and the number of vehicles owned. The higher the income per Bay Area household, the more vehicles owned in that household (Figure I-10). In the Bay Area, the average number of vehicles per household grew from 1.67 to 1.76 from 1980 to 1990, and was expected to have averaged 1.91 in 2000. Similar to the rest of the Bay Area, the number of vehicles registered in Marin County has increased steadily between 1981 and 1999 (Figure I-11).

Figure I-9
Destination of Vehicles Originating in Sonoma County, 1999



Source: 2000 Nelson\Nygaard/Marin County CMA

Figure I-10
Bay Area Vehicles per Household by Income and Unit Type (1990)

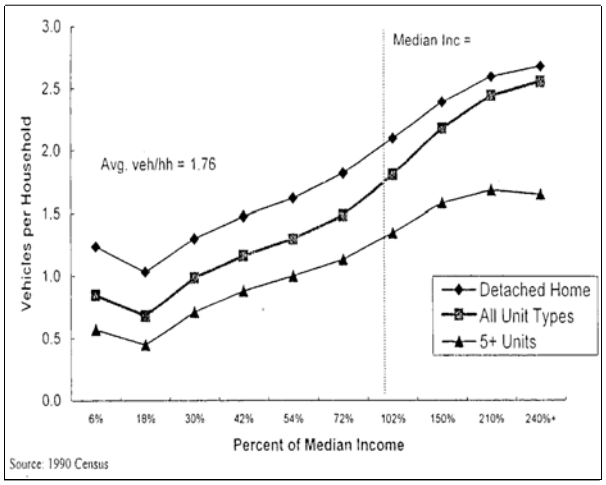
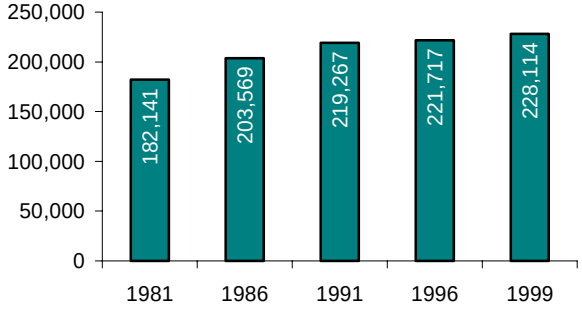


Figure I-11
Number of Vehicles Registered in Marin County



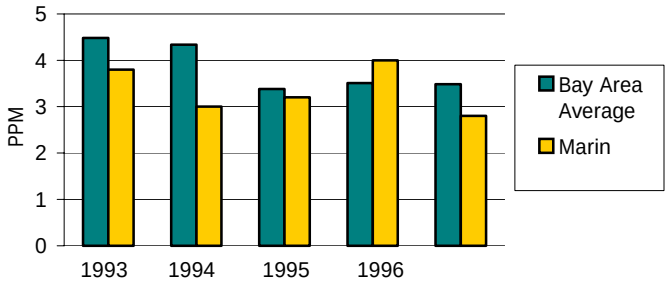
Source: 2001 Marin County Congestion Management Agency

California's growing population will intensify the demand for water. According to the California Water Plan, by 2020 the state will face a water shortfall of 2.9 million acre-feet in average years. The forecast for the San Francisco Bay Area is far less dire. However, the projections assume a substantial increase in conservation efforts, with the greatest savings anticipated through landscaping and irrigation in new and existing developments, and aggressive conservation efforts by commercial and institutional establishments.

According to Marin Municipal Water District (MMWD) figures, Marin's demand for water has grown from about 23,000 acre-feet in 1992 to slightly more than 30,000 acre-feet in 2001. Demand is projected to increase to nearly 33,000 acre-feet by 2020 in the area served by MMWD. A combination of conservation, recycling, and development of a new water supply may meet demand.

Although motor vehicles contribute to air pollution, air quality in the Bay Area is getting better. According to the Bay Area Air Quality Management District, motor vehicles produce nearly half the emissions that combine to produce ozone, the principal component of smog. Automobile emissions also include a significant amount of carbon dioxide, which contributes to global warming and cannot be removed from the atmosphere easily or inexpensively.

Figure I-12
Air Quality in Marin and Bay Area, Carbon Monoxide



Source: California Air Resources Board

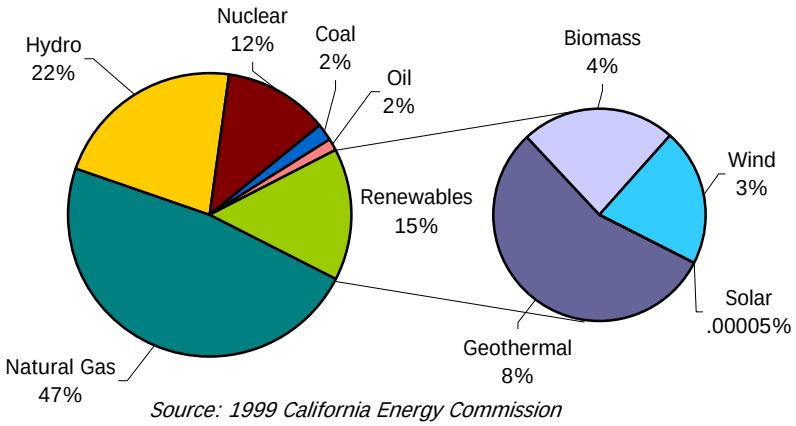
Air quality in the Bay Area is improving. Since 1998, the Environmental Protection Agency reclassified the area as a carbon monoxide "maintenance" area. Prior to 1998, the Bay Area was a "moderate non-attainment" area for carbon monoxide due to localized violations of the national carbon monoxide standards in downtown San Jose and Vallejo (Illingworth & Rodkin) (Figure I-12). Although air quality is improving in the region, the Bay Area has continued to violate National Ambient Air Quality Standards for ozone since 1998. Standards are violated when an area exceeds ozone standards three times a year for three consecutive years (Illingworth & Rodkin).

In Marin County, air quality is generally good because there are no major air pollution sources and prevailing winds are mostly off the ocean. However, since the winds blow eastward, sources of air pollution in Marin can contribute to air quality problems in other parts of the Bay Area and beyond.

I

Natural gas is California's primary energy source, although there is a slight trend toward diversification. The recent electricity supply and cost problems helped to increase awareness of energy use among California residents. Though the majority of California's energy consumption involves natural gas, there has been a gradual migration toward diversifying the mix of energy resources in the state (Figure I-13). In comparison, the majority of Marin's electricity and natural gas is imported by the privately owned utility Pacific Gas & Electric (PG&E). Gasoline is still the primary fuel used for transportation (99.9 percent) (Energy Information Administration).

Figure I-13
PG&E Energy Sources



Source: 1999 California Energy Commission

Over the past 10 years, the relative composition of California's energy generation sources has remained steady. The greatest percentages of electricity generated are from natural gas, hydroelectric power, and nuclear energy, respectively. Overall, use of petroleum has had the largest decrease, followed by nuclear, coal, and renewables. The use of natural gas has changed significantly, with a growing percentage in the use of natural gas for co-generation facilities, which produce electricity by using both oil and natural gas. The use of natural gas for combustion power plants has decreased (Figure I-14).

Figure I-14
California's Generation Sources

Generation Source	1990 (MW)	1999 (MW)	% Change (1990–1999)
Natural gas	25,123	19,303	-10.1
Hydroelectric	13,317	14,086	+1.9
Co-generation	1,151	8,486	+13.9
Nuclear	4,746	4,310	-0.7
Coal	474	376	-0.2
Oil	3,345	1,024	-4.3
Renewables	5,945	5,573	-0.5

MW = Megawatt

Source: 2000 California Energy Commission

Marin has no large- or small-scale generating capacity of its own. The primary sources of energy purchased by PG&E are natural gas, hydroelectric power, and nuclear energy. Use of renewable energy commands a smaller percentage of the state's energy mix, at 15 percent combined.

Interest in renewable energy is growing in the Bay Area and Marin County and residents are increasingly pursuing alternatives. For example, in November 2001 the voters of San Francisco passed Bond Measures B and H, which will seek bond money to install 40 to 50 megawatts of photovoltaic panels in the city.

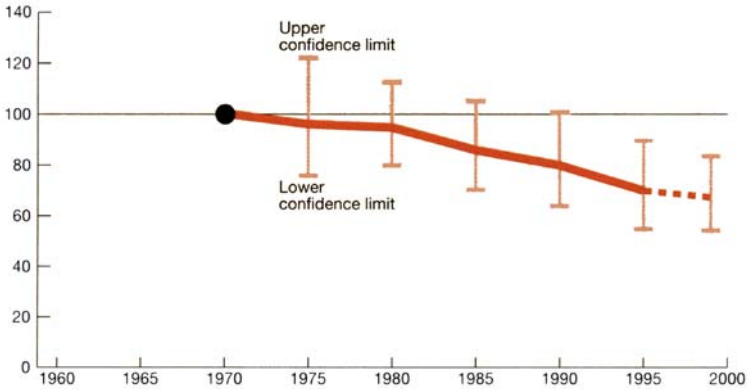
The Bay Area is well known for its earthquake activity, with several active faults running through the region. Six strike-slip faults and one thrust fault in the San Francisco Bay Area are known to be slipping between 2 and 24 mm/year. These faults in general release most of the seismic energy in the Bay Area and include the San Andreas, Hayward-Rodgers Creek, Calaveras, San Gregorio, Concord-Green Valley, Greenville, and Mount Diablo faults (Snyder and Smith Associates). The Working Group on California Probabilities (WG99) found that there is a 70 percent probability of at least one earthquake of magnitude 6.7 or greater before 2030 within the San Francisco Bay region. This earthquake is likely to occur on one of the seven major fault systems in the Bay Area. It was determined that the Hayward-Rodgers Creek, San Andreas, and Calaveras fault systems have the highest probabilities of generating an M>6.7 earthquake before 2030 (Snyder and Smith Associates).

Marin Within the Global Context

Human beings now use natural resources faster than they regenerate them. While the productive capacity of the earth's natural ecosystems has declined about 33 percent over the last 30 years (Figure I-15), the human impact on the earth's natural systems has increased by about 50 percent over that same period (Figure I-16).

The ecological footprint measures the use of natural resources against the planet's actual biocapacity. It can be calculated for individuals, regions, countries, or the entire earth and is expressed as the number of acres of the earth's total surface area it takes to support one person. Given the current global population, there are about 5 acres for each individual on Earth. The average American accounts for 24.0 acres while the Marin footprint is 27.4 acres per capita, 15 percent higher than the average American. Other western democracies such as Canada, France, and Italy have footprints of 21.8, 13.0, and 9.5 acres, respectively (Figure I-17).

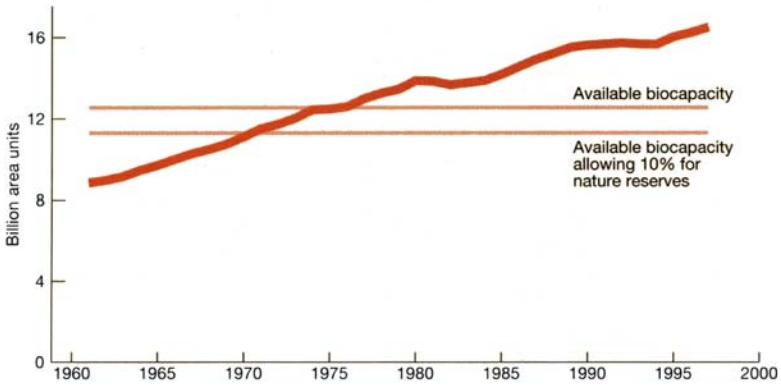
Figure I-15
Living Planet Index



**The Living Planet Index is a measure of the natural wealth of the Earth's forests, freshwater ecosystems, oceans, and coasts.*

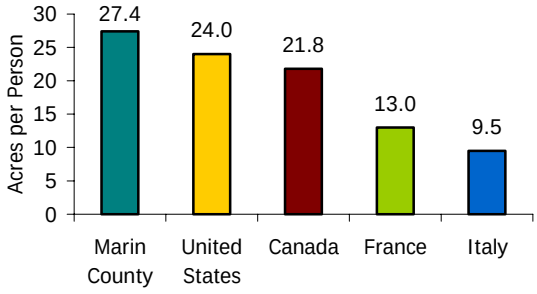
Source: 2000 World Wide Fund for Nature

Figure I-16
World Ecological Footprint



Source: 2000 World Wide Fund for Nature

Figure I-17
Ecological Footprint Comparison



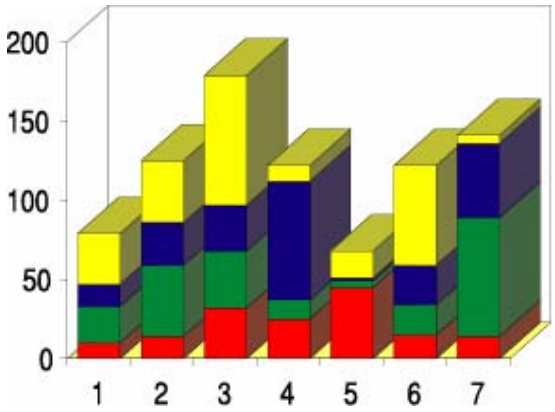
Source: 2000 Sustainable Sonoma County with Redefining Progress

What Are Trends?

Trends indicate the general direction, movement, or prevailing tendency of a course of events.

The following are some examples of possible trends:

- Fewer but larger dairies
- More cars per household
- Larger, more expensive housing



How Will Trends Be Used?

While trends do not automatically indicate our destiny, trend analysis helps us to evaluate factual information, project the direction in which we may be heading, and identify key issues to be considered in planning our future.

Community Development Agency staff conducted research on identified trends and provided background information for each of the trends listed in the report. The trends are based on facts and statistics from governmental agencies, nonprofit organizations, consulting firms, and other sources. Sources are identified in the text and in a list at the end of each section.

What Are Issues?

Issues are topics of concern to the community. Key issues may involve unmet needs or be subject to dispute. The following are examples of issues:

- Protection of agricultural lands
- Traffic congestion
- High cost of housing

How Will Issues Be Used?

Issue identification will help to determine what community concerns which will be addressed in the update of the Countywide Plan.

The issues in this report represent the diverse views of working group members, and some issues may appear incompatible with others. Nevertheless, the issues listed in the report are important because they represent significant public concerns and should be considered during the preparation of the Countywide Plan Update.

What Are Strategies?

Strategies identify how we may work to achieve the goals and objectives of the Countywide Plan. Strategies include proposed courses of actions, such as policies and programs.

How Will Strategies Be Used?

These strategies will be considered when creating or modifying policies and programs to be contained in the updated Plan.

As the process of updating the Countywide Plan proceeds, staff will compare the proposed strategies in the report with policies and programs already in the Plan. All the strategies will be considered, but not all will be included in the final Countywide Plan.

What Are Indicators and Targets?

An *indicator* is a measurement that assists in demonstrating movement toward or away from a goal or objective. Indicators should be understandable, representative and relevant. A *target* is a nonbinding, quantifiable objective that is proposed to determine progress toward a goal. Examples include:

Indicator	Target
Acres of protected agricultural land	20 percent increase in agricultural conservation easements by 2020
Vehicle miles traveled	15 percent increase in carpools by 2010
Number of affordable housing units	133 very low and low income units construction by 2006

How Will Indicators and Targets Be Used?

Identification of proposed indicators and nonbinding targets will help us to measure our progress toward or away from the goals and objectives in the Countywide Plan. Each indicator will be monitored and reported on periodically. The results of this periodic monitoring will be useful in alerting the public and decision makers to the effectiveness of the policies and programs that implement the Countywide Plan. Such a process should also provide an opportunity to review our progress and consider the need for new or revised strategies and implementation measures.

SOURCES

Association of Bay Area Governments. *Projections 2002: Forecasts for the San Francisco Bay Area to the Year 2025*. December 2001.

Association of Bay Area Governments. *Rethinking the Future: A New Forecast to the Year 2025 for the San Francisco Bay Area*. December 13, 2001.

Association of Bay Area Governments. *Trends and Challenges*. April 1999.

Bureau of Economic Analysis, Regional Accounts Data. www.bea.doc.gov/bea/regional/reis/.

California Air Resources Board. Air Quality, Emissions, and Modeling. www.arb.ca.gov.

California Energy Commission. www.energy.gov.

Caltrans District 4. www.dot.ca.gov/dist4/.

Energy Information Administration. www.eia.doe.gov. 1999.

Huffman, Jared. Marin Municipal Water District. Presentation to the Marin Countywide Plan Working Group, November 6, 2001.

Illingworth & Rodkin, Inc. for the Marin County Community Development Agency. *Air Quality Technical Background Report*. April 2002.

Marin Economic Commission. *Marin Profile 2001: A Survey of Economic, Social, and Environmental Indicators*. 2001.

Nelson\Nygaard. *Marin County Integrated Transportation Plan: Making Decisions for the Future*. Presentation, November 6, 2000.

Snyder and Smith Associates, Inc., for the Marin County Community Development Agency. *Geology, Mineral Resources, and Hazardous Materials Technical Background Report.* March 2002.

Sustainable Sonoma County with Redefining Progress. *Report on the Sonoma County Ecological Footprint Project*. May 2002.

United States Census Bureau, Department of Commerce. *United States Census 1980, 1990, and 2000*.

World Wide Fund for Nature. *Living Planet Report 2000*. Gland, Switzerland. October 2000.

World Wide Fund for Nature. *Living Planet Report 2002*. Gland, Switzerland. June 2002.

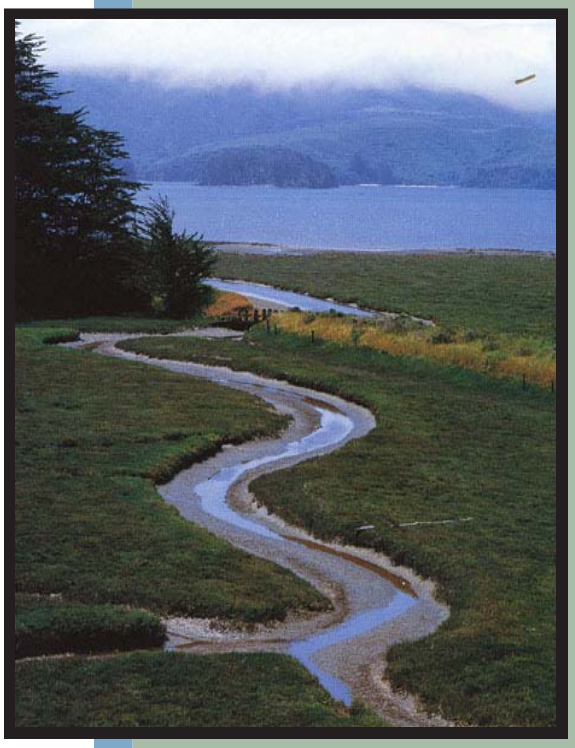
I

Cross-reference of subjects covered in more than one section

The report is organized into chapters which correspond with the three elements of the Countywide Plan: Natural Systems; Built Environment; and Economy, Equity, and Culture. A number of subjects are addressed in more than one chapter. The table below cross-references subjects and indicates where they are addressed in each chapter.

Subject	Natural Systems	Built Environment	Economy, Equity, and Culture
Agriculture	pp. 57–68		p. 157, Economy
Air Quality	pp. 35–36	p. 75, Automobiles and Roadways pp. 77, 88, Land Use	p. 180, Environmental Justice; p. 197, Transportation
Child Care			p. 170; p. 157, Economy
Education	p. 66, Agriculture, Education and Public Awareness; p. 67, Food and Food Systems	p. 141, Schools	p. 177; p. 157, Economy; p. 161, Economy Workforce Education; p. 199, Workforce Training and Compensation; p. 203, Arts Education; p. 207, Archaeological Resource;
Energy	p. 38	p. 91; p. 118, Community Design, Green Building	p. 168; p. 157, Economy
Fire Hazard	p. 45	p. 136, Emergency Preparedness; p. 139, Fire Protection; p. 146, Community Development	
Flooding	p. 41	p. 136, Emergency Preparedness; p. 146, Community Development	
Geologic Hazards and Landslides	p. 44	p. 136, Emergency Preparedness	
Hazardous Materials	p. 47	p. 134, Solid Waste	p. 180, Environmental Justice; p. 185, Public Health
Housing		p. 99; p. 109, Community Design	p. 183, Housing; p. 159, Economy, Workforce Housing; p. 175, Cultural and Ethnic Diversity

Subject	Natural Systems	Built Environment	Economy, Equity, and Culture
Seismic Hazards	p. 43	p. 136, Emergency Preparedness; p. 152, Community Development	
Transportation	p. 35, Air Quality; p. 36, Noise	p. 74; p. 109, Community Design	p. 197, Transportation; p. 163, Economy Transportation
Water Quality	p. 32	p. 112	



Natural Systems

II. Natural Systems

Environmental conditions strongly affect not only our lives but the ability of many plant and animal species to thrive and reproduce. From the quality of the air we breathe to our enjoyment of outdoor recreation, we depend on nature to provide for us. Partnerships between humans and the environment provide many of the necessities of our daily lives. We depend on natural systems for food, minerals, and renewable energy, all essential to our high quality of life.

Planning areas that are based on watershed boundaries are already a part of the Marin Countywide Plan. Reinforcing the critical role of watershed planning and providing for "fish friendly" land use policies is an overarching objective of this Countywide Plan update. Although streams, creeks and other waterbodies are addressed principally in the Natural Systems section of this report, it is important to recognize and honor the whole that is a watershed.

A watershed is the region draining into a river or body of water. It is an area of land in which creeks, streams, swales and underground fractures in rock carry water from ridgetop to valley, from creek and river to the sea. Also called a drainage basin, a watershed is a concept that farmers and rural landowners have planned and lived by for centuries. The boundaries of large, rural tracts of land are sometimes defined by watershed boundaries.

In cities it can be harder to recognize a watershed. Buildings may shield the view of ridgetops. Soil may be covered with concrete and asphalt which increases runoff. Waterways may be replaced with pipes, culverts and concrete-lined channels, obscuring natural drainage patterns. When it is so difficult to recognize a watershed it can be hard to see the connection between daily human activities and the health of downstream creeks, fish, marshes and bays. But all of the modern conveniences of urban living profoundly affect watershed health and function. The fact is, a watershed is affected by all the organisms and activities within it. For that reason, watershed concerns also apply to the Built Environment and other sections of this report.

This chapter covers topics linked to the natural environment. Key issues related to native species and habitat protection, the quality of our air and water, noise levels, mineral resources, and renewable energy are presented. Hazards to people and the environment, such as flooding, seismic activity, landslides, fire, hazardous materials, and global warming are addressed, along with strategies for protecting the environment and minimizing hazards to it and its residents.

Although the chapter is organized into four main sections—Environmental Quality; Environmental Hazards; Open Space and Trails, and Parks and Recreation; and Food and Agriculture—many of the trends, issues and strategies posed here are interrelated, as are the elements of natural systems. Issues that threaten Marin County's biodiversity, such as weed invasion, land fragmentation, and development, are also threats to agriculture and food production. Protecting open space raises issues for recreation, agriculture, and habitat protection. How we treat streams and wetlands not only affects the creatures that live in them but also impacts flooding in low-lying areas.

A. ENVIRONMENTAL QUALITY

➢ Background and trends

From the high percentage of public land to relatively clean air and water, environmental quality in Marin County is high overall. Of Marin's 332,800 acres, park lands comprise 33 percent, while open space and watershed lands are 15 percent, resulting in nearly half of the county's land area being protected open space land. With Marin's having the largest amount of protected open space in the nine-county Bay Area, residents and visitors enjoy exceptional recreational opportunities and unparalleled scenic views. In addition to the human benefits that these public lands afford, they also provide habitat for myriad native species and communities. Marin County's rich biodiversity is illustrated by the fact that

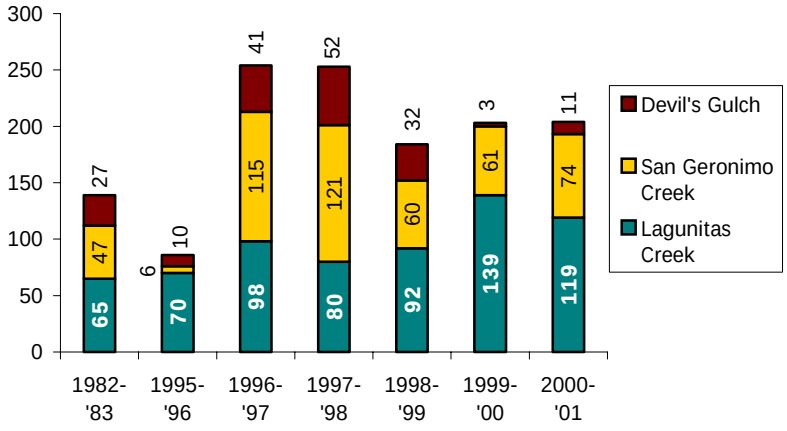
it ranked 17th out of 58 counties in California in the number of special status species documented in 2001—an amazing fact considering that Marin is among the smallest counties in California. Forty-one animal and 52 plant special status species are known to occur in Marin (California Natural Diversity Database) (Map II-1).

With the acquisition of these public lands by federal, state, and local agencies, habitat protection for many species was ensured. Point Reyes National Seashore, encompassing 70,000 acres—approximately 20 percent of the land area of Marin—includes coastal beaches, headlands, estuaries, and uplands. It is home to critical habitats that support nearly 15 percent of California's plant species, 30 percent of the world's marine mammal species, and 45 percent of the North American bird species. Coastal waters offshore of Marin County also support important marine habitats. The Gulf of the Farallones waters offshore of Marin County are the center of one of the most productive eastern-boundary coastal upwelling marine ecosystems in the world (Bakun).

Marin County holds 7 of the 13 units of the Golden Gate Biosphere Reserve. The Biosphere Reserve is a partnership of 13 units, established in 1988, which include a highly diverse complex of terrestrial, coastal, and marine ecosystems representing the Californian terrestrial and Californian-Temperate North Pacific coastal-marine biogeographic provinces. Marin's seven units include Audubon Canyon Ranch, the Golden Gate National Recreation Area, the Marin Municipal Water District, Mount Tamalpais State Park, Point Reyes National Seashore, Samuel P. Taylor State Park, and Tomales Bay State Park. There are presently only 337 reserves in 87 countries, 47 of which are in the United States (United States Man and the Biosphere).

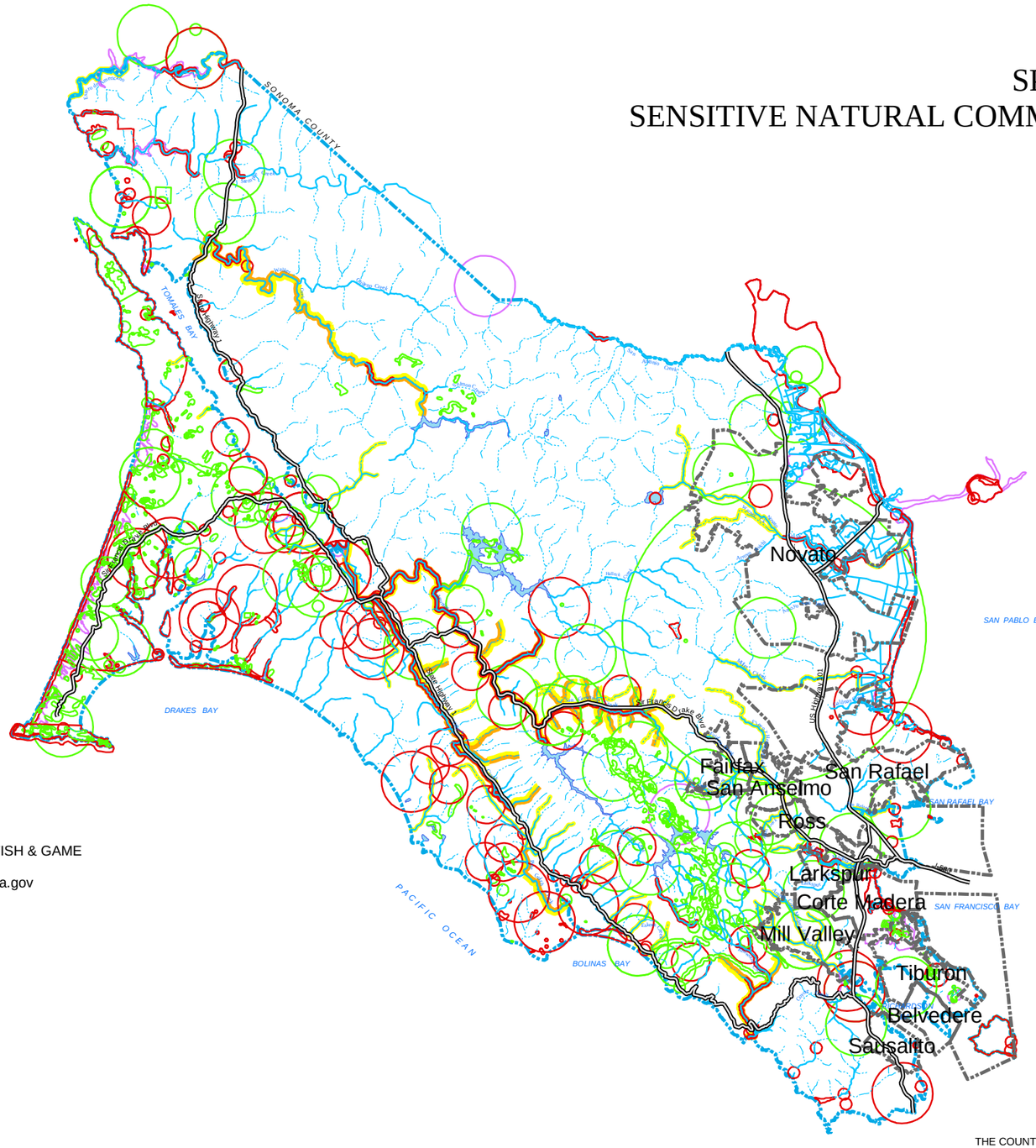
Despite the fact that stream alterations and land uses have had a significant impact on natural stream and drainage patterns (Clearwater Hydrology), the Lagunitas Creek watershed, which includes both public and private lands, supports the most important population of federally threatened coho salmon in California. Of the approximate 5,000 coho population in California, approximately 500 to 800 spawning adult coho salmon have been known to occur in the Lagunitas Creek watershed consistently since 1995 (Andrew). Recently, both species have shown modest signs of recovery in Marin in response to efforts aimed at restoring Marin's streams and riparian habitat. Approximately 80 to 250 coho salmon redds (spawning nests where the salmon deposit their eggs in the stream) have been observed in the Lagunitas Creek watershed since 1982 (Figure II-1). Juvenile population estimates for coho salmon and steelhead trout in the main stream of Lagunitas Creek have been stable historically (Figure II-2 & Map II-2).

Figure II-1
Coho Salmon Redds Observed in Lagunitas Creek Drainage



Source: 2001 Marin Municipal Water District

MAP II-1
SPECIAL-STATUS SPECIES AND SENSITIVE NATURAL COMMUNITIES OF MARIN COUNTY



Legend

- County Boundary
- City Boundary
- Highways and Major Roads

Streams

- Perennial
- Intermittent

Water Bodies

- Lakes

Special-Status Fish Occurrences *

- Steelhead
- Coho

Special-Status Species Occurrences **

- Plant
- Animal

Sensitive Natural Community Occurrences **

- Terrestrial Communities

*** BASED ON COUNTY RECORDS**

**** BASED ON RECORDS OF THE CALIFORNIA NATURAL DIVERSITY DATA BASE**

Mapped locations vary from accurate areas to areas that extend several miles and include potential habitat.

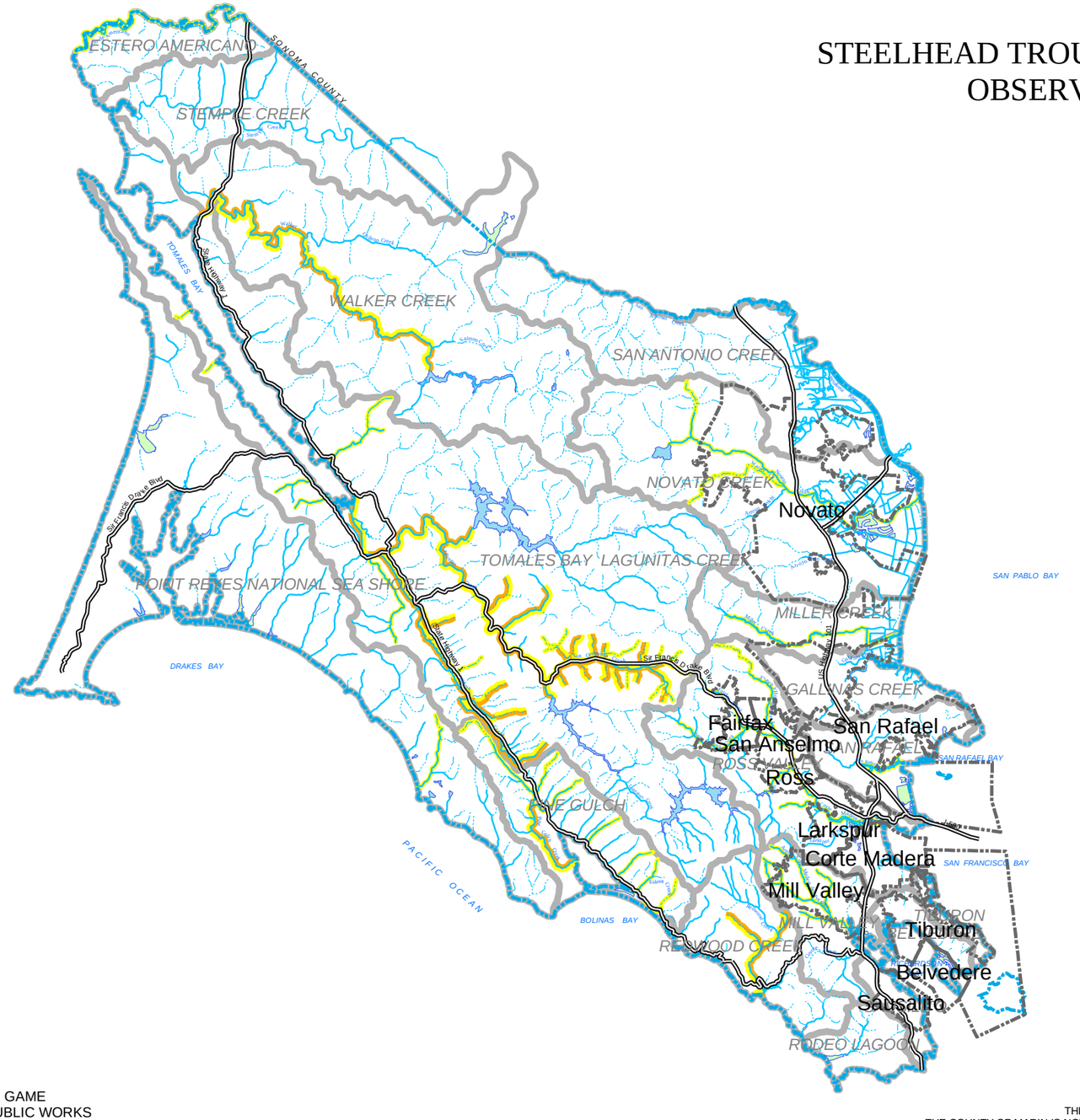
SOURCE: MODIFIED FROM CALIFORNIA DEPARTMENT OF FISH & GAME
CALIFORNIA NATURAL DIVERSITY DATA BASE
ADDITIONAL INFORMATION AVAILABLE AT www.dfg.ca.gov

The California Natural Diversity Data Base (CNDDB) is a digital inventory of the locations of the state's rare, threatened and sensitive plants, animals and natural communities that is continually refined and updated. CNDDB provides information on locations, condition, dates of observation, accuracy of sightings and comments regarding habitat associations, threats, population sizes, and state and federal listings, and more. CNDDB is a positive sighting database available at the time of the request and should not be regarded as complete data on the elements or areas being considered.

N

0 1 2 4 6 8 Miles

MAP II-2
STEELHEAD TROUT AND COHO SALMON OBSERVED IN MARIN COUNTY



Legend

- County Boundary
- City Boundary
- Highways and Major Roads

Streams

- Perennial
- Intermittent

Water Bodies

- Lakes
- Lagoons

Special-Status Fish

- Steelhead
- Coho

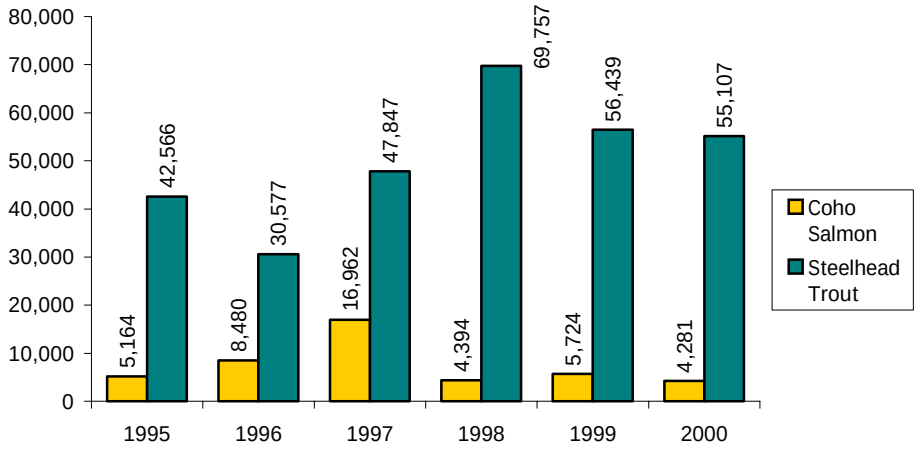
- Major Watersheds
- *MILLER CREEK* Watershed Names

N

0 1 2 4 6 8 Miles

SOURCE: BILL COX, CALIFORNIA DEPARTMENT OF FISH AND GAME
JOHN O'CONNER, SPAWN AND MARIN COUNTY DEPARTMENT OF PUBLIC WORKS

Figure II-2
Juvenile Population Estimates for Coho Salmon and Steelhead Trout in the Main Stem of Lagunitas Creek



Source: 2001 Marin Municipal Water District

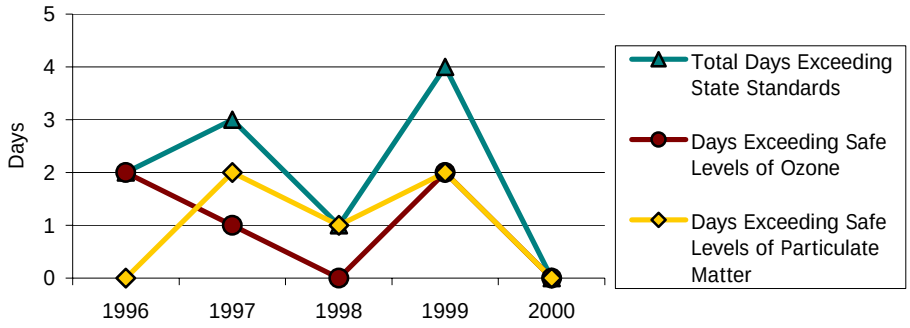
Steelhead trout are present in approximately 80 to 90 percent of perennial creeks in Marin County. Other significant streams in the Coastal Recreation Corridor that support coho salmon and the federally endangered steelhead trout include San Geronimo Creek, Walker Creek, Olema Creek, and Redwood Creek. In the City-Centered Corridor, the designated critical streams for both coho salmon and steelhead trout include Miller Creek, Corte Madera Creek, Arroyo Corte Madera del Presidio, and Novato Creek. Coho salmon population counts in Marin are stable yet tenuous (Andrew).

Urban influences on riparian habitat quality are illustrated by Marin County Macroinvertebrate Survey data of local watersheds and streams for fall 1999 through spring 2001 (Sustainable Land Stewardship for the Marin County Stormwater Pollution Prevention Program). These data showed an increase in sensitive taxa at higher elevations, which suggests that urban development, which is concentrated in the lower reaches of stream habitats in east Marin, has contributed to deterioration of environmental quality.

Although pesticide use is relatively low in Marin—it ranked 45th out of 58 California counties for pesticide use in 2000—all urban streams in the urban City-Centered Corridor are listed as impaired by the State Water Resources Control Board for the pesticide diazanon. Other chemical pollutants documented in central San Francisco Bay and San Pablo Bay include polychlorinated biphenyls (PCBs); pesticides such as DDT and dieldrin; and the trace metals copper, nickel, lead, mercury, and chromium (Clearwater Hydrology). In rural West Marin, the primary water pollutants include sediment, nutrients, pathogens, and heavy metals. Despite the fact that Tomales Bay and two of its main tributaries—Walker Creek and Lagunitas Creek—are listed as impaired for these four pollutants, the bay is often described as "pristine."

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. Similarly, Marin has had an improvement in the number of days that the county has exceeded safe levels of particulate matter since 1996 (Figure II-3).

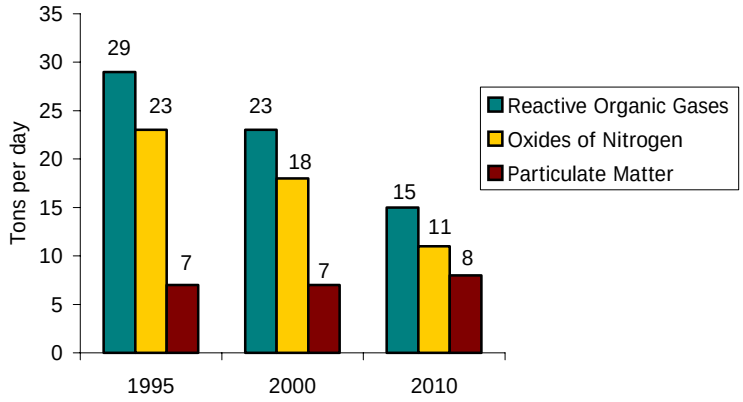
Figure II-3
Air Quality in Marin, 1996–2000



Source: 2001 Healthy Marin Partnership

Ozone precursor pollutants have decreased. An emissions inventory of ozone precursor pollutants, including reactive organic gases (ROG), oxides of nitrogen (NOx), and particulate matter (PM-10), for Marin County shows that ozone precursor pollutants have decreased. This trend is expected to continue through 2010. Meanwhile, PM-10 emissions are expected to remain relatively flat through 2010. Some reductions in PM-10 concentrations are expected (Figure II-4).

Figure II-4
Total Pollutant Emissions Inventory in Tons per Day for Ozone Precursors and PM-10



Source: 2001 Air Quality Technical Background Report

Noise levels have remained steady. Noise levels have not increased significantly in the last 14 years, although there has been a trend toward increased noise levels during the early morning hours because of changes in commuting patterns. Noise measurement for the existing Countywide Plan was conducted in 1987 at six locations. Those same six locations were measured in 2001, and only one location showed a difference in noise levels of 5 dB, namely at St. Vincent's Road (Illingworth & Rodkin).

1. Native Species and Habitat Protection

➢ Issues

Riparian habitats are impacted by development and agriculture.

a) Development projects can impact sensitive fish habitat and need to be reviewed in light of their proximity to such habitat.

b) The proximity of residential development to streams often contributes to invasive nonnative residential landscaping encroaching into riparian areas.

c) Riparian systems are essential to many species of wildlife, and the condition of riparian areas affects water quality. Efforts to protect riparian areas from damage by intensive agricultural uses need to be pursued.

Important wetland habitats are threatened by filling and other alterations.

a) Wetlands, which provide habitat for many plant and animal species and aid in flood control, and groundwater recharge have been altered over the years by filling, diking, draining, and other types of alteration. More than 95 percent of the nation's wetlands have been altered so that they no longer perform their important functions.

b) Much of the salt marsh ringing San Pablo Bay, which provides important habitat for several special status species, historically has been diked and drained for farming and other uses.

Marine environments are threatened by pollutants, sonar, and overfishing.

a) A five-year exemption from the Mammal Protection Act has been granted to the U.S. Navy to use a low frequency active sonar to identify enemy submarines, potentially resulting in seriously confusing, injuring, and eventually killing noise-sensitive marine animals, including whales (Hikida).

b) Any potentially significant changes to the chemistry and biology of natural streams, lagoons, or bays as a result of sewage outfalls, increased output from existing outfalls, and/or discharges from desalination plants should be subject to environmental review.

c) Point Reyes National Seashore's coastal ecosystem and its shoreline may be jeopardized by the impairment of Tomales Bay by mercury, offshore oil spills, and overfishing (Prado).

Marin's oak trees, oak woodlands and oak savannahs are seriously threatened by Sudden Oak Death.

a) *Phytophthora ramorum* is a funguslike microbe that is causing thousands of coast live oak and tanoak trees to die in Marin. More than 15 species in Marin County have been found to be susceptible since the disease was first discovered on a tanoak in Mill Valley in 1995. It is common in east Marin and spreading into West Marin (Map II-3).

b) Animals that rely on acorns and other vegetation may suffer because their food supply will be reduced.

c) Funding is limited for SOD research, removal of dead trees, fire protection, and quarantine enforcement.

Improved oak woodland conservation criteria are needed to ensure adequate protection.

a) Oak woodland conservation criteria in the Countywide Plan must factor in forest composition and structure, including site-specific data. Imagery generated data (such as GIS data) are incapable of accurately mapping oak woodland composition and structure (California Oak Foundation).

b) Oak woodland habitat suitability for wildlife can only be confirmed by a ground forest survey (California Oak Foundation).

c) Planning documents should specify measurable performance standards that will maintain existing oak woodland habitat adjacency and connectivity (California Oak Foundation).

Marin County's biodiversity is threatened by loss of habitat, habitat fragmentation, and invasion of exotic species.

a) Developments and land conversions at the edge of natural systems may cause habitat fragmentation through "edge effects," including increased predation by domestic animals, escaped exotic plants moving into wild areas, changes to fire regimes due to human intrusion into wild areas which can increase fire frequency, and artificial lighting. Loss of rare plants and wildlife from a fire is a very real threat. After the Mount Vision fire, mountain beavers were almost eliminated from the Point Reyes National Seashore.

b) Contiguous wildlife corridors are being incrementally lost by fragmentation resulting from developments, road construction, and other land use changes.

c) Loss of wildlife corridors that can support large predators such as coyotes and mountain lions may cause populations of smaller predators such as raccoons and domestic cats to balloon, in turn causing the decline of nesting bird populations.

d) Nonnative species are increasing in number, competing with native species and threatening biodiversity. Problem species include eucalyptus, broom, acacia, Monterey pine, numerous grassland species, starling, exotic deer species, domestic cats, nearly 100 exotic marine invertebrates, and an unknown number of terrestrial vertebrates.

e) The need to manage exotic plants with pesticides for protection of biodiversity conflicts with increasing community resistance to the use of chemicals.

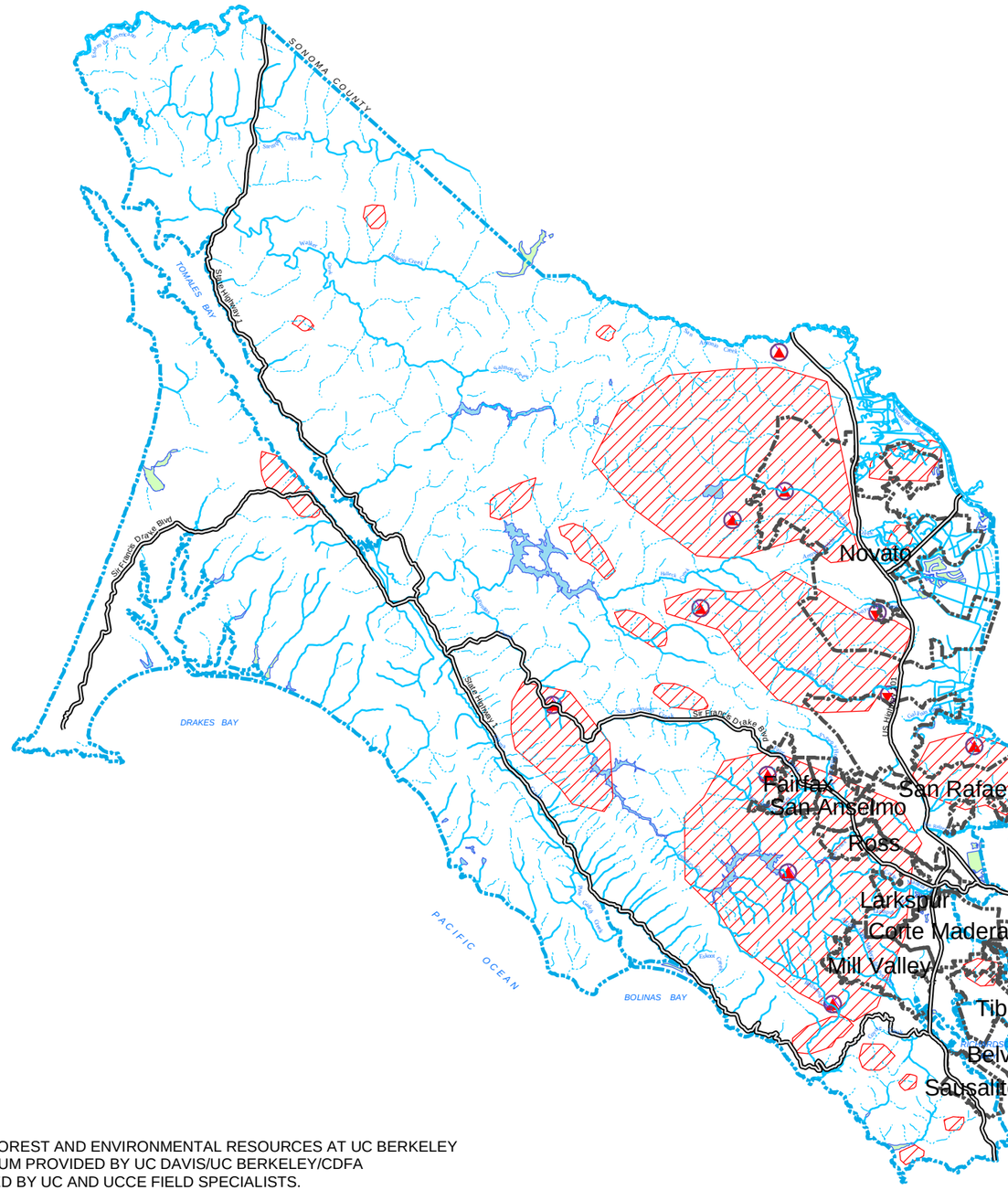
f) The reproductive capacity of flowering plants is harmed when movement corridors for species-specific pollinators are not retained.

Mitigation intended to replace habitat lost to development is not always adequate or successful.

a) There is growing uncertainty about the success of mitigation measures used to offset the impact of development, and growing pressure to evaluate whether mitigation measures are successful.

b) The applicability of mitigation banking policies for various types of species and habitats should be evaluated in Marin County.

MAP II-3
SUDDEN OAK DEATH



Legend

- County Boundary
- City Boundary
- Highways and Major Roads

Streams

- Perennial
- Intermittent

Water Bodies

- Lakes
- Lagoons

- Confirmed isolations of Phytophthora ramorum (data from CDFA)
- Confirmed isolations of Phytophthora ramorum (data from UC Davis/UC Berkeley)
- 1/4 mile buffer around confirmed SOD
- Areas suspected of having SOD

N

0 1 2 4 6 8 Miles

SOURCE: CENTER FOR THE ASSESSMENT AND MONITORING OF FOREST AND ENVIRONMENTAL RESOURCES AT UC BERKELEY
CONFIRMED ISOLATIONS OF PHYTOPHTHORA RAMORUM PROVIDED BY UC DAVIS/UC BERKELEY/CDFA
AREAS SUSPECTED OF HAVING SOD PROVIDED BY UC AND UCCE FIELD SPECIALISTS.

➢ Strategies

Strengthen policies to protect riparian habitats.

(See also 2. Water Quality.)

a) Consider the inclusion of floodplains as part of the creek and riparian corridor when setting environmental protection policies.

b) Consider specific regulatory provisions prohibiting or further restricting inappropriate development in the flood basins and flood zones including mandatory setbacks.

c) Require new developments to follow best management practices protecting riparian and aquatic habitats. Aspects of the policy could include technical assistance, education, incentives, and effective regulation via the development code.

d) Propose the enactment of stronger County protection policies for all streams, including ephemeral and intermittent streams and encourage other Marin towns and cities to enact similar policies. Such policies should require streams to be retained above ground (prohibit culverting), provide for adequate buffers, and prohibit diversions unless they can be done without adverse impacts to stream habitat.

e) Propose policies to the Countywide Plan that require, not just encourage, the retention of native vegetation and replacement of native streamside vegetation in denuded areas.

f) Propose making inland and coastal policies for riparian vegetation more uniform.

Review and refine Stream Conservation Areas to protect riparian habitats.

a) Change the Countywide Plan and zoning to make projects within an SCA subject to discretionary approval.

b) Adopt an implementation ordinance to carry out the protection of SCAs.

c) Review prohibited land uses in SCAs and ensure that they are adequate for protection.

d) Require new trails to be either located outside or carefully sited within SCAs to minimize disturbance to sensitive wildlife habitat.

e) Provide clear and consistent definitions in SCAs—define intermittent and ephemeral streams and riparian and riparian vegetation as terms in SCAs. Compare SCA definitions with other agency definitions to ensure consistency.

f) Require that restoration of damaged portions of SCAs accommodate flood flow capacity.

g) Require flood control improvements within the SCA to be designed with sufficient capacity to allow for retention of native vegetation in the channel, thereby improving habitat and minimizing need for routine maintenance.

h) Require revegetation with native plants in SCAs as part of new developments in a CWP policy or ordinance.

i) Require restoration monitoring to ensure reestablishment of the natural vegetation where removal is necessary in the SCA.

j) Explore development of setback standards for riparian areas that fall outside the SCA. Require that a qualified vegetation ecologist conduct a biological assessment to determine the riparian boundary.

k) Document and analyze cumulative impacts on SCAs and wildlife corridors.

Support positive management strategies that protect and restore riparian areas.

(See also 2. Water Quality.)

a) Support County, Natural Resource Conservation Service, Marin Resource Conservation District, and University of California Cooperative Extension efforts to provide education for farmers to participate in riparian and watershed restoration and planning efforts.

b) Seek funding to pay the cost of fencing sensitive streamside areas on private property that could be impacted by cattle grazing. Support existing riparian protection programs operated by the Marin County Resource Conservation District, Students Restoring a Watershed, and other groups.

c) Implement fish-friendly best management practices by providing technical assistance for bank stabilization, and educate homeowners and roadway maintenance crews.

d) Include monitoring for sensitive species and measuring habitat values in stream management programs.

e) Determine stream hot spots for stream preservation and restoration.

f) Pursue restoring the geomorphic stability and hydrologic function of degraded channels.

Maintain and improve in-stream conditions to protect and enhance fish habitat.

(See also 2. Water Quality.)

a) Prohibit development projects that impede fish passage. Encourage construction of bridges or arched culverts instead of culverts.

b) Implement measures to reduce the effects of County land use policies and management practices on salmonids and their habitats.

c) Require review of fish migration impacts caused by maintenance or emergency replacement of culverts.

d) Require new development and impoundments to be contingent on availability of stream water for fish.

e) Allow alteration of stream flow, beds, or banks only as part of stream habitat enhancement or removal of fish barriers.

f) Enact strategies for reducing in-stream temperatures to acceptable levels for fish.

g) Identify concrete channels and culverted creeks that could be daylighted and restore them to their natural channels where feasible.

h) Develop policies for public channel maintenance and bank stabilization projects.

Propose establishment of a Baylands Protection Corridor to protect San Pablo Bay wetland habitats.

a) Propose establishment of a Baylands Protection Corridor that would designate important habitat adjacent to San Pablo Bay primarily for resource conservation, wildlife habitat, and other natural resources.

b) Encourage the cities of San Rafael and Novato to consider amending their general plans to include a Baylands Protection Corridor and to amend plan maps and policies appropriate to this designation.

c) Consider policies that call for lower densities and other land use restrictions in the baylands. Consider applying protective land use designations and densities already utilized in the Coastal Recreation and Inland Rural Corridors.

d) Consider revisions to agricultural preserve boundaries to include lands currently in agricultural use where appropriate.

Modify the Bayfront Conservation Zone to better protect Bay habitats.

a) Clarify the definition of minor redevelopment that may be excluded from policies that apply to the Bayfront Conservation Zone (BCZ).

b) Consider redefining the BCZ to include low elevation grasslands and oak woodlands.

Seek public support to acquire and restore key Baylands parcels to protect important Bay wetland habitats.

a) Seek support of the acquisition of important bayland properties for public or protective nonprofit ownership.

b) Add diked historic salt marsh to the Countywide Plan priority list for acquisition with Open Space District funds because diked baylands are resources of regional value, are significant habitats, and function as open space and community separators. Once acquired, plan and implement salt marsh enhancements and restorations as part of Marin County Parks and Open Space management.

c) Continue to protect diked historic salt marsh remaining in the cities of Novato, San Rafael, Corte Madera, Larkspur, and Mill Valley.

d) Ensure that diked wetlands, unless currently in agriculture, are allowed to remain as seasonal wildlife habitat, with the ultimate goal of restoring them to tidal salt marsh.

Strengthen protections for wetlands.

a) Clarify the definition of wetlands in the Countywide Plan.

b) Protect existing wetlands rather than creating artificial wetlands or “restoring” damaged wetlands whenever possible.

c) Provide strong Countywide Plan protections and environmental review procedures for all wetlands, including those outside the proposed Baylands Protection Corridor.

d) Protect wetlands and associated transition zones—containing a mix of wetland and nonwetland plants—from development impacts. All wetlands and transition zones should be protected by adequate buffer areas as determined by a qualified ecologist.

e) Protect wetlands from damage due to public access by strictly limiting it. Other protective measures, such as fencing and plantings or moats, may also be needed.

f) Develop an overall policy on wetlands outside the SCA and the Bayfront Conservation Area (BCA), including polices for seasonal wetlands, freshwater seeps, freshwater springs, and vernal pools.

g) Prohibit grading changes to the banks of ponds or lagoons to ensure the integrity of these ecosystems.

h) Prevent the removal of pond vegetation to ensure the continued survival of animals dependent on them. Work with the Mosquito Abatement District on methods of vector control that are not destructive.

i) Enhance riparian and wetland function by increasing water infiltration throughout the watershed

j) Improve drainage patterns to decrease concentrated runoff and to allow natural infiltration

Increase water infiltration starting in the upper reaches of watersheds so that groundwater recharge, natural springs, wetlands and stream flow is enhanced throughout the watershed. Identify important, threatened marine environments and establish cooperative programs to protect them.

a) Identify areas of high diversity and sensitivity in the coastal zone of the county (extending three miles offshore).

b) Cooperate with CDFG in its planning process for designation of a network of Marine Protected Areas (MPAs) in the state.

c) Cooperate with CDFG in developing a strategy for sustainable fisheries in the county.

d) Pursue collaborative enforcement agreements for protecting areas with other state and federal agencies.

e) Develop an educational campaign on conserving marine resources of Marin County, including sustainable fisheries.

f) Develop a phased designation of use including a core area of high sensitivity with full protective status, surrounded by areas with reduced sensitivity and various levels of activities.

g) Establish a long term monitoring program of resources in the marine waters adjacent to Marin County. Monitoring programs should be designated to test the impacts of newly established MPAs on biodiversity, biomass, and spawning biomass both within and adjacent to MPAs.

Protect marine environments by establishing a Marine Corridor or including them in the Coastal Recreational Corridor.

a) Keep waters within a Marine Corridor or expanded Coastal Recreational Corridor free of low frequency sonar to protect marine mammals relying on sound for communication, feeding, and migration.

Support Sudden Oak Death prevention and treatment programs to protect oaks and other susceptible species.

a) Train employees in all aspects of County government so they are under compliance with the *P. ramorum* quarantine. Train staff so they don't spread the disease.

b) Manage hazardous trees affected by SOD, and leave trees in place if they are not hazardous until spreading effects are known.

c) Monitor the spread and impact of the disease by cooperating with ongoing efforts by the California Oak Mortality Task Force.

d) Offer financial support, staff, and educational support to prevent the spread of SOD.

e) Identify sensitive biological resources that could be affected by fuel reduction efforts and long term changes resulting from SOD, including exotic weed invasions.

Enact stronger conservation criteria to protect oak trees, oak woodlands and oak savannahs.

a) Specify measurable performance standards that will maintain existing oak trees and oak woodland and savannah habitat adjacency and connectivity. Measurable performance standards include defining oak woodlands and savannahs, scientifically based criteria for determining oak woodland and savannah ecological significance, and credible oak woodland and savannah habitat mitigation measures to reduce impacts to oak resources.

Protect native trees from damage due to construction.

a) Avoid soil compaction and siting of structures and impervious surfaces of soil near native trees.

b) Prohibit removal of portions of redwood and other types of native forest that might expose the remaining trees to wind throw.

Protect dune habitats.

a) Strengthen policies for protection of the dunes in Tomales.

Protect grasslands for their habitat, agricultural, and watershed protection values.

a) Promote recognition that grasslands are not “vacant” areas where nothing will be destroyed if development or crop agriculture takes place. Grasslands are among California’s most endangered habitats and are critical to effective watershed management.

b) Emphasize the importance of preserving not only agriculture but also the grassland ecosystem on which much of it is based in County planning practice.

c) Do not consider serpentine grassland to be “vacant” because of the lack of trees and scarcity of vegetation. Recognize that although it may not be a biologically productive community, it may be habitat for threatened or endangered species and thus requires a thorough biological assessment before any change is considered.

d) Encourage grazing methods that increase the cover of native perennial grasses and forbs (herbaceous plants), and discourage those that increase the cover of introduced and annual grasses.

Protect important shrublands for their habitat and watershed protection values.

a) Recognize in planning policies the importance of chaparral and coastal scrub vegetation for both wildlife habitat and watershed protection.

Minimize habitat fragmentation to preserve biodiversity.

a) Develop a plan to decrease habitat fragmentation by identifying and protecting important wildlife corridors and minimizing development at the edge of natural systems.

b) Minimize development at the edge of natural systems.

c) Retain intact, connected habitats.

d) Use wildlife corridor policies and programs to provide adequate protection and identify key areas for acquisition and restoration. Address both terrestrial and aquatic species, using the Stream Conservation Areas (SCAs) and upland wildlife corridors as mechanisms to provide habitat connectivity.

e) Propose standards for development and protection of both terrestrial and aquatic wildlife movement corridors to provide habitat connectivity throughout Marin.

f) Promote wildlife corridors in all jurisdictions throughout Marin County.

g) Include a watershed assessment in a proposed project analysis that covers an area that addresses cumulative impacts beyond the project site.

h) Develop pollinator corridors and work with other organizations to interconnect pollinator corridors for biological diversity.

Control exotic species to preserve biodiversity.

(See also 2. Water Quality.)

a) Adopt and implement policies that promote removal of invasive exotic plant species using Integrated Pest Management (IPM).

b) Support weed management and removal programs.

c) Develop policies and programs disallowing invasive exotics for both aquatic and terrestrial habitats, and identify target species for removal and control using IPM practices.

d) Remove and control invasive plant and animal exotics in any development over which the County has review authority. Establish requirements for removal as part of development approval and ongoing management, and identify target species for terrestrial and marine environments. Recommendation for removal or control of blue gum eucalyptus must recognize its importance as habitat for nesting raptors and monarch butterflies.

e) Promote the uses and benefits of seed-free hay.

f) Encourage farmers to compost farm and animal waste to decrease weed seeds. Publicize and promote the benefits of composting.

Prepare a habitat-based conservation plan to preserve biodiversity.

a) Prepare a plan that takes into consideration the overlapping habitat requirements of multiple species within the context of a functioning community or ecosystem. Thus, the functions and processes of communities and ecosystems are considered along with the needs of species.

b) Gather baseline data, including species inventories, and develop mapping of habitat types and wildlife movement corridors as the basis for biodiversity planning.

c) Prepare a master plan and governance structure for managing biodiversity with input from citizens, community-based organizations, and governments.

d) Protect essential habitat buffers.

e) Map the highest quality fish and wildlife habitats, vegetation, and Significant Natural Areas as defined by the California Department of Fish and Game to identify areas in need of protection.

Establish and implement habitat and species protection standards, policies, and programs.

a) Regularly review and update programs and standards for species protection because of possible listing or delisting of additional species as threatened or endangered.

b) Require development in Significant Natural Areas (as defined by the California Department of Fish and Game [CDFG]) to include an environmental assessment, which should identify special status species, sensitive natural communities, and wetlands.

c) Ensure that shoreline erosion protections, such as the building of revetments, sea walls, and groins, do not result in loss of biodiversity.

d) Plan for stream protection on a watershed basis (rather than according to jurisdictional boundaries) so that Marin streams receive the same level of protections countywide.

Improve the success of habitat mitigation by establishing and improving guidelines, standards, policies, and programs.

a) Establish standards for development conditions or mitigation measures that ensure that edge habitats are not destroyed or significantly altered. Integrate such standards with other relevant policies, such as the BCA and SCA.

b) Ensure that wetland mitigation results in an increase in habitat acreage and values.

c) Off-site wetland mitigation is preferable where on-site wetlands are of low value and are isolated from other habitat.

d) Require the use of native plants for mitigation, buffering, and habitat enhancement and restoration.

e) Require posting of bonds prior to development to ensure adequate funding for mitigation.

f) Evaluate whether or not tree planting is a viable method of mitigating oak woodland loss. Many important habitat elements, such as cavities, acorns, snags, and woody debris, will not be mitigated through a tree planting strategy alone (California Oak Foundation).

g) Require that development in the upper reaches of a watershed effectively mitigate water quality and riparian habitat impacts to ensure that watershed health is retained and restored.

Improve the success of habitat restoration by establishing and improving guidelines, standards, policies, and programs.

a) Encourage restoration of existing wetlands over artificial creation of new wetlands.

b) Establish site specific qualitative and quantitative goals for habitat restoration and the creation of habitat buffers.

c) Require monitoring of habitat restoration projects to measure success.

d) Develop an urban outreach program that provides technical assistance and funding sources for creek habitats and creek restoration.

➢ Sample indicators

a) Measure the degree of habitat fragmentation in various areas of Marin County.

b) Measure and map populations of exotic weed species that threaten biodiversity on open space lands.

c) Collect population counts for coho salmon and steelhead trout in creeks throughout Marin (Marin Municipal Water District and San Francisco Estuary Institute).

d) Measure the number of linear feet of creek habitat restored for anadromous fish on public open space lands.

e) Measure the distribution and quantities of the various classes of macroinvertebrates that are used to assess urban stream habitat health and water quality (Marin County Aquatic Macroinvertebrate Sampling Program).

f) Measure the number of trees or acres of land affected by SOD (California Oak Mortality Task Force).

g) Account for local, state, and federal funding for SOD (California Oak Mortality Task Force).

➢ Sample targets

a) Restore at least 500 linear feet of creek habitat annually for anadromous fish on public open space lands.

2. Water Quality

➢ Issues

Nonpoint source pollution is a primary source of sediment, pathogens, nutrients, and other chemical pollutants.

a) The use of automobiles, the largest source of water and air pollution, results in runoff as winter rains wash pollutants from automobiles through the higher reaches of the watershed, where the impact is the smallest, into urban areas, where the impact is greater, and the pollution ultimately runs into the bay.

b) Stormwater runoff affects the biotic health of both inland waterways and the downstream receiving waters of San Rafael and San Pablo bays.

c) Runoff from conventionally treated golf courses is an example of a pesticide source that needs to be addressed.

d) Residential landscaping choices combined with herbicide use are leading to increased groundwater pollution.

e) Livestock manure can negatively impact water quality.

Improperly functioning septic systems can cause water pollution and health risks.

a) Research on graywater systems and/or composting toilets as alternatives to, or additions to, septic use needs to be done.

b) Cumulative impacts of on-site septic systems on groundwater or surface water need to be evaluated.

c) A carrying capacity for on-site septic systems in a given area needs to be determined.

d) High risk or sensitive areas for on-site septic systems should continue to be established and mapped.

e) Growth considerations associated with on-site and innovative septic systems need to be evaluated.

Local water bodies are listed as impaired by sediments, nutrients, and pathogens.

a) Tomales Bay, Lagunitas Creek, and Walker Creek are listed as impaired by the following pollutants by the San Francisco Bay Regional Water Quality Control Board: Tomales Bay—heavy metals, nutrients, pathogens, and sedimentation; Lagunitas Creek—nutrients, pathogens, and sedimentation; and Walker Creek—metals, nutrients, and sedimentation.

b) San Pablo Bay is listed as impaired by the metal nickel. This water quality is strongly influenced by the runoff exiting the tributary channels from the City-Centered Corridor of Marin County (Clearwater Hydrology).

Increased runoff from development exacerbates flooding, erosion, and sedimentation.

a) Studies evaluating stream and wetland health consistently show that significant water quality impacts begin at impervious land coverage levels of as little as 10 percent. At impervious land coverage levels over 30 percent, impacts on streams and wetlands become more severe and degradation, is almost unavoidable without special measures (Bay Area Stormwater Management Agencies Association).

b) There is a need to reduce structured and engineered channelization of stormwater, and increase the use of more natural soft paths (vegetated pathways) throughout the watershed.

c) The County needs to require development and redevelopment projects to be designed to minimize stormwater runoff and migration of contaminants from the project site.

➢ Strategies

Reduce sediment, nutrient, and chemical sources of nonpoint source pollution.

a) Improve road maintenance to reduce erosion and sedimentation: Follow the Bay Area Stormwater Management Agencies Association best management practices for road maintenance. Utilize youth groups like the Marin Conservation Corps to work on unpaved road maintenance efforts to decrease runoff and sedimentation. Utilize the National Resource Conservation District and the National Park Service as resources for education and funding for maintaining unpaved roads and minimizing sedimentation. Require open space land management agencies to adopt a formal inspection and maintenance program for culverts draining from open space to roadways or private or public property.

b) Integrate the best management practices developed by the Natural Resources Conservation Service and the Marin Coastal Watershed Enhancement Project for nonpoint source pollution related to ranching.

c) Educate homeowners about toxicity issues related to pesticide use. Educate the public on pesticides—that contaminated runoff is generated and concentrated over impervious surfaces in the urbanized portions of the watersheds and enters storm drains, eventually reaching creeks in San Rafael and San Pablo Bay.

d) Train County staff about new designs for the prevention of nonpoint source pollution runoff.

e) Implement “watershed management approaches” to manage nonpoint source pollution, including pesticides.

f) Where appropriate, encourage materials such as Road Oyl Resin Modified Emulsion as a nontoxic, biodegradable, impervious alternative to driveways and pathways that should be used in conjunction with design features that divert water for irrigating landscaping or gardens on site.

g) Develop policies prohibiting use of hazardous chemicals in or near stream channels.

Improve location, installation, and maintenance of septic systems to reduce pathogen contamination of water bodies.

a) To ensure appropriate protection of public health, water quality, and the environment, locate septic systems at a safe distance from drinking water wells, surface and groundwater sources, and mariculture areas.

b) Locate septic tanks as far away as possible from wetlands and creeks.

c) Design and repair septic systems so as to avoid adverse impacts to wetlands, creeks (including seasonal, intermittent, and ephemeral), and their associated floodplains.

d) Improve management and maintenance of septic systems. The highest priority should be given to improving the management and maintenance of septic systems that have the greatest potential for impact to public health, water quality, and the environment.

e) Promote local and community involvement in the community outreach, technical assistance, and management and maintenance programs for septic systems.

f) Use existing monitoring data to determine if septic systems may be contributing pollution to a creek or water body. Additional monitoring should be conducted to evaluate surface water and groundwater impacts associated with septics. Track appropriate Health Department surveillance data for waterborne diseases.

g) Measure fecal coliform counts from humans and animals to determine impact on water quality.

h) Research and, if feasible, develop strategies for composting sewage.

Research alternative waste systems to help reduce the pressure on existing septic systems.

a) Conduct further studies on allowing alternative wastewater systems such as graywater systems and/or composting toilets.

b) Support application of septic bio-solids on agricultural lands where it is demonstrated that no additional growth or adverse environmental impacts will arise from such application and where they are demonstrated to have a neutral or beneficial effect on operation of agricultural lands.

c) Promote use of alternative technologies and community systems, where consistent with local zoning and public health protection, to improve operation of septic systems.

d) Experiment with the use of new wastewater technologies to understand feasibility and incrementally develop wastewater regulations as appropriate.

Work with the State and Regional Water Quality Control boards to address Total Maximum Daily Load issues in impaired watersheds.

a) Develop policies that are congruent with the state's standards for Total Maximum Daily Loads (TMDLs). Identify sources of pollution and develop strategies for best management.

b) Conduct a community-based water sampling program for recreational waters where creeks meet recreational swimming areas to determine the level of pollution and to meet state standards.

Improve regulations regarding runoff from new developments.

a) Better regulate runoff from new developments: Require development projects to minimize stormwater runoff and migration of contaminants from the project site. Integrate Start at the Source stormwater control principles into the County Development Code. Require 50 percent or greater of stormwater runoff to be diverted for new developments.

b) Where appropriate, encourage the use of natural soft paths (vegetated pathways) throughout the watershed to help restore natural stream and drainage patterns.

c) Develop policies to limit the amount of paved parking areas to reduce runoff into Tomales Bay.

➢ Sample indicators

a) Measure the performance rates of septic systems (Environmental Health Services).

b) Measure TMDLs for targeted pollutants in Marin County waterways (Environmental Protection Agency and the Regional Water Quality Control Board).

c) Measure the number of linear miles of erosion control efforts applied on unneeded fire protection roads or trails annually.

➢ Sample targets

a) Ensure that 95 percent of septic systems function at a high performance level by 2010.

b) Meet TMDL targets set by the State and Regional Water Quality Control boards in Marin County within established timeframes.

c) Apply erosion control efforts on at least three linear miles of unneeded fire protection roads or trails annually.

3. Air Quality

(See also III. The Built Environment, A. Transportation.)

➢ Issues

On-road motor vehicles, heating fuels, and exhaust fumes from businesses are the leading causes of air pollution in Marin.

a) Seventy-three percent of carbon monoxide, 66 percent of nitrogen dioxide, and 49 percent of reactive organic sources (smog) are produced by motor vehicles.

b) Forty percent of vehicle trips in Marin are two miles or less, which creates condensed pockets of air pollution.

c) Eighty-six percent of particulate matter comes from areawide sources, such as the combustion of wood and other nonclean fuels, and is also due to the absence of catalytic converters or other emission-control devices on residential chimneys or exhaust fumes from businesses.

d) Housing located close to highways and transit is also close to sources of air pollution.

Odors pose an air quality problem.

a) Odors are a harmful form of air pollution for people with environmental illnesses.

➢ Strategies

Develop cleaner alternative sources of energy.

a) Develop solar, wind, geothermal, vegetable biodiesel, and mini-hydroelectric production, with support from local, regional, and federal agencies.

Reduce air pollutants from heating sources and vehicles.

a) Adopt an ordinance limiting the installation of wood-burning appliances in new homes, or in renovations of existing homes that involve a fireplace, to pellet stoves, EPA-certified woodstoves, fireplace inserts, or natural gas fireplaces. Research how European wood burning stoves have internal baffles that reduce pollutants.

b) Replace retiring County fleet vehicles with low emission and alternative fuel vehicles.

Address odors through policy development.

a) Adopt policies and implementation measures addressing odors as an air quality problem.

➢ Sample indicators

a) Measure levels of ozone, particulate matter, carbon monoxide, nitrogen dioxide, reactive organic sources, and particulate matter (PM-10) (California Air Resources Board).

b) Measure the number of County fleet low emission vehicles (Department of Public Works).

➢ Sample targets

a) Reduce levels of ozone, particulate matter, carbon monoxide, nitrogen dioxide, reactive organic sources, and particulate matter (PM-10) by 10 percent by 2020 over 2000 levels.

b) Increase the number of low emission vehicles in the Marin County fleet by 20 percent by 2010 over 2000 levels.

4. Noise

➢ Issues

Vehicle traffic is the primary source of noise in Marin County.

a) Highest noise levels continue to be located along highways and major streets.

b) 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.

c) Truck traffic from the San Rafael Rock Quarry produces significant stationary noise for residences on San Pedro Road, which can reach 70 decibels at the A-weighted sound level (dBA). The day/night average noise level is about 49 dBA (Illingworth & Rodkin).

Flyover noise from aircraft is disturbing to some Marin residents.

a) The noise information for Gnoss Field and the Sausalito heliport needs to be updated.

b) Commercial aircraft overflight noise over Marin County exceeds the allowed 65 decibels (dB) community noise equivalent levels (CNEL) and reaches 70 dBA in Tiburon, Bolinas, and Point Reyes (Illingworth & Rodkin).

➢ Strategies

Develop guidelines, policies, and ordinances, to address noise issues.

a) Determine whether a "quiet areas" policy is needed for certain community areas (such as near sensitive animal species or retreats).

b) Define and designate quiet areas in the county and develop guidelines for implementation.

c) Consider adopting a quantitative noise ordinance, which would apply to existing noise sources in the county.

d) Develop an aircraft flyover policy to be used as a basis for discussion with the Airport Land Use Commission.

Research methods to reduce noise pollution.

a) Examine the effectiveness of sound walls, since it is not clear whether they increase or decrease noise. The County lacks an ordinance to set parameters for sound walls.

b) Continue to work with federal agencies on the issue of noise from the overflights of jet aircraft taking off and landing at the Oakland and San Francisco airports.

c) Continue to protect residential areas from excessive noise impacts from quarries and mobile noise sources.

d) Research any jurisdictions that address noise control of boom boxes, car stereos, and motorcycle use and determine applicability to Marin.

➢ Sample indicators

a) Measure noise levels that account for automobile commuting, aircraft overflight, and rock quarry truck traffic along high traffic areas and in sensitive noise receptor areas.

➢ Sample targets

a) Improve noise levels by 2 dBA in at least one sensitive noise receptor area annually.

5. Mineral Resources

➢ Issues

Evaluation of Marin County quarries is needed.

a) The quantity of rock remaining in quarries is unknown.

b) The adequacy of reclamation plans and acceptable land uses around quarries need to be evaluated.

c) Four of the six potential mineral resource sites in the county are located in unincorporated areas (Snyder and Smith Associates).

➢ Strategies

Evaluate Marin County quarries and potential quarry sites.

a) Evaluate the amount of the resource left in quarries, and evaluate the adequacy of reclamation plans and acceptable land use around quarries.

b) Establish a new overlay zoning designation for mineral resource sites to prohibit new land uses that would preclude eventual extraction of the mineral resource. Evaluate land uses around quarries for acceptable use.

c) Evaluate quarry locations and their effect on surrounding land uses to determine if current operations are appropriately located.

➢ Sample indicators

a) Measure the amount of mined lands reclaimed for other purposes (Marin County Department of Public Works).

➢ Sample targets

a) All quarry operations will be in compliance with reclamation plan requirements by 2005.

6. Energy

(See also III. The Built Environment, B. Energy, and IV. The Economy, Equity, and Culture, B. Energy.)

➢ Issues

Obstacles to development of nonpolluting renewable energy sources need to be overcome.

a) Height, noise, and neighbor perceptions have limited the installation of wind energy systems in many communities, especially urban ones. Improvements have been made to reduce noise and reduce the size needed to generate significant power. However, public perception of wind turbine aesthetics and concerns regarding bird collisions still remain issues.

b) There is a need for wind data within Marin to determine the feasibility of wind energy.

c) Cost, impacts on wildlife (especially salmon), and generation capacity are issues that need to be researched by the Marin Municipal Water District (MMWD) to determine the feasibility of using hydroelectric turbines at the lakes of Marin.

d) Opportunities for geothermal heating of buildings exist in Marin County. Geothermal issues include possible groundwater contamination, site disturbance, and high initial cost.

e) Data on solar insulation in Marin microclimates is needed to determine feasibility of harnessing in different locations.

➢ Strategies

Research nonpolluting renewable energy sources and educate the public about their application.

a) Map high wind velocity areas and investigate the feasibility of using wind to generate energy.

b) Research and map the various microclimates of Marin to determine the feasibility of solar energy in various locations. Target the best microclimates for publicity to encourage the use of solar energy.

c) Consider using existing dams on lakes to generate hydroelectric energy.

d) Encourage the use of methane digesters for agricultural energy needs through education, publicity, and subsidies.

e) Investigate the feasibility of using geothermal heating for buildings in Marin by preparing estimates for installation and operating expenses of such systems.

f) Encourage continued energy and water conservation programs by the water companies.

g) Encourage efficient farming techniques by providing information to farmers on the latest technological advances that enhance energy efficiency.

Increase the use of renewable energy to decrease fossil fuel dependence.

a) Increase the use of renewable energy, such as methane-powered processing facilities, solar energy, and wind energy, which are cost effective as well as reliable energy sources.

b) Use state and federal incentives to install solar, wind, and methane energy generation systems.

➢ Sample indicators

a) Measure the number and output of photovoltaic (solar electric) and solar thermal systems (Marin County Community Development Agency and other Marin cities' building divisions).

b) Measure the size and number of Wind Energy Conversion Systems (Marin County Community Development Agency and other Marin cities' Building Divisions).

➢ Sample targets

a) 2.5 MW of solar power are in use by 2010.

b) 200 KW of wind energy are in use by 2010.

B. ENVIRONMENTAL HAZARDS

➢ Background and trends

Environmental hazards in Marin County include flooding, seismic hazards, geologic hazards, fire, hazardous materials, and global warming. While some of these hazards occur naturally, human effects on the environment have affected their frequency and severity.

Flooding, which generally occurs when rainfall exceeds the capacity of a storm drain, stream, or watershed to move water downstream, can be exacerbated when high tides coincide with high rainfall events. Increases in impermeable surfaces, building in floodplains, and alteration of natural drainage patterns have increased the frequency and severity of flood events. Coupled with increases in sea level due to global warming, flooding is predicted to increase in the future.

The San Andreas and Hayward-Rodgers Creek fault systems are the two faults in the county with the greatest likelihood of seismic activity. The Working Group of California Probabilities (WG99) has predicted 21 percent and 32 percent probabilities, respectively, for an earthquake of magnitude 6.7 or greater on the Richter scale to occur by 2003 (Snyder and Smith Associates).

Landslide and slope stability hazards are prevalent throughout Marin County because of existing adverse geologic conditions. Collapsible soils are generally located in the low-lying flatland deposits in valley basins and along bays, while expansive soils are responsible for a large amount of slope failure in upland areas (Snyder and Smith Associates). In the western part of the County, surface deposits in and adjacent to the San Andreas Fault zone pose significant geologic hazards, including liquefaction potential, shaking amplification potential, subsidence and differential settlement, and shallow slope failures. Ongoing active erosion processes cause bluff erosion and landsliding along the coast (Snyder and Smith Associates).

Fire has become a greater hazard in Marin County as fuel loads have increased due to suppression of natural fires and as residential development has encroached on the edge of wildlands. The City-Centered Corridor is a high-risk area because there is a strong correlation between population density, travel corridors, and ignition density. This Corridor had the most fires reported between 1990 and 1997. However, the response times in these areas are good—primarily five minutes or less, with some areas eight minutes or less (Marin County Fire Department).

Risks from hazardous materials are greatest in the Inland Rural Corridor due to transportation through this area and because of a higher concentration of regulated hazardous material businesses than in more rural parts of the county. Although pesticide pollution has recently been detected in local water bodies, the quantity of pesticides used in Marin County has decreased over the past decade.

Increased temperatures due to global warming pose a worldwide threat to many species and environments.

Sea level is rising. The Bay Conservation and Development Commission has studied the global sea level rise caused by global warming along the San Francisco Bay. It is estimated that along the City-Centered Corridor at the Point Orient gauging station, the water level will increase from a 1986 elevation of +0.40 feet to +0.86 feet National Geodetic Vertical Datum (NGVD) in 2036. Similarly, the mean sea level at the Sausalito gauging station is estimated to rise from +0.30 feet to +0.48 feet NGVD in 2036. For the Presidio gauge, the mean sea level is predicted to increase from +0.29 feet to +0.65 feet NGVD in 2036 (Clearwater Hydrology).

Fire fuel loads are increasing. Vegetation is the fuel that feeds a wildfire. Due to the aggressive fire suppression policies during the last 50 years in America, fuel loads have been allowed to accumulate to dangerous proportions (Marin County Fire Department). This situation is exacerbated by the effects of Sudden Oak Death which has created a large amount of dead and dying vegetation that could increase the number and intensity of wild fires.

Global warming is increasing. Human-related activities such as transportation and energy production are increasing the amounts and concentrations of greenhouse gases (carbon dioxide, methane, nitrous oxide) contributing to global warming. Global surface temperatures have increased about 1.1°F since the late 19th century, and about 0.5°F over the past 25 years. The 20th century's 10 warmest years all occurred in the last 15 years of the century. Of these, 1998 was the warmest year on record. Scientists expect that the average global surface temperature could rise 1 to 4.5°F in the next 50 years, and 2.2 to 10°F in the next century, with significant regional variation. The difference in temperature between 1995 and the ice ages is 5 to 8°F.

1. Flooding

➢ Issues

Flooding in low-lying areas causes property damage and poses safety risks.

a) Significant flooding has occurred in portions of Corte Madera, Larkspur, Greenbrae, Ross, San Anselmo, San Rafael, and Novato over the last 30 years (Clearwater Hydrology). Flooding has also occurred in Mill Valley, Fairfax, and Muir Beach.

b) The risk of loss of life and extensive property damage is significant in inundated valleys downstream from major dam/reservoir complexes.

c) Significant, even catastrophic flooding can occur in valley areas downstream of major dams in the event of a complete or partial dam failure (Map II-4).

d) The rise in sea level due to global warming is expected to increase the frequency and severity of flooding.

e) The National Oceanic and Atmospheric Administration's Climate Prediction Center forecasts that El Niño conditions are likely to continue through the end of 2002 and into early 2003, resulting in an increased probability of flooding in relation to other non–El Niño/La Niña weather pattern years.

f) In some cases, the master plan level of flood protection does not equal that of the 100-year flood (Clearwater Hydrology).

g) Funding for levee reconstruction in the Santa Venetia area and financing options for the County Flood Control Zone are needed.

Traditional flood control practices can degrade biotic resources.

a) A nonstructural watershed-wide approach to stormwater and flood control management needs to occur in Marin County. This approach allows increased infiltration and groundwater recharge to occur and provides benefits to the ecosystem.

➢ Strategies

Address development impacts to reduce flooding.

a) Strengthen policies to discourage development in secondary floodplains.

b) Further consider impacts on 100-year floodplains in making land use development decisions.

c) Consider pursuing federal funding for levee reconstruction in the Santa Venetia area and a revenue-sharing program or other financing options for the County Flood Control Zone.

Improve water infiltration to reduce flooding.

a) Decrease the amount of non-permeable surfaces in new developments.

b) Improve drainage patterns by using contour ditches and other techniques to spread water flow and decrease velocity.

c) Increase water infiltration starting in the upper reaches of watersheds so that groundwater recharge is enhanced throughout the watershed.

Bioengineering and nonstructural techniques should be used whenever possible to minimize damage to streams and riparian habitats.

a) Examine the County's traditional engineering design and maintenance programs for flood control of streams, and develop and implement alternatives that involve hydrologic restoration of streams and their associated biotic habitats.

b) Implement nonstructural techniques to complete the flood control project for Corte Madera Creek.

Use mapping as a tool to assess potential flooding.

a) Conduct and review dam inundation mapping for the most significant dam/reservoir complexes where downstream valleys are inhabited and the risk of loss of life and extensive property damage is significant.

b) Conduct GIS mapping on the estimates for mean sea level rise due to global warming using the range of 0.005 to 0.05 feet per year and cross-referenced to zoning maps to ensure that future development will consider the water rise. This may require flood modeling based on an updated survey of watershed channel conditions and levee elevations to quantify the effects of sea level rise.

c) Address techniques used to generate all Office of Emergency Services and Community Development Agency threat maps to ensure that maps are updated using the most current data.

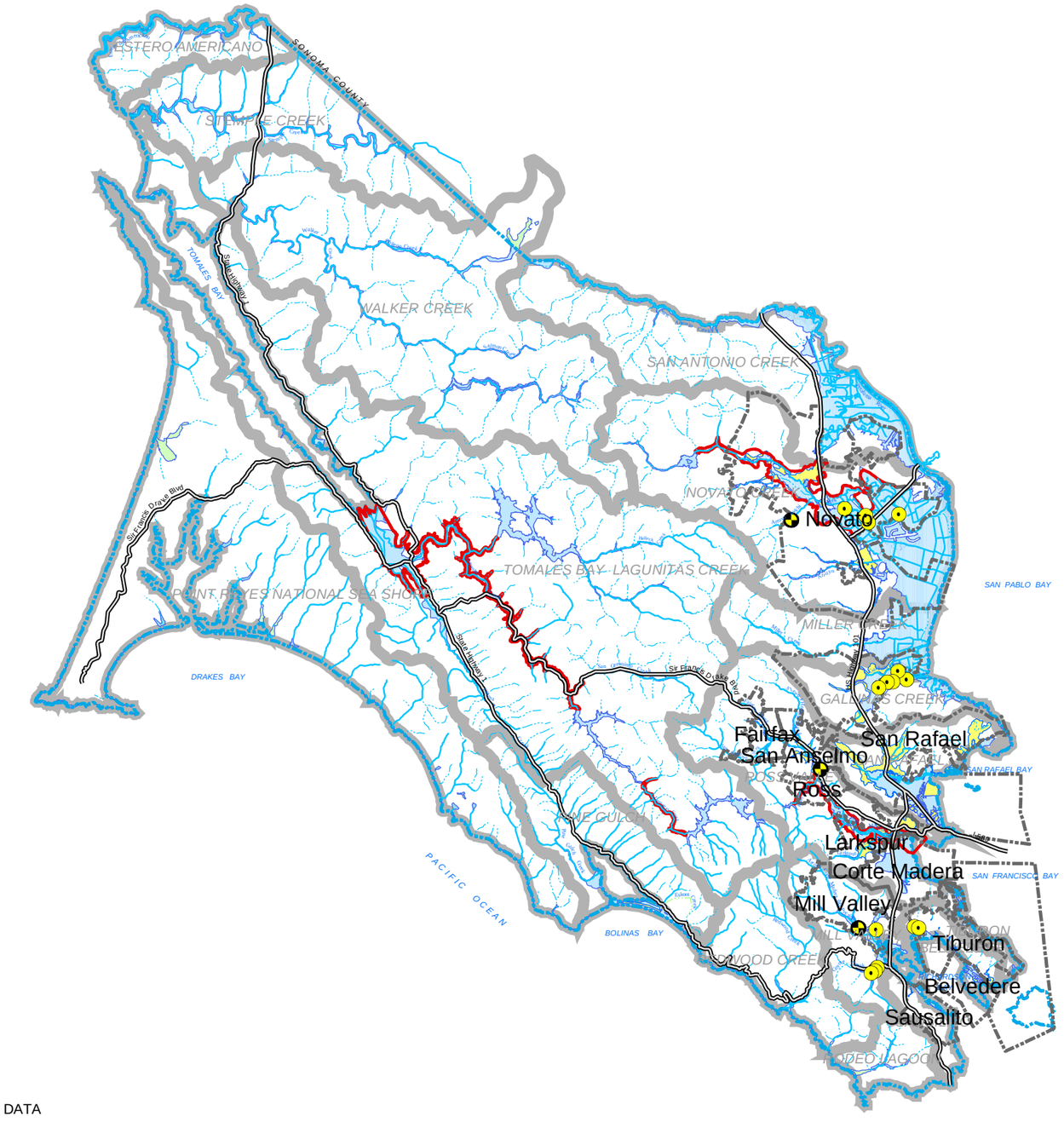
➢ Sample indicators

a) Measure the number and severity of property damage and personal injury incidents due to flooding.

➢ Sample targets

a) Incidences of property damage and personal injuries due to flooding are decreased by 10 percent by 2020.

MAP II-4
FLOODING



Legend

- County Boundary
- City Boundary
- Highways and Major Roads

Streams

- Perennial
- Intermittent
- Ephemeral

Water Bodies

- Lakes
- Lagoons

- Dam Inundation
- Major Watersheds
- MILLER CREEK Watershed Names
- Stream Gauge
- Stormwater Pump Station

Floodplain Zones

- Area of 100 Year Flood
- Areas Between Limits of the 100 Year and the 500 Year Flood

N

0 1 2 4 6 8 Miles

SOURCE: NATIONAL FLOOD INSURANCE PROGRAM Q3 FLOOD DATA

2. Seismic Hazards

(See also A. Environmental Quality, 1. Native Species and Habitat Protection.)

➢ Issues

Marin coastlines are located in the active San Andreas Fault "A", an active tsunami-producing region of the world.

a) Use maps of "Known Active Fault Near-Source Zones" prepared by the California Department of Conservation in coastal planning and development to avoid high-risk areas.

b) Use tsunami wave run-up and inundation maps in coastal planning and development to avoid high-risk areas.

Building code standards and FEMA guidelines for seismic safety need to be reviewed.

a) Standards in the California Building Code and FEMA guidelines related to seismic safety related to seismic safety need to be addressed in the design of new buildings and seismic retrofits of existing structures.

➢ Strategies

Increase public awareness to reduce the risk of damage or injury from seismic hazards.

a) Conduct a public safety outreach program before and after a seismic event and provide evaluation forms to collect public input.

b) Develop local initiatives for earthquake preparedness.

c) Install and test communication systems for tsunami warnings.

Upgrade structures to reduce the risk of damage or injury from seismic hazards.

a) A risk reduction program would encourage upgrading of seismically vulnerable buildings located in geologically hazardous areas. Encourage upgrading of seismically vulnerable buildings located in geologically hazardous areas by using a risk reduction program.

b) Establish a residential seismic retrofitting incentive program similar to the City of Berkeley's.

c) Conduct a study to evaluate seismic stability of the County's key structures.

d) Require seismic retrofits and strapping down of water heaters when remodeling existing structures.

e) Require seismic retrofits for any non-reinforced masonry buildings and chimneys.

f) Require automatic natural gas shut-off valves at time of sale or major remodel.

g) Encourage the North Marin Water District to do seismic upgrades.

h) Use disaster mitigation measures such as fire resistant roofs, fire resistant landscaping within a minimum of 30 feet from the structure, emergency vehicle access, and earthquake retrofit.

Improve land use planning to reduce the risk of damage or injury from seismic hazards.

a) Strengthen land use policies to prevent development in tsunami zones.

b) Map and utilize tsunami zone maps in land use planning decisions.

c) Base policies for addressing development near geologically sensitive areas on the Fault Hazards map (Map II-5).

d) Focus on disaster prevention within the development and building code—require geotechnical studies for all new projects near earthquake faults and liquefaction zones.

e) Waive building permit fees and property taxes for seismic retrofits.

➢ Sample indicators

a) Measure the number of public events or initiatives conducted to increase public awareness to reduce the risk of damage or injury from seismic hazards.

b) Measure the number of County buildings that have been assessed for seismic stability.

c) Measure the number of natural gas shut-off valves installed at time of sale or major remodel.

d) Assess the number of measures taken to reduce the risk of damage or injury from seismic hazards.

➢ Sample targets

a) Increase the number of public events or initiatives conducted to build public awareness to reduce the risk of damage or injury from seismic hazards by 20 percent by 2020.

b) Increase the number of measures taken to reduce the risk of damage or injury from seismic hazards by 20 percent by 2020.

3. Geologic Hazards and Landslides

➢ Issues

Landslide and slope stability hazards are prevalent throughout Marin County because of existing adverse geologic conditions.

a) Because much of Marin's easily developable land is either already developed or protected from development, sites with development constraints such as landslide and slope stability issues are increasingly being proposed for development.

b) A hillside safety and hazard mitigation program is needed for the hilly "marginal" areas within the county.

c) The potential threat of a significant number of failures occurring at the same time is great during strong seismic shaking or during intense rainfall events.

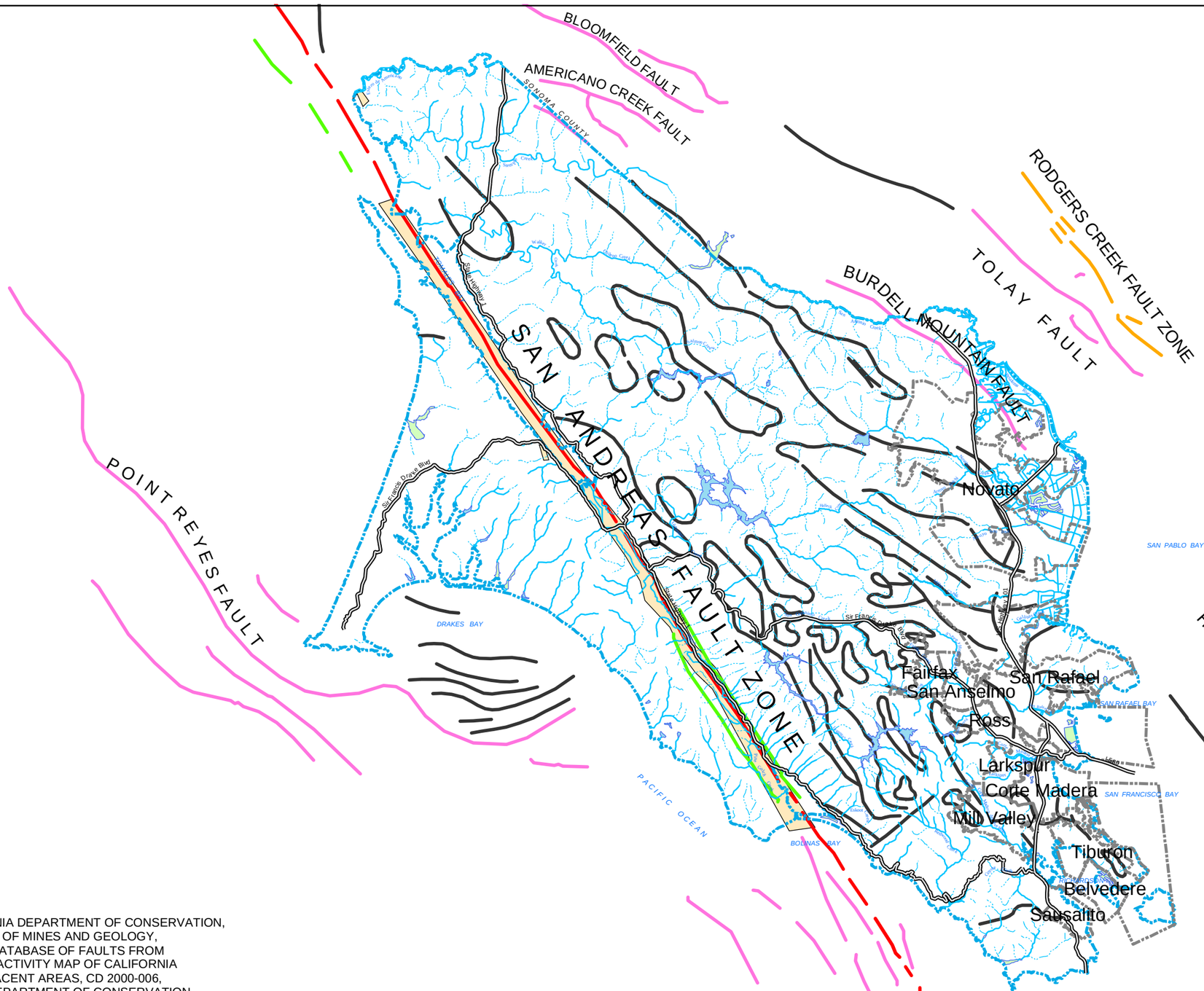
Landslide and slope stability building standards need to be reviewed.

a) The County should modify existing policies and programs to address expansive soils which are responsible for a large amount of superficial creep and slope failure in upland areas.

b) Coastal bluff erosion and coastal landslide hazards need to be addressed.

c) The County does not require both a geotechnical engineer and a certified engineering geologist to perform slope stability investigation, analysis, and monitoring of construction activities.

MAP II-5
FAULT HAZARDS



Legend

- County Boundary
- City Boundary
- Highways and Major Roads

Streams

- Perennial
- Intermittent

Water Bodies

- Lakes
- Lagoons

- Alquist Priolo Zone
- Historic (200 yrs to today)
- Holocene (10,000 yrs to today)
- Late Quaternary (700,000 yrs to today)
- Quaternary (1,600,000 yrs to today)
- Pre-Quaternary (4.5 billion to 1,600,000 yrs ago)

N

0 1 2 4 6 8 Miles

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION,
DIVISION OF MINES AND GEOLOGY,
DIGITAL DATABASE OF FAULTS FROM
THE FAULT ACTIVITY MAP OF CALIFORNIA
AND ADJACENT AREAS, CD 2000-006,
CALIFORNIA DEPARTMENT OF CONSERVATION,
DIVISION OF MINES AND GEOLOGY, 2000

➢ Strategies

Carefully review new development in geologically hazardous areas.

a) Use current data to reevaluate the landslide hazard area definition and to update information and policies as necessary.

b) Include in Marin County's geographic information system (GIS) database new, additional, or updated information on geology and geologic hazards. Plotting historical and future landslide and slope stability areas would help determine if there is a trend for future policy decisions.

c) Use U.S. Geological Survey (USGS) landslide maps and slope stability maps to determine locations of future development.

d) Allow only structurally sound redevelopment or additions on liquefaction zones, and prohibit new development on liquefaction zones (Map II-6).

e) Recognize the possible incompetence of the underlying serpentine rock to support structures, and require a thorough geologic and soils analysis of any serpentine site proposed for development.

Improve building standards and policies to reduce risks from geologic hazards.

a) Review the County's grading policies, regulations, and enforcement to ensure that they are properly mitigating hazards. These policies and procedures are the core of hillside safety and a hazard mitigation program.

b) Reevaluate hillside policies regarding geology as necessary to improve hillside safety and hazard prevention measures.

c) Strengthen polices that discourage building on extreme slopes. Have County staff review regulations to ensure that the spirit or intent of state and federal regulations is being implemented.

d) Apply coastal zone steep slope protection policies countywide.

➢ Sample indicators

a) Measure the number of incidents and severity of property damage and personal injuries resulting from landslides.

➢ Sample targets

a) Incidences of property damage and personal injury resulting from landslides are reduced by 10 percent by 2020.

4. Fire Hazards

(See also A. Environmental Quality, 1. Native Species and Habitat Protection, and 2. Water Quality.)

➢ Issues

Development at the wildland-urban interface introduces fire to areas with high fuel loading.

a) 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.

b) The primary causes of fire between 1990 and 1997 were equipment use, arson, playing with fire, smoking, and burning of debris.

c) Steep slopes and narrow roads pose hazards to fighting fires at the wildland-urban interface.

d) Homes surrounded by trees and brush increase the threat of ignition and difficulty fighting fires.

e) Coast live oaks and tanbark oaks that have died from SOD increase the fuel load.

Wildfires can cause severe economic losses.

a) Fire costs can soar to millions of dollars a day from suppression cost, destruction of homes, loss of home-based businesses, damage to utilities, and impacts on recreation areas.

➢ Strategies

Undertake cooperative fire preparedness and prevention planning.

a) Develop a cooperative wildland fire evacuation plan for residents involving cities, County Office of Emergency Services, State and Federal agencies, and special districts. This plan should also recognize the potential for catastrophic landslides in years following a fire due to soil instability.

b) Organize stakeholders through FIRESafe Marin to identify the hazards, design mitigation strategies, and seek funding from unconventional sources for fire prevention.

c) Determine critical fire areas so that prevention efforts can be focused.

d) Increase fire preparedness in the Mount Tamalpais area. Support fire engineering, code enforcement, staff training, and public education as the main components of fire prevention.

e) Encourage the Community Development Agency to collaborate with the County Fire Department to educate the public on the causes of fire and provide prevention information.

f) Prepare a countywide tactical plan that would divide the county into pre-identified zones in conjunction with the existing County Master Mutual Aid Plan. The zones need to be mapped, and firefighting considerations need to be identified. Considerations such as water sources, safety zones, access, and assets at risk need to be included for each zone. Suppression strategies need to be addressed based on assets protected and resource management goals.

g) Support and implement the California Fire Plan.

Implement the Marin County Fire Management Plan.

a) Reduce the frequency, severity, and size of wildfires through fuel reduction and fuel breaks, ignition management, and fire safe engineering activities.

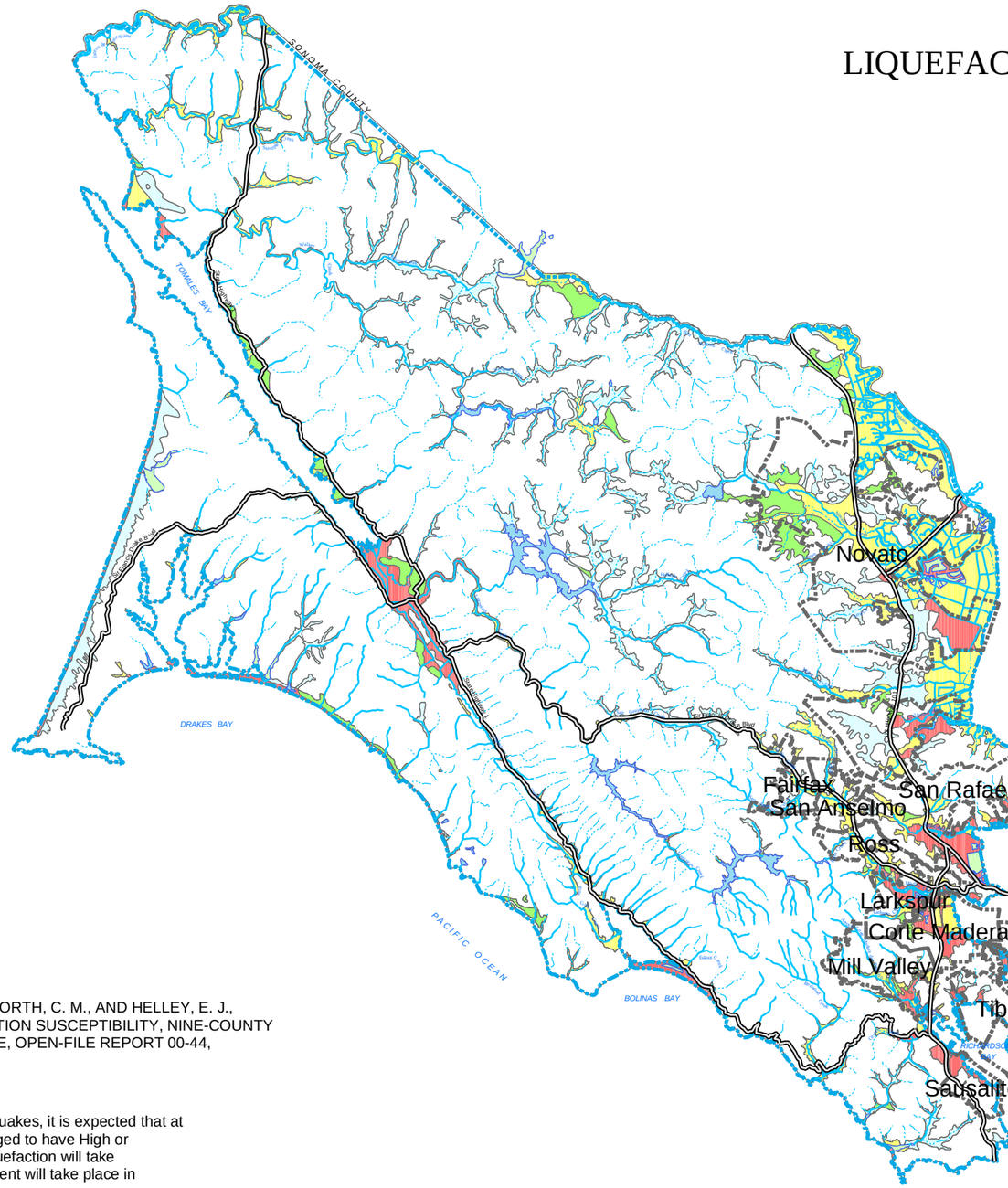
Reduce fire fuels through vegetation management.

a) Undertake cooperative vegetation management planning on both public and private lands involving cities, County, state, and federal agencies, and special districts.

b) Support controlled burns to reduce fire risk.

c) Update the Strategic Vegetation Management Plan. Expand this plan with a list of prioritized projects and an implementation plan.

MAP II-6
LIQUEFACTION SUSCEPTIBILITY HAZARDS



Legend

- County Boundary
- City Boundary
- Highways and Major Roads

Streams

- Perennial
- Intermittent

Water Bodies

- Lakes
- Lagoons

Level of Liquefaction Susceptibility*

- Very High
- High
- Moderate
- Low
- Very Low

N

0 1 2 4 6 8 Miles

SOURCE: KNUDSON, K. L., SOWERS, J. M., WITTER, R. C., WENTWORTH, C. M., AND HELLEY, E. J., PRELIMINARY MAPS OF QUATERNARY DEPOSITS AND LIQUEFACTION SUSCEPTIBILITY, NINE-COUNTY SAN FRANCISCO BAY REGION, CALIFORNIA: A DIGITAL DATABASE, OPEN-FILE REPORT 00-44, ONLINE VERSION 1.0, U.S. GEOLOGICAL SURVEY, 2000.

*On the basis of the liquefaction failures that occurred during past earthquakes, it is expected that at least 80 percent of future liquefaction failures will take place in areas judged to have High or Very High susceptibilites. We expect that 20 percent or less of future liquefaction will take place in areas judged to be Moderate and Low, and that less than 1 percent will take place in areas judged Very Low (Knudson et al., 2000).

d) Promote manual brush removal and grazing to reduce fuel load. Encourage vegetation reduction programs for buildings adjacent to heavily vegetated property.

Limit and/or condition development at the urban-wildland interface to reduce fire risk.

a) In view of the high potential for wildfire at the urban-wildland interface, restrict the introduction of further development into areas of chaparral, for the safety of present and future residents.

b) Encourage use of fire-resistant landscaping.

c) Create defensible space around structures on the urban interface.

d) Promote replacement and educate the public about the purposes of fire safe roofing.

Improve infrastructure for firefighting.

a) Create escape routes, widen roads, and develop better infrastructure for firefighting.

➢ Sample indicators

a) Measure the number of buildings damaged by structural fire (Marin County Fire Department).

b) Account for acres of land that have had controlled burns (Marin County Fire Department).

➢ Sample targets

a) Decrease structural fire damage by 10 percent by 2010 over 2000 levels.

b) Increase controlled burns for fuel load reduction and habitat enhancement by 20 percent by 2010 over 2000 levels.

5. Hazardous Materials

➢ Issues

Hazardous materials are concentrated in populous areas where they pose the greatest risk to human health.

a) The City-Centered Corridor is considered most susceptible to public health concerns and environmental degradation caused by long-term conditions and by secondary disasters. This corridor has the greatest concentration of people and industry in the county.

b) The Inland Rural Corridor has one of the greatest risks for hazardous material releases in Marin County from transportation of hazardous materials because response times would be great, sensitive environmental receptors are abundant, and many roads are narrow and twisting.

c) More than 500 Marin County businesses are regulated hazardous material businesses (Snyder and Smith Associates).

d) Coordination with the cities is needed to prevent placement of hazardous materials near sensitive receptors, such as schools, hospitals, high occupancy buildings, or nursing homes, particularly as mixed-use development increases.

e) Specific regulations are needed for development of land on or adjacent to a known solid or hazardous waste site.

f) There needs to be planning for a major multirelease of hazardous materials and how this emergency will be safely addressed.

➢ Strategies

Reduce human exposure to hazardous materials.

a) Adopt a precautionary principle ordinance like one adopted in the city of San Francisco.

b) Develop and implement a policy to reduce or eliminate the use of hazardous materials in County buildings, on County property, and in County operations that contain hazardous components.

c) Provide incentives to use ecologically friendly products.

d) Review proposed developments for their proximity to hazards including but not limited to high levels of electromagnetic radiation (EMR) and to electromagnetic frequency (EMF) rays, and information about EMR and EMF levels should be provided on request.

e) Develop a hazardous materials subsection for the Countywide Plan that includes policies and programs for reducing or eliminating hazardous and toxic materials.

➢ Sample indicators

a) Measure the number of toxic spills in Marin (CUPA).

b) Account for the number of businesses that use regulated hazardous materials (CUPA).

➢ Sample targets

a) Reduce toxic spills by 20 percent between 2002 and 2010.

b) Reduce the number of businesses that use regulated hazardous materials by 10 percent by 2010 over 2000 levels.

6. Global Warming

➢ Issues

Increased temperatures from global warming are expected to increase flooding and fire and to decrease air quality.

a) The EPA estimates that in 2100, with the absence of emission control policies, carbon dioxide concentrations are projected to be 30 to 150 percent higher than today's levels.

b) The EPA estimates that the sea level is likely to rise two feet along most of the U.S. coast by 2100. Sea level rise and higher evaporation rates will increase storm activity.

c) Wildland fires are increasing due to increased temperatures and droughts caused by global warming.

Global warming may have serious financial ramifications.

a) The global cost of natural disasters is anticipated to top $300 billion annually by the year 2050 if the likely impacts of climate change are not countered with aggressive disaster reduction measures.

Increased temperatures from global warming are expected to negatively affect biological resources.

a) Desalinization of the world's oceans due to the melting of polar ice caps could cause much sea life to die. Phytoplankton, the foundation of the ocean's food chain, is in jeopardy of mass die-off due to the decrease in salinity.

b) Accelerated desertification is associated with higher temperatures.

c) The Delta – an important food production area – may flood in the future due to global warming. This would seriously affect our food supply.

➢ Strategies

Recognize global warming as a serious issue for Marin County.

a) Recognize global warming as a trend in the Countywide Plan.

Become a national model for promoting positive climate change.

a) Set aggressive reduction targets for vehicle emissions

Increase public awareness and participation on the causes and impacts of global warming.

a) Set reduction targets for greenhouse gas emissions and implement a program to reduce emissions.

b) Use the International Council of Local Environmental Initiatives' Cities for Climate Protection Campaign to develop programs for reduction of the county's greenhouse gas emissions.

c) Develop and disseminate information on opportunities to reduce greenhouse gas emissions.

d) Continue gathering data from the United Nations and the EPA to determine the impact of global warming.

➢ Sample indicators

a) Monitor greenhouse gas emissions from energy, transportation, and waste (Marin County Community Development Agency).

➢ Sample targets

a) Reduce greenhouse gas emissions by 20 percent by 2020 over 2000 levels.

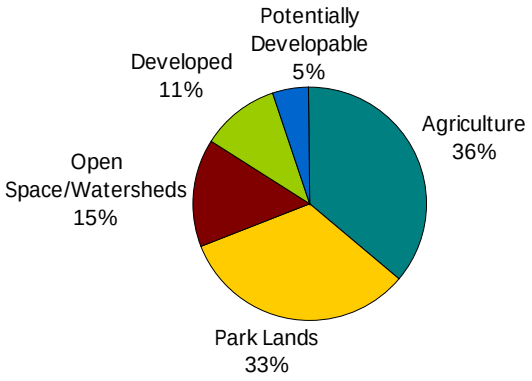
C. OPEN SPACE AND TRAILS, AND PARKS AND RECREATION

➢ Background and trends

Marin's public parks, open space and watershed lands provide recreational and scenic opportunities for the Bay Area and beyond. Marin County residents and visitors are fortunate to have access to nearly half of the county's land base as parks and open space. While parks allow for high intensity recreational uses, the primary function of open space lands is protection of natural resources with low intensity recreation as a secondary purpose. With the largest amount of public land in the nine-county Bay Area, Marin's 109,824 acres of park and open space and comprise 33 percent of the County's land base, while open space and watershed lands comprise another 15 percent (Figure II-5). Approximately 500 miles of trails allow access through much of this land (1994 Marin County Community Development Agency). City, county, state, and national parks offer varied recreational opportunities, from hiking through oak woodlands and redwood forests to playing soccer, golf, or baseball. In addition, open space lands protect important habitat from development and protect scenic viewsheds.

The ample and varied recreational opportunities available in Marin draw visitors from around the world, with more than 2.5 million annual visitors to Point Reyes National Seashore alone. These visitors support a $500 million per year tourism industry that includes 100 bed and breakfast inns just in West Marin (Point Reyes National Seashore).

Figure II-5
Marin County Land Uses



Source: 2001 Marin County Assessor

Travel spending in Marin has doubled in the past eight years. In 1992, travelers spent $275 million in Marin. This figure increased to $532 million by 2000. In addition, the number of jobs generated by travel during this period increased from 5,010 to 7,760, and related tax revenues nearly doubled from $18.7 million to $35 million.

1. Open Space and Trails

➢ Issues

A regional approach to open space management is needed.

a) As far as their respective missions and purposes allow, all public land management agencies in Marin should work toward a common vision for open space and trails.

b) There is increasing cooperation among agencies to manage open space. Policies should be encouraged and Memorandums of Understanding (MOUs) developed that strengthen this collaboration.

c) There is a need for a systems approach to land management decision making. For example, if a resource manager makes a decision for the Point Reyes National Seashore, the decision affects other surrounding areas and systems, and these consequences need to be considered.

Funding is needed for open space acquisitions.

a) Of all public land management agencies in Marin, the Open Space District is the most actively involved in land acquisition. In contrast to its earlier years in which the District could apply most of its locally generated annual property tax revenues toward land purchases, the Open Space District must now use nearly all of these funds for administering and maintaining its 14,000-acre open space system. Less than ten percent of the District's annual property tax revenues for each of the past ten years have been allocated for land purchases. Consequently, the Open Space District must rely heavily on grants or other sources to purchase open space. Many grants are available only on a competitive basis.

b) Increased land acquisition is needed to protect ecologically significant corridors, as well as unprotected ridge and upland greenbelt and community separator lands.

c) There are targeted open space lands identified in the 1994 Countywide Plan that still need to be acquired.

d) There should be an effort to preserve lands adjacent to water, particularly San Francisco Bay, the Pacific Ocean, and streams.

Stewardship is needed to ensure proper management of open space and trails.

a) Land stewardship activities need to have a high priority.

b) For many land management agencies including the Open Space District, annual budgets, even without allocating money for land purchases, cannot accommodate increased expenditures for stewardship. Grants for general land maintenance do not exist. Additional sources of funding are needed to ensure adequate stewardship of open space lands.

c) There is high use of open space in some areas and low use in other areas. Monitoring of high use areas, as well as maintenance and restoration plans, are needed to ensure ecological protection. A clear vision of environmental quality needs to be established for open space lands.

d) There is a need to develop data that indicates the performance of erosion control measures and vegetation management measures that are being used on open space, including fire management, invasive species management, and ecological restoration.

User conflicts on open space lands have increased.

a) There is a conflict between quality of experience and quantity of visitors.

b) Bicyclists want access to narrow trails, which some equestrians and hikers oppose because of concerns related to trail safety, trail user experience, and resource protection.

c) An increase in the number of commercial uses (such as organized hiking, kayaking groups, dog walking, and interpretive walks) raises concerns related to resource protection and the experience of other users.

d) There is an increased demand for "extreme" or individual sports, such as downhill skateboarding, BMX biking, and scooter riding on open space lands. These uses are generally incompatible.

e) Proposed land acquisitions and land management actions are increasingly scrutinized by neighbors concerned about parking, the number of people passing through neighborhoods, and user conflicts.

f) Open space areas, which were originally intended to serve local communities, are increasingly serving regional park needs, in part due to increased public awareness. Information about Marin's open space land is much more easily accessible by regional users due to technology and popular printed materials.

g) Increased user demand and community pressure are requiring increased land stewardship and enforcement of safety and resource protection. The role of open space ranger staff, historically education focused, is increasingly focused on enforcement.

Trail assessment and planning is needed to optimize public use.

a) Assess and prioritize each trail in the system for its potential use by persons with disabilities, and remove barriers where possible.

b) As the demand for trails-related recreation increases, there should be an effort to complete the trails network set forth in the Trails Element of the 1994 Countywide Plan.

c) Legal issues concerning easements and prescriptive rights need to be evaluated and clarified.

d) The present Countywide Plan Trails Element has not been merged with the Parks and Recreation Element.

e) There is a need to develop long-distance trail connections (San Francisco Bay Trail, Bay Area Ridge Trail).

Planning for tourism is needed.

a) Tourism master planning needs to occur to assess accommodation demands and environmental impact.

b) Marin serves as a regional greenbelt with recreational areas for the Bay Area and beyond, which contributes to road and user congestion.

➢ Strategies

Develop a regional approach to open space management.

a) Continue to improve land management decision making and activities through regular and ongoing communication among Marin County's public land management agencies and with similar agencies throughout the Bay Area.

b) Continue to identify and address open space–related issues that cross jurisdictional or agency boundaries, such as availability of public transit to public open space, fire hazard reduction, and Sudden Oak Death, through communication and cooperation with public transportation, fire protection, planning, or other agencies as necessary.

Develop public and private partnerships to fund acquisition of key parcels.

a) Continue cooperative efforts with other Bay Area land management agencies and conservation organizations to propose, support, and monitor state and federal open space and park funding legislation.

b) Establish partnerships with other public agencies and private conservation organizations to obtain funding and/or public support as necessary.

c) Close key gaps in the countywide system of public lands. Continue efforts to acquire or otherwise protect such lands for wildlife corridors and habitat, rare and endangered species protection, public recreation, and the completion of upland greenbelt/community separator areas. Continue efforts to preserve baylands, coastal lands, and stream corridors.

d) Pursue Board of Supervisors endorsements of state and federal legislation that provides funding for habitat conservation and enhancement activities.

Enhance open space stewardship by identifying and treating threats to natural resources.

a) Continue efforts to identify and address erosion, the spread of invasive plant species, and other resource protection problems on public open space.

b) Identify indicators to assess the ecological health of public lands and the sustainability of current uses.

c) Continue to reduce dependence on the use of pesticides and herbicides for parks and open space maintenance purposes.

Minimize user conflicts through education and appropriate levels of use.

a) Continue efforts to inform and educate the citizens of Marin County and open space visitors concerning the county's public open space lands and their appropriate uses. Continue to improve available information (guidebooks, Web sites, maps) to enhance visitor enjoyment of Marin County's public open space and trails.

b) Research the concept of the sustainability of public open space in relationship to the impact of visitors, ranging from parking congestion to open space recreational usage, so that open space can be preserved and maintained for future generations.

Optimize public use of trails through proper planning.

a) Continue to accommodate needs of the physically challenged in trail planning and construction when practicable.

b) Close key gaps in the countywide system of public trails. Continue efforts to create an interconnected system of public open spaces, complete the Bay Area Ridge Trail, complete the San Francisco Bay Trail, and enhance public trail recreation opportunities.

c) Address legal issues concerning trail easements and prescriptive rights.

d) Address issues related to maintaining proposed new trails of countywide significance with Marin's cities, towns, and public land management agencies.

e) Address the issue of providing parking at trailheads. Design trails with multiple ingress and egress points and signage to minimize the need for parking at trailheads.

f) Seek methods to establish partnerships and cooperation among trail interest groups to increase and improve trail recreation opportunities.

Plan for the impacts of tourism.

a) Prepare a tourism master plan to assess demand for accommodation and environmental impact.

b) Provide maps and information showing how public recreational lands can be accessed by public transportation, by bicycle, or on foot.

➢ Sample indicators

a) Determine funding needs for highest priority open space acquisitions for the next 10 years (MALT).

b) Measure the percentage of open space land preserved (Marin County Community Development Agency).

c) Measure the percentage of trails accessible to physically challenged persons (Marin County Department of Parks, Open Space and Cultural Services).

➢ Sample targets

a) Obtain funding for targeted open space lands identified in the 1994 Countywide Plan and/or other high priority properties of equivalent size and public value by 2012.

b) Increase the mileage of trails accessible to physically challenged persons by 10 percent over 2002 mileage by 2007.

2. Parks and Recreation

➢ Issues

High user demand and diversity of uses causes competition for parks and recreational facilities.

a) Marin does not have a large number of youth park facilities, such as skate parks.

b) There is an increasing need for soccer and softball fields. Optimizing use of existing school play fields might help alleviate this situation.

c) Adult team sports, such as “over 40” and “over 50” leagues, compete with youth sports for playing field time. In one instance, an “over 50” soccer league considered funding a new field in exchange for an allotment of reserved field time.

d) Users engaged in both team sports as well as individual activities (in-line skating and skateboarding) need space for their activities.

e) There is a growing need for specialized parks, such as dog parks, community gardens, and skateboard parks.

f) There is a need to explore possible locations for overnight camping.

g) Safety on bike paths needs to be improved.

Diversity in population requires diversity in parks.

a) As the average age in Marin increases, the demand for recreational facilities to accommodate a more mature population grows.

b) People with lower incomes may lack access to private recreational facilities and thus rely more on public facilities.

c) Neighbors adjacent to proposed park facilities may object to any such development.

Creative financing may be required for new park facilities.

a) The high cost of land makes acquisition of park sites in Marin difficult. City and County collaboration provides more facilities. For example, the proposed skateboard park at McInnis is a collaboration of the County of Marin, the City of San Rafael, and the Marinwood Community Services District.

Pesticides and other toxins can effect the health of park users.

a) There is a need to evaluate the use of toxins such as pesticides in all parks and determine whether further limitation of use is needed.

➢ Strategies

Develop an assessment of user needs and park and recreation facilities.

a) Develop an updated Master Plan for Marin County Parks to assess current facilities in order to determine appropriate areas for expansion and suitable locations for new facilities, and to explore mechanisms to fund new park development.

b) Develop an updated park facility assessment, including examination of city facilities, other public facilities such as schools, private facilities, and County facilities.

c) Develop an updated user needs assessment to determine current and projected community park and recreation requirements. Include consideration of Marin's aging community, cultural diversity, and economic diversity in developing such an assessment.

d) Study the feasibility of allowing community gardens in some park areas and create a pilot program to implement the study.

e) Explore opportunities for overnight camping in existing parks. Determine other appropriate locations for new facilities that could accommodate overnight camping.

f) Work to ensure that all parks are designed to meet the needs and financial means of the handicapped and senior populations.

g) Ensure that green spaces are integrated into urban areas as urban infill and densification increase.

Ensure that pesticides and other toxins don't pose health risks for park users.

a) Determine the least toxic means of reducing weeds and other pests, if necessary, to acceptable levels.

b) Conduct annual training of all Parks Department crews in the use of Integrated Pest Management practices.

➢ Sample indicators

a) Compare the ratio of park area per person available in Marin County with guidelines outlined in the Quimby Act or by the California Park and Recreation Society (Marin County Community Development Agency).

b) Conduct a user needs assessment for parks and recreational facilities (Marin County Department of Parks, Open Space and Cultural Services).

c) Monitor park reservations and park revenues for consideration as indicators of use (Marin County Department of Parks, Open Space and Cultural Services).

d) Measure the number of annual play field uses and compare with industry guidelines (Marin County Department of Parks, Open Space and Cultural Services).

➢ Sample targets

a) Eighty-five percent of user needs for parks and recreational facilities are being met by 2010.

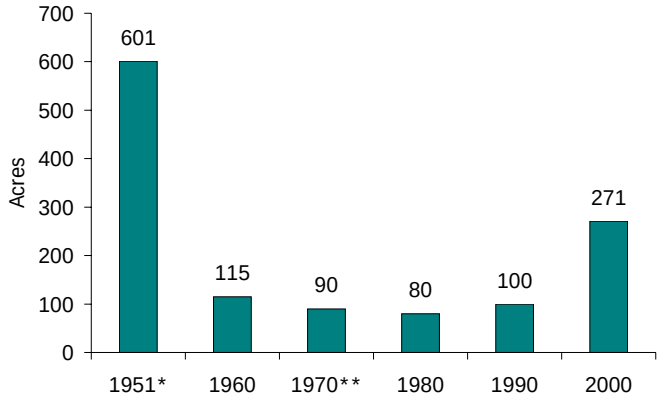
D. FOOD AND AGRICULTURE

➢ Background and trends

Agriculture remains vital to Marin's rural landscape and way of life. Marin County's rural landscape, culture, and economy have depended on a viable agricultural industry to sustain them for the past 150 years. Located on the urban edge in one of the wealthiest localities in America, Marin County still has agriculture as one of its primary land uses. Despite this, the agricultural way of life in Marin is threatened by the increasing difficulty of making a living farming and ranching . At the core of this problem is the fact that agricultural production costs have outpaced agricultural revenues. This state and nationwide trend is exacerbated by especially high land values in Marin.

The diversity and relative proportions of products generated by Marin farmers and ranchers have fluctuated over the years. Livestock-based products have traditionally been the mainstay here, and they still account for a vast majority of Marin County agriculture both in value and acreage, due primarily to the nature of West Marin's rugged topography, soil limitations, and scarcity of water. As of 2001, the value of livestock, livestock products, and livestock feed crops in Marin County was $47,268,410, or 93 percent of the $50, 900,357 total value of Marin County's agricultural production. Vegetable production, in its heyday in the 1930s and 1940s, has seen an increase during the past decade after years of decline. 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, artichokes and peas were important crops in coastal areas, with 2,000 acres of peas alone at the peak of production. By 1951, fruit, nut, and vegetable production had declined to 601 acres and continued declining until the 1980s, when row crops began a slight upward trend. The acreage of fruit and vegetable crops had more than doubled to 271 acres by 2000, due in part to 95 acres of vineyards (Figure II-6).

Figure II-6
Marin County Vegetable, Fruit, and Nut Acreages



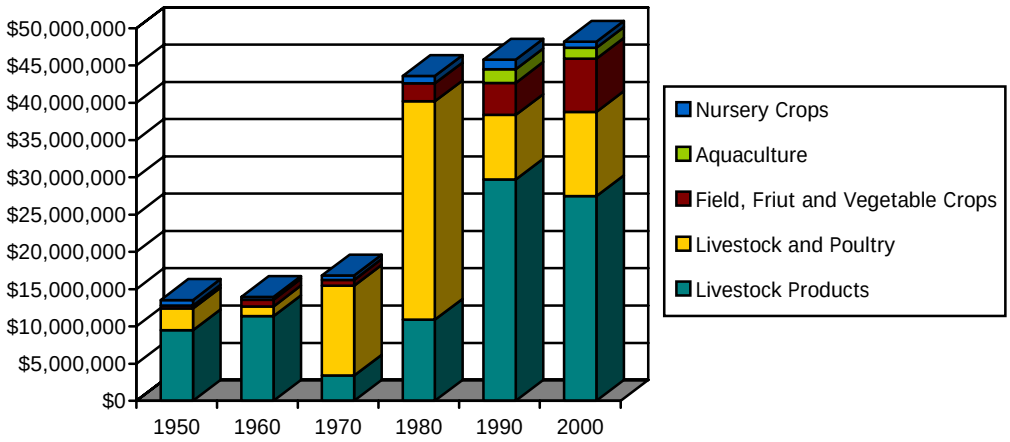
* 1950 data not available.
** In 1970, vegetables were not listed in the Crop Report; this figure is presumed to include only fruits and nuts.

Source: 1935-2001 Marin County Department of Agriculture

Of the 133,444 acres of land used for agriculture in Marin County (U.S. Department of Agriculture), as of 2000, approximately 177 acres were in vegetable and nongrape fruit production, 94 acres supported vineyards, 6,065 acres were used for livestock feed crops, including hay and silage, and the remaining acreage was used as pasture for livestock grazing.

Recent increases in organic food production, creation of specialty products and markets, and on-farm diversification offer promise of increased revenues and more stable income streams to ranchers and farmers. Local food production enhances a community's food security by ensuring that food is available to local people regardless of transportation or trade issues that can affect food supplies. Because of Marin County's proximity to population centers in other Bay Area counties, Marin food products also offer greater food security to this population. Opportunities for Marin farmers and ranchers to market food locally abound. The majority of products sold at Marin's well-developed farmers market system continue to come from out-of-county sources. Diversification of local farm products has the potential to increase revenues for farmers and contribute to the viability of local agriculture, as well as providing more locally sold food. The recent interest in locally grown, natural grass-fed beef, farmstead cheeses, high value organic strawberries, and olive oil are examples of agricultural diversification that offer locally produced food choices (Figure II-7).

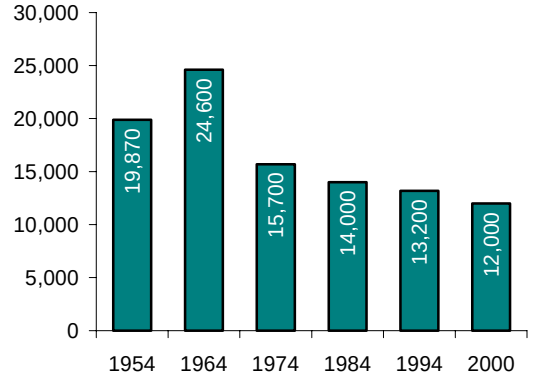
Figure II-7
Crop Values for 50 Years



Source: 1935-2001 Marin County Department of Agriculture

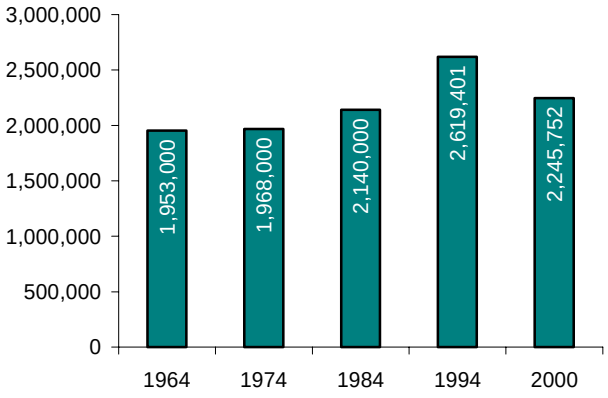
While the number of dairies has declined, dairy herd size has increased and milk production has remained fairly constant. In 1862, Marin ranked first among California counties for milk production. Since that time, a steady decline has marked Marin County's dairy industry, and Marin is now ranked 12th in the state (out of 58 counties) in terms of milk production. Between 1950 and 2000, the number of dairies decreased from 200 to 31, and the number of head of dairy cattle in the county decreased from approximately 20,000 to about 12,000 (Figure II-8). Despite this downward trend in dairies and animal numbers, countywide milk production has increased slightly due to increased milk production per cow and other improvements in farming practices.

Figure II-8
Number of Dairy Cattle (Head) in Marin County



Source: 1935-2001 Marin County Department of Agriculture

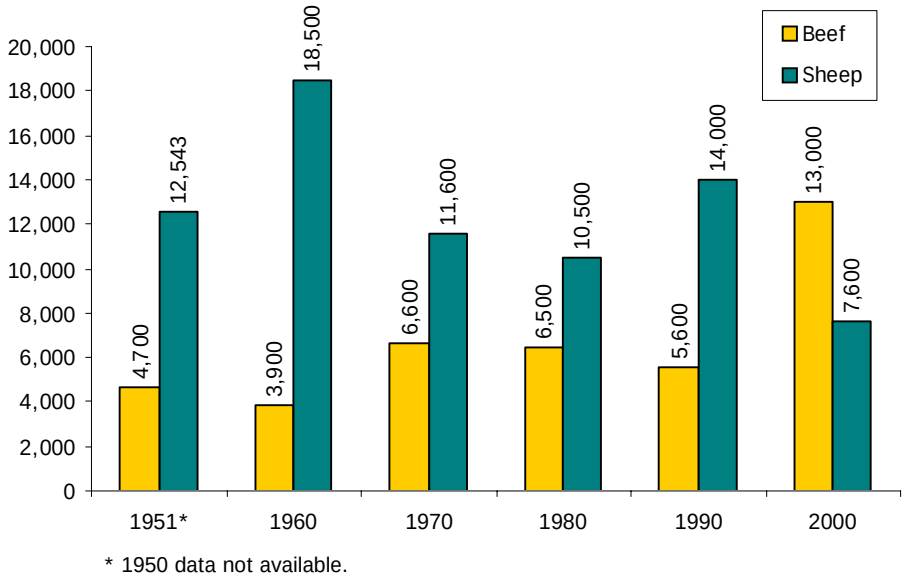
Figure II-9
Milk Production in Pounds, Marin County



Source: 1935-2001 Marin County Department of Agriculture

Beef production has replaced dairies and sheep ranches. As dairy operators have sold their herds, they have either leased their ranches out to other producers or have switched to raising beef, dairy replacement heifers, or a combination of the two (Figure II-9). This pattern—as well as a steep decline in the number of sheep ranches—have resulted in an increase in the number of beef producers and head of beef cattle produced in the county, despite the fact that beef producers are struggling financially (Figure II-10).

Figure II-10
Marin County Cattle and Sheep Numbers



Source: 1935-2001 Marin County Department of Agriculture

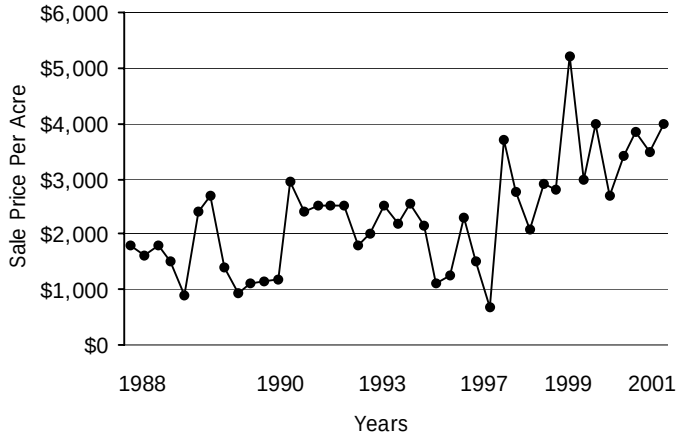
Recent increases in organic acreage and number of certified organic growers show promise. The past 10 years have seen an increasing interest in organic farming, with 28 certified organic growers registered in the county in 2000, compared with 4 in 1990—a seven-fold increase. Organic acreage has also increased from 67 acres in 1990 to 1,017 acres in 2000, with approximately 170 acres attributed to vegetables and fruits and the remaining 800-plus acres in organic dairying and livestock feed production. Nationwide, organic food production is the faster growing sector in agriculture, at a rate of 20 percent per year (Dimitri and Greene).

Product diversification and direct marketing are on the rise. Direct marketing to consumers by local agricultural producers, as well as development of niche markets, are gaining interest and appear to be essential to the economic survival of some farms and ranches. Direct sales of Marin-grown organic produce, farmstead cheese, and beef products have gained market shares at local farmers markets and are being sold through a popular farm box subscription program, and a successful farmstand operation.

The average age of Marin County agricultural landowners has increased. The question of who will succeed or take over ranches and farms is a serious concern. The number of California farmers under the age of 35 declined by 51 percent between 1987 and 1997. California farmers age 65 and older outnumber farmers 25 years old and younger by 60:1 (California Farmlink).

Agricultural land prices have risen sharply due in part to residential "estates." Agricultural land values in Marin have increased dramatically in recent years. While the sales price of agricultural land zoned A-60, APR-60, and CAPZ-60 has greatly fluctuated over the years, it remained fairly stable at around $2,000 per acre through most of the 1990s, and then rose dramatically between 1998 and 2001 to $5,000 per acre. During these three years, the average price of agricultural land in parcels of 150 acres or greater with 60-acre zoning increased from $2,200 per acre to $3,780 per acre (Figure II-11). Although many of Marin's ranches have been in family ownership for several generations, recent purchases by nonagricultural landowners account for the recent dramatic sales price increases.

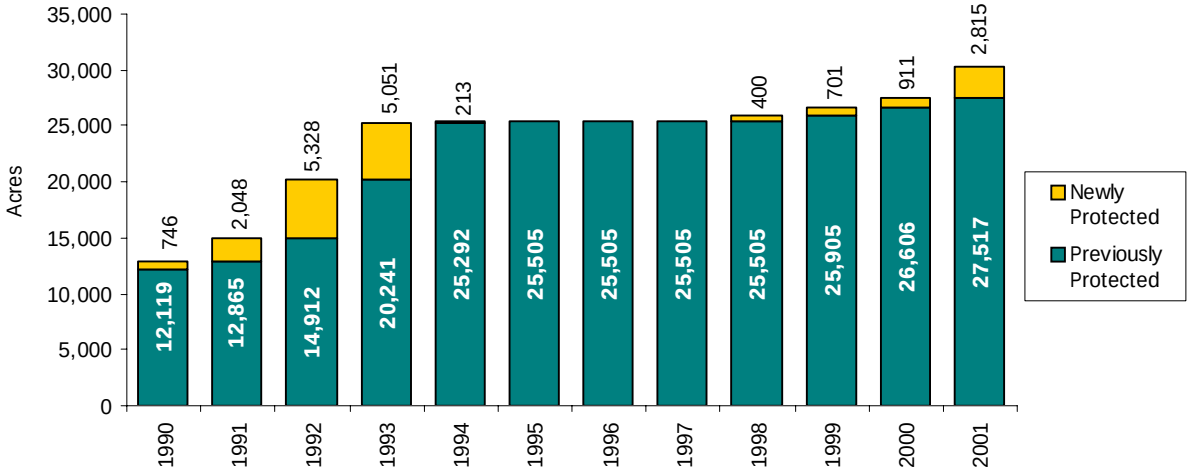
Figure II-11
Marin Agricultural Land Sales
for Properties Zoned as A-60, APR-60, and CAPZ-60
1988–2001



Source: 2002 Marin Agricultural Land Trust

The tradition of land protection continues. Marin Agricultural Land Trust (MALT) is continuing to help farmers and ranchers protect their land from development through purchase of agricultural conservation easements. Since MALT acquired its first conservation easement in 1983, 32,000 acres—25 percent of the privately owned ranches over 150 acres in size—have been protected in this manner (Figure II-12).

Figure II-12
Agricultural Conservation Easements in Marin County
Acquired by MALT



Source: 2002 Marin Agricultural Land Trust

The value of organic food produced in Marin has increased. Organic food production rose from $2.4 million in 1995 to $3.2 million in 2000—a 33 percent increase. Most of this increase is attributed to organic dairy products.

1. Agricultural Viability

➢ Issues

Increasing economic pressure on ranchers and farmers is a threat to the viability of agriculture in Marin.

a) The long term viability of agriculture is important to a balanced economy in Marin.

b) Agricultural profit margins need to be retained or improved for agriculture to be economically viable.

c) Many ranchers and farmers are being forced to sell their operations or change their products to be economically viable, or to sell their operations. A decrease in the number of farms impacts the farm support system of business related to agriculture. A critical mass is needed to maintain an agricultural economy.

d) Financial incentives are needed for appropriate agricultural uses, agricultural sustainability and innovation, and growing of organic products.

e) Regulatory restrictions make traditional agricultural production and development of new crops and products difficult.

f) International and global policies affect feed prices and revenues, and make the market more volatile.

g) Agricultural pest management with pesticides toxic to non-target organisms conflicts with increasing community resistance to the use of chemicals.

Diversification of agricultural products is needed for long term viability of agriculture.

a) Some traditional farming and ranching operations are threatened, due to increased regulations. For example, sheep ranching is at stake due to tighter predator control restrictions.

b) Alternatives are needed to help make agriculture in Marin more financially viable. Potential alternatives could include production of olives and cheeses, “you pick” farms, farm-stay operations, and roadside stands.

c) Allowing bed and breakfast operations and second units for income generation is important as long as these uses don’t result in the unintended consequence of conversion to primarily nonagricultural uses.

d) Agricultural diversification would guard against development of a monoculture, such as the widespread conversion to vineyards.

e) The feasibility of supplying an adequate supply of water at a reasonable cost to farmers needs to be examined. Water supply is essential to increased production of vegetables and other crops important to diversification, and economic stability cost needs to be examined.

Preservation of family farms is threatened by the advancing age of farm owners and a decline in young farmers and ranchers.

a) High land values make it virtually impossible for young farmers and ranchers to acquire land unless they inherit it or marry into a land-owning family.

b) Long hours, hard work, and low pay discourage young people from choosing farming and ranching as an occupation.

➢ Strategies

Support diversification of products and services to strengthen agricultural viability.

a) Support agricultural diversification through development of local markets and education.

b) Promote biological diversity in the agricultural gene pool through seed saving and exchange, livestock breeding, and non-GMO (genetically modified organism) plant propagation.

c) Diversify agricultural products and related services such as organics, grass-fed beef, value-added dairy products, and small-scale agricultural tourism.

d) Assist farmers with development of water sources for conversion to organic row crop farming. Analyze opportunities for water conservation and efficiency techniques, and use sustainable water management practices. Encourage water recycling and conservation, including graywater use and on-site rainwater harvesting, storage in catchment ponds, and treatment with constructed wetland systems.

Develop marketing opportunities for local products to strengthen agricultural viability.

a) Assist in the development, promotion, and funding of marketing campaigns and an advertising campaign to promote organic agriculture in Marin.

b) Develop a cooperative marketing program.

c) Increase direct marketing opportunities. Selling agricultural products to local restaurants, stores, and farmers markets allows farmers and ranchers to market their products directly to customers and to receive a fair price for their food.

d) Explore a distribution and warehousing model that would provide the infrastructure needed for small farmers to more easily make their farm products available to schools, specialty supermarkets, and restaurants.

Support educational programs to enhance agricultural viability.

a) Provide educational programs to farmers and ranchers that encourage and promote diversification, such as organics, grass-fed beef, value-added dairy products, and small-scale agricultural tourism. Continue to support the University of California Cooperative Extension (UCCE) program that offers these programs.

b) Support educational programs that help young farmers and ranchers become established (such as 4-H and Future Farmers of America).

Support intergenerational transfer of family farms.

a) Support programs and organizations that encourage the transfer of farms from generation to generation, such as California Farmlink, the purchase of agricultural conservation easements by MALT, and other programs.

Continue to address livestock predation to reduce economic losses to ranchers.

a) Work with the Agricultural Commissioner's office to support a program that addresses the predation of farm animals by coyotes and other predators.

Research methods for strengthening agricultural viability.

a) Explore a financial incentive program (similar to the European direct payment) for on-farm conversion of small (5–10 acres), suitable pasture to organic row crop farming, or financial incentives for the leasing of those lands to organic farmers.

b) Study the economic viability of Marin Agricultural operations, and develop strategies for strengthening it.

c) Include a vision of a tactical plan for long term viability of agriculture in the Countywide Plan update.

➢ Sample indicators

a) Inventory farms and ranches by number, size, and net income categories (Marin County Agricultural Commissioner, Marin Community Development Agency, Marin Agricultural Land Trust, USDA National Agricultural Statistics Service).

b) Use the 2002 survey of ranchers and farmers to determine types of support needed to diversify farm operations for greater economic viability (University of California Cooperative Extension).

➢ Sample targets

a) By 2013, the number and size of farms will have remained constant or increased, and the number of farms and ranches in higher income categories will have remained constant or increased.

b) A follow-up survey of ranchers and farmers will show a 50 percent increase in sales of value added products to local markets by 2005.

2. Agricultural Land Use and Land Protection

➢ Issues

Conversion of agricultural land to residential use diminishes the agricultural land base.

a) Development of agricultural land into “rural estates” removes that land from agricultural production when new landowners choose not to lease it to an agricultural operator and/or price it so that existing operators cannot afford to lease it. Often, leased land is an essential part of an agricultural operation, and losing acreage decreases its viability.

b) The minimum parcel size for agricultural zoning is 60 acres. This size allows individuals or families to purchase a parcel and build a large home on it.

c) There is not an exclusive agricultural zoning district prohibiting all incompatible nonagricultural uses.

Regulations and land use policies need improvement.

a) Local, state, and federal regulations often overlap and are not consistent. Changing regulations and land use patterns and policies concern landowners who view regulations as threatening to their property rights and the underlying value of their property.

b) Zoning limitations for housing can be an impediment to family farms that need additional housing to accommodate multigenerational family farming.

c) The County’s permitting process and planning regulations are mostly written for an urban setting and are often incompatible with policies that could better support agriculture.

➢ Strategies

Protect against conversion of agricultural land to residential and other uses.

a) Study the economic impacts of the conversion of agricultural production land to residential estates, and consider regulations that address the size of residences on agricultural lands.

b) Enact policies to ensure that only agricultural uses and related ancillary uses are allowed on agriculturally zoned land.

c) Continue to support land protection programs, including acquisition of agricultural conservation easements by the MALT, agricultural preserves and Farm Security Zone contracts, and transfer of development rights from agriculture/open space land to properties within the city center and village areas.

d) Improve the effectiveness of agricultural management plans so that rural estate properties in agricultural zoning continue to be used for agriculture.

e) Ensure that land zoned for agricultural uses is being utilized even if it is not in production.

f) Explore opportunities to utilize additional public and private land for agricultural leases.

g) Create incentives for residential estates to lease land to organic farmers.

h) Develop a program that simplifies and streamlines the process of obtaining County permits for agricultural endeavors. Assist farmers and ranchers with obtaining permits.

Improve regulations, permitting, and land use policies.

a) Interpret local, state, and federal regulations, and assist landowners in understanding and addressing regulations and obtaining necessary permits.

b) Establish a more uniform, countywide agricultural zoning district that resembles the current Coastal Agricultural Production Zone classification.

c) Develop additional policies that focus on preserving and preventing the development of agricultural land.

d) Develop policies that encourage new, nonagricultural landowners to keep their land in agricultural production through leasing or agricultural diversification.

e) Explore additional measures to protect agricultural zoning in key greenbelt areas.

f) Research ways to accommodate housing for multigenerational family farming where zoning limits it.

g) Expand the current definition of agriculture to include the distinction between “production” and “residential” agriculture.

h) Expedite the processing of seasonal, time-sensitive-production agricultural projects.

➢ Sample indicators

a) Measure the number of acres of agricultural land in active agricultural production, and track changes to this number every two years (Marin County Agricultural Commissioner, Marin Community Development Agency, Marin Agricultural Land Trust, USDA National Agricultural Statistics Service).

b) Measure the acreage of agricultural land protected by conservation easements and Williamson Act contracts (Marin Agricultural Land Trust and Marin County Assessor).

➢ Sample targets

a) In 2013, the number of acres in agricultural production will be at least as high as the number measured in 2003.

b) An additional 20,000 acres of private agricultural land will be protected with conservation easements by 2012 (2,000 acres per year), bringing the total to 52,000.

3. Agricultural Education and Public Awareness

➢ Issues

Increased education about agriculture is needed by the public and government.

a) The urban community knows less and less about agriculture. Educating students about agriculture as well as natural resources needs to be strengthened.

b) County staff needs to develop greater understanding and knowledge about the agricultural industry.

c) The public does not understand the relationships between "open space," environmental appreciation, and farming.

➢ Strategies

Educate the public and government through public awareness and education programs.

a) Enhance County staff support for production agriculture by training Marin County Department of Agriculture staff to serve as agricultural liaisons, and establish an agricultural resource specialist position in the County.

b) Support local nonprofit organizations that are currently conducting public awareness and educational programs.

c) Develop an educational and public awareness campaign to promote the value and benefits of supporting locally grown agriculture and farmers markets by building a coalition of farmers, hospitality businesses, grocery stores, farmers markets, and schools to promote agriculture. Include education about the full costs of production, processing, distribution, and consumption of different agricultural systems. Include costs to human health, the environment, and rural and urban communities.

d) Create an educational and demonstration farm in Marin.

e) Arrange for governmental and public officials to tour farms to better understand the issues and needs of farmers.

f) Encourage school districts to work with local farmers to offer farm tours to children at least once per school year.

g) Support the College of Marin's sustainable agriculture program, which was started in 1999.

h) Promote agriculture's historical and cultural roles in the development of Marin through local media coverage and other methods.

➢ Sample indicators

a) Number of Marin school children participating in the annual Farm Day, Harvest Fair, or farm to school tours offered by MALT, UCCE, Slide Ranch, and the Marin County Office of Education at Walker Creek Ranch (MALT, UCCE, Slide Ranch, and the Marin County Office of Education).

➢ Sample targets

a) Ninety percent of Marin County children will have participated in a farm education event and will understand the connection between agriculture, people, and the environment by 2006.

4. Food and Food Systems

➢ Issues

Marin needs to become more self-reliant in the food it consumes.

a) The majority of food produced locally is exported and is not eaten locally.

b) The County and schools do not buy locally grown organic food for their cafeterias.

c) Economic and environmental contributions need to be measured to formulate and advocate policies.

d) The public needs to understand the value and benefits of local food security

➢ Strategies

Strengthen local food security.

a) Incorporate community food security in the development and planning of communities, transportation programs and in the allocation of County resources.

b) Promote local food processing.

c) Support locally grown organic food by encouraging its purchase and serving by local institutions, businesses and County government; promoting it in Marin's towns and cities; instituting a locally grown organic food buying policy; and promoting farmers markets in each of Marin's communities.

d) Better utilize public spaces for food production: Encourage development of community gardens on vacant or underutilized land; encourage conversion of office space landscaping, greenways, and lawns to community gardens or small farms; and promote edible, drought-resistant landscape on public land to provide food for humans and wildlife.

e) Keep prime soil available for food production.

f) Encourage local towns and cities to produce a certain percentage of their food locally. This is linked to the fact that we don't have enough farmers even to supply our farmers markets. At the Civic Center farmer's market there are 4 Marin farmers to 14 from outside the county. We need more Marin County farmer participation.

g) Include food delivery in the County's disaster preparedness plans.

h) Encourage the distribution of locally grown organic food through food banks by developing a program in which unsold foods from local markets are brought to the Marin food bank; creating an additional food bank.

i) Conduct a countywide nutritional survey to determine areas of the county that need additional nutritional support.

Increase public awareness and education about the importance of local food production and food security.

a) Enact an educational and public awareness campaign to promote the value and benefits of supporting local agriculture and farmers markets.

b) Prepare an inventory of local farms and their products, and make this list available to Marin residents to enhance direct sales to consumers.

c) Conduct celebrations of local organic food and agriculture. Feature local food and agriculture at the Marin County Fair and adopt a "Grown in Marin" day dedicated to locally grown food and products.

d) Prepare a "Grown in Marin" cookbook and map of local farms.

e) Promote programs that support sustainable food systems, including the Marin Food Systems Project, the Marin Food Policy Council and Marin Organic promotional program.

f) Work with the Marin County Office of Education to implement a food policy program similar to those in the Lagunitas and Berkeley school districts and offer a "Grown in Marin" meal at least once a year to local students.

g) Support current school gardening programs offered by the Marin County Stormwater Pollution Prevention Program (MCSTOPP), the Marin Conservation Corps, the Marin Master Gardeners, and the Marin Food Systems Project.

h) Support the Marin Food Systems Project to supply locally grown food to school cafeterias; to include the studies of food and agriculture in school curriculum; to institute a composting program for each school; and to encourage nutrition programs that emphasize the importance of eating local, organic, and seasonal food.

i) Increase education and access opportunities for low income residents and local communities to learn about food production and nutrition.

➢ Sample indicators

a) Measure the number of schools with gardens. Coordinate with Marin Food Systems Project, as data was already gathered in 2001 (Marin County Office of Education).

b) Measure the percentage of food produced in Marin that is distributed locally (University of California Cooperative Extension).

c) Measure the number of farmers able to produce food for local markets (including school programs, restaurants, and so on). Compare that with the number of available market opportunities (UCCE).

➢ Sample targets

a) Fifty percent of all public and private schools have organic gardens by 2010 and 100 percent by 2020.

b) Increase the local distribution of food grown locally by 15 percent by 2010 and 30 percent by 2020.

c) Increase the number of organic and diversified farms by 30 percent by 2020.

Sources

Andrew, Gregory. Fisheries Biologist with Marin Municipal Water District. Interview, December 21, 2001.

Applied Survey Research for the Healthy Marin Partnership. *2001 Community Needs Assessment*. Draft, November 2001.

Associated Press. "Use of Pesticides Drops in Marin County." *Marin Independent Journal*. October 24, 2001.

Bakun, B. H. *Patterns in the Ocean: Ocean Processes and Marine Population Dynamics*. National Oceanic and Atmospheric Administration. California Sea Grant College System. 1996.

Bay Area Open Space Council 2001. *Restoring Polluted Waterways of the San Francisco Bay Area: Mitigating the Impacts of Motor Vehicles and Supporting Infrastructure.* January 2001.

Bay Area Stormwater Management Agencies Association. *Start at the Source: Design Guidelines for Stormwater Quality Protection.* 1999.

Bean, Caitlin. Environmental Specialist IV, California Coastal Commission. Interview, November 4, 2002.

Berman, Bob. Planner for Nichols-Berman Environmental Planning. Interview, July 24, 2001.

Berner, Bob. Executive Director of Marin Agricultural Land Trust. Interview, October, 2002.

Brigmann, Fran. General Manager of Marin County Open Space District and Director of the Marin County Department of Parks, Open Space and Cultural Services. Interview, August 30, 2001.

California Energy Commission. Electricity in California. www.energy.ca.gov/electricity/index.html# numbers.

California Department of Fish and Game. *California Natural Diversity Database*. September 9, 2001.

California Farmlink. www.californiafarmlink.org.

California Oak Foundation. Letter to "Civic Leaders" regarding oak woodland planning. April 30, 2002.

Carlsen, Stacy. Agricultural Commissioner for the Marin County Department of Agriculture, Weights and Measures. Presentation to the Marin Countywide Plan Working Group, August 23, 2001.

Cincott and Engelman. *Nature's Place, Human Population and the Future of Biological Diversity*. Population Action International. 2000.

Clearwater Hydrology for the Marin County Community Development Agency*. Flooding Technical Background Report.* March 2002.

Clearwater Hydrology for the Marin County Community Development Agency. *Hydrology and Water Quality Background Report*. January 27, 2002.

Community Marin. *Community Marin Policy Recommendations for Environmental Quality.* Draft, September 30, 2002.

Crowder, Fred. Deputy Agricultural Commissioner for the Marin County Department of Agriculture, Weights and Measures. Interviews, June 12 and July 24, 2001.

Dimitri, C. and C. Greene. *Recent Growth in the U.S. Organic Foods Market*. Economic Research Service Informational Bulletin # AIB777. September 2002.

Environmental Collaborative for the Marin County Community Development Agency. *Biology and Wetland Protection Technical Background Report*. April 2002.

Harris, Richard, Susan Kocher, and Kallie Marie Kull. *Effects of County Land Use Policies and Management Practices on Anadromous Salmonoids and Their Habitats*. Fishnet 4C, January 2001.

Hansen, David. Planning and Acquisition Manager for the Marin County Open Space District. Interview. September 4, 2002.

Healthy Marin Partnership. *2001 Community Needs Assessment.* Draft, Fall 2001.

Hikida, Kerri. "Whale Damaging Sonar." *Whole Life Times.* August 2002.

Illingworth & Rodkin, Inc., for the Marin County Community Development Agency. *Air Quality Technical Background Report*. April 2002.

Illingworth & Rodkin, Inc., for the Marin County Community Development Agency. *Noise Technical Background Report.* April 4, 2002.

Lewis, Liz. Creek Naturalist and Program Administrator for the Marin County Stormwater Pollution Prevention Program. Interview, July 25, 2001.

Marin Agricultural Land Trust. *Marin Agricultural Land Sales for Properties Zoned as A-60, APR-60, and CAPZ-60, 1988-2001. Agricultural Conservation Easements in Marin County Acquired by MALT.* 2002.

Marin County Assessor. *Marin County Land Uses*. 2001.

Marin County Community Development Agency. *Energy Technical Report.* Draft, January 3, 2002.

Marin County Community Development Agency. *Appendix A: Public Comments for the Local Coastal Program Workshop. October 29, 2002.*

Marin County Community Development Agency. *Marin Countywide Plan.* 1994.

Marin County Community Development Agency. *Vision Summary: Help Design the Future of Marin County*. February 9, 2002.

Marin County Congestion Management Agency. *Moving Forward: A Transportation Vision Plan for Marin County.*

Marin County Department of Agriculture, Weights and Measures. *Livestock and Agricultural Crop Reports,* 1935–2001.

Marin County Fire Department. www.co.marin.ca.us/depts/FR/main/index.cfm.

Marin Economic Commission. *Marin Profile 2001: A Survey of Economic, Social, and Environmental Indicators.* 2001.

Marin Food Policy Council, *Marin County Food Policy Council Recommendations for the Food and Agricultural Element*, May 1, 2002.

Marin Municipal Water District. *Number of Coho Salmon Observed During Spawner Surveys in the Lagunitas Creek Drainage.* 2001

Martin, Mischon. Resource Ecologist for the Marin County Open Space District. Interview, August 13, 2002.

Miska, Ron. Assistant General Manager for the Marin County Open Space District. Interview, July 18, 2001.

Miska, Ron. Assistant General Manager for the Marin County Open Space District. *Memo on Draft Open Space and Trails Strategies.* July 9, 2002.

National Oceanic and Atmospheric Association. El Niño. www.elnino.noaa.gov/.

National Oceanic and Atmospheric Association. www.noaa.gov. Global Warming and Hurricanes. www.oar.noaa.gov/spotlite/archive/spot_gfdl.html.

Parks Committee. Marin County Parks, Open Space and Cultural Commission. Comments, August 8, 2001.

Parks Committee. Marin County Parks, Open Space and Cultural Commission. Comments, April 17, 2002.

Petterle, Steve. Principal Park Planner for the Marin County Department of Parks, Open Space and Cultural Services. *Memo on Draft Strategies for Marin County Parks.* July 9, 2002.

Petterle, Steve. Principal Park Planner for the Marin County Department of Parks, Open Space and Cultural Services. Interview, July 23, 2001.

Petterle, Steve. Principal Park Planner for the Marin County Department of Parks, Open Space and Cultural Services. Interview, August 13, 2001.

Point Reyes National Seashore. *Water Quality Monitoring Report*. November 2001.

Prado, Mark. “Point Reyes Park Land in Peril, Study Says.” *Marin Independent Journal.* January 31, 2002.

Redefining Progress. “Ecological Footprint of Marin County.” May 2002.

Rilla, Ellie. Marin County Director, University of California Cooperative Extension. Interview, October 2002.

San Francisco Estuary Regional Monitoring Program for Trace Substances. *The Pulse of the Estuary: Tracking Contamination with the Regional Monitoring Program 1993–1998*.

Snyder and Smith Associates, Inc., for the Marin County Community Development Agency. *Geology, Mineral Resources, and Hazardous Materials Technical Background Report*. March 2002.

Sonoma State University. *Point Reyes National Seashore Visitor Survey*. 1997.

Supervisor Steve Kinsey’s Advisory Group on Agriculture. *Report on the Status of Agriculture in Marin County and the Near-Term Agriculture Support Plan.* October 30, 2001.

Sustainable Land Stewardship Institute for the Marin County Stormwater Pollution Prevention Program. *Marin County Macroinvertebrate Survey, Fall 1999–Spring 2000.*

Trails Subcommittee. Marin County Parks, Open Space and Cultural Commission. Comments, April 23, 2002.

United Nations, International Strategy for Disaster Reduction. *Background Document for the World Summit on Sustainable Development.* No 5, revised version 14 April 2002. www.unisdr.org.

U.S. Census Bureau, Department of Commerce, United States Census 1980, 1990, and 2000.

U.S. Department of Agriculture, National Agricultural Statistics Service 1997. www.nass.usda.gov/census.

U.S. Environmental Protection Agency, Office of Atmospheric Programs, April 2002. Global Warming: Climate. www.epa.gov/globalwarming/climate.

U.S. Fish and Wildlife Service, Division of Endangered Species. "Proposed Designation of Critical Habitat for the California Red-Legged Frog *(Rana aurora draytonii)*." *Federal Register.* 65 FR 54891 54932. September 11, 2000.

United States Man and the Biosphere. *Biosphere Reserves in Action*. 1995.

The Built Environment

III. The Built Environment

The heritage of Marin's built environment is one of small towns set in the natural and agricultural landscape. Historically, much of Marin's housing was concentrated in its downtowns—the centers of commercial, cultural, and civic activity—and in adjoining, walkable neighborhoods. These places, and the images and lifestyles associated with them, remain among Marin's most treasured and valuable assets.

With the growth of the population and economy in the Bay Area metropolis in the past 50 years, and the increasing influence of automobile access, Marin's urban and rural areas have been subject to the same outward pressure for auto-dependent suburban development as other regions surrounding America's great cities have experienced. Unlike most counties, however, Marin has aggressively sought to protect its irreplaceable natural and agricultural assets from being overrun by low density, low quality sprawl development. And in this effort it has been quite successful.

While many of Marin's open spaces—the habitat for natural and agricultural species—have been protected, the quality of the human habitat has suffered in some cases because of the following:

- Investment in transportation systems has been focused primarily on mobility by private automobile. This has led to fewer public transit alternatives, and to roadways that are congested with automobiles and not well designed to accommodate pedestrians and bicyclists.

- Investment in housing has been focused on the construction of relatively low density developments of single-family houses, often poorly connected to the older neighborhoods and downtowns. This type of development has consumed larger amounts of land to house a small number of residents, is affordable only to those with high incomes, and generates an automobile trip for most activities of daily life.

- Investment in retail and office buildings has been primarily in the form of low density, single-use buildings, each surrounded by its own parking lot. Such buildings are relatively inflexible to respond to the pressures of a changing economy, do not create places compatible with Marin's heritage and character, and generate an increasing number of automobile trips from their occupants.

- Investment in schools, libraries, and other civic facilities has not always been focused in the traditional town centers, and has in some instances put civic activities that bring people together in single-use buildings surrounded by parking lots on the edge of town.

Marin is updating policies that will guide new investment and construction to sustain the cities, towns, and neighborhoods of Marin in ways that better support the life of their residents, while at the same time ensuring the protection of the surrounding open spaces.

An overarching objective of this report is to reinforce sustainable land use practices that supports the core values of the residents of Marin, including:

- Communities designed with many transportation choices.

- The chance to live close to public transportation or to where they work, shop, or play.

- A range of housing types, including those affordable to our workforce and families.

- Housing choices that include mixed-use villages in our downtowns, above parking lots, within commercial areas, and near transit.

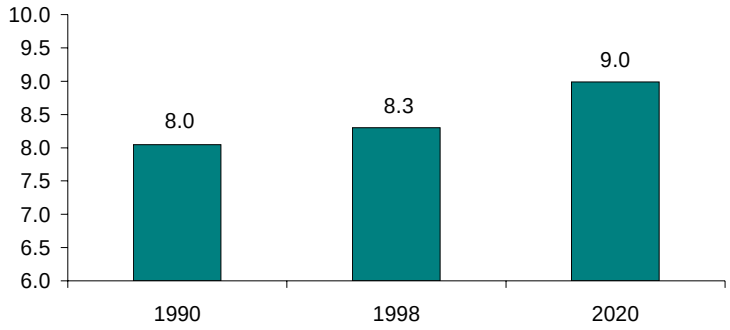
- Environmentally sensitive design and resources conserving construction practices.

A. TRANSPORTATION

➢ Background and trends

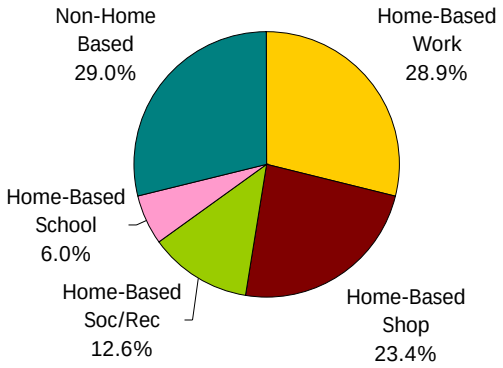
Marin County residents are making more trips within the county. Ninety percent of all trips originating in Marin County are made in automobiles on roads built to standards established several decades ago. In 1998 people living in the county made more than 750,000 trips, an increase of 10 percent in less than a decade, outpacing growth in employment and households (Marin County Congestion Management Agency). The number of daily vehicle trips per household has also increased steadily since 1990 and is projected to continue increasing (Figure III-1). Seventy percent of the daily vehicle trips start from home and go to one destination and back home again. Only 30 percent of the trips are linked (Figure III-2).

Figure III-1
Total Daily Trips per Household in Marin



Source: 2001 Marin County Congestion Management Agency

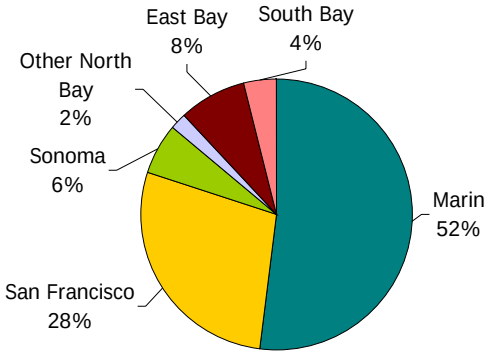
Figure III-2
Total Daily Trips Generated in Marin County



Source: 2001 Marin County Congestion Management Agency

More than half of Marin residents making a commute trip travel to jobs within Marin County, while 28 percent of work trips made by Marin residents are to San Francisco (Figure III-3). During the morning peak hour, 50 percent of the vehicles are going from one Marin location to another Marin location (Figure III-4).

Figure III-3
Work Location of Marin Residents—Percentage by Location/County



Source: 2002 Nelson\Nygaard

Figure III-4
Traffic—A.M. Peak Hour

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

Source: 2001 Nelson\Nygaard

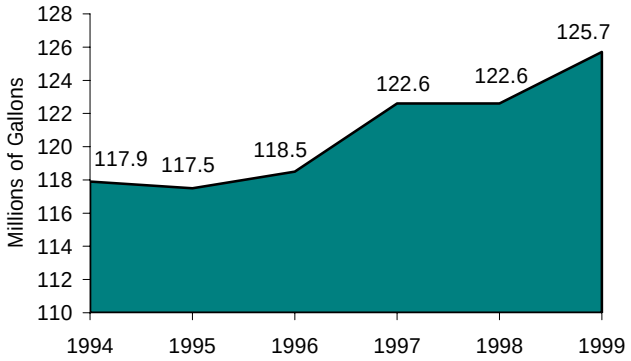
Increasing travel choices is the only way to reduce congestion. Widening freeways and roads to meet projected demand is no longer a feasible solution for traffic relief. Road widening is expensive, may harm the environment and quality of life, and can no longer keep up with demand. A plan for transportation improvements for many modes with effective hubs where transfers can be made will offer choices: rail, ferry, bus, bicycle, pedestrian. Planning to build new facilities needs to be part of an overall system. A fully implemented plan could increase transit ridership by 5,000,000 annual riders and double the number of pedestrian and bicycle trips. Funding from state and federal sources is available to partially pay for some transportation improvements. Local funding is also needed.

1. Automobiles and Roadways

➢ Background and trends

Fuel consumption and transportation costs in Marin are high and increasing. Transportation costs for each Marin household average $7,150 per year. The highest transportation expenses and amount of driving are by West Marin residents, who have fewer transportation choices. Fuel consumption in Marin increased from 118.5 million gallons in 1996 to 122.6 million gallons in 1997. Fuel consumption is increasing at a higher rate than the rate of population growth for some of the following reasons: more frequent driving by residents, driving vehicles with poor fuel economy, traffic congestion, a larger part of the population driving longer distances to work (Figure III-5).

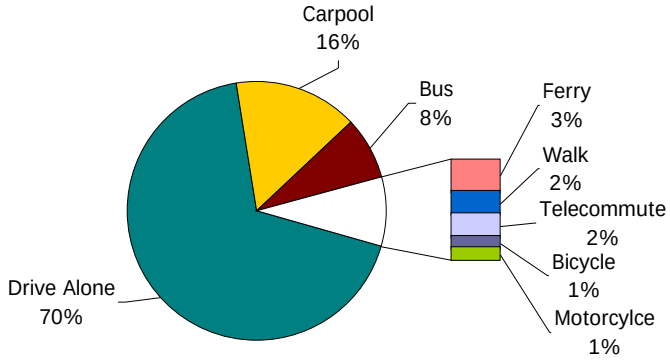
Figure III-5
Marin Vehicle Fuel Consumption



Source: 2001 Marin Economic Commission

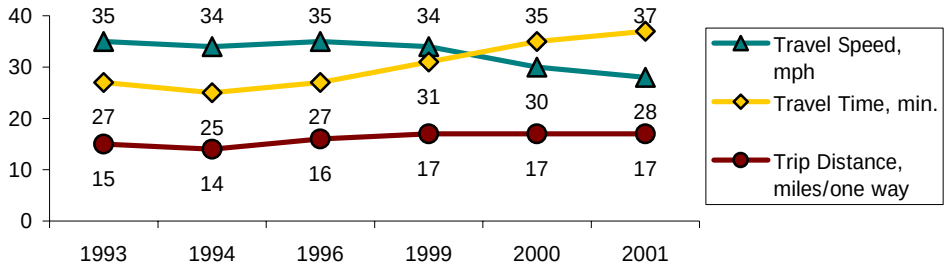
Most people in Marin drive alone, even though carpooling offers advantages. Seventy percent of people driving in Marin drive alone (Figure III-6). Vehicle commute miles and travel times have been increasing and are estimated to continue to increase, while average vehicle speeds have decreased (Figure III-7). Bay Area carpool lane users have saved an average of 16 minutes daily on their way to work since 1993 (Figure III-8). In 2001, vehicles in high occupancy vehicle (HOV) lanes in Marin saved an average of 14 minutes on their southbound morning commute and 3 minutes on their northbound afternoon commute (2001 California Department of Transportation). Carpoolers tend to have the longest commutes, averaging about 22 miles each way.

Figure III-6
Marin County Primary Commute Mode, 2002



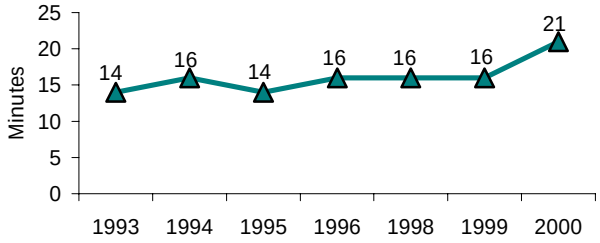
Source: 2002 RIDES for Bay Area Commuters

Figure III-7
Commute Distance and Time



Source: 2001 RIDES for Bay Area Commuters

Figure III-8
Minutes Saved (One Way) by Using Carpool Lane



Source: 2001 RIDES for Bay Area Commuters

West Marin has special issues because of recreational travel to the coast. The Marin County Department of Public Works has completed a Transportation Planning Project for the Point Reyes National Seashore in order to plan mid-term and long-term transit alternatives for visitor travel to and within the park. In addition, the Public Works Department is considering a mid- and long-range scenario of offering a shuttle service to alleviate traffic through Inverness and Inverness Park (Crain & Associates).

➢ Issues

There is a lack of choice for alternatives to the automobile.

a) Historically, transportation funding has been dedicated only to roadways instead of to multimodal transportation expenditures. There are few bike routes between cities.

b) Roadway design should always include safe bike passage and be pedestrian friendly at crossings.

c) Ride-sharing and dial-a-ride services are needed.

d) People need to be further encouraged to use public transit.

People lack incentives to get out of their vehicles.

a) Fewer people are using shuttle buses to the ferry because parking is free.

b) Only selected ferries are served by shuttles.

People need to use more fuel-efficient vehicles.

a) Vehicle fuel consumption is rising in Marin County and the nation.

b) Over reliance on imported petroleum raises national security concerns.

Better roadway maintenance is needed, and recycled and energy-conserving materials should be used in road construction.

a) Roadway maintenance should be done frequently and adequately, which would include smooth transitions from the old roadway to the new roadway patching area.

b) The materials used for roadway construction should include recycled vehicle tires.

c) The use of "climate-friendly" concrete, which utilizes recycled products in processing, would use significantly less energy and produce less emission of greenhouse gases than traditional concrete.

d) Road and parking lot shading with tree planting would minimize urban heat islands.

Opposing views about transportation and land use are an issue for planning in Marin and make consensus building difficult.

a) An overarching goal needs to be to decrease the miles driven in automobiles, not to widen the freeway.

b) The freeway needs to be widened and more housing needs to be provided in Marin.

c) Marin has done a great job of protecting the environment but not linking the economy and housing to public transportation.

d) There is spillover traffic from Highway 101 into neighborhoods such as Marinwood and Terra Linda.

➢ Strategies

Increase employer trip-reduction programs to reduce vehicle traffic.

(See also IV. The Economy, Equity and Culture, A. The Economy, Transportation.)

a) Develop a model trip-reduction program and promote the program to businesses.

b) Expand trip-reduction programs for County employees.

c) Design a web site to include a carpool forum to link carpool riders.

d) Require businesses to have an employee carpool program.

e) Require all employers with 50 or more employees to develop and operate a trip-reduction plan.

f) Encourage employers to use the parking cash-out law, which allows workers to trade their employer-provided parking space for money.

Encourage major employers to reduce fuel consumption and increase use of alternative fuels in vehicle fleets.

a) Adopt a County "green fleets" program to eliminate underutilized vehicles from the County's fleet, require the purchase of the most fuel-efficient options for various vehicle classes, and increase the number of low emission vehicles that use alternative fuel.

b) Encourage employers to include hybrid or low emission alternative fuel vehicles in their vehicle fleets.

c) Lobby the State to enact financial incentives such as graduated vehicle license fees and tax credits that encourage fuel efficiency and alternative fuel vehicles.

Secure funding sources for road improvements and repairs, and for transit.

a) Seek funding to maintain street safety.

b) Identify a mechanism to secure additional transit funding.

c) Include an additional ¼ percent sales tax on all vehicle sales to go toward roadway improvements in the county where the vehicle is registered.

Design streets to be accessible to people with disabilities and to bicyclists.

a) Redesign handicapped ramps so they don't exit into the center of the street.

b) Design streets to comply with the Americans with Disabilities Act.

c) Design streets to include bicycle lanes.

➢ Sample indicators

a) Measure the total amount of transportation funding being applied to roadway improvements (Metropolitan Transportation Commission).

b) Track the number of vehicle miles traveled in Marin (RIDES for Bay Area Commuters).

c) Track the number of vehicles registered in Marin (California Department of Transportation).

d) Track the length of average daily commute trips (Metropolitan Transportation Commission).

e) Track the number of residents participating in a registered carpool (RIDES for Bay Area Commuters).

f) Track the amount of time lost to traffic congestion (California Department of Transportation, RIDES for Bay Area Commuters).

g) Track the number of hybrid and alternative fuel (biodiesel and natural gas) vehicles per capita in county government and for all of Marin County (Marin County Department of Public Works).

h) Track fuel sales and the average fuel efficiency of vehicles registered in Marin (California Department of Motor Vehicles, other).

i) Track fuel sales in Marin.

j) Track the number of vehicles per capita in Marin (California Department of Motor Vehicles).

k) Determine the contribution of private vehicle use to overall air pollution and greenhouse gas emissions in Marin.

l) Track the number of accidents per mile of County-maintained and total roads (Marin County Department of Public Works).

m) Record the condition of County-maintained roads (Marin County Department of Public Works).

n) Monitor the percentage of roadway material that includes recycled vehicle tires and other recycled materials (Marin County Department of Public Works).

➢ Sample targets

a) Increase the number of residents participating in registered carpools by 15 percent in 2010 from the 2000 level.

b) Increase the number of hybrid and alternative fuel (such as biodiesel) vehicles by 100 percent in 2010 from the 2000 level.

c) Increase the average fuel efficiency of private passenger vehicles by 10 percent in 2010 from the 2000 level.

d) Decrease vehicle miles traveled in single occupancy vehicles by 20 percent in 2020 from the 2000 level.

e) Decrease the number of private passenger vehicles achieving less than 30 miles per gallon by 20 percent in 2020 from the 2000 level.

f) Increase bike route mileage in the roadways in the City-Centered Corridor by 80 percent in 2020 from the 2000 level.

g) Include recycled vehicle tires in the paving of 50 percent of county roads by 2020.

2. Pedestrian and bicycle

➢ Background and trends

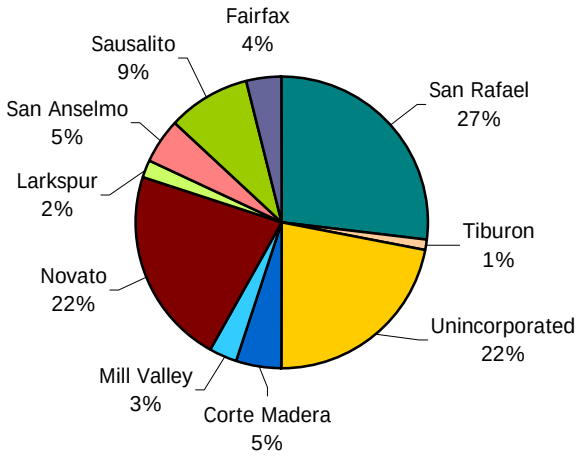
Bicycling and walking as a means of transportation have been growing in popularity. Many communities are working to create more balanced transportation systems and reclaim streets from auto dominance. In addition, recent national and local surveys find that people are willing to cycle more frequently if better bicycle facilities are provided (Marin County Department of Public Works). Through the passage of the Clean Air Act in 1990, the Intermodal Surface Transportation Efficiency Act in 1991, and the Transportation Equity Act for the 21st Century in 1998, there has been a surge in funding available for bicycle and pedestrian projects.

The Marin County Bicycle and Pedestrian Master Plan provides a blueprint for making bicycling and walking an integral part of daily life in Marin County. The Plan calls for the completion of a countywide network of primary and secondary bikeways, pedestrian improvements, and intermodal connections with direct and convenient bicycle and pedestrian ways to major transit stops. The existing bikeway system in Marin's unincorporated regions consists of an incomplete network of approximately 8.75 miles of signed bikeways, although many roads have shoulders wide enough to be signed as bicycle lanes. As of mid-1999, there were bike racks on 88 percent of Golden Gate Transit's buses, all coaches, which are 40 feet in length. Currently, state law prohibits the installation of bicycle racks on express buses, which are 45 feet in length.

Bicycle and pedestrian safety is an important issue affecting the willingness of people to walk or ride bicycles. In 1998, 27 percent of traffic fatalities were pedestrians (Marin County Congestion Management Agency). Between April 1996 and April 1999, approximately 100 serious pedestrian accidents per year were reported in Marin County (Figure III-9). According to an April 1991 Lou Harris Poll, there is a large reservoir of potential bicyclists in unincorporated Marin who do not ride (or ride less often) simply because they do not feel comfortable using the existing street system and/or do not have appropriate bicycle facilities at their destinations. Students riding a bicycle the wrong way on streets account for the greatest number of recorded bicycle accidents in California. This statistic points to the need for safety education. Fewer than 10 percent of Marin students have received bicycle-safety education, and 51 percent of the students incorrectly answered that bicyclists should ride against traffic,

rather than with traffic. Data from April 1996 to April 1999 indicates that approximately 170 bicycle–motor vehicle crashes per year were reported in Marin County. Of those crashes, approximately 39 occurred in the various unincorporated areas of the county. This number of crashes is average compared with those in other communities in California.

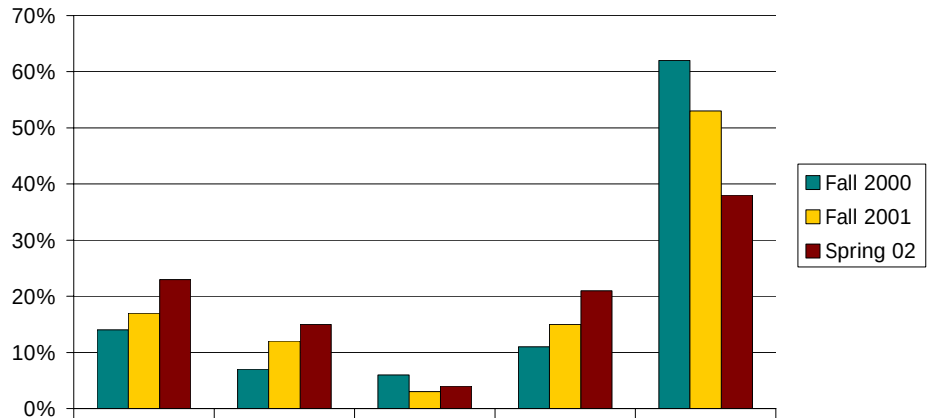
Figure III-9
Marin County Pedestrian Crash Distribution



Source: 2001 Marin County Department of Public Works

Since 21 percent of all morning peak-hour trips are home-based school trips, strategies to encourage trip reduction are an effective way to reduce traffic congestion. About 11 percent of Marin students report riding a bicycle to school daily or in good weather, while 89 percent say they ride either rarely or never. Safe Routes to Schools programs that promote walking, biking, or carpooling to Marin County schools are increasing in popularity (Figure III-10). Auto trip reductions of 15 percent were recorded at schools receiving Safe Routes training in 1999–2000.

Figure III-10
Safe Routes to School Pilot Program



	Walk	Bike	Bus	Carpool	Drive Alone
Fall 2000	14%	7%	6%	11%	62%
Fall 2001	17%	12%	3%	15%	53%
Spring 02	23%	15%	4%	21%	38%

Source: 2001 Safe Routes to Schools

Worldwide, the United States ranks as the first-world country with the lowest percentage of people who walk and bicycle for transportation. A year 2000 report by Rutgers University showed walking and biking for only 6 percent of trips in the United States, compared with 12 percent in Canada, 16 percent in England and Wales, 34 percent in Switzerland and Germany, 39 percent in Sweden, and 46 percent in the Netherlands. In the United Kingdom, Germany, the Netherlands, Denmark, and Japan, there has been a trend to build model bicycle and pedestrian communities to demonstrate the effectiveness of shifting auto trips to bicycle and pedestrian trips. Recent federal and state initiatives urge that the needs of bicyclists and pedestrians be included in the planning, design, maintenance, and construction of all roadway and transit projects (U.S. Department of Transportation, 2001 California Department of Transporation).

➢ Issues

Improvements are needed to make walking and bicycling feasible and safe.

a) People want to be able to walk and bike to work and to other destinations, but the routes are not continuous, and they discourage biking and walking.

b) Pedestrian right-of-way improvements are needed to encourage walking.

c) Residents have expressed the need for building paved sidewalks for pedestrian safety while retaining a rural or small-town character of the community.

d) Choices of transportation to cultural events and to parks and open spaces need to be developed.

e) There needs to be a countywide effort to develop safe routes to schools and to find ongoing funding to support Marin's successful Safe Routes to Schools program, which was chosen in 2000 by the National Highway Traffic Safety Administration to be a national model.

f) We need to improve sidewalks, bring back school buses, create a network of bike routes, and reopen neighborhood schools so that children can live close to schools.

g) Marin's senior population needs safe nonmotorized transportation networks in order to be able to continue walking and bicycling as a safe physical activity.

h) Trips of two miles or less could be shifted to walking and biking if safe nonmotorized networks were provided. At present, 25 percent of all trips in the United States are for one mile or less, but 75 percent of them are being made by car. Forty percent of all trips are for two miles or less (1995 U.S. Department of Transportation).

i) A lack of bicycle parking is an important reason why people do not ride their bicycles for errands and local trips. Attended bicycle parking has worked well at transit hubs in other Bay Area counties.

j) The County needs to track increases and decreases of bicyclists and pedestrians by doing regular traffic counts.

k) Marin could become a model community by building the bicycle and pedestrian network identified in the County's Bicycle and Pedestrian Master Plan. Implementation of the plan could show how improved infrastructure leads to increased bicycle and pedestrian trips, and a decrease in the number of crashes.

➢ Strategies

Develop facilities to encourage walking and bicycling.

a) Enact the roadway design and maintenance criteria that accommodate bicycle and pedestrian needs (Highway Design Manual).

b) Implement the recommendations in the Bicycle and Pedestrian Master Plan, including a Class 1 north-south bikeway along the railroad right-of-way parallel to Highway 101, and an east-west bikeway that would run parallel to Sir Francis Drake Boulevard along surface streets and along the railroad right-of-way where feasible, and in West Marin.

c) Include bicycle and pedestrian routes, bicycle storage facilities, and showers in all new commercial and industrial developments, and schools.

d) Create incentives for businesses to install shower facilities to encourage people to bike to work.

e) Continue applying for grants for bicycle and pedestrian infrastructure projects, and seek to expand funding sources for these important and cost-effective methods of transportation.

f) Include bicycle stations at major transit nodes such as the Manzanita park and ride lot, the San Rafael transit center, the Larkspur ferry terminal, and future Sonoma Marin Area Rail Transit stops. These facilities should offer bike repair, storage, and rentals.

g) Do an assessment of roads with shoulders wide enough to be designated as bicycle lanes, and stripe and sign these roadway segments as bike lanes.

h) Require any event for more than 1,000 people to have bicycle parking.

i) Establish public bike-share programs.

j) Locate bicycle racks near bus stops, and provide rental bikes for bus and rail users.

k) Publicize the benefits of bicycle riding to potential cyclists.

l) Continue to promote and find public funding for the Safe Routes to Schools program.

m) Encourage bicycle riding for seniors and persons with disabilities by promoting electric, three-wheeled, and recumbent bicycles.

n) Educate County staff on the needs of bicyclists and pedestrians, and new design techniques for accommodating them.

➢ Sample indicators

a) Do annual traffic counts of bicyclists and pedestrians in key locations to gauge increases and decreases (Marin County Department of Public Works).

b) Track miles of maintained bicycle-way in Marin (Marin County Department of Public Works).

c) Track number of vehicle-bicycle collisions annually (Marin County Department of Public Works).

d) Track number of vehicle-pedestrian collisions annually (Marin County Department of Public Works).

e) Track number of students walking or biking to school in Safe Routes to Schools program (Marin County Bicycle Coalition).

f) Measure number of participants in Bike to Work Day (Marin County Bicycle Coalition).

g) Track the number of county government employees and all Marin County employees (per capita) who bike or walk to work or school (Marin County Department of Public Works).

➢ Sample targets

a) Increase the miles of maintained bicycle-ways in Marin by 200 percent between 2000 and 2010.

b) Increase the number of students walking or biking to school by 100 percent in 2010 from 2000 level.

c) Increase participation in Bike to Work Day by 200 percent in 2010 from 2000 level.

d) Achieve an increase from 3 percent of trips in Marin County made by walking or biking in 2000 to 10 percent by the year 2010.

e) Decrease pedestrian and bicycle accident levels by 15 percent in 2010 from the 2000 level.

f) Increase the number of people who walk or bicycle to transit hubs by 100 percent by 2010 over the level in 2000.

g) Ensure that by 2010, 100 percent of public events that draw more than 1,000 people will have attended bicycle parking.

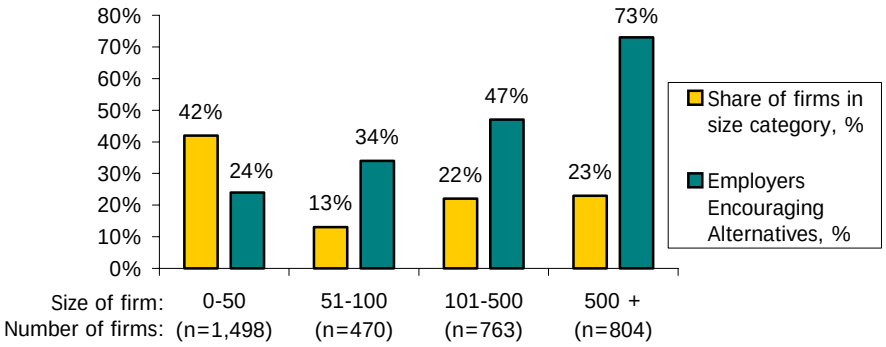
h) Complete the four highest priority multiuse pathway projects by 2010. These projects include, from south to north: opening the Alto Tunnel, completing the Central Marin ferry connection, opening the Cal Park Hill Tunnel, and building the multiuse pathway parallel to the planned commuter rail.

3. Bus

➢ Background and trends

Plans to expand local and express bus service will improve service and increase ridership. At present, 54 percent of local transit users need to transfer from one bus to another or from one mode source to another to get to their destinations. The canal neighborhood of San Rafael has the highest bus trip activity in Marin County. Marin City has the second highest activity. The need for transit and paratransit service is expected to increase. Bus ridership is expected to increase from 13,200 to 16,900 between 2000 and 2020, while the demand for paratransit consistent with the Americans with Disabilities Act is expected to increase by 23 percent during the same period. Marin employers can contribute to bus transit use. Generally speaking, the larger the business, the more the employer encourages alternative transportation modes, including bus tickets at reduced fares (Figure III-11).

Figure III-11
Percentage of Employers Encouraging Alternatives by Firm Size



Source: 2001 RIDES for Bay Area Commuters

Marin Bus Transit Futures, a comprehensive long-range vision combined with practical strategies for implementation over the next 20 years, includes local express bus service at 15-minute intervals along the 101 corridor, intercommunity bus routes, specialized local community services and shuttles, school shuttles and buses, and additional bus transit junctions with timed transfers. Proposals made in the Marin-Sonoma Express Bus Study, prepared by Golden Gate Transit, would expand express bus service between Sonoma and Marin on Highway 101 to more than double the current service levels and serve major employment centers in Marin, although recent funding shortfalls have resulted in route reductions. When the HOV lane system is completed, buses would take advantage of faster travel time on Highway 101.

➢ Issues

Bus transportation service needs to be improved.

a) The public transportation system for moving within the county is not seamless.

b) An intra-Marin bus system is needed to reduce automobile use, with a plan for bus routes within a quarter mile of locations where 90 percent of the population lives.

c) Public transportation service is needed seven days a week, including grocery store jitneys and employee jitneys.

d) Day and year passes for public transit are needed.

Increased funding and marketing for alternatives to the automobile are needed.

a) A carbon tax with the proceeds used for public transit is needed.

b) Marketing for public transportation, walking, and biking is needed.

c) The Golden Gate Bridge toll increase provides an opportunity to market bus service to San Francisco commuters.

d) Marin needs to become a self-help county to get more matching funds.

➢ Strategies

Increase ridership with improved bus service.

a) Implement the Marin County Transit Master Plan.

b) Schedule buses to run frequently, have extended hours, and have seamless connections between buses.

c) Implement priority for buses at traffic signals.

d) Provide more bus trips over the Richmond–San Rafael Bridge.

e) Review local bus routes to determine proximity to park entrances. Explore opportunities to increase bus transportation to regional state and national parks, especially on weekends.

f) Capture some value of increased taxes for transit.

g) Include diverse sizes and routes for buses to serve neighborhoods.

h) Complete transit connections between tourist attractions and buses.

i) Use buses that vary in size depending on capacity demands, and include amenities such as music and lap top computer stations on buses.

j) Enhance service to such constituents as school children, low income people, the elderly, and day-care centers.

k) buses for transport of schoolchildren in the morning and afternoon, and for senior transport midday.

l) Employ improved bus technology for bus details, using global positioning systems to identify bus locations and estimated arrival times.

Create incentives for people to use buses.

a) Develop a public relations campaign for public transit.

b) Increase bus use with incentives including free ride days, extended service, and rewards for riders.

c) Require employers to offer employees incentives to use alternative transportation instead of driving alone.

d) Give creative names to buses, as is done in Palo Alto.

e) Use clean-fuel buses and ferries, such as those running on biodiesel.

f) Provide passes and subsidies for students, low income people, and seniors.

g) Allow transfers and encourage use of Fast Passes between rail, bus, and ferry services.

h) Work with businesses to wholly or partially subsidize employee bus commuting.

i) Make the experience of using the bus pleasant, safe, and fun.

Support public transit with complementary land use policies.

a) Design smart growth and infill development to support rail and bus modes.

b) Identify transit hubs, increase residential densities, and allow mixed use at the hubs.

➢ Sample indicators

a) Measure the number of bus runs (Golden Gate Transit).

b) Measure bus ridership (Golden Gate Transit).

c) Measure fuel type and quantity used on buses (Golden Gate Transit).

➢ Sample targets

a) Increase bus ridership by 15 percent in 2010 over 2000 level.

b) Increase clean fuel usage such as use of biodiesel in buses and ferries by 20 percent by 2010 over 2000 levels.

4. Rail

➢ Background and trends

Rail is part of a multimodal system. The proposed Sonoma-Marin Rail Transit (SMART) system will run from Cloverdale to San Rafael on a railroad right-of-way that is already in public ownership. A second phase will connect to a ferry terminal in central Marin. Trains will run every 30 minutes during peak periods, carrying an estimated 5,100 riders per day. Rail stations will become intermodal hubs, with convenient service from local and express buses and with at least one major ferry link.

Trains will serve inter-county trips between Sonoma and Marin, as well as trips between Novato and San Rafael. There will be two stations in Novato and two in San Rafael, one near the Civic Center and one downtown.

➢ Issues

Local support and planning are needed for a successful rail transit system.

a) Local support for rail transportation is needed if rail is to be adequately funded.

b) Cities with proposed rail stations need to carefully plan around these areas.

c) Tunnels for rail need to be planned as appropriate.

➢ Strategies

Plan for effective service, incentives to attract riders, and land use to support transit.

a) Develop a long-term vision for transit-station locations, and auto and bicycle parking, that would include demand under the Sonoma County build-out.

b) Utilize the existing rail right-of-way and also extend rail to a new ferry terminal at San Quentin.

c) Complete transit connections between tourist.

d) Remove a lane of freeway and replace it with a train monorail or similar "people mover".

e) Select trains that use clean fuel.

f) Allow transfers, and encourage use of Fast Passes between rail, bus, and ferry services.

g) Include free bicycle repair, storage, and rentals at transit stations.

h) Encourage employers to subsidize ticket prices for employees' train tickets, and provide shuttle service or free bicycles from the train station to the place of employment.

i) Design smart growth and infill development around rail stations.

➢ Sample indicator

a) Track rail ridership (Sonoma Marin Area Rail Transit).

➢ Sample target

a) Enact rail transportation in Marin and Sonoma by 2010.

5. Land Use

➢ Background and trends

Smart infill improves transit viability. "Smart infill" concentrates development in areas that can be served by transit, bicycle, and pedestrian travel, and includes multiple uses—residences, offices, and stores—so that people can walk to work and shopping. Smart infill development tends to result in fewer increases to traffic congestion, but will improve the viability of transit and other modes of transportation.

➢ Issues

Land use policies are needed to support transit and reduce traffic congestion.

a) The public needs more information about housing density, parking demand, and vehicles per household.

b) The availability and low cost of public parking throughout the county creates a disincentive to utilize alternative modes of transportation.

c) Incentives for local hiring are needed to reduce commuting.

d) The lack of affordable housing and transit requires the lower income Marin workforce to drive long distances to work. Traffic congestion is worse as a result.

e) Affordable workforce housing and multiple services, including child care, need to be located near transit centers.

f) Coordination with neighboring counties is needed.

➢ Strategies

Increase densities and change parking requirements in areas that can become transit nodes.

a) Locate new mixed-use development within ¼ to ½ mile from transit, and provide pedestrian and bicycle connection to adjoining uses.

b) Purchase land for affordable housing.

c) Establish minimum-density zoning in infill areas and increase the minimum densities near transit nodes.

d) Transfer development rights for additional very low to moderate income housing from environmentally sensitive areas to urban areas near jobs and transit.

e) Rezone the San Quentin Prison site to enable planning for a transit-oriented, sustainable community.

f) Amend commercial and office zoning districts to allow mixed-use development and rezone commercial areas to allow for mixed-use infill development in or above parking lots.

g) Amend parking requirements to require 80 percent compact parking spaces in each parking lot, and bicycle parking.

h) Include provisions for increasing building height to accommodate parking structures with housing.

i) Eliminate the policy requiring "no net loss of parking," provided that traffic-demand-management or similar strategies are employed.

j) Encourage the conversion from gas stations to stations that provide natural gas, electric-vehicle recharge, biodiesel, and hydrogen fuel cells.

Analyze the relationship between traffic congestion and development. Discourage development in environmentally sensitive or hazardous areas.

a) Do not intensively develop floodplains, except for already developed infill areas in the City-Centered Corridor.

b) Establish a nexus between the need to preserve land from development and the need to decrease traffic congestion on major roadways, such as Highway 101 and expand the use of conservation easements in applicable areas.

Use economic incentives to support land use and transportation goals.

a) Provide incentives and bonuses for infill and transit-oriented development.

b) Work with local lenders to offer location-efficient mortgages.

c) Develop affordable housing to attract service-sector employees, the younger population, and the aging population.

d) Prioritize purchasing land for environmental protection in environmentally sensitive areas, in areas designated as community separators, and in greenbelt areas.

e) Encourage the State of California to adopt tiered vehicle-registration fees to discourage the use of gasoline-consuming vehicles.

f) Encourage a higher tax on owners of a high number of vehicles per household and/or vehicles with low fuel efficiency.

g) Allow people using public transit to write off fees from their personal taxes.

h) Publicize the comparative costs to operate a vehicle (including insurance, maintenance, gas, and road repair) versus traveling by bicycle, bus, train, or ferry.

Land use policies that support telework can contribute to a reduction in traffic congestion.

a) Promote telework and satellite work centers to help serve all Marin residents, and to decrease vehicle traffic within the county.

b) Modify the Development Code to encourage telework and satellite workstations.

c) Develop additional performance standards and regulations to encourage home occupations.

d) Offer home office credits in the property tax structure.

➢ Sample indicators

a) Track density of new housing starts (Marin County Community Development Agency).

b) Measure percentage of new housing starts that qualify as infill (Marin County Community Development Agency).

c) Measure the number of businesses with telework programs (Marin Economic Commission).

d) Track the level of automobile subsidy with a goal to decrease it.

e) Track the number of parking spaces and bicycle racks/lockers, and track the use and vacancy of both.

➢ Sample targets

a) Increase the percentage of businesses that have telework programs by 30 percent by 2010.

b) Increase the amount of new housing that is infill/mixed by 50 percent by 2020.

B. ENERGY

(See also II. Natural Systems, A. Environmental Quality, 6. Energy.)

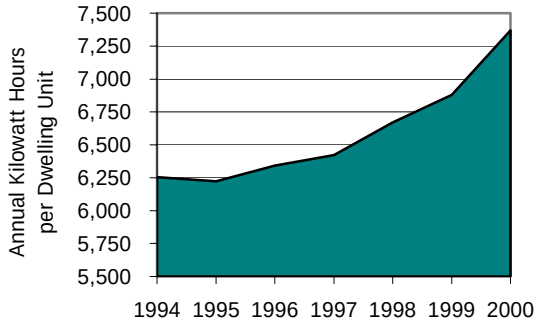
➢ Background and trends

The manner in which the built environment is designed, constructed, and operated has a significant impact on energy use. Built-environment design decisions on every scale—from the region to the city to the neighborhood block, street, and building—determine the rate at which people use energy in their daily lives. On the regional and local scale, Marin County residents consume energy to light, heat, cool, and run appliances in homes and offices, and to operate motor vehicles, mostly single-occupant private automobiles.

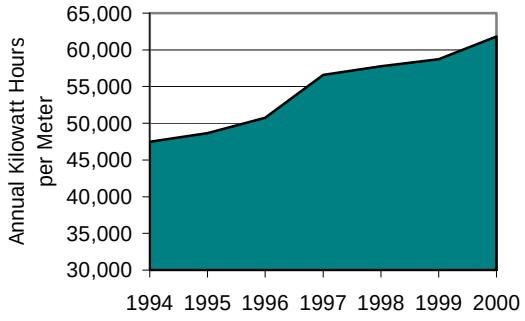
The amount of energy consumed by residential and nonresidential users in Marin is increasing. Residential energy consumption has been climbing since 1995, with the greatest jump occurring between 1999 and 2000 (over 7 percent), but with little increase in population (approximately 0.7 percent). Total consumption increased 18.5 percent from 1995 to 2000, from 619 million kilowatt-hours (kWh) to 734 million kWh. The per capita rate increased 17.7 percent in the same period. Nonresidential energy consumption has also increased, from 47,742 kWh per meter in 1994 to 61,828 kWh per meter in 2000, a 30 percent increase. Total consumption increased from 646 million kWh to 834 million kWh during the same period. During the same time frame, the number of nonresidential meters actually decreased, from 13,608 in 1994 to 13,489 in 2000 (Figure III-12).

Figure III-12

Residential Energy Consumption, 1994–2000



Nonresidential Energy Consumption, 1994–2000



Source: 2000 California Energy Commission

In an effort to counteract these trends, the County of Marin is encouraging energy efficiency by providing rebates and technical assistance to County employees and residents. As of February 4, 2003, Marin County has provided $45,456.29 in energy efficiency rebates and saved county residents and County employees $80,993.93 in projected energy costs.

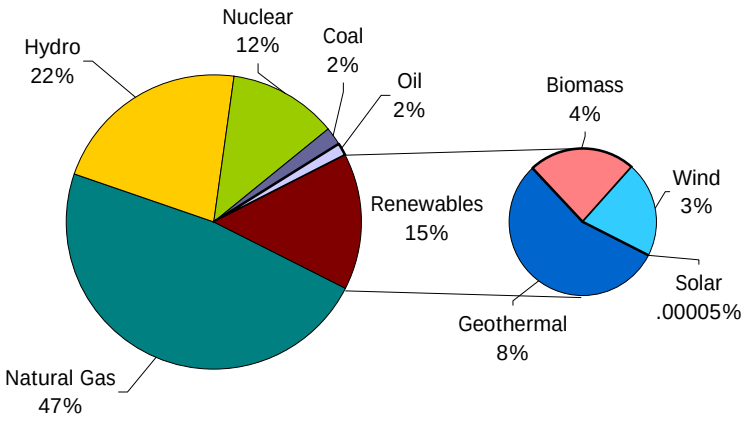
In spite of the trend toward higher energy use in Marin, the increase in use of energy efficient appliances has resulted in reduced energy intensity nationwide. The average electricity use of new refrigerators declined from 1,735 kWh per year in 1972 to 685 kWh per year by 1999. At the same time, new refrigerators became larger and had more features. The average energy efficiency of new refrigerators nearly tripled from 1972 to 1999 (American Council for Energy-Efficient Economy). The sales of energy-efficient compact fluorescent lamps (CFLs) increased nearly fivefold from 1990 to 1999 in the United

States. Eighty-two million CFLs were sold in North America in 1999. National energy intensity (energy use per unit of GDP) fell 42 percent between 1973 and 2000. About three-quarters of this decline is attributable to real energy efficiency improvements, and one-quarter is due to structural changes and fuel switching (American Council for Energy-Efficient Economy).

Although more than half of California's energy is generated from nonrenewable sources, primarily natural gas, there is a gradual trend toward diversification. Over the past 10 years, the relative makeup of California's generation sources has remained steady. The greatest percentages of electricity generated are from natural gas, hydroelectric power, and nuclear energy, respectively. Overall, use of fuel oil has had the largest decrease, followed by nuclear, coal, and renewables decreasing by less than 1 percent. The percentage of natural gas used in cogeneration facilities, which generate electricity by using both oil and natural gas, has grown, while natural gas for combustion power plants has decreased.

While the majority of energy consumption involves natural gas, there has been a gradual migration toward diversifying the mix of energy resources in California (Figure III-13).

Figure III-13
PG&E Energy Sources



Source: 1999 California Energy Commission

Although solar power provides a minuscule percentage of California's energy, solar electric generation (photovoltaics) is gradually increasing in Marin. Four system permits were approved in 2000, and 44 permits were submitted from January 2001 to October 2001 (Marin County Community Development Agency).

Alternative energy sources are growing in popularity. Solar energy use within the county for both electricity and heat is steadily growing in popularity. The number of permits granted by Marin County alone for the installation of photovoltaics increased from 4 in 2000 to 44 in 2001 in the unincorporated areas. This growth in solar energy use has been primarily in the residential and small business sectors of Marin. A maturing renewable energy infrastructure also exists in Marin to support this growth and includes distributors, designers, installers, and maintenance. Passive solar, solar thermal, and photovoltaic systems are growing in popularity throughout the state of California due to reduction in cost (approximately $9/watt), state government subsidies ($4.50/watt), improvement in technology, and the clean energy they produce (Marin County Community Development Agency).

1. Energy Assessment

➢ Issues

More information about energy sources and consumption is needed.

a) Houses are being designed for greater energy efficiency, but the occupants are using more energy.

b) The sizes of houses are increasing, and there are fewer people in each household.

c) The energy shortage creates a new challenge to air quality, which has generally been improving in the Bay Area. The recent energy shortage has prompted the use of small, polluting power generators.

d) The increase in natural resource costs is taking away from essential services.

e) Monitoring different land uses and their energy consumption is necessary.

➢ Strategies

Carry out an energy assessment to measure energy sources, and use it in order to have baseline data.

a) Inventory energy sources (such as coal, nuclear, natural gas, hydroelectric, renewable), including their economic and environmental costs and reliability.

b) Inventory current use of energy, and estimate future needs by end-use sector (for example, residential, commercial, industrial, agricultural, institutional).

c) Identify opportunities for energy efficiency in each end-use sector, and prioritize by economic, equity, and environmental benefit criteria.

d) Use the International Council of Local Environmental Initiatives Cities for Climate Protection Campaign to measure and set targets for greenhouse gas emissions. Reducing these emissions will necessitate decreased petroleum-based energy use.

e) Map locations and availability of renewable resources in the county, including solar, wind, small hydro, and methane from agriculture and landfills. Identify opportunities for using renewable resources and clean-distributed generation in existing and new developments, and in redevelopment projects.

f) Assess the financial impacts of the status quo and proposed energy policies on populations such as low income residents, on small businesses, and on essential services (such as schools, fire, and police).

Establish goals for reduction of resource and energy consumption, and monitor progress.

a) Set goals and targets for conservation, efficiency, and renewable energy. Goals need to be clear, bold, and timely. The county government should set a higher goal for itself than for the private sector (residential, commercial, industrial, and agricultural) to lead by example.

b) Update planning documents to encourage energy efficiency, such as the Countywide Plan and all Community Plans; the zoning ordinance, including use permits and variances; the subdivision ordinance; the building code; the planned-development ordinance and guidelines; environmental impact review guidelines; and other relevant special-purpose ordinances.

c) Use indicators (such as energy consumption and peak demand, or renewable energy production) to determine progress toward goals and measure the success of programs and policies.

d) Research and adapt valuable policies and programs that have been created and implemented by other local governments throughout the state, nation, and world.

e) Analyze energy policies by sustainability criteria that include the true economic, social, and environmental costs to the community and the society at large.

f) Compile an energy report biannually to track the progress in meeting the goals established by the County for each sector. Modifications of the County's energy strategies should be proposed as necessary to achieve the goals. This report should track the indicators for residential, commercial, and public facilities. A breakdown by city and county jurisdictions will be helpful in determining challenges and successes.

g) Make public transmission lines available to potential renewable energy generators. There are regulatory and institutional hurdles to major renewable energy generation projects. For example, MMWD has tried in the past to retrofit existing dams to generate hydropower, but PG&E denied access to its transmission lines.

h) Refine the data being used to calculate Marin's ecological footprint to accurately reflect local conditions, and develop plans to reach goals.

➢ Sample indicators

a) Track residential energy consumption (California Energy Commission).

b) Track nonresidential energy consumption (California Energy Commission).

c) Track the sources ("mix") of energy provided to Marin County residents and businesses (California Energy Commission).

d) Track greenhouse gas emissions through Cities for Climate Protection (Marin County Community Development Agency).

e) Track Marin's ecological footprint (Redefining Progress).

➢ Sample targets

a) Increase the amount of Marin's energy coming from renewable sources by 25 percent by 2010 from the 2000 level.

b) Decrease greenhouse gas emissions by 20 percent by 2020 over 1990 levels.

c) Reduce Marin's ecological footprint by 20 percent by 2020 over 2000 levels.

2. Government Initiatives

➢ Issues

The County and other public agencies can lead by example in promoting energy conservation and use of renewable energy sources.

a) There is an increased desire to move toward renewable energy, but there is a need for more leadership in government at all levels on this issue.

b) Long-term government policies and programs for energy efficiency need to be adopted. The potential for decreased energy consumption is significant. California decreased energy use by 12 percent in 2001 over 2000 levels due to conservation, energy-efficiency programs, and retrofits.

c) More local government staff needs to be knowledgeable about energy issues.

d) Marin Municipal Water District is the largest energy user in the county. There is a conservation, efficiency and renewable energy opportunity here.

Changes in government regulations are needed to support changes in energy use.

a) Policies and programs encouraging energy efficiency and conservation are needed.

b) Green building construction and compatible permitting procedures across jurisdictions need to be encouraged.

Government should sponsor outreach and initiatives to encourage energy efficiency and use of renewable energy sources.

a) There is a lack of solar insulation information for Marin County.

b) Increased major renovations and significant remodels are opportunities for energy efficient retrofitting.

c) People need to be more proactive in becoming energy efficient.

Financial issues concerning utilities involve a complex and changing mix of private funds and public regulation. Public funding is available for energy conservation programs.

a) There is increasing uncertainty in the energy market. Utilities have gone from a regulated monopoly to a more competitive market. System reliability, price stability, bankruptcy, and various public policies cause uncertainty about the future of energy.

b) After deregulation, approximately five corporations purchased most power plants in California. Less than 20 percent of in-state capacity is now owned by in-state utilities.

c) The energy utility companies are currently in charge of handing out Public Goods–funded rebates for energy-efficient measures to consumers rather than nonprofit or government distribution of those funds.

d) The State of California has to pay pollution fees for power plants under current negotiated energy contracts. This provides no incentive for plant owners and operators to reduce pollution.

e) There are opportunities for business and commerce to conserve energy. Funding for incentives needs to be investigated. Requirements for businesses to conserve energy could be enacted at the point of sale.

f) Money is available for energy programs from the state and federal governments, which all Marin local governments could be seeking out.

g) There is a lack of state funding for renewable energy resources for affordable housing.

New laws are needed to support energy efficiency and renewable energy.

a) Some strategies and standards can be implemented only at the state or federal level.

b) Local elected officials and staff need to support and advocate for energy related legislative initiatives.

➢ Strategies

Public and private organizations and businesses should demonstrate leadership in conservation and renewable energy use.

a) Establish countywide energy efficient and green procurement policies for all goods and services.

b) Require all new public facilities to meet the Leadership in Energy and Environmental Design (LEED) Silver standards.

c) Assist special districts, such as school, water, and sanitation districts, to investigate and implement energy efficiency and renewable energy measures.

d) Create a Joint Powers Authority or other joint venture between local jurisdictions to aggregate energy efficiency and renewable energy programs and initiatives. Since most Marin jurisdictions are small, they can benefit by sharing resources, administration, and infrastructure required for implementing energy strategies.

e) Recapture and/or create energy through falling water from reservoirs and water pressure reduction in distribution buildings and irrigation systems.

f) Encourage the MMWD to enact a solar roofs program, if the district pursues desalinization of bay water.

The County of Marin can become a model for others by conserving energy and using renewable sources in County buildings.

a) Continue to implement all cost-effective energy efficiency and renewable energy measures. Install solar power generation capabilities on County buildings.

b) Continue to retrofit County buildings for energy efficiency and require County equipment to meet Energy Star standards for efficiency.

c) Meet the requirements for the County of Marin to become certified as a green business.

d) Coordinate with the City and County of San Francisco to establish a partnership and/or use model programs such as installing photovoltaics on municipal buildings.

Change regulatory procedures and implement programs to increase energy efficiency and use of renewable energy sources.

a) Adopt the zoning code and design review guidelines to eliminate regulatory barriers to conservation, efficiency, and renewable energy.

b) Implement the Single Family Dwelling Energy Efficiency Ordinance. This ordinance will reduce energy consumption in homes over 3,500 square feet to Title 24 levels of a 3,500-square-foot house.

c) Use solar energy and other renewable energy sources, where feasible, in existing and new structures to meet the criteria of the Single Family Dwelling Energy Efficiency Ordinance.

d) Mandate solar-oriented building design for residential and nonresidential buildings.

e) Enforce Section 20.20.030 of the Development Code requiring that subdivisions "provide, to the extent feasible, for future passive or natural heating or cooling opportunities."

f) Require that energy efficiency be addressed in the building project descriptions as a condition of approval from the Planning Division. Require, at a minimum, that plumbing and electrical connections be provided to facilitate the retrofit of solar water heating and solar electric or other future clean generation technology.

g) Establish energy efficiency standards to be met upon change of ownership of residential and commercial buildings.

h) Incorporate cost-effective energy efficiency and renewable energy use as criteria for design review, environmental studies, and local programs that affect energy use.

i) Implement community aggregation (as may be allowed if the Community Choice or similar bill becomes law) when feasible to provide reliable and cost-competitive electricity from clean and renewable sources to reduce the county's greenhouse gas emissions.

Establish a variety of outreach activities and incentives to encourage energy efficiency, use of renewable energy, and awareness of the ecological footprint.

a) Create a regional energy office to serve all participating local governments and offer education, policy development, rebates, technical assistance, and renewable energy procurement. Provide incentives for property owners or renters to conserve energy or install renewable energy systems.

b) Train architects and contractors in basic energy efficiency, renewable energy, and green building design practices through seminars sponsored by the County. Host workshops for the public and building professionals on cost-effectiveness for energy efficiency, passive solar energy, and other renewable energy.

c) Encourage the use of the U.S. Green Business Council's Leadership in Energy and Environmental Design (LEED) Rating System for new commercial development by providing free technical assistance and introduction to LEED.

d) Utilize the Building Energy-efficient Structures Today (BEST) program to provide resources, technical assistance, and outreach to promote energy efficiency and green building. Promote energy efficiency upgrades in existing buildings through education and/or retrofit service for all structures—commercial, residential, public, and private.

e) Adopt and reprint the Alameda County Green Building Guidelines with information on the County's energy efficiency and green building programs. Provide this resource to other local jurisdictions and the public.

f) Support existing water conservation programs and develop new ones. Since energy is required to pump and treat water and to heat it at the end use, water conservation is an important energy conservation strategy as well.

g) Allow permit fee waivers and over-the-counter permits for solar energy equipment to stimulate the advancement of solar energy applications.

h) Enact a program to accelerate the weatherization of low income residences and rental units.

i) Encourage the replacement of wood stoves with natural gas or pellet stoves.

j) Conduct public education on Marin's ecological footprint, and promote choices that utilize resources efficiently.

Make use of public and private financial strategies to pay for increasing energy efficiency and increasing use of renewable energy sources.

a) Facilitate access to rebates, loans, grants, and other forms of public assistance available through local, state, and federal programs.

b) Develop public/private partnerships for loans, financing, and leases.

c) Facilitate energy efficient retrofit performance contracting with energy services companies.

d) Utilize revenue bonds, revolving loan funds, and other mechanisms available to local governments.

e) Utilize the Public Utilities Commission funds for energy efficiency rebates and renewable energy in public and private buildings.

f) Use energy services companies (ESCOs) to do energy efficient retrofits in public and private buildings. Schools, hospitals, local government buildings, and businesses can all take advantage of the services of an ESCO. Savings on cost of energy due to retrofits can be utilized for additional energy retrofits, energy projects, and/or other sustainability projects with money back via savings.

g) Promote programs such as PG&E's CARE and Energy Partners Programs, which provide free weatherization service to qualified low income individuals and families.

Advocate for legislation at the state and federal level.

a) Track and support legislative efforts to promote energy efficiency and renewable energy development on the local level.

b) Work with the county's state and federal legislators to promote legislation to implement sustainable energy strategies that can only be implemented on the state or federal level (for example, Corporate Average Fuel Economy standards and appliance efficiency standards).

➢ Sample indicators

a) Track energy used in County buildings and countywide (Marin County Public Works Department and Community Development Agency).

b) Track the number of new residential and nonresidential projects exceeding Title 24 standards (Marin County Community Development Agency).

c) Track renewable energy installations (Marin County Community Development Agency).

d) Track funding obtained for renewable energy projects (Marin County Community Development Agency).

➢ Sample targets

a) Decrease the amount of energy used in County buildings by 25 percent by 2010 from the 2000 level and by 10 percent per capita countywide.

b) Increase the number of building projects exceeding Title 24 by 100 percent by 2010 from the 2000 level.

c) Increase the number of renewable energy installations by 100 percent by 2005 from the 2000 level.

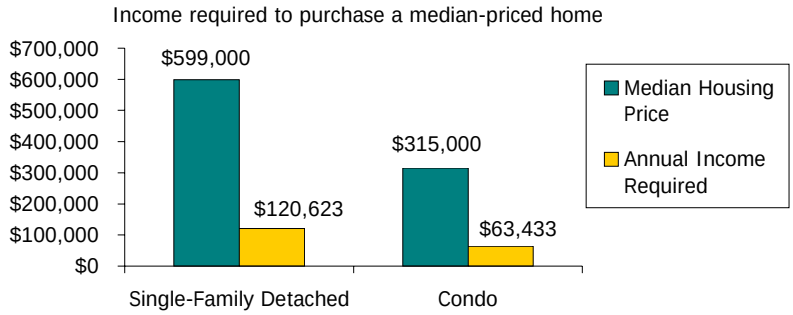
d) Increase funding for renewable energy projects by 20 percent by 2005 from the 2000 level.

C. HOUSING

➢ Background and trends

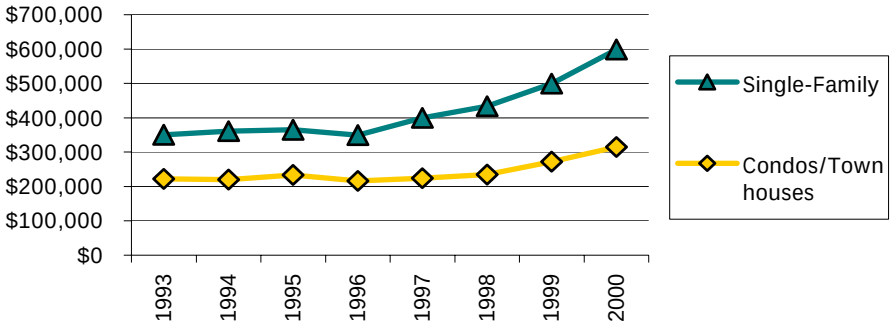
The cost of buying and renting housing in Marin County is continuing to rise. Families and individuals are paying larger shares of their income for housing or are unable to afford to live in Marin. The median sales price for a single-family house increased from $350,840 in 1993 to $599,000 in 2000. The median price for a condominium increased from $237,794 to $315,000 in the same period. It would take an annual income of $120,623 to buy the median-priced single-family house and an income of $63,433 to buy the median-priced condominium (Figures III-14 and III-15).

Figure III-14
Housing Affordability, 2000



Source: 2001 Marin Economic Commission

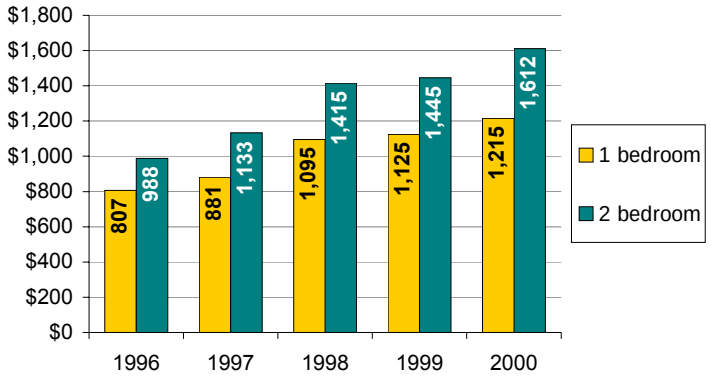
Figure III-15
Housing Median Sale Price



Source: Marin County Assessor

Rents continued to rise from an average of $807 for a one-bedroom apartment in 1996 to $1,215 in 2000 (Figure III-16), while the continued low rental vacancy rate makes finding housing difficult. Relatively few housing units were built between 1994 and 2000. Of the 2,592 that were developed, 1,908 were single-family detached units, 179 were condominiums or townhouses, and 866 were apartments.

Figure III-16
Marin County Average Rent

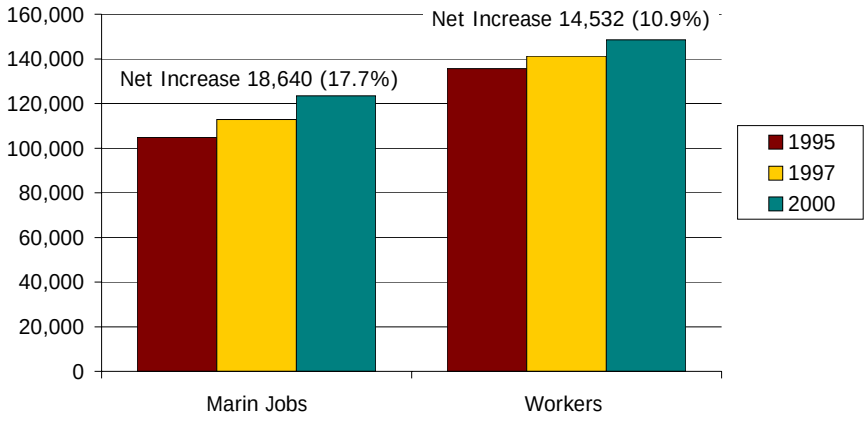


Source: 2001 Marin Economic Commission

People holding many types of jobs cannot afford to buy or rent housing in Marin. The 2001 annual median income for a family of four in Marin County was $80,100. Many jobs provide far less income than this. Very low income jobs paying less than $28,050 per year include cashier, restaurant cook, and retail salesperson. Many clerical and maintenance types of jobs in government agencies are in the category of low income jobs, paying a maximum of $44,850 per year. Moderate income jobs paying a maximum of $67,300 per year include nurse practitioner, pharmacist, firefighter, and police officer. Only people with incomes at the high end of the moderate category could afford to buy a median priced condominium. None could afford the median priced single-family house.

The number of jobs and workers in Marin is greater than the number of housing units where workers can live. While the number of workers in Marin has increased since 1995, the number of jobs created in the county has increased even more. There were 135,557 workers in Marin in 1995 and 148,515 by 2000, while the number of jobs increased from 104,870 to 123,510 in the same period. When applied to the number of housing units in the county, there were 1.32 jobs per housing unit in 1995, increasing to 1.37 in 1997 and to 1.41 in 2000 (Figure III-17).

Figure III-17
Marin Jobs-Workers Balance



Source: 2001 Marin Economic Commission

The construction of housing contributes to environmental problems such as waste generation, air pollution, and water use. According to the Alameda County Green Building Guidelines, 12.91 tons of waste are typically created from the construction of a new 2,000-square foot home. The U.S. Environmental Protection Agency reports that the air in new homes can be 10 times more polluted than outdoor air because of the materials used in construction. Several planning jurisdictions worldwide contribute to water conservation by requiring roof catchment water supply as a condition for approval for new construction. Boulder, Colorado, makes green building a condition for approval.

1. Increasing the Supply of New Housing

➢ Issues

The shortage and cost of housing make it difficult for people who work in Marin to live near their jobs.

a) The lack of affordable workforce housing causes employers and employees to leave the county.

b) There is linkage between the lack of housing and transportation congestion.

c) Housing need is created by increased employment, including in schools and government offices. If employers help provide housing for their workers, this will help to address housing and traffic issues.

d) A legal mechanism needs to be identified to providing housing for people who work in the community need to be identified, with preferences for local workers to buy or rent affordable units.

e) There is a connection between business and housing. Resources need to be leveraged, and there needs to be cooperation between business and the community. Businesses need to be involved in the planning process.

f) The rental vacancy rate is so low that rental housing is hard to find.

g) Increases in development density are strongly resisted.

h) There is a need to find ways to increase support for development of more housing.

A variety of techniques will be needed to identify and develop sites for housing.

a) The supply of affordable housing, money, and available land needs to be increased. The community needs to be mobilized for change.

b) Lower density development of large homes continues because of the profitability and market for this type of development although higher density development uses fewer resources such as water for landscaping and energy because of the shared building walls.

c) New development needs to be transit oriented, pedestrian oriented, and accessible by bike.

d) Changing land zoned for commercial to residential use would reduce land costs.

e) Commercial areas need to be better utilized: They have transit proximity, opportunities for retrofitting shopping centers, and air rights over parking.

f) Existing communities can become denser. Permitted densities of development can be increased in order to increase the supply of housing. Development does not have to be allowed to spread into existing open space and agricultural lands, although density increases are strongly resisted.

g) Zoning for sales tax revenue reduces the availability of land for housing.

h) Transfer of development rights from flood-prone areas to areas with urban development potential needs to be considered.

i) Poor quality building sites increase the cost of development.

j) There is a need for an effective land-banking program.

k) Neighborhoods, business groups, schools, churches, and community organizations can be activated to identify housing sites.

l) Surplus school sites can be evaluated for teacher housing. Also, church lands are underused and could become affordable housing sites.

m) Areas can be identified where housing would add to the desired liveliness of an area.

n) San Quentin is a potential opportunity site for affordable housing.

o) The recommendations for the St. Vincent's and Silveira lands need to be integrated into the Countywide Plan.

Overcoming obstacles to the development of second units would contribute to the housing supply at relatively low cost and ease of development.

a) Restrictive covenants forbidding second units in some older areas could be invalidated and second units could be allowed in new development.

b) Existing illegal second units could be legalized; permits could be expedited; connection fees could be reduced; waivers on height and floor-area ratio could be allowed.

c) Neighborhood opposition to second units and code enforcement against them need to be addressed. The cost of second units is increasing, and it is becoming more difficult to get approvals for them.

d) Regulations could be developed that are sensitive and neighborhood-specific for parking and design to make sure that second units fit in.

e) The reluctance of people to build second units needs to be addressed by identification of areas, techniques for building a second unit, and parking options. Low-interest loans for affordable second units could be provided.

➢ Strategies

Use land efficiently to meet housing needs and implement smart-growth principles.

a) Maintain a diverse population by promoting a variety of choices in housing.

b) Develop new affordable housing strategies to strengthen the link between jobs and housing. Adopt a jobs-housing linkage program.

c) Complete a study showing the nexus between commercial and industrial development and the need for housing for the workforce.

d) Identify existing employee housing opportunities. Specify that employer-provided housing focus on line staff.

e) Prepare land use plans to facilitate infill housing.

f) Prevent the loss of units through downzoning actions by transferring development rights to sites for affordable housing projects near jobs and transit. Purchase Transferred Development Rights (TDR) to increase housing density at selected sites.

g) Encourage transit-oriented development by identifying and designating sites, and establishing development standards.

h) Zone and provide appropriate standards for efficiency/SRO units.

i) Provide for live/work opportunities.

j) Amend multifamily General Plan policies and zoning regulations. Amend single-family zoning regulations to require minimum as well as maximum densities.

k) Review and update parking standards.

l) Incorporate child care centers and Safe Routes to Schools standards into new developments.

m) Develop vacant or underutilized school property for housing.

n) Encourage mixed-use development that includes housing in currently nonresidential areas by preparing a white paper on mixed-use housing development feasibility, conducting a survey of potential mixed-use sites, and establishing mixed-use development standards.

o) Create incentives for the development of long-term affordable housing. Enact density bonus zoning and other incentives.

p) Prepare a white paper on ways to facilitate smaller affordable housing projects. Conduct a detailed feasibility study of affordable housing sites. Evaluate an "Affordable Housing Overlay Zone" zoning designation and sites suitable for such a designation.

q) Facilitate development at key housing opportunity sites. Expedite environmental review for designated housing opportunity sites.

r) Strengthen residential inclusionary requirements and establish inclusionary housing regulations.

s) Modify the second-unit development standards and permit process to make it easier to develop second units. Establish a clearinghouse for second-unit technical assistance. Consider an amnesty program for unpermitted second units. Require resale inspections—assist second units in becoming legal.

➢ Sample indicators

a) Measure the median sales price of homes in Marin (Marin County Assessor).

b) Measure affordability levels of homes in Marin (Marin County Housing Authority).

c) Track the number of new units constructed in Marin (Marin County Community Development Agency).

d) Track the jobs-housing ratio (Marin County Economic Commission).

➢ Sample targets

a) Meet the regional fair-share allocation for construction of 229 very low, low and moderate income units in Marin County by 2006.

b) Increase by 20 percent by 2020 the number of Marin County workers living in the County who hold very low, low and moderate income jobs.

2. Government Programs to Encourage Housing Development

➢ Issues

Planning and zoning programs and incentives have a role in facilitating affordable housing.

a) There needs to be more collaboration on city and County plans to avoid conflicts. All towns and cities need to cooperate in providing a fair share of affordable housing. Multijurisdictional planning efforts could be encouraged.

b) A set of resources could be provided to help small jurisdictions streamline their process and to focus on affordable housing.

c) Incentives for developing affordable housing are needed, such as density and floor-area-ratio bonuses, shared parking, third-floor height allowances, no restrictions on residential density within a building envelope, and single-room-occupancy facilities.

d) Residential infill on underdeveloped residential sites can be encouraged. Infill projects can receive density bonuses.

e) Affordable housing for farm workers is needed. High housing costs make recruitment of workers difficult and contribute to a decreased quality of life for workforce families.

f) There is a conflict between the Association of Bay Area Governments' (ABAG's) housing allocation and some policies in the Countywide Plan that discourage affordable housing. For example, underutilized sites can be redesignated to allow additional housing.

g) Prezoning to allow multiuse and affordable housing could be considered. Overlay zones for mixed use and affordable housing can be established.

h) Blanket overlay zones are problematic; instead, amend the zoning districts accordingly.

i) Setbacks need to be relaxed and clustering allowed. Off-street parking requirements can be reduced for multifamily housing development.

j) The environmental review process might create a barrier to affordable housing development.

k) Models for housing development such as programs and standards used in Davis could be considered.

l) Incentives for meeting and penalties for not meeting housing goals need to be established.

m) The percentage of inclusionary units required in new projects needs to be increased.

n) On-site or offsite housing is more effective than fees for mitigating the impacts of new commercial development.

o) Cooperatives and cohousing could be considered as possible affordable housing types.

p) Free or low cost land is useful, but subsidies are still needed for affordability.

q) One way to overcome neighborhood opposition is by providing examples of well-designed affordable housing. Design is the key to community acceptance.

Housing developers, funding sources, and financing are essential factors in building affordable housing.

a) Local government agencies need to identify reputable developers and work with them to develop affordable housing.

b) The public needs to recognize that a developer requires flexibility to fit a project into a community and to make it feasible. There needs to be recognition that developers would prefer to invest equity in the community rather than have to pay extra taxes or fees.

c) Mixed-income housing projects need to be considered so that a variety of funding sources and financing can be used.

d) Ways to make rentals available and affordable need to be explored. There is a need for a community bank to provide loans for higher density housing.

e) Apartment owners are reluctant to accept Section 8 clients. They need education on this subject.

f) A real estate transfer tax for affordable housing could be established. Tax-exempt financing and bonding potential by redevelopment agencies and cities need to be considered.

g) Although homeowners receive a large subsidy through mortgage interest and property tax deductions, there is some public opposition to subsidizing affordable housing.

h) Mixed-use projects need to tap into increasingly greater funding sources.

i) Government and developers need to coordinate with banks and utilize their obligations under the Community Reinvestment Act.

j) The update process for the Housing Element of the Countywide Plan provides an opportunity to set in motion a countywide housing trust fund and options for funding sources.

➢ Strategies

Work together to achieve housing goals.

a) Work with housing advocates.

b) Establish procedures for neighborhood meetings. Prepare and update public information materials.

c) Conduct community outreach. Provide public education on affordable housing opportunities and incentives for first-time home buyers.

d) Collaborate to implement an interjurisdictional strategic action plan for housing. Undertake coordinated lobbying efforts.

Build local government capacity to respond to housing needs.

a) Increase local government effectiveness in implementing housing programs. Provide briefings for elected and appointed officials on alternative housing types.

b) Conduct staff training. Designate staff to develop local funding sources. Establish a permanent “affordable housing strategist” position. Establish a Housing Assistance Team (HAT).

c) Leverage funding opportunities. Establish a housing trust fund ordinance and operating procedures. Seek additional local sources of funding. Coordinate funding among development proposals.

d) Utilize Redevelopment Agency powers.

e) Streamline the permit application process to allow for affordable housing for farm workers. Consider waiving or lowering permit fees as an incentive for the construction of farm worker housing.

f) Provide green building technical assistance for affordable housing.

g) Establish a housing-data clearinghouse. Conduct an annual Countywide Plan Housing Element review.

h) Mandate fee waivers or discounts for deed-restricted units as is done in San Rafael.

i) Eliminate time limits on deed-restricted units.

j) Zone appropriately so that sites are eligible for funding (many sources exclude projects that require General Plan or zoning amendments).

k) Promote more consistent fee schedules among jurisdictions.

l) Provide a land-transfer-for-units option with priority on getting sites.

m) Use available funding to maximize the number of affordable units.

n) Establish an open, public policy for allocation of Housing Trust Fund monies.

o) Integrate inclusionary units into projects instead of allowing payment of an in-lieu fee. Base inclusionary requirements on the size of market rate units.

p) Create incentives for the provision of more than the minimum number of affordable inclusionary units.

➢ Sample indicators

a) Measure the amount of local public money provided for affordable housing and its utilization for housing developments (Community Development Agency, Marin County Housing Authority, Marin County Community Development Block Grant).

b) Measure the implementation of programs in the Countywide Plan's Housing Element.

c) Measure the number of inclusionary units built in the county (Marin County Community Development Agency, Marin County Cities and Towns).

➢ Sample targets

a) Increase the amount of local funding and the number of units of affordable housing by 20 percent by 2006 over the 2002 level.

b) Implement programs in the Housing Element according to the schedule specified in the Element.

c) Increase by 10 percent the number of inclusionary units by 2006 over the number approved in 2002.

3. Utilization of Existing Housing Stock

➢ Issues

The existing housing stock provides opportunities to increase the supply of affordable housing.

a) For a variety of reasons, many "empty nest" households continue to occupy housing units that are well suited to families with children and with adults in the workforce.

b) There is a need to stimulate turnover of large houses occupied by empty nest households by encouraging the production of smaller units, and of assisted-living and residential care facilities targeted to the senior population.

c) The San Mateo County shared-housing program could be used as a model for providing opportunities for shared housing in Marin.

d) Large homes sizes result in fewer affordable units.

e) There is a need to discourage demolition of housing that is in good shape and conversion of housing to nonresidential use unless the housing is to be replaced by an equal or greater number of housing units. A housing conservation plan needs to be developed to protect existing housing.

f) Existing housing needs to be acquired and made affordable. Large homes could be converted to multifamily housing.

g) The number of projects to which affordability (inclusionary) requirements apply, and the amount of the requirements, are not sufficient to meet the affordable housing need.

➢ Strategies

Maintain and enhance existing housing and blend well-designed new housing into existing neighborhoods and communities.

a) Provide housing that is well designed. Adopt criteria for use in design review to clarify the design review process. Consider creating a shared architect or designer position.

b) Protect and enhance existing affordable housing.

c) Protect "at-risk" units.

d) Link code enforcement with public information programs. Assist in maximizing use of rehabilitation loan programs.

e) Acquire rental properties for affordable housing.

f) Review the Condominium Conversion Ordinance.

g) Use mediation to resolve landlord-tenant issues.

h) Investigate and encourage home-sharing and tenant-matching opportunities.

i) Provide for child care in housing developments.

j) Modify the Second Unit Development Standards and Permit process. Establish a clearinghouse for second-unit technical assistance.

k) Consider an amnesty program for nonpermitted second units.

l) Analyze how incorporating uniform design standards or processes affects the function of design review boards. Look at ways to reduce the cost of the design review process.

m) Address nonconforming uses and their reconstruction potential—there is a great potential for loss of units because of this.

n) Incorporate Safe Routes to Schools criteria with new housing development.

o) Keep on-site wastewater treatment limitations in mind.

p) Maintain parking-requirements where street widths are narrow, on-street parking is minimal, and public transit is not close by.

Provide housing for special-needs populations.

a) Establish zoning for emergency shelters and transitional-housing facilities.

b) Modify residential care facility zoning to facilitate provision of such care facilities.

c) Ensure good neighbor relations involving emergency shelters and residential care facilities.

d) Review and consider revising zoning regulations for farm worker and ranch hand housing if necessary.

e) Provide housing for government employees.

➢ Sample indicators

a) Measure the number of new second units and rent levels (Marin County Community Development Agency).

b) Measure the number of homeless people assisted through the Continuum of Care program (Marin County Housing Authority).

c) Inventory and track farm worker housing to ensure that all vacant farm worker housing is being fully utilized (Marin County Department of Agriculture, Weights and Measures).

➢ Sample targets

a) Add 50 second units by 2006 over the level in 2002.

b) The number of individuals provided assistance in obtaining shelter and other services will increase by 10 percent in 2010 over 2000 levels.

(See also IV. The Economy, Equity and Culture, A. The Economy, Workforce Housing, and C. Social Equity and Public Health, Housing.)

D. COMMUNITY DESIGN

1. Community Structure and Character

➢ Background and trends

Marin County's built environment and natural landscape are historically in harmony. The heritage of Marin County's built environment is one of villages, towns, and cities that are in harmony with the surrounding natural and agricultural landscape. Marin's housing was historically concentrated in its downtowns—the centers of commercial, cultural, and civic activity—and in adjoining, walkable neighborhoods. These places, and the images and lifestyles associated with them, remain among Marin's most treasured and valuable assets.

Marin County is experiencing outward pressure for suburban development. With the growth of the population and economy in the Bay Area metropolis in the past 50 years, and the pervasive influence of automobile access, Marin's urban and rural areas have been subject to the same outward pressure for suburban development as other rural edges of the Bay Area. Unlike most rural counties, however, Marin has aggressively sought to protect its irreplaceable natural and agricultural assets from being overrun by low density, low quality development.

Most new growth has been automobile oriented. Much of the housing built in the last 30 years has been relatively low density, single family houses that are not within easywalking distance of shops, schools, or parks. And any new office and retail developments are in the form of low density, single-use buildings, each surrounded by its own parking lot. This type of automobile oriented development has consumed larger amounts of land to serve a smaller number of residents and generates an automobile trip for most activities of daily life. With the high cost of land, and growing concern about traffic and air quality, there is a need for a more sustainable urban form that is disciplined by the needs of the pedestrian.

➢ Issues

More sustainable community development patterns would better utilize our limited amounts of land and other nonrenewable resources.

a) The cost of land is increasing. There is a need for more efficient use and reuse of existing developable lands.

b) Land is increasingly used to serve automobiles.

c) There is increasing dialogue on mixed-use neighborhoods, especially in downtown areas.

d) There are interjurisdictional barriers to the sustainable design of communities.

e) There is a direct relationship between the design of new development and the preservation of resources.

New and redeveloping neighborhoods could be made compact and walkable, and could include a range of housing types, with schools, parks, and neighborhood shops within a ½-mile walking distance. The majority of the population would be concentrated within a ¼-mile radius, as is shown in the traditional neighborhood diagram on the previous page.

a) Existing communities can become denser through increased permitted densities of development, including allowance for second units, thus preserving existing open spaces and agricultural lands.

b) Design guidelines can be used to code a variety of housing types and sizes, including mixed income neighborhoods near transit.

c) Existing discontinuous bicycle and pedestrian routes hamper the ability to walk and bike to work and other destinations. Gated communities can hamper connections and walkability.

d) An intra-Marin bus system could reduce automobile use, with a plan for bus routes within a quarter mile of locations where 90 percent of the population lives.

➢ Strategies

Incorporate principles of the new urbanism into the Countywide Plan, zoning code and community plans.

a) Identify areas near transit nodes that would be appropriate for higher density, transit-oriented development. Create incentives for development in these areas.

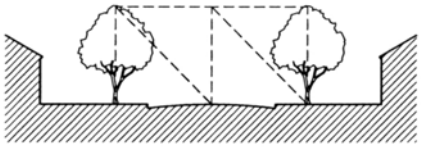
b) Include and designate mixed-use zones and higher density residential zones.

c) Permit second units in all residential zones.

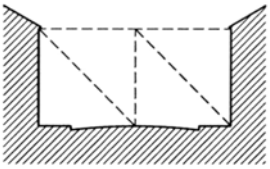
d) Encourage mixed-use development in commercial areas within the City-Centered Corridor.

e) Update community plans with community-specific standards and guidelines to ensure that new development retains the essential characteristics that make each community unique.

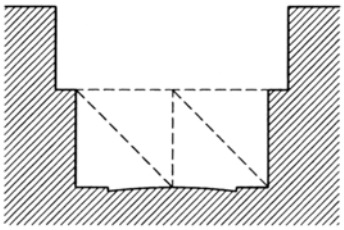
Figure III-18
Spatial Enclosures



Spatial enclosure by tree canopy



Spatial enclosure by building height



Spatial enclosure by recess line

- **Spatial Enclosure:** the defining elements of a public space provided by facades with disciplined tree planting as an alternative. Trees aligned for spatial enclosure are necessary on thoroughfares that exceed the maximum height-to-width ratios.

Source: 2002 Fisher & Hall Uban Design

Incorporate clear development standards and design guidelines into the zoning code and subdivision standards, including the following elements.

a) Build streets in an interconnected grid or modified grid to provide route choices and dispersion of traffic.

b) Design buildings with similar uses to front the street, facing one another. Use changes should occur at the rear property line.

c) Design buildings so that heights are similar on a given street frontage and be proportional in height to the width of the street, at a height-to-width ratio of no more than 1:3, as shown in the Spatial Enclosure diagram at the right.

d) Provide on-street parking where feasible to serve as a buffer between pedestrians on the sidewalk and moving traffic except in certain cases where steep terrain would require excessive grading. In this case, parking on one side, or opportunistic parking lanes where terrain permits, are good options.

e) Design parking structures so that the street levels have uses other than parking.

f) Produce a map showing walking distances from existing housing to services. Overlay with half-mile radii circles—the distance that most people will comfortably walk—to determine the number of residences that are not within walking distance of services.

Plan and design new development with respect for its natural surroundings.

a) Design compact mixed-use communities to accommodate the needs of the human population in discrete areas, leaving the undeveloped countryside alone. (See the diagram comparing towns in the landscape to suburban sprawl, on the following page.)

b) Review hillside grading standards in terms of amount removed or reused on-site and of revegetation requirements. Require grading to follow a smooth contour; avoid sharp cuts and fills, and long, linear slopes that have uniform grade.

c) Use local building materials to the extent possible to create a local sense of place.

d) Provide and protect scenic corridors and significant viewsheds from scenic roads, hiking trails, and public places throughout the county.

e) Do not allow building near visually prominent ridgelines when a choice of building location is available. Building rooflines must be located below the ridgeline so that views to the hillside retain the natural ridgeline.

f) Require that roof forms and rooflines of hillside buildings be broken into a series of smaller building components to reflect irregular forms of the surrounding natural features. Require roof colors to be earth tones.

g) Require that hillside buildings be cut into the hillside to reduce visual bulk. Excavate underground or use below-grade rooms to reduce effective bulk and provide energy efficient and environmentally desirable spaces.

h) Encourage sloping lot design, such as split-level building terraces, to reduce building pad size. Building forms should be stepped to conform to the site topography.

i) Reassess and reduce to a minimum the maximum amount of flat yard area in hillside development. Reassess clustering policies for hillside development and clarify, with 90 percent open space and 10 percent development, what is acceptable in each use.

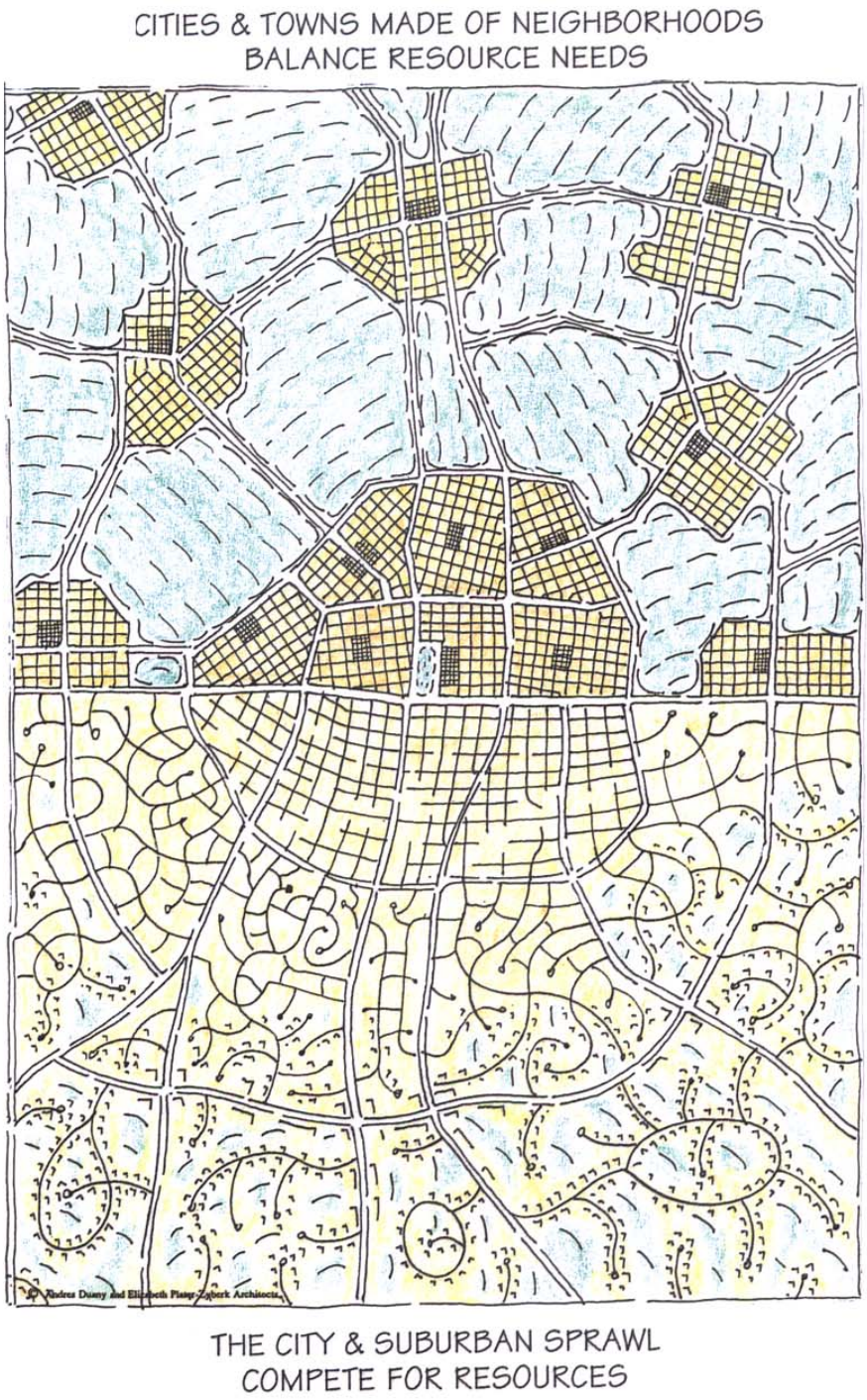
j) Do not allow continuous building masses that create a “wall” effect and inhibit views should not be allowed. Do not allow large expanses of wall in a single plane on downhill elevations on hillside lots.

k) Improve the quality of stormwater runoff with sensitive site design.

l) Use irregular plant spacing to achieve a natural appearance on graded slopes.

m) Clarify under what circumstances eucalyptus trees are protected.

Figure III-19
Cities and Towns Made of Neighborhoods



Source: 2002 Fisher & Hall Urban Design

This diagram shows the same amount of development in compact towns and villages, top, and evenly spread suburban sprawl, bottom. The compact development provides a larger net amount of undisturbed open space. ©DPZ & Co. Reproduced with permission.

Remove interjurisdictional barriers to the sustainable design of communities.

a) Work with each of the cities and the Congestion Management Agency to develop a comprehensive master plan. The goal of this master plan would be to maximize the amount of transit-served development, and ensure that new development and redevelopment is transit-servable.

b) Work with each of the cities to maintain a coherent urban boundaries to retain a pattern of compact towns and villages in the Marin countryside.

➢ Sample indicators

a) The rate of growth of the human population in relation to the rate of growth of urbanized land (Marin County Community Development Agency).

b) The density of new development overall, and compared with the averages from 1980 to 2000 (Marin County Community Development Agency).

➢ Sample targets

a) Increase residential densities of new development in Marin County by 20 percent by 2020 over the prior 20-year period.

b) Twenty percent more residences will be within a quarter mile of services and transit by 2020.

c) Update and code all of the community plans to include sustainable development and new-urbanism principles and design standards by 2020.

2. Streetscape and Open Space Design

➢ Background and trends

Marin County's roadway system was designed for a smaller population. Historically, Marin's roadway system was made up of two-lane highways winding through the countryside, narrow country lanes lined with rural houses, tree-lined neighborhood streets, and busy commercial streets in the towns. Streets and roads that carried small amounts of low speed traffic often had no sidewalks because it was comfortable to walk along the edge of the roadway, while busier streets almost always had comfortable sidewalks for pedestrians. Parking was allowed on both sides of most streets, such that a row of parked cars often separated the pedestrian from moving traffic.

Streets constructed in recent years have been designed and detailed to maximize the level of service for automobiles, and the level of service for pedestrians and bicycles has suffered. As the population increased in recent decades, wider streets were constructed to carry more traffic at higher speeds. These streets included collector streets and arterial streets, in addition to four-lane highways and freeways. These streets were built with and without sidewalks, and parking was often prohibited in the interest of allowing more traffic to flow more freely. This brought fast-moving traffic very close to pedestrians on the sidewalk or shoulder of the road. A result was that people who could afford a car would generally not choose to be a pedestrian on streets with fast-moving traffic.

Garages and other service functions historically were located away from the street. While the houses in the older neighborhoods generally had garages that were set back behind the house, the streetscapes of the newer neighborhoods often were dominated by garages. As land became more valuable and lots became smaller, the percentage of the lot frontage devoted to parking and the garage increased substantially.

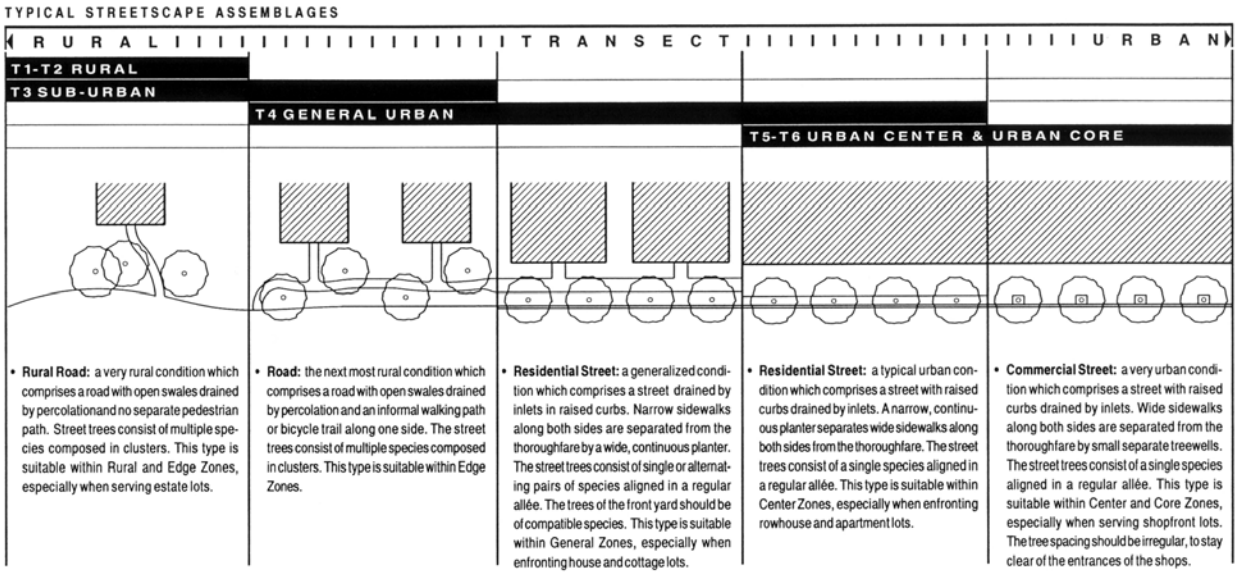
As local governments' ability to raise funds for construction and maintenance has been significantly reduced in recent years, the quality of public space design and maintenance has also been reduced. With the passage of Proposition 13, local governments' ability to raise funds for the construction and maintenance of streets and parks was significantly reduced. To maximize the traffic-carrying capacity of the streets for the lowest cost, street standards were produced that often removed the parking lanes, sidewalks, street trees, and planting strips. To maximize the acreage of parkland that could be provided for a limited amount of money, standards were developed for the building of larger, more widely spaced parks rather than small neighborhood parks within walking distance of new homes. This made the parks more economical to maintain but required that most children be driven to them to play. The responsibility for funding and constructing new streets and parks was largely shifted from local government to developers and builders. The developers generally supported the trend toward bare-bones streets and parks, since they saw those as "off-site" costs that did not add value to their "product," and hence sought to minimize their investment in public spaces and infrastructure.

There is a nationwide trend toward traditional neighborhood development that is reversing the trend toward auto-dominated public spaces. A strong focus of this movement is the design of public spaces to accommodate pedestrians and bicyclists comfortably while allowing cars to move through, generally at lower speeds (Figure III-20). A key to avoiding congestion is to design street systems that connect neighborhoods together with an open network of many smaller streets, rather than relying on a single collector or arterial street for this function. The result is that not one street is burdened with a large amount of traffic, and thus the streets are not easily overloaded.

The blocks within a traditional neighborhood street network are relatively small, so that children and other pedestrians can easily move in any direction through the neighborhood. The streets have relatively narrow pavements and comfortable sidewalks, and are spatially defined by street trees and by houses set facing the street. Houses often have front porches or stoops, with the garages tucked back. The fronts of the houses—free of garages—can be pulled up close to the street, creating a strong neighborly feeling.

The destinations to which one can walk in such neighborhoods include small shops, offices, apartments, and transit stops along a larger street at the neighborhood edge; a small green or playground near the quiet center of the neighborhood; bicycle and jogging trails along an open space at a neighborhood edge; and neighborhood schools located where several neighborhoods meet.

Figure III-20
Typical Streetscape Assemblages (I)



Source: 2002 Fisher & Hall Urban Design

A diagram showing the character of the street based upon the zone in which it is located. From *The Lexicon of the New Urbanism.* ©DPZ & Co. Reproduced with permission.

The key to an efficient and convenient transit system is getting people to leave their home on foot or on a bicycle. Once people are in a car, they will probably drive to their final destination. If they are willing to switch to transit from the car, parking facilities are needed at the transit stop, which are either very costly to provide in structures, or consume large amounts of valuable land for surface parking at terminal locations where the land could be used for higher density mixed-use development.

➢ Issues

Neighborhood streetscapes—including streets, front yards, and building facades—should be designed in a coordinated way that makes them comfortable to walk along.

a) Land is predominantly used to serve automobiles.

b) Design principles and development patterns can be developed to create pedestrian and bicycling opportunities within the community.

Street design can balance the needs of the pedestrian and the bicyclist with those of the motorist. Moderating the motorists' speed is an important factor.

a) New development can consider bike and pedestrian paths as basic infrastructure.

b) Improvements to existing streets can be pedestrian and bicycle oriented.

The design of streets and roads can be functionally and aesthetically appropriate to the neighborhood.

a) In the rural areas of West Marin, and in lower density neighborhoods on the edges of towns and cities in the City-Centered Corridor, roadways can be more rural in appearance.

b) Most residential streets should have sidewalks or separate pathways so that walking is pleasant and safe. An exception to this could be rural roads with little traffic where it might be fine to walk along the edge of the road or on the road.

c) Downtown streets, such as those in San Anselmo and Fairfax, need to have plenty of on-street parking so that customers will use the front doors of businesses.

Parks, squares, greens, and plazas can provide safe and useful public spaces within a neighborhood when they are appropriately sited and carefully designed.

a) Public spaces that are faced by buildings inhabited at all times of day ensure that they are safe and secure.

b) Small play areas within walking distance of residences allow children to play and socialize without being driven there by an adult.

c) Public plazas and squares can serve as local gathering places, making them ideal locations for small-scale local businesses such as cafes, bakeries, and service businesses.

➢ Strategies

Prepare both countywide and community-specific standards for pedestrian oriented streets that honor the principles of sustainability and new urbanism.

a) Make sure that streetscape improvements and standards are pedestrian and bicycle oriented.

b) Establish a system that measures Level of Service for pedestrians and for bicycles. In directing infrastructure investment, adopt minimum standards for these that supersede standards for automobile traffic.

c) Consider users of public spaces to be from a wide range of ages.

d) Provide or require the provision of pedestrian amenities such as fountains, benches, tables, kiosks, landscaping, and courtyards in key facility locations.

e) Encourage single-family homes to have porches at the front and garages to the back of the site.

f) Restrict the use of solid fences and walls over four feet in height along public streets due to the negative impact on the streetscape.

g) Street trees should be planted to provide continuous shade and green.

h) Design buildings to provide defensible space. Higher density residential areas should have doors and windows facing the street at frequent intervals. Commercial areas should avoid dead spaces such as blank walls.

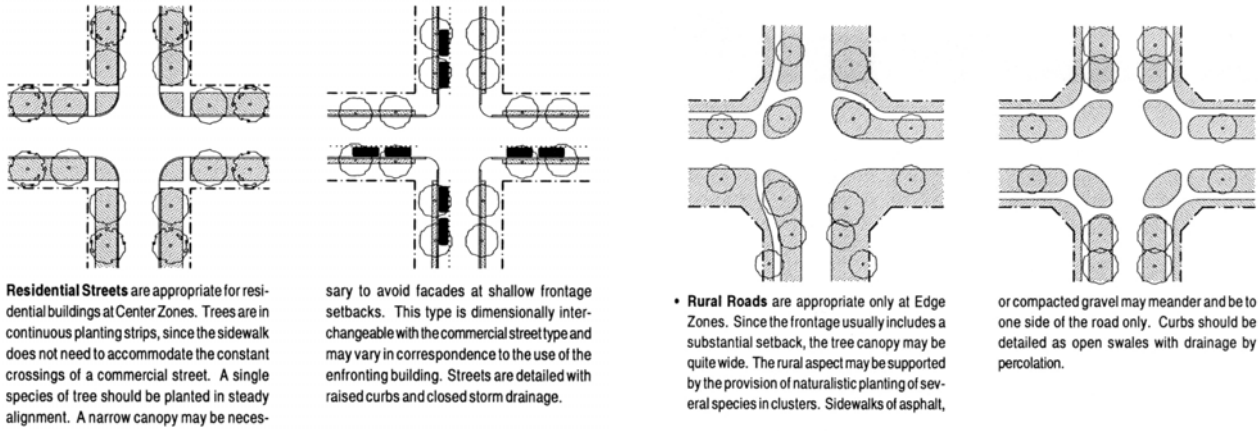
Integrate street and road design standards with the overall community design, reinforcing the rural or urban character of the place they serve (Figure III-21).

a) Develop typical and special streetscape standards for the three corridor areas and Community Plan boundary areas.

b) Modify hillside roadway standards to require minimum widths to maintain the rural feel of the hillsides. Use narrower street widths to reduce grading impacts.

c) Inventory the character of the streets and roads in terms of width of sidewalks, presence and spacing of street trees, height-to-width ratio of "outdoor room," height of streetlights, number and spacing of benches, and distances between doors facing the public street. Base community-specific standards on this inventory.

Figure III-21
Sample Street-type Diagrams



• **Residential Streets** are appropriate for residential buildings at Center Zones. Trees are in continuous planting strips, since the sidewalk does not need to accommodate the constant crossings of a commercial street. A single species of tree should be planted in steady alignment. A narrow canopy may be necessary to avoid facades at shallow frontage setbacks. This type is dimensionally interchangeable with the commercial street type and may vary in correspondence to the use of the enfronting building. Streets are detailed with raised curbs and closed storm drainage.

• **Rural Roads** are appropriate only at Edge Zones. Since the frontage usually includes a substantial setback, the tree canopy may be quite wide. The rural aspect may be supported by the provision of naturalistic planting of several species in clusters. Sidewalks of asphalt, or compacted gravel may meander and be to one side of the road only. Curbs should be detailed as open swales with drainage by percolation.

Sample street-type diagrams that show how the design is based upon overall character of the adjacent development. From *The Lexicon of the New Urbanism*. ©DPZ & Co. Reproduced with permission.

Source: 2002 Fisher & Hall Urban Design

Incorporate clear, high quality development standards and design guidelines for public parks and plazas. The following elements should be addressed.

a) Design public plazas and community parks to be fronted by building facades and circumscribed by thoroughfares.

b) To maximize their use and security, locate parks and plazas next to other destinations.

c) Take care that open spaces have visual supervision from fronting buildings.

d) Avoid dense, visually impenetrable planting since it creates the opportunity for crime.

➢ Sample indicators

a) Percentage of residences within ½ to ¼ mile of a playground ((Marin County Community Development Agency).

b) Number of miles of new sidewalk constructed on streets that previously had none (Department of Public Works).

c) Ratio of pedestrians per day to cars per day, and ratio of bikes per day to cars per day (Metropolitan Transportation Commission).

d) Average driving speed on residential streets.

e) Average percentage of empty seats on buses and ferries (Golden Gate Bridge, Highway and Transportation District).

➢ Sample targets

a) Ensure that by 2020, 50 percent of local streets (not including collector and arterial roads) have more pedestrians and bicyclists per day than cars.

b) Ensure that 10 percent of the gaps in street trees in the City-Centered corridor will be planted with new street trees by 2020.

c) Increase the amount of new residential development with front porches, shallower setbacks, and garages behind the house to 75 percent by 2020.

d) Increase the number of new parks and plazas enfronted by building facades and surrounded by thoroughfares to 80 percent by 2020.

3. Building and Site Design

➢ Background and trends

The dominant model of development in Marin County comes from the early 20th century and is based on a network of walkable streets and small blocks. In each community this basis pattern was configured and detailed in a unique way that gave each place its own distinctive local character. The dominant indigenous urban design and architecture of Marin is based on American town planning practices of the early 20th century. This design is characterized by relatively small-scale buildings fronting onto small neighborhood streets. In West Marin, the character of the buildings and the way they are sited on their lots was historically relatively rural, with larger lots, mostly one-story buildings with larger setbacks, and relatively informal landscaping. In the City-Centered Corridor, the historic tendency was to a more urban character, with taller buildings set closer to the street, and more formal arrangements of trees and other landscaping.

The current model of development in Marin County is not community-specific. Current zoning tends to require that building and site design within a given zone be the same regardless of location in the county. The community plans attempt to counter this tendency by including community-specific standards and guidelines that customize buildings to their community.

There is a trend toward new urbanism designs. There is a strong nationwide trend toward higher density mixed-use infill development, particularly near transit nodes. This is a sustainable way to provide needed housing and neighborhood-serving commercial uses. There is also a nationwide trend toward new urbanism, a pattern of development based on the walkable neighborhood. This pattern provides a range of housing types, a range of neighborhood-scale commercial uses, and a range of civic amenities such as schools and parks, all within a walkable radius of approximately ¼ mile.

When lower density new development occurs on natural terrain, it should fit the terrain as much as possible to minimize grading and reshaping. Low density housing development, particularly on steep hillside sites, may be damaging to the natural terrain. Marin is committed to developing and enforcing building and site design standards that minimize reshaping of the natural terrain and harmonize the built elements with their natural surroundings.

➢ Issues

Green building techniques include the use of energy efficient and recycled materials, reduce the use of nonrenewable resources, and reduce the discharge of waste into the environment.

a) Green building and biological treatment of sewage can be encouraged through government policies.

b) Buildings consume 65 percent of the electricity and 35 percent of the total energy generated in the United States (U.S. Green Building Council). Fly ash can be used in concrete to replace a portion of cement. This reduces the amount of carbon-dioxide emissions and waste from coal-fired power plants, and increases sheer strength over time.

c) Buildings use 40 percent of raw stone, gravel, and sand and 25 percent of virgin wood in the United States (U.S. Green Building Council). Buildings use 25 percent of water consumed in the United States.

d) Green building could be required as a condition for residential remodeling and new construction approval by utilizing a rating system.

e) Sustainable building materials and solar and wind power could be used in housing. Incentives could be provided for green building and other standards for high quality housing.

f) A whole-systems approach to building homes should be considered (site runoff to landscaping, orientation of building to sun, reused building materials).

g) Sustainable housing can be provided, using energy efficiency, water conservation, sustainable materials, attention to indoor air quality, and renewable energy.

h) Restricting new housing to the City-Centered Corridor helps preserve rural areas.

Marin's varying community types could benefit from unique landscape design standards and guidelines.

a) Native landscaping could enhance the sense of place in each of Marin's unique communities.

b) Gardens could be sited in urban areas, including rooftop gardens and community gardens.

➢ Strategies

Adopt parking lot design standards that require parking to be screened from public view and designed in an environmentally responsible way.

a) Develop underground and parking structure standards.

b) Encourage the use of pervious surfaces for drainage swales, driveways, walkways, and parking lots. Use hybrid parking surfaces to reduce impervious surfaces.

c) Create a parking grove standard with permeable stall design, a grid of trees, and bollards to delineate parking spaces.

Focus site development standards on the siting of buildings for access by pedestrians and bicyclists. Cars should be accommodated but should not dominate.

a) Make sure streetscape improvements and standards are pedestrian and bicycle oriented.

Develop unique landscape design standards and guidelines for each of Marin's various community types.

a) Encourage gardens in urban areas, including rooftop gardens and community gardens.

b) Select streets to add trees and landscaping.

c) Use irregular plant spacing to achieve a natural appearance on graded slopes.

d) Use landscaping as a tool to promote and provide food, habitat, and water. Incorporate the elements of good ecological design into the design review process.

e) Include native landscaping as part of lot coverage.

Reevaluate parking standards so that they do not unintentionally decrease the density of infill projects or discourage the use of transit.

a) Allow shared, tandem, and elevator car parking, and other flexible parking arrangements for mixed-use or affordable housing projects.

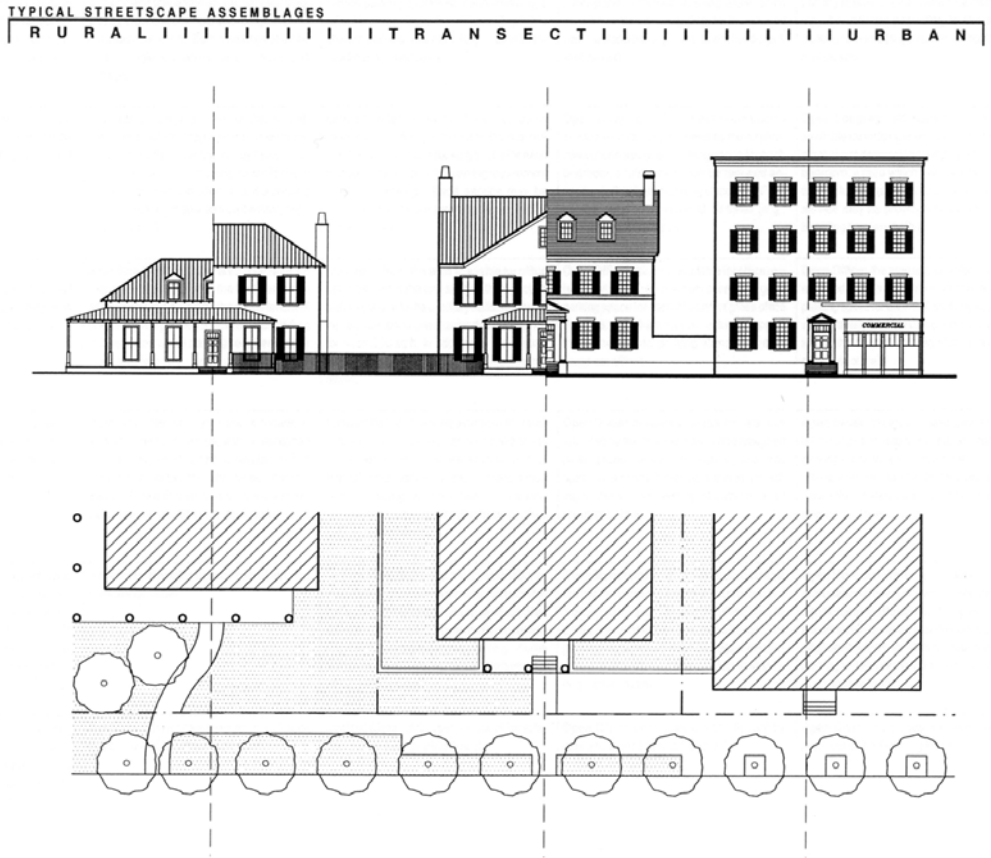
b) Reassess parking requirements related to transit uses.

c) Increase the compact parking ratio for affordable housing projects.

Include customized building and site design standards in community plans to ensure that the unique character of each community is preserved.

a) Ensure that infill development makes incremental changes from the existing character of a surrounding area.

Figure III-22
Typical Streetscape Assemblages (II)



Source: 2002 Fisher & Hall Urban Design

Building types that represent a change along a continuum from rural to suburban to urban. From *The Lexicon of the New Urbanism.* ©DPZ & Co. Reproduced with permission.

b) Complete countywide and community-specific design guidelines for all types of development in order to achieve high quality site design. Consider separating these into corridor areas.

c) Update each Community Plan to address similar topics and standards in order to clearly articulate requirements and streamline review of development applications.

d) Community plans need to concentrate on design issues unique to their areas (see the "Typical Streetscape Assemblages" diagram, above).

e) Require excellence in building and site design.

Develop design standards and guidelines for new development that ensure it will be compatible with the historic character of its community.

a) Develop policies and design guidelines for large-home construction in existing, established areas so that the integration of new buildings is more compatible and less intrusive.

b) Develop policies and design guidelines discouraging the establishment of gated residential communities.

c) Assure ridgeline protection by developing better-defined ridgeline graphics, articulated criteria, protection of specific viewsheds, and hillside design guidelines.

d) Prepare detailed standards for architectural review for multifamily and mixed-use development to include such items as bulk, building materials, reflectivity of glass, color, landscape treatment of front yards, and driveway paving.

e) Develop an interjurisdictional approach to sustainable design of communities. Encourage residential infill on underdeveloped residential sites. Allow density bonuses for infill projects.

Develop design standards, guidelines, and technical assistance for the design of environmentally responsible green building.

a) Require solar orientation as a condition for approval.

b) Encourage and facilitate the use of products with no or low volatile organic compounds (VOC) and the use of local, ecologically sound building materials in construction.

c) Promote the use of recycled and salvaged building materials. Prepare a construction and demolition waste ordinance that requires building projects to recycle 50 percent of waste or develop a recycling plan.

d) Promote the weatherization of all homes in Marin.

e) Encourage the replacement of wood stoves with pellet stoves or other EPA approved stoves.

f) Promote straw bale construction and other natural building technologies, such as: clay, adobe, rammed earth, and presá.

g) Require using the Leadership in Energy and Environmental Design (LEED) rating system for new and remodeled commercial and industrial facilities. Require an LEED Silver rating.

h) Promote the use of renewable energy in buildings.

i) Provide free green building technical assistance to commercial project applicants. Actively seek projects for which the County can provide technical assistance.

j) Use biofilters for vegetated slopes, channels, and parking areas to allow runoff to move slowly over vegetation.

k) Promote water conservation programs and require native, low water consuming vegetation in new or renovation projects.

l) Encourage the use of edible landscape materials.

m) Increase the use of Integrated Pest Management (IPM) by promoting IPM to agencies and the public; encouraging plant nurseries to use and promote IPM; and continuing and expanding the programs established by the IPM Commission to reduce or avoid pesticides, herbicides, biocides, and other chemicals on County projects.

n) Require green building as a condition for approval for new market rate projects and significant renovations. A checklist developed in conjunction with building professionals will determine which projects get approved.

o) Provide free green building technical assistance to affordable housing applicants. Actively pursue funding to assist the ability of affordable housing projects to use energy efficient and green building materials.

p) Create a green building training program for building professionals in partnership with the Builders Exchange.

➢ Sample indicators

a) The average annual energy use per residence, in relation to a 1990 baseline (Pacific Gas & Electric).

b) The average annual water use per residence, in relation to a 1990 baseline (Marin Municipal Water District, North Marin Water District).

c) The percentage of green building materials used, in relation to a 1990 baseline.

d) The rate of increase in impervious paved surfaces in relation to the rate of increase in population.

➢ Sample targets

a) Reduce the amount of resources consumed for housing needs by 25 percent by 2020.

b) Ensure that 10 percent of all new or remodeled buildings use green building design and materials by 2010 and 25 percent by 2020.

c) Ensure that 30 percent of new dwellings and 50 percent of new commercial space is built within ¼ mile of an existing or planned transit stop by 2020.

d) Sixty percent of new housing is constructed in walkable neighborhoods with a mix of owner occupied and rental residences, in a wide range of household sizes, types, and income levels.

e) Ensure that the children and parents of Marin residents are able to find suitable housing in the same neighborhood.

f) Seventy-five percent of new residences are built within walking distance of an elementary school by 2015.

4. Infill and Redevelopment

➢ Background and trends

Recent new development in Marin County has been relatively low in density. The bulk of new development in Marin County in the past 40 years has been composed of relatively low density suburban housing tracts, shopping malls, and office and industrial parks. Most buildings are one and two stories in height and provided with a large supply of surface parking.

In order to improve transit services and relieve traffic congestion, nodes of higher intensity mixed-use development are needed. One of Marin County's main goals over the past 30 years has been to improve the transit services available to its residents. Traffic congestion and its impacts on the urban and natural environments are a major concern. Yet convenient and cost-efficient transit systems have not yet proved to be a viable alternative to driving a private automobile. This is due in large part to the lack of centers with a population density that will support transit service at sufficiently frequent intervals to make transit a reasonably convenient and attractive alterative to driving.

➢ Issues

Infill development should be located, sited, and designed for a long life cycle, and for long-term flexibility and adaptability of building use.

a) Current needs ought to be considered in the context of respecting Marin's history without being solely bound to its tradition.

b) Commercial areas need to be better utilized: They have transit proximity, opportunities for retrofitting shopping centers, and air rights over parking.

New development should be in the form of infill whenever possible and should be compatible with the unique design character of Marin.

a) Housing development must be infill; transit and pedestrian oriented; and near jobs, shopping, and recreation.

b) Neighborhood identity should be clearly identified and preserved. The County should require compatibility with existing residential development.

c) Design guidelines should be developed that focus on mixed-use and reuse development.

➢ Strategies

Mixed-use infill development should be encouraged in appropriate transit-served locations.

a) Encourage mixed-use development of residential over office and commercial.

b) Match jobs and housing in quantity and location.

c) Target commercial parking lots for redevelopment.

d) Focus on transit-oriented development.

e) Identify countywide opportunity areas for infill and mixed use development, and work with Marin towns and cities to prepare specific plans for their improvement.

Develop standards for increased density, mixed-use, transit oriented development near

transit nodes.

a) Develop design guidelines that focus on mixed-use and reuse development.

b) Define flexible-use building types for mixed-use neighborhood center zones, which can be adapted to new uses over time with minimal internal remodeling, avoiding the need for expensive and energy intensive demolition and reconstruction.

c) Establish zoning for attached single-family homes, or townhouses, which not only occupy less land per dwelling but also expose less exterior surface area to the weather, reducing heating and cooling needs.

d) Amend commercial and office zoning districts to allow mixed-use development.

e) Rezone commercial areas to allow for mixed-use infill development in or above parking lots.

f) Include provisions for increasing building height to accommodate parking structures with housing.

Develop design standards and guidelines for increased density, mixed-use, transit-oriented infill building types.

a) Clearly articulate design standards for commercial, industrial, mixed-use, and residential development in order to achieve high quality site designs and to streamline applications for development.

b) Develop design guidelines that focus on mixed-use and reuse development.

➢ Sample indicators

a) The square footage of remodeling and renovation permits as a percentage of total construction permits (Marin County Community Development Agency).

b) The percentage of building area entitled on previously built sites as a percentage of total new building area entitled (Marin County Community Development Agency).

c) The public subsidy per passenger mile of bus route, compared with 1990 levels, adjusted for inflation (Golden Gate Bridge, Highway and Transportation District, Metropolitan Transportation Commission).

d) The average square footage per residence, compared with 1990 averages. This could be divided to measure the averages for residences more and less than ¼ mile from a transit stop (Marin County Community Development Agency).

➢ Sample targets

a) Ensure that 30 percent of new dwellings and 50 percent of new commercial space are built on previously developed sites by 2020.

b) Increase transit ridership by 40 percent by 2020, relative to 2000 levels.

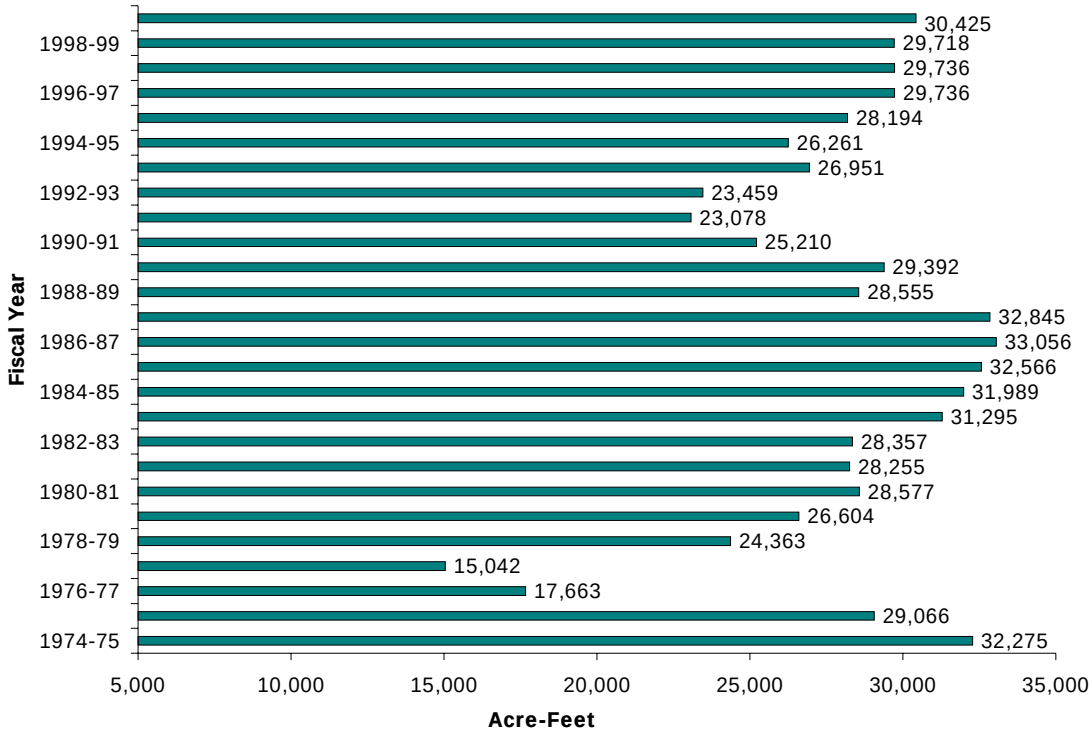
E. COMMUNITY FACILITIES

1. Water Supply

➢ Background and trends

The Marin Municipal Water District is anticipating increased water demand over the next 20 years. Thanks to aggressive conservation programs adopted during the last drought, the Marin Municipal Water District's (MMWD) annual water production has remained relatively stable over time. Demand has remained below peak 1987 levels, despite an estimated 15 percent increase in population. Nevertheless, MMWD demand has been steadily rising for the past several years (Figure III-23).

Figure III-23
Marin Municipal Water District: Annual Water Production



Source: 2001 Huffman

III

The Marin Municipal Water District reports that 5,400 acre-feet per year of additional water supply will be required over the next 20 years (Figure III-24).

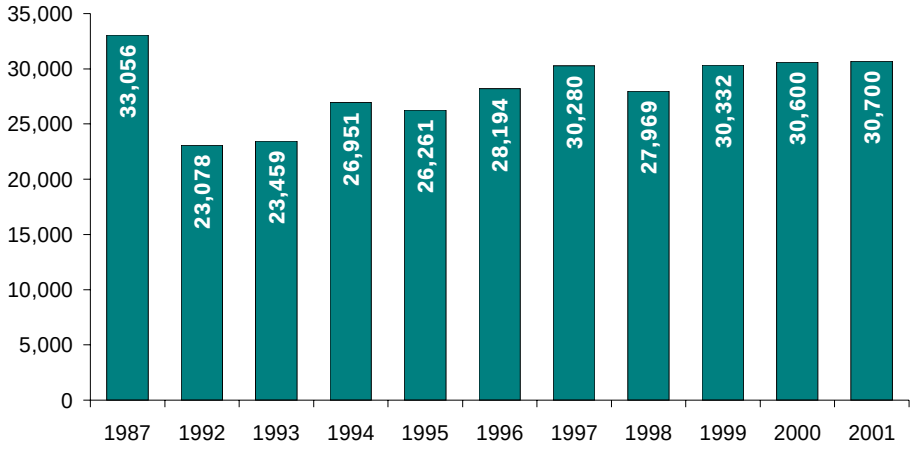
Figure III-24
Marin Municipal Water District:
Water Demand Projections for 2020

Supply	Acre-Feet/Year
Current operational yield	28,600
Current demand estimate	32,500
Projected increase in demand by 2020	2,160
Projected reduction in North Marin pipeline capacity	2,300
Amount required through additional conservation, recycling, and supply	8,360

Source: 2001 Huffman

From 1992 to 2000, per capita water consumption has increased dramatically, from just over 4,600 ccf in 1992 to more than 5,400 ccf in 2000 (1 ccf = 100 cubic feet, or 748 gallons). (It should be noted that 1992 was a drought year.) Demand for water recently began to exceed MMWD's operational yield of 28,600 acre-feet per year "operational yield" is the amount of water MMWD can reliably deliver over time without overdrafting its reservoirs and while meeting service level goals relating to the depth and frequency of rationing) (Figure III-25).

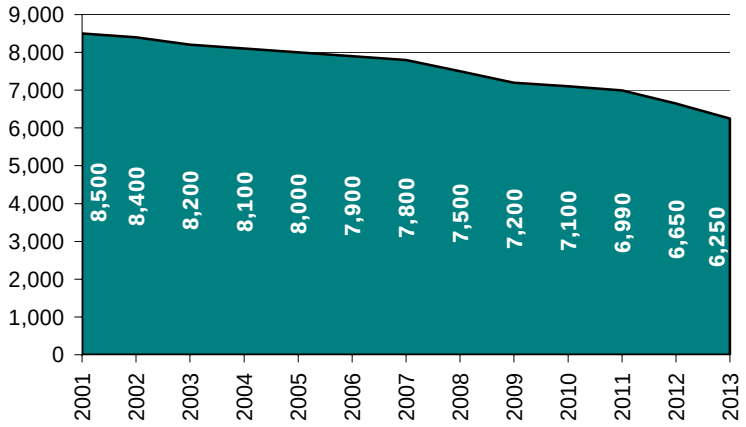
Figure III-25
Demand for Water in Marin: Acre-Feet of Water Used



Source: 2001 Huffman

Per capita demand has been increasing at an even greater rate despite strong conservation measures. MMWD's share of the delivery capacity of the Northern Marin pipeline is expected to decrease from 8,500 acre feet in 2001 to 6,250 acre feet in 2013 (Figure III-26).

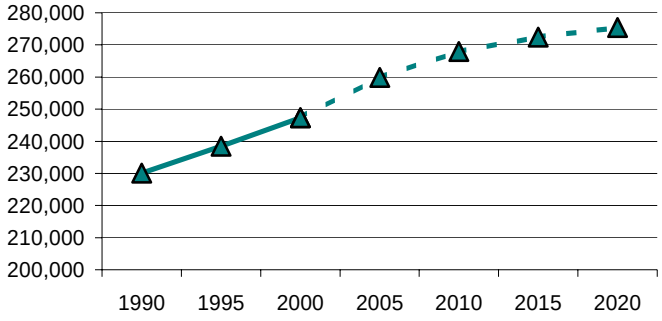
Figure III-26
Marin Municipal Water District's Delivery Capacity



Source: 2001 Huffman

The population of Marin County is expected to increase to nearly 275,000 over the next 20 years, according to ABAG (Figure III-27).

Figure III-27
Marin County Population, 1990–2020



Source: U.S. Census Bureau

Water supply conditions vary in different parts of the county. The North Marin Water District estimates that an additional 8.7 million gallons per day of peak-month service capacity will be needed by 2025. In West Marin, the Bolinas Public Water Utility District (BPUD) has a moratorium on new water service connections because demand is equal to capacity and there are chronic shortages in the dry season.

➢ Issues

Careful water supply planning is needed, and the constraints need to be examined.

a) Development is not congruent with the available water supply, and tension is mounting around this issue.

b) Historically, water planning has been determined by estimating demand and providing supply, versus focusing efforts on demand reduction programs.

c) There is potential for more efficiency in water districts and more potential for cooperation between water districts and sanitation districts.

d) County government is not sufficiently involved in water planning.

e) Data is lacking on how much water is consumed by various land uses.

f) There is a lack of information and education on water sources, the energy used to create supply, and environmental impacts. Information could be provided at water taps in public facilities.

There is debate over new sources of water supply—desalination or a pipeline bringing water from the Russian River.

a) Desalination technology costs are decreasing and coming close to the cost of delivered water. The Russian River pipeline option is estimated by MMWD to cost $1,000 to $1,500 per acre-foot, while desalination is estimated to cost $1,200 to $1,800 per acre-foot. There are factors skewing unit-cost comparison.

b) There is limited flexibility for Russian River deliveries in that the Sonoma County Water Agency contract regulates timing and amount of water access.

c) The operational flexibility of desalination is questionable.

d) Voters approved the Russian River pipeline in 1992, but it has not been constructed due to increased concerns about reliability, environmental issues, and costs.

e) Desalination is attractive because it is drought proof and provides high quality water. However, desalination uses considerable amounts of energy and generates brine, which must be disposed of.

f) Unit costs may skew the comparison between desalination and the Russian River pipeline because desalination is more operationally flexible. For the pipeline, MMWD's contract with Sonoma County contains "off-peak" and "take or pay" provisions, which in many years result in purchases of water that is not needed. A desalination plant, however, can be turned up or down as needed.

g) Russian River water is of excellent quality but draws water from outlying areas and watersheds beyond that of the river. In the summer months, most of the Russian River's flows are actually diversions from the Eel River.

Water conservation measures could reduce the need for additional water supply.

a) Increasing conservation is difficult but still more cost effective than making major infrastructure improvements, which include the Russian River pipeline and desalination.

b) Change-out programs (replacing high flow toilets with low flow ones) and other conservation programs are generally more cost effective than capital projects.

c) Water conservation measures need to be implemented by all community types, including high income communities.

d) The water rate structure for the North Marin Water District should be tiered to encourage conservation.

e) The County could continue to set an example by expanding water conservation at all of its facilities.

f) The recent rise in water consumption can be attributed primarily to outdoor landscaping water use.

West Marin communities have a limited water supply and unique water issues.

a) For West Marin residents served by coastal wells, saltwater intrusion on the coast may be limiting the availability of drinking water.

b) Stream water turbidity caused by heavy winter storms is an issue for the Bolinas Community Public Utility District, since suspended particles and debris can overload the capacity of the treatment plant to purify the stream water.

c) The Inverness Public Utility District (PUD) has no reservoirs for long-term storage. The water system is dependent for its supply on the daily flows in the springs in the watershed. In late summer and fall the amount of water available in the springs sometimes gets very close to equaling the water system's demand. There is no more surface water available in the District's watershed.

d) Water demand is increasing in Inverness because large houses are being built or remodeled and landscaped. Many irrigation systems are on automatic timers and use more water than houses with more natural drought-tolerant landscaping. Water use during the dry season has increased 3.2 percent over the past decade.

e) The Muir Beach Community Services District (CSD) is concerned with delivering water to residents through a water-delivery system that is more than four decades old in some places and suffers from deferred maintenance.

Other issues include groundwater and other ways to conserve and reuse water.

a) Individual diversion of groundwater and streams can result in creating fish migration barriers.

b) Potable reuse could help meet some of our demand for water, but the concept is politically unpopular.

c) There are conflicting regulations about graywater use among Marin County agencies, the North Marin Water District, and the Marin Municipal Water District.

d) People would invest in graywater systems for their homes if there were additional financial incentives.

e) Further information is needed on composting toilets and other experimental types of facilities.

f) A minimum development standard for on-site water retention is lacking.

g) New developments are not being designed to capture rainwater because of existing regulations, and programs do not encourage this practice.

➢ Strategies

Increase water-conservation measures.

a) Study the impacts of increased development and higher densities on water demand.

b) Develop measures to reduce Marin County's dependence on fresh water sources, especially diversions from environmentally sensitive rivers and streams.

c) Support the Marin Municipal Water District's tiered water rate structures to encourage water conservation.

d) Urge the North Marin District to adopt the California Urban Water Conservation Council Best Management Practice of tiered billing rates to encourage water conservation.

e) Develop a model water conservation program to be implemented at all County buildings (such as the Civic Center), landscaped areas, and parks. This model program could be used as an example for other jurisdictions.

f) Institute a water conservation program for all County facilities. Install zero-flow urinals and low-flow toilets, sinks, and showers. Continue to use recycled water in the chiller of the Civic Center and encourage the use of recycled water in other County facilities, use drought-resistant landscaping for all County facilities and public roadway landscaping, and use little to no potable water for landscaping.

g) Require compliance with the County's water-conservation measures, such as requirements for use of native plants in landscaping and water-conserving fixtures in buildings.

h) Develop public information fact sheets with water consumption rates for various land uses, water conservation suggestions, the amount of energy that was used to create the water supply, and the environmental impacts.

i) Require drought-tolerant landscaping on all new development and re-landscaping projects over a certain size to reduce the amount of water used for irrigation.

j) Conserve water both to decrease use of a scarce resource and to reduce the consumption of energy for water distribution.

k) Encourage farms to create water retention ponds for on-site agricultural use.

l) Encourage the use of recycled water for landscaping on public and private land.

m) Encourage and support water conservation and efficiency programs implemented by the Marin Municipal Water District and North Marin Water District.

Evaluate and consider implementing a variety of techniques for conserving and reusing water.

a) Evaluate the benefits and costs of desalination as a water source, including measures to reduce the environmental impacts of desalination, such as renewable energy generation and blending of brine discharge with existing wastewater outfalls.

b) Encourage use of rainwater catchments. Evaluate the use of small-scale portable graywater converter systems as a possible water source for landscaping. Reevaluate graywater regulations and modify them as necessary to encourage its use.

c) Provide financial incentives to encourage people to invest in graywater systems for their homes.

d) Provide information on composting toilets and other experimental types of facilities.

e) Create development standards for capturing rainwater for irrigation.

f) Require homes over 5,000 square feet to reuse 25 percent of their own water through catchments and/or water recycling.

g) Upgrade the water delivery systems in West Marin to reduce the incidence of saltwater intrusion and leakage.

h) Study efficiency and cost effectiveness of rainwater harvesting systems, infiltration, and recharging patterns of groundwater aquifers to assess the most feasible water sources.

i) Conduct a groundwater 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.

➢ Sample indicators

a) Monitor MMWD and NMWD reservoir levels (Marin Municipal Water District and North Marin Water District).

b) Measure the amount of water supplied by the Russian River (Marin Municipal Water District and North Marin Water District).

c) Track the rate of water consumption by County government and countywide (Marin Municipal Water District and North Marin Water District).

d) Track recycled water use (Marin Municipal Water District and North Marin Water District).

e) Measure water use per capita (Marin Municipal Water District and North Marin Water District).

➢ Sample targets

a) Increase water-conservation measures in use by regulated industries by 10 percent by 2010 over 2000 levels.

b) Increase water catchments by 25 percent by 2010 over 2000 levels.

2. Sanitary Districts and Sanitary Waste Disposal

➢ Background and trends

Sanitary districts throughout the county have to address the need for expanded capacity and upgrading of facilities. The Las Gallinas Sanitary District and the Novato Sanitation District will need to expand in order to serve the large parcels that are anticipated to develop within the next 10 years. Sanitary District #5 (Tiburon Area) will reach its capacity by 2003.

The Southern Marin Sewerage Agency assumed ownership of a five-mile trunk sewer system from member agencies. This system requires upgrading to prevent sewer system overflows and backups. The estimated cost is $1,800,000, and the project should be completed in 2003.

The Ross Valley Sanitary District #1 has some areas that are served by septic systems. Property owners are connecting to the sewer service as required. An assessment district may be an option if a majority of the property owners agree.

The Seafirth treatment plant, located between Corte Madera and Tiburon, is privately owned by 100 property owners. The plant has operating problems, and the residents are interested in annexing to a public treatment facility.

The Bolinas Community Public Utility District (BCPUD) is currently operating at capacity in non–dry weather months; therefore, there is a moratorium on new connects to the system.

➢ Issues

Issues of concern to sanitary districts include releasing sewage into the bay, upgrading and improving facilities, funding upgrades and maintenance during a time when electricity costs are rising, and trying to keep customer rates down.

a) Concerns of the Las Gallinas Valley Sanitary District include sewage violations by the district; heavy metal deposits, such as mercury, zinc, and copper, which are building up in the District's treatment plant; the need to improve management of natural and financial resources; funding the upgrading of aging pipes and other equipment; improving communication with the public; and dealing with methane gas on District lands.

b) The Sausalito/Marin City Sanitary District will be required to upgrade two additional pump stations, replace two pump stations with gravity sewers, rehabilitate the Marin City collection system, and install a new sludge dewatering facility at the treatment plant. These improvements will not increase the system's capacity but will allow it to handle present peak flow conditions more safely.

c) The Bolinas Community Public Utility District (BCPUD) needs to upgrade its system to increase capacity at an estimated cost of $1.2 million.

d) There is a need for the County to develop new septic regulations.

➢ Strategies

Encourage sanitary districts to support and participate in water conservation programs.

a) Include consideration of volumetric billing and partnering with water districts to reduce the volume of wastewater that must be treated.

b) Strongly urge the County to support the use of treated wastewater for irrigation by using wastewater to irrigate County-owned properties and encouraging wastewater irrigation at other public and private facilities.

Reduce the toxic impacts of sewage treatment.

a) Develop policies and programs that encourage biological treatment of sewage.

b) Encourage the sanitary districts to reduce the number of sewage violations.

c) Encourage the sanitary districts to reduce the accumulation of heavy metal deposits, such as mercury, zinc, and copper, in their treatment plants.

➢ Sample indicators

a) Measure levels of heavy metals, such as mercury, zinc, and copper, in wastewater (Marin County Department of Public Works).

b) Measure the amount of wastewater that is recycled and reused (Marin County Department of Public Works).

➢ Sample targets

a) Reduce heavy metal deposits at sewage treatment plants by 20 percent by 2020.

b) Increase the amount of wastewater that is treated and recycled by each sanitary district by 20 percent by 2020.

3. Public Utility Districts and Community Services Districts

➢ Background and trends

Special districts that provide water and other facilities have a variety of supply concerns. In terms of water supply versus water demand, certain West Marin districts periodically experience water supply shortages during peak-use periods and drought conditions. For example, the Inverness Public Utility District's available water volume can range from a high of 2 million gallons per day in winter during heavy rainfall periods to a low of 69,000 gallons per day, which occurred during August 1994, following the 1993-94 drought (Marin Countywide Plan Community Facilities Technical Report, 2001).

The Bolinas Community Public Utility District (BCPUD) has had to impose building moratoriums on new water service connections due to lack of adequate water storage capacity. The first moratorium was enacted in 1971. The BCPUD currently has a moratorium in new water service connections due to chronic water shortages during the dry season (Marin Countywide Plan Community Facilities Technical Report, 2001).

➢ Issues

Special districts are faced with resource and maintenance issues.

a) The Inverness Community Plan needs to consider how the community is going to address its water needs in an era of increasing demand for limited resources.

b) The Bel Marin Keys Community Services District is concerned about how to deal with the unincorporated waterfront community's silted lagoons and deteriorating lock system, and how to fund planned improvements to waterways.

➢ Strategies

Address supply and maintenance issues.

a) Work with the Inverness PUD on updating the Inverness Community Plan to identify ways to address the demand for resources.

b) Encourage Bel Marin Keys to identify strategies for addressing waterfront silting and improvement cost demands.

➢ Sample indicators

a) Monitor annual water production in acre-feet per year for each district (Sanitary Districts, Marin County Department of Public Works).

b) Monitor average daily demand of the peak month (in million gallons per day [mgd]) for each district (Sanitary Districts, Marin County Department of Public Works).

➢ Sample targets

a) Increase the installation of water conservation devices by 25 percent by 2010 and 50 percent by 2020.

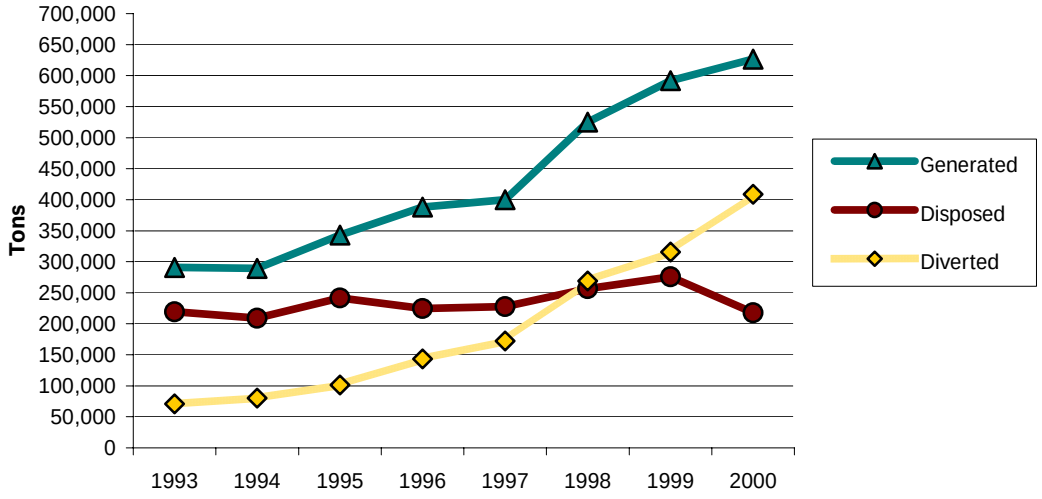
b) Water demand will not increase by 2010 over 2000 levels.

4. Solid Waste

➢ Background and trends

Marin County's solid waste generation is increasing, but diversion from landfills is also high. There are approximately 30 known solid waste sites in Marin County, including a solid waste landfill, a composting facility, a materials recovery facility, and a large-volume transfer and processing facility (Snyder and Smith Associates). Marin County has significantly increased the percentage of solid waste diverted from landfills. Only 24.4 percent of all waste was diverted from landfills in 1993, compared with 65.2 percent by 2000. During the same period, however, waste generation increased 115.7 percent, from 290,519 tons to 626,696 tons (Figure III-28).

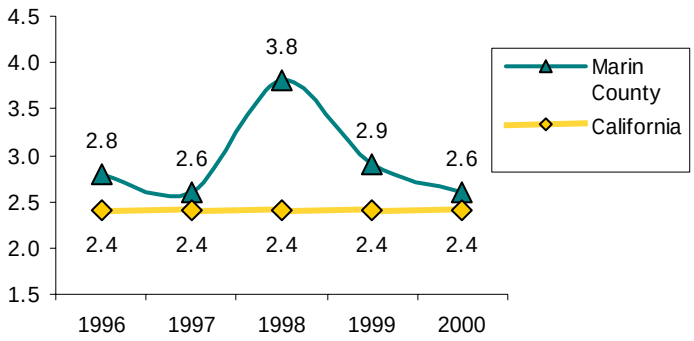
Figure III-28
Waste Generation: Disposal and Diversion Rates



Source: Marin County Hazardous and Solid Waste Management Authority

Residential disposal rates have varied but are above the state average. While the average resident disposed of 2.4 pounds of waste per day in California, in Marin the amount varied from a low of 2.6 pounds in 1997 and 2000 to a peak of 3.8 pounds in 1998 (Figure III-29).

Figure III-29
Residential Disposal Rates
Per Resident, Per Pound



Source: Integrated Waste Management Board

Hazardous waste disposal regulations are changing. The State of California is attempting to reduce overlap and redundancy within the hazardous materials regulations and enforcement efforts. The state is promoting site-specific health-based risk analysis cleanup standards versus broad, conservative regulation standard and a tiered permitting process, which indicates an interest in public health and the environment.

➢ Issues

Despite very high recycling, Marin County can do more to reduce waste.

a) Marin County's Regional Integrated Waste Management Plan needs to be implemented.

b) Rules for diverting construction waste from landfills exist in some communities but not in Marin.

c) Since there is no landfill or transfer station in West Marin, residents must drive to the Redwood landfill in Novato to dispose of refuse. Because of the lack of an easily-accessible disposal site, there is considerable illegal dumping of trash.

➢ Strategies

Pursue additional efforts to reduce waste.

a) Create a construction and demolition waste ordinance to divert construction waste from landfills.

b) Continue to impose aggressive recycling, resource recovery activities, and composting efforts to reduce the amount of waste diverted to landfill.

c) Enact educational programs to inform residents about recycling and composting programs.

d) Develop an education program and a Web site about diversion of construction waste from landfills to other sites within the county.

e) Explore the feasibility of establishing a transfer station in West Marin.

➢ Sample indicators

a) Annually measure the diversion rate of waste from the Redwood Landfill in accordance with the California Integrated Waste Management Act of 1989 (California Integrated Waste Management Board).

b) Measure the percentage of reduction in landfill solid waste volumes (California Integrated Waste Management Board).

➢ Sample targets

a) Recycle at least 50 percent of Marin County construction waste by 2005.

b) Increase the waste stream diversion rate to 75 percent by 2020.

5. Emergency Preparedness

➢ Background and trends

Disasters are increasingly complex. The scope of disasters continues to broaden. No longer does emergency response focus solely on life-safety or property and environmental protection. A focus on efficiency has led to increased dependence on technology to communicate and manage personnel and equipment during an emergency response. There are fewer government resources. Government in California is growing at one-half the rate of the population. The government resources available in a disaster are now relatively fewer and less available than in the past.

Threats to life, property, and the environment in Marin County are increasing in variety and frequency, such as earthquakes, fires, floods, and diseases. There is significant evidence that earthquake activity is increasing in the Bay Area. The chance of a major earthquake (6.7 on the Richter scale) hitting the Bay Area before 2030 is estimated at greater than 70 percent.

Global warming is expected to cause an increase in weather severity and rising sea levels. Rising sea levels will cause increased localized flooding in low-lying coastal areas and will increase coastal erosion. Expected and predicted impacts from global warming and the resulting rise of sea levels on coastal areas include increased coastal erosion, increased saltwater intrusion, increased flooding in low-lying areas, and liquefaction of soils.

➢ Issues

Emergencies can be caused by a variety of events.

a) There are threats of drought based on increasing population versus decreasing water supplies. Environmental restrictions being placed on the Eel and Russian rivers will impact Marin's ability to draw water from these sources.

b) There are threats from wildfires. Controlled burns are not keeping pace with the growth of vegetation. Heavy vegetation combined with the housing patterns in Marin creates a significant fire hazard. Sudden Oak Death will exacerbate this problem.

c) Recent evidence indicates that the most significant threat from tsunami comes not from an earthquake in Japan, Alaska, or Chile, but instead from an underwater landslide or earthquake just off the California coast; the resulting tsunami could hit the coastline within 20 to 30 minutes.

d) There are potential threats, including nuclear and biological threats from terrorists.

e) Perhaps the greatest threat to life in Marin is that posed by a public health crisis. An outbreak of a communicable illness, such as drug-resistant tuberculosis or pandemic influenza, would pose a grave challenge to the local medical institutions.

Government agencies have to face many challenges to be able to respond effectively to emergencies.

a) Emergency response requires an increasingly sophisticated and coordinated effort on the part of local and state government agencies, as well as community groups and nonprofits. The effects and response to a disaster can last years. Jurisdictions in Marin County need to train exhaustively for emergency preparedness.

b) Technology is vulnerable to disruption from natural events as well as criminal attack. Manual back-up systems must remain in place.

c) Increasingly, local governments are required to develop plans and procedures that address other 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. Some jurisdictions address emergency preparedness in their general plans.

d) With a relative reduction in resources and increased complexity, local communities are increasingly reliant upon outside assistance following a disaster. No longer can a community take care of itself—emergency response must focus on bringing resources from outside the affected area. This interdependence places a great premium on the ability to communicate and manage people and equipment during a crisis.

e) City, County and special district employees are increasingly living outside Marin County. A recent survey of County employees showed that 44 percent live outside the county. This will have a major impact on the ability of local governments to respond during a disaster—especially if access routes like Highway 101 or 37 are closed down.

f) Government resources that can be brought to bear in a disaster are becoming relatively fewer and less available. Additionally, the federal military agencies have closed almost all of their Northern California installations in the last 10 years, and the National Guard has lost 50 percent of its strength. Governments have moved fully out of the civil-defense structure seen from 1949 through 1989. There are no warehouses full of disaster supplies, and either few or no community response teams.

g) A contingency plan is needed for critical lifelines (power, water) if they are unavailable.

h) Building a north-south bikeway parallel to Highway 101 creates a new transit corridor that could serve emergency vehicles if the highway is blocked.

i) Marin cities do not have an emergency manager on staff. The preference of the Office of Emergency Services (OES) is for each city to have at least an emergency manager on staff on a part-time basis.

j) Increased interdependence and reliance on outside counties and agencies for assistance, supplies, and other resources is a challenge. The County does not have enough resources on hand to be able to cover needs. In the event of a disaster, it is a challenge to quickly identify the resources needed, which requires significant coordination and management among OES staff, both internally and external to outside agencies. This could result in a delay in getting resources to the area.

k) The County could take an active role in hazard mitigation by focusing on prevention and minimizing their effects.

l) The County does not have adequate storage or warehousing facilities for emergency vehicles and equipment.

m) Marin County has not received national or international certifications that verify the community's level of readiness for a particular type of disaster. Examples of such certifications include the National Fire Protection Association's 1600 Standard on Disaster/Emergency Management and Business Continuity Program (NFPA 1600), and the National Weather Service's StormReady and TsunamiReady Programs.

n) The County Emergency Operations Center is too small, and a new one needs to be constructed, as well as an alternative center.

o) In an emergency, all the local agencies (municipal, fire, and water) require a reliable method for speaking with one another.

Local residents and communities need to be prepared for emergencies.

a) Most neighborhoods are not prepared for disasters. Most families do not have a food and water contingency plan for emergencies. Marin County residents must expect to be on their own for at least 72 hours following a major event.

b) Better exit plans are needed for hillside residents if their primary access is blocked. Bicycling and walking may be the only practical transportation means in some areas during an emergency.

c) Planning for special needs populations during emergencies is being promoted in communities.

➢ Strategies

Improve government ability to respond to emergencies.

a) Support the Office of Emergency Services (OES) efforts to oversee emergency response that identifies and coordinates all potential allies during an emergency, such as nonprofits, hospitals, and schools.

b) Support the OES Emergency response plan that identifies potential threats and the appropriate responses.

c) Build the new OES Emergency Operations Center, which will support the management of response activities during a disaster.

d) Continue to train Marin County staff in emergency procedures and the emergency response plan.

e) Complete the north-south bike route with design features that will accommodate emergency vehicles if the highway becomes impassable.

f) Encourage jurisdictions to create an emergency response plan if one does not already exist in their master plan.

g) Integrate into the County Space Plan the minimum requirements for the County Emergency Operations Center expansion needs.

h) Ensure that the Marin Emergency Radio Authority (MERA) project is completed.

Educate the public about emergency preparedness.

a) Establish an "Emergency Preparedness Awareness Week" for an annual public education campaign about what families should do to prepare for potential emergencies. Educational programs in schools could also occur during this week.

b) Encourage residents to have 72 hours of water, food, and other supplies available; to plan multiple exit routes from both the house and the neighborhood; to prepare for situations when roads are not passable by car traffic; and to undertake other preparatory actions.

c) Encourage the installation of automatic natural gas shut-off valves in residential and nonresidential buildings and have neighborhood emergency-response groups educate others about the location of natural gas shutoff valves and prepare neighborhood emergency plans.

d) Encourage residents to go through the Community Emergency Response Training (CERT) so that they can serve as civilian volunteers during an emergency.

e) Support affordable housing for emergency response personnel so that they are able to purchase a house within the county if they desire to do so.

f) Develop a contingency plan for special needs populations, which might include identification of their location and special need and an identification of reaction requirement given the emergency.

g) Prepare an education program for businesses and families for emergency preparedness, which might include evacuation plans, and on-site storing of adequate water and food.

➢ Sample indicators

a) Number of disaster readiness or training certifications received by County departments (Office of Emergency Services).

b) Percentage of County employees trained through the Emergency/Disaster Operations and Introduction to Standardized Emergency Management System (SEMS) training (Office of Emergency Services).

c) Percentage of communities with 1 percent of their population trained in Community Emergency Response Training (CERT) (Office of Emergency Services).

➢ Sample targets

a) Complete the Office of Emergency Services' Emergency Operations Center by 2008.

b) Train 95 percent of County employees in the Emergency/Disaster Operations and Introduction to Standardized Emergency Management System (SEMS) training.

c) Train 1 percent of the population of every community in Community Emergency Response Training (CERT).

6. Fire Protection

(See also II. Natural Systems, B. Environmental Hazards, 4. Fire Hazards.)

➢ Background and trends

Efforts are being made to reduce fire hazards around buildings. New development in the outskirts of cities but in the unincorporated areas require a fuels management plan and an automatic sprinkler system in buildings. Vegetation management programs are being promoted; this includes clearing flammable vegetation away from structures.

➢ Issues

Fire protection agencies are facing the need to upgrade equipment and personnel.

a) The comprehensive plan for the Novato service area calls for a fire station with a paramedic engine company in the southern portion of the fire district.

b) Water pressure in some hillside areas is not adequate for fire protection.

c) Many areas of the county are located a great distance away from or are difficult to get to from fire stations.

d) The current fireboat used by the Sausalito Fire Department to protect the waterfront has limited access in certain tidal conditions, in shallow water, and where there is debris on the bottom of the bay.

e) The 1999 Fire Flow and Seismic Improvement Master Plan from the Marin Municipal Water District established priorities for water distribution in the Tiburon Peninsula where fire flow was low. The 3000 to 4000 block of Paradise Drive was not included in this plan for update.

f) The Bolinas Fire Protection District has a station that is seismically inadequate and too small to meet its current need.

g) The West Marin Fire District counts on volunteers to become as highly trained as firefighters in paid departments, but the number of volunteers is quickly becoming depleted due to the age of the population and a change to more of a weekend vacation population.

h) Inverness has several engines and utility vehicles that are 20 or more years old and that need replacement, but fiscal considerations have constrained the replacement.

➢ Strategies

Use personnel effectively for fire protection and emergencies.

a) To better serve Marin's aging population, encourage Novato, like San Rafael, to require that firefighters be certified Emergency Medical Technicians as a condition of employment.

b) Continue to maintain adequate response times by continuing to use mutual aid for fire protection.

c) Promote the value of fire volunteering to the younger people in West Marin.

Consider fire protection needs in building and development policies.

a) Continue to encourage more urban development in the City-Centered Corridor to maintain development in the areas serviced by public utilities.

b) Aggressively promote vegetation clearing from structures as a fire management technique.

c) Continue to support the Fire District's requirement for on-site water retention for parcels located in areas with inadequate water flow.

Provide necessary facilities and equipment.

a) Encourage a Sausalito Fire Department committee to finalize specifications and recommend purchase of a new fireboat for the Sausalito waterfront floating homes.

b) Encourage the Marin Municipal Water District to consider adding to its Fire Flow and Seismic Improvement Master Plan improvements required for the 3000–4000 block of Paradise Drive.

c) Encourage the Bolinas Fire Protection District, along with other public and private sources, to continue to seek funding for its station-rebuilding project.

d) Encourage Inverness to seek public or private funds for the replacement of its engine and utility vehicles, which are each more than 20 years old.

7. Police Protection

➢ Background and trends

Police agencies are broadening their functions and using volunteers to supplement paid staff. Police officers are now bridging the gap in social services by working with mental health patients and Health and Human Services. Volunteers to supplement sworn officers for specialized duties (airplane crew, patrol boat staff, mounted deputies, specialized event patrol) continues to be used extensively for the Marin County Sheriff's Department.

➢ Issues

a) If Marin City were to be annexed to Sausalito, additional police officers and equipment would be needed, and additional space is not available at the existing facility.

➢ Strategies

Meet staffing and facility needs.

a) Continue to provide the social benefits of alternative health services instead of jail for people with mental health problems who are nonviolent.

b) If Marin City is annexed to Sausalito, revisit their need for additional officers or building space.

c) As the population ages and the use of volunteers does not subside, the Marin County Sheriff's Department needs to continue to recruit volunteers to replace those retiring.

8. Schools

➢ Background and trends

Current trends in school-age population may not continue. The increase in elementary school children in the mid-1990s caused some school districts to reopen closed schools and expand existing facilities. Since 1985 the following school districts have experienced a steady increase in average daily attendance: Dixie, Kentfield, Larkspur, Ross Valley, San Rafael Elementary, and Novato Unified.

In Marin County the proportion of the population composed of children 17 years old or younger is expected to decrease by 27 percent. The decrease in the number of children may bring about the closure of schools and may reduce the demand for child-care services.

➢ Issues

There is uncertainty about the merger of two school districts in San Rafael.

a) Depending upon a decision of the California State Board of Education, voters may consider the unifying of the San Rafael Elementary and the San Rafael High School Districts in 2003. Many are concerned that less money per student will be allocated to the unified district. Also, the future existence of the continuation school is unknown; and the Santa Venetia students currently going to Terra Linda High School may or may not continue to go there.

b) Decreased State funding may substantially impact Marin school districts.

➢ Strategies

Provide adequate facilities and assess future needs.

a) Seek additional funding sources for capital improvements to school facilities.

b) Conduct a study to reassess whether the development fees currently collected with building permits adequately meet the school facilities' needs.

c) Find multiple uses for schools to meet other community needs.

d) Encourage the County to create smaller neighborhood schools throughout the county so that children can safely walk or bike to school.

e) If the California State Board of Education agrees to the unification of the San Rafael Elementary and San Rafael High School districts, encourage the community to consider all the impacts when voting in 2003.

f) Encourage the school district to continue to follow trends in numbers of school-age children and assess facility needs.

➢ Sample indicator

a) Measure enrollment figures against the maximum design capacity of each school (Marin County Office of Education).

➢ Sample target

a) Ensure that by 2020, enrollment within 90 percent of the school districts will not exceed design capacities for their schools.

9. Libraries

➢ Background and trends

The Marin County Free Library (MCFL) system currently serves roughly one million visits per year. This has remained relatively unchanged since fiscal year 1996–97, when the population in the MCFL service area was 132,310. In fiscal year 2000–01, the service area population was 136,875. It is expected that future visits to the library system will increase as the demographics of the county evolve.

In particular, the number of visits from immigrant and elderly populations is expected to grow (Marin County Grand Jury).

The MCFL circulates approximately 1¼ million volumes and processes more than 150,000 reference requests per year. Reference requests have been steadily declining, dropping from 235,085 in fiscal year 1996–97 to 154,776 in 2000–01. It is speculated that the decreasing trend in the number of reference requests reflects increasing use of the Internet.

The MCFL sponsors a variety of special programs and outreach services. In 2001, the MCFL was involved in more than 300 adult programs reaching nearly 2,700 attendees. In addition, more than 28,000 participants attended 1,000 children's programs. Other services offered included a bookmobile program, a Books on Wheels program for homebound patrons, the Tender Loving Care service to convalescent homes, and the Marin Literacy program, to name a few (2001–2002 Marin County Grand Jury Report).

➢ Issues

Libraries need adequate facilities and staff.

a) Adequate library facilities and services are required to meet the needs of people of all ages in all parts of Marin.

b) It will continue to be a challenge for libraries to keep up with changing technologies and funding constraints.

c) In the coming years, a large percentage of librarians will retire, and there are a limited number of new librarians coming into the system. The high cost of living compared with the salaries of librarians may make it difficult to find committed and knowledgeable librarians to work in Marin.

d) Many of the Marin County branch libraries are not large enough to meet minimum standards. The library staff will need to evaluate space requirements and try to meet the needs of the branch libraries.

e) A report from the Grand Jury in 1997 focused on the poor condition of many Marin County public libraries.

A variety of services are needed for a diverse population.

a) As the population in Marin increases, library use will likely increase.

b) Libraries provide an opportunity for low income individuals to have access to digital information. Librarians can help people navigate the Internet and gain access to information.

c) If the demand by older people increases, the materials may have to be more age appropriate, with more large-print books and books on tape.

d) Outreach to the community will become more important for libraries. With the reduction in school libraries, children are not exposed to library services and will need to be educated about the availability of library resources.

e) Changing demographics provide challenges for libraries. There is a need to provide services to the elderly, to reach out to younger patrons, and to provide bilingual and literacy services.

f) Public libraries are a key institution for helping immigrants to become assimilated into the mainstream culture.

➢ Strategies

Provide needed library facilities.

a) Continue to seek additional revenue sources to fund library operations.

b) Upgrade library technology and increase communication capacity for computer access for each library. Ensure that more of the library resources are available in digital format. Evaluate space requirements for branch libraries, and develop a program to meet identified needs.

c) Find multiple uses for libraries to meet other community needs.

d) Install a reliable, fast computer network that electronically links all the libraries.

e) Improve transportation options, such as bike and pedestrian pathways, that link libraries to their communities.

Address the needs of a diverse population for library programs and services.

a) Periodically evaluate Marin's demographics in order to provide improved library services. Ensure that library services match the demand of the populations they serve.

b) Develop better ways to serve the library needs of the county's special populations, such as children, young adults, the elderly, the handicapped, and residents who are not native English speakers. Ensure that adequate literacy, bilingual services and bilingual technological services are available in all libraries.

c) Expand outreach efforts to the community.

➢ Sample indicators

a) Measure the number of library resources available in digital format (Marin County Free Library).

➢ Sample targets

a) Increase the number of library resources available in digital format by 20 percent by 2010 (Marin County Free Library).

10. Hospitals

➢ Issues

a) Marin County was identified in the Statewide Health Facilities and Services Plan (1985) as having a significant excess of acute care hospital beds.

b) Marin General is considering retrofitting two of three wings by 2008, or building a new hospital by 2013.

➢ Strategies

a) Given the aging population, it is recommended that any decrease in acute care hospital beds be carefully considered.

b) If Marin General decides to retrofit its two wings, it should coordinate with other area hospitals to prepare contingency plans for service.

11. Telecommunications

➢ Issue

a) High-speed computer access is critical to data network deployment for economic development.

➢ Strategy

a) Integrate the strategies in the Marin Telecommunications study into the policies of the Countywide Plan.

(For discussion of the digital divide issue related to telecommunications, see IV. The Economy, Equity, and Culture, C. Social Equity and Public Health, 4. Education.)

F. COMMUNITY DEVELOPMENT

➢ Background and key trends

The Countywide Plan incorporates sound environmental and planning principles that have guided Marin County for 30 years. The Plan designates the 606 square miles of land and water composing Marin County as an environmental unit consisting of regions called *corridors,* with specific geographical and environmental characteristics and natural boundaries formed by north- and south-running ridges. In the first Countywide Plan, adopted in 1973, and in subsequent updates, three environmental corridors were designated:

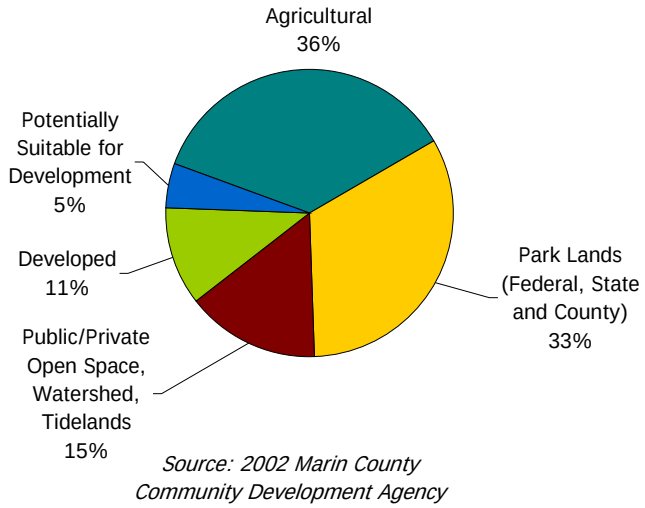
- The Coastal Recreation Corridor, adjacent to the Pacific Ocean, is designated for federal parklands, recreational uses, agriculture, and the preservation of existing small coastal communities.
- The Inland Rural Corridor in the central and northwestern part of the county is designated for agriculture and compatible uses, and for preservation of existing small communities.
- The City-Centered Corridor along Highway 101 in the eastern part of the county near San Francisco and San Pablo Bay is designated for urban development and for protection of environmental resources. This corridor is divided into six planning areas based on watersheds.

One modification proposed in this update of the Plan is the designation of a fourth environmental corridor encompassing the lands along the shoreline of San Francisco and San Pablo Bay. The designation as a Bayfront Corridor would provide heightened recognition of the unique environmental characteristics of this area and the need to protect its important resources. The area consists of marshes, tidelands, and diked lands that were once wetlands or part of the bay.

Resource areas are also designated in the Countywide Plan. They include stream and creekside areas, the Bayfront Conservation Zone, and the coastal zone, which is protected by a detailed plan for coastal conservation called the Local Coastal Plan.

More than three-fourths of Marin County's land is protected from development, and population growth is low. Only 11 percent of Marin County's land area has been developed. The majority of this land is within cities. Most of the 5 percent of land potentially available for development is also in cities. Nearly 85 percent of the county consists of parks, open space, watersheds, tidelands, and agricultural lands (Figure III-30).

Figure III-30
How Marin Lands Are Used



Source: 2002 Marin County Community Development Agency

Countywide population growth between 1990 and 2000 averaged ¾ percent per year. The population in cities 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).

Countywide planning requires coordination with cities and regional agencies. The Countywide Plan is not created in a vacuum. Coordination is needed with agencies such as ABAG in regional planning efforts and the Regional Water Quality Control Board in developing policies that will result in clean water flowing from creeks into the bay and ocean. State and federal agencies like the California Coastal Commission and the National Park Service are also consulted.

Local agencies and various County departments participate in the planning process. The Local Agency Formation Commission (LAFCO) is an agency that plans for the provision of urban services, and the future service areas and boundaries of cities. Its policies and boundaries are incorporated into the Plan. A Countywide Planning Agency was created by a joint powers agreement among all the cities and towns and the County, with one of its functions being to review and comment on the Countywide Plan and the general plans of the cities and towns. It can play an important role in the update of the Plan.

Planning policies and zoning are used to carry out the goals of the Countywide Plan. Since many of the mapped boundaries and policies in the Countywide Plan were established 30 years ago, there may be reasons to review them carefully and consider revisions. A careful study of the relationship between land use designations in the Countywide Plan and zoning on specific parcels would indicate whether the intention of the Plan is being expressed in the zoning.

LAFCO is reviewing spheres of influence for cities and service agencies in the City-Centered Corridor. Any changes made to these boundaries will be considered in the course of the Countywide Plan update and will ultimately be incorporated into the Plan.

Community plans provide specific direction for communities in the unincorporated area of the county. Most unincorporated communities have a community plan, which provides specific direction for land use, transportation, community facilities, building design, and environmental issues. Some of these plans have been updated recently in a format that is consistent with the Countywide Plan.

1. Coordination within the County and with Regional Agencies

➢ Issues

Sound regional planning requires coordination and consistency among general plans of neighboring counties, cities and towns in Marin, federal and state management agencies, and the Countywide Plan.

a) Data and policies in various plans need to be consistent and compatible.

b) A broader view of planning to encompass public health, social services, and other quality of life issues is needed.

c) Land use planning needs to be coordinated with LAFCO and with agencies providing water and sewerage.

The Countywide Planning Agency was created to coordinate planning among the cities and the County, and can be used for a variety of planning functions.

a) With representation from all the cities and the County, the Countywide Planning Agency can address many planning issues of concern to all jurisdictions.

➢ Strategies

Coordinate with all relevant agencies in updating the Countywide Plan.

a) Coordinate with the National Park Service on land use planning for property adjacent to or within park boundaries.

b) Continue to work with the Local Agency Formation Commission on its special studies to determine changes in boundary areas.

c) Work with ABAG in the development of a regional plan.

d) During the periodic review of the Countywide Plan, also conduct a review of the general plans of participating jurisdictions to coordinate growth projects, traffic level of service, housing policies, and environmental quality policies and programs.

e) Have the County continue to take an active role in participating with other organizations' planning efforts (for example, health agencies, social agencies, and transit) to encourage the understanding of the relationship between land use planning and quality of life.

f) Have the County analyze the cumulative impacts of development applications on water availability.

Utilize the Countywide Planning Agency for a variety of the following planning functions.

a) Take a greater role in the coordination and implementation of land use and transportation planning efforts.

b) Conduct a biennial review of the general plans of participating jurisdictions to coordinate growth projections, traffic level of service standards and mitigations, housing policies and programs, environmental quality policies and programs, and policies and programs dealing with provision of community facilities and services.

c) Work closely with the Planning and Public Works departments regarding smart infill standards and designs.

d) Cooperatively implement capital improvements, transportation services, or modifications to land use designations to maintain the levels of service with the Planning and Public Works departments.

e) Develop a program to coordinate the pace of development in all jurisdictions with the provision of transportation system capacity.

f) Evaluate expanding the functions of the Countywide Planning Agency to include such activities as waste management planning and airport land use planning. The design and implementation of a countywide revenue-sharing program, review of major development projects, and the relationship of jobs and affordable housing should also be considered.

g) Analyze the impacts of development applications on public services and facilities by requiring a fiscal-impact analysis that examines the costs and benefits of the proposed development. The analysis should include possible financing methods if it shows that new or expanded facilities are needed to serve the proposed development.

h) Have the County and the cities, through the Countywide Planning Agency, report on a regular basis to the appropriate agencies on development activities and growth projections, and should coordinate with water and sanitary districts in the provision of water and sanitary facilities.

i) Have the County and the cities contribute semiannually to the County land use and transportation database to monitor, track, and map Marin County growth.

j) Have the districts provide the Countywide Planning Agency with regular reports on facility development and capacity of existing facilities.

➢ Sample indicators

a) Coordination by the County with all relevant agencies.

b) Increased functions for the Countywide Planning Agency.

➢ Sample targets

a) The County will contact 100 percent of the affected local, state, and federal agencies during the 2004 Countywide Plan update.

b) The Countywide Planning Agency will add at least two new planning review functions between 2003 and 2010.

2. Planning and Zoning Policies

➢ Issues

Planning policies and zoning may need revision.

a) Zoning designations may not be consistent with Countywide Plan land use designations.

b) There are many categories of zoning, which makes it difficult to interpret and understand the County Development Code.

Transfer of development rights may offer opportunities for environmental protection and smart infill.

a) Analysis of appropriate locations for transfer would provide information about the viability of such a program.

Effective policies and implementation can ensure protection of environmental resource areas.

a) The Bayfront Conservation Zone is one of the sensitive resource areas that need protection.

Countywide Plan and zoning policies and implementation can help provide protection from environmental hazards.

a) Zoning and procedures can provide protection from flood hazards.

b) The County Community Development Agency needs to continue to consult with fire officials to provide adequate protection from fire hazards.

➢ Strategies

Review and consider revising planning policies if necessary.

a) Develop planning relationships between planning corridors, watershed boundaries, and planning areas.

b) Reassess the seven planning-area boundaries for boundary appropriateness.

c) Conduct a review of the zoning ordinance to determine whether zoning categories and regulations clearly reflect the intention of the land use designations of the Community Development Element of the Countywide Plan, express the relationship between land use and population density, and outline appropriate uses and procedures.

d) During the development review process, encourage telecommuting in proposed commercial office projects and in residential areas.

Review and revise zoning designations and the zoning map for consistency with the Countywide Plan and simplification of designations.

a) Revise zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county. Zoning shall be consistent with Countywide Plan land use in unincorporated areas.

b) Revise the zoning ordinance text to explain commercial uses and the application of floor area ratios (FARs).

c) Revise zoning designations to simplify designations.

d) Review zoning designations where proposed land use is different from existing zoning in the unincorporated portions of the county.

e) Modify the Coastal Plan to be consistent with current issues and trends in the coastal area.

Use Transfer of Development Rights to protect environmental and agricultural resources and encourage moderate density mixed-use development in the City-Centered Corridor.

a) Transfer development rights (TDRs) from West Marin to the City-Centered Corridor around transit nodes, and increase densities around the nodes.

b) Have the County and the cities consider a program that would enable development rights on bay-front, ridge, and upland greenbelt lands to be transferred to existing communities designated as high intensity centers.

Provide for protection of environmental resource areas in the Bayfront Conservation Zone.

a) Minimize the development impact of earth disturbance, erosion, and water pollution in the Bayfront Conservation Zone.

b) Encourage use of shoreline areas with sound ecological and safety considerations.

c) Encourage public access easements to facilitate public use and enjoyment of the bay-front lands, along with protection of wildlife habitat.

d) Encourage recreational uses such as fishing, boating, hunting, picnicking, hiking, nature study, and wildlife preserves as an appropriate means of providing public education on the value of shoreline preservation.

e) Evaluate the survival of built elements, such as overhead utilities, that detract from the shoreline and marsh landscape.

Provide for protection from environmental hazards.

a) Discourage development in areas that have high natural-resource value or that pose a significant hazard to life or property.

b) Continue to implement the regulations of Marin County Code Title 23.09 (Floodplain Management), which establishes Coastal High Hazard Zones with special location and construction standards for all land uses subject to inundation by a tsunami.

c) Coordinate between the Marin County Community Development Agency and the County Fire Marshal in mapping fire hazard areas subject to wildland fire risk. Make these maps available to planners and the public for use in reviewing projects and applying building standards that reduce the risk of fire.

d) Include recommendations made by fire authorities as conditions of approval for discretionary planning permits when the Community Development Agency staff determines that these recommendations are necessary for safety reasons.

e) Specify requirements for referrals of discretionary planning permits to County fire officials in the County Code.

f) Allow development in areas identified as having extreme fire hazard only where adequate water for fire suppression is or can be made available and where dual emergency evacuation is possible.

g) Have the Community Development Agency and fire officials work together to evaluate the adequacy of standards for water-supply and road access to subdivisions.

h) Amend the Marin County Code to establish uniform standards for clearance from structures, landscaping, and fire resistant building materials (particularly pole construction) for all new construction in fire hazard areas. Removal of exotic flammable vegetation should be encouraged.

i) Periodically conduct review of the Marin County Code by the Community Development Agency, Department of Public Works, and fire officials to ensure conformance with the latest Uniform Codes.

j) Have the Community Development Agency work with fire officials to bring the Marin County Code into conformance with State Responsibility Area construction and fire safety standards.

➢ Sample indicators

a) Implementation of Countywide Plan programs.

➢ Sample targets

a) Development Code and zoning map revisions will be adopted concurrently or within one year of the Countywide Plan.

b) Fifty percent of the programs identified in the Countywide Plan will be implemented within five years after adoption and 90 percent within 10 years.

3. Planning for Unincorporated Communities

➢ Issues

A community plan is a miniature Countywide Plan for each unincorporated community.

a) Community plans need to be regularly updated to remain relevant and consistent with the Countywide Plan.

b) Community plans are most useful and easy to use if they follow a consistent format.

➢ Strategies

Periodically revise the community plans according to a schedule and with current information consistent with the Countywide Plan.

a) Prepare a schedule for revision of community plans.

b) Address community plans in defined general plan topics and issues important to a particular community.

c) Modify the community plans to correspond to the Countywide Plan elements.

d) Coordinate between Marin County and the National Park Service during review of development applications for property adjacent to or within park boundaries.

➢ Sample indicators

a) List of community plans with most recent date of adoption and schedule for revision, with the oldest plans scheduled to be revised first (Marin County Community Development Agency).

➢ Sample targets

a) All community plans will be reviewed and updated as needed at least every 10 years.

Sources

Alameda County Waste Management Authority. *Alameda County Green Building Guidelines*. 2001.

American Council for Energy-Efficient Economy. *Study of Energy-Efficiency in Industry.* 2001.

Association of Bay Area Governments. *Projections 2002: Forecasts for the San Francisco Bay Area to the Year 2025.* December 2001.

Association of Bay Area Governments. *Trends and Challenges.* April 1999.

Baker, Jack. Senior Civil Engineer for Marin County Department of Public Works. Interview, December 20, 2001.

California Department of Finance, Demographic Research Unit. www.dof.ca.gov/HTML/DEMOGRAP/Druhpar.

California Department of Transportation. *2001 HOV Report for the San Francisco Bay Area.* 2001.

California Department of Transportation. *Deputy Directive 64*. March 2001.

California Energy Commission. *AB 970 Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24)*. Adopted April 4, 2001.

California Energy Commission. www.energy.ca.gov.

California State Legislature. *ACR-211, Endorsing the Incorporation of Bicycle and Pedestrian Projects into Transportation Projects*. August 2002.

Collins, Barbara. Marin County Affordable Housing Specialist. Presentation to the Marin Countywide Plan Working Group, August 23, 2001.

Crain & Associates. *Point Reyes National Seashore Transportation Planning Project*. March 2001.

Crawford, Brian. Deputy Director of Community Development Agency. Interview, July 31, 2001.

Do, Tho. Assistant Civil Engineer for the Marin County Department of Public Works, Funding & Forecasting Division. Interview, December 20, 2001.

Fehr & Peers Associates. *Lamorinda School Commute Study.* 1995.

Fisher & Hall Urban Design. *Spatial Enclosures. Cities and Towns Made of Neighborhoods. Typical Streetscape Assemblages (I and II). Sample Street-type Diagrams*. 2002.

Futcher, Jane. "Low-Cost Program Reaches Out to Uninsured." *Marin Independent Journal.* August 7, 2001: B1.

Golden Gate Bridge, Highway and Transportation District. *Short-Range Transit Plan, 1999–2009.*

Huffman, Jared. Board member for the Marin Municipal Water District. *Water Supply Planning.* Presentation to the Marin Countywide Plan Working Group Meeting, November 11, 2001.

Johnston, David. *Building Green in a Black and White World*. National Association of Home Builders Press. 2001.

Lampert, Suzanne. Economist for Mundie and Associates. Presentation to the Marin Countywide Plan Working Group, October 2, 2001.

Lando, Carey. Senior Transportation Planner for the Marin County Department of Public Works, Transportation Planning. Interview, December 19, 2001.

"Less Driving, Lower Mortgage." *San Francisco Chronicle,* January 7, 2001.

Loll, John. Transit Manager for the Marin County Department of Public Works. Interview, December 20, 2001.

Marin County Assessor. *How Marin Lands Are Used*. 2001.

Marin County Committee on School District Organization. *Fact Sheet: Petition to Form a Terra Linda Unified School District*.

Marin County Community Development Agency. *Community Facilities Element Technical Report. Draft, December 10, 2001.*

Marin County Community Development Agency. *Appendix A: Public Comments for the Local Coastal Program Workshop*. October 29, 2002.

Marin County Community Development Agency. *How Marin Lands Are Used.* 2002.

Marin County Community Development Agency. *Vision Summary: Help Design the Future of Marin County.* February 9, 2002.

Marin County Congestion Management Agency. *Marin County Bus Transit Futures Final Report*.

Marin County Congestion Management Agency. *Moving Forward: A Transportation Vision Plan for Marin County.*

Marin County Department of Public Works. *Marin County Unincorporated Area Bicycle and Pedestrian Master Plan.* June 2001.

Marin County Grand Jury. *2001–2002 Marin County Grand Jury Report: Marin County Free Library.* May 10, 2002.

Marin Economic Commission. *Marin Profile 2001: A Survey of Economic, Social, and Environmental Indicators.* 2001.

Metropolitan Transportation Commission. *Aviation Demand Forecasts.* February 2000.

Nelson\Nygaard. *Controlling Congestion in Marin.* Presentation, February 21, 2001.

Nelson\Nygaard. *Marin County Integrated Transportation Plan: Making Decisions for the Future.* Presentation, November 6, 2000.

Nelson\Nygaard. *Transportation Vision Plan.* September 2002.

Non-Profit Housing Association of Northern California. *Smart Parking Policies Focus Group Report.* August 16, 2000.

Powell, Dean. Principal Transportation Planner for the Marin County Department of Public Works. Presentation to the Marin Countywide Plan Working Group, August 23, 2001.

Purvis, Charles L. *Automobile Ownership in the San Francisco Bay Area, 1930–2010.* Oakland, California. Metropolitan Transportation Commission. 1997.

RIDES for Bay Area Commuters, Inc. *Commute Profile 2001: A Survey of San Francisco Bay Area Commute Patterns.* September 2001.

RIDES for Bay Area Commuters, Inc. *Commute Profile 2002: A Survey of San Francisco Bay Area Commute Patterns.* September 2002.

Safe Route to Schools. www.saferoutestoschools.org/marin.html.

Snyder and Smith Associates, Inc., for the Marin County Community Development Agency. *Geology, Mineral Resources, and Hazardous Materials Technical Background Report.* March 2002.

Strategy Research Institute. *Securing 2/3-Voter Support for a Half-Cent Transportation Sales Tax: A "Benchmark" Survey of the Marin County Electorate*. Report commissioned by the Marin County Congestion Management Agency. April 2000.

United States Census Bureau, Department of Commerce. United States Census 1980, 1990, and 2000.

United States Department of Transportation. *Accommodating Pedestrians and Bicyclists in Roadway Design*. February 2000.

United States Department of Transportation. *National Household Transportation Survey. 1995.*

United States Green Building Council. *LEED Reference Package Version 2.0*. 2001.

This page is intentionally left blank.

Economy, Equity and Culture

IV. The Economy, Equity, and Culture

The Economy, Equity and Culture Element focuses on how people live, work, and interact with each other in Marin County. While each section will be explored separately, the subjects relate to and impact each other in many ways. Marin's economy is relatively strong but its vitality is challenged by transportation and affordable housing constraints and there is limited commercial space for large businesses to grow. Additional economic opportunities and secure, well-paying jobs will be needed to support the local economy.

Social equity issues in Marin are evident in many facets of community life. The demand for child care consistently exceeds the licensed supply, and low income families experience the brunt of the child-care crunch. In terms of community involvement, the overall participation level in the County is substantial, but the diversity of the general population is not reflected in governmental commissions, councils, and advisory groups. While diversity is increasing in Marin, integration is limited, and diversity levels are still far below the state and the region. Educational institutions and programs are successful in Marin, especially when compared with the state overall. However, educational inequities based on income, geography, and race still exist. Also, in some cases low income communities and communities of color in Marin may be disproportionately exposed to toxins in the air, soil, water and food.

The lack of affordable housing, in addition to impacting the local economy, disproportionately burdens low income individuals, minority communities, and immigrant families. A lack of affordable housing also poses a barrier to recruiting and retaining workers in many social service and health care jobs, including, teachers, nurses, police and fire personnel and child-care workers.

In terms of public health and safety, Marin County residents are healthy overall and participate in many preventive health measures. There are, however, some health concerns that face Marin's population including high rates of cancer and other health problems. Marin has a strong public safety record, with crime rates remaining consistently lower than in the rest of California, but there is a need to address the high number of local abuse and physical violence cases.

Transportation and workforce issues are closely linked to social equity in Marin. Because the local transportation system is designed primarily for cars, those without a car are more likely to experience difficulty moving around the community to jobs, medical services or cultural opportunities. Also, there is a shortage of entry-level workers in the county and this could be addressed by additional workforce training and a focus on fair compensation.

Finally, Marin is a culturally rich community that places importance on exposing the community to and involving the community in artistic expression, both modern and historical. The arts industry is a strong contributor to the Marin economy.

A. ECONOMY

➢ Background and trends

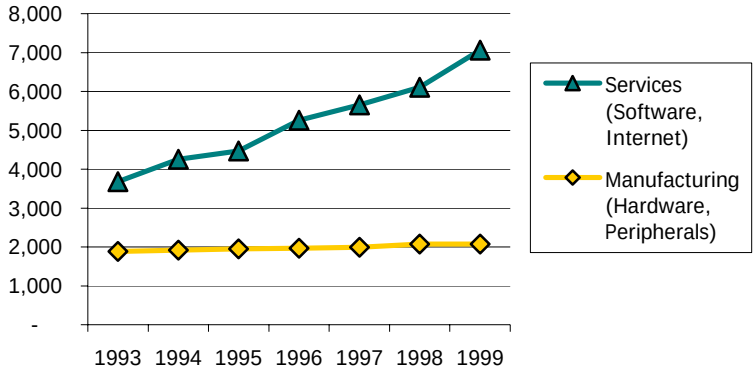
While Marin County generally maintains a prosperous economy, acute housing and transportation problems have not been resolved. In the last decade Marin County has enjoyed a relatively healthy and varied economy. Many businesses have taken root and grown successfully here, providing multiple benefits to community members. Some such businesses have grown so large, however, that they have had difficulty finding adequate space, and in some cases have moved out of the county. The lack of space available for future economic development, increasing labor costs, traffic congestion, and a shortage of affordable housing have all impacted business viability in Marin, as has the recent downturn in the economy. In addition, some sectors, such as agriculture, have not participated in the economic boom that has buoyed other sectors of the economy.

Among the key economic trends in the county, Marin's high cost of living poses a profound barrier to the future viability of our economy. The high cost of living diminishes the purchasing power of individual households while inflating the cost of home ownership, especially for low income households. The growing gap between the rich and poor in Marin has made it more difficult to attract low-cost labor. In addition, employers have difficulty hiring entry-level employees with adequate verbal, written communication and arithmetic skills. Many service jobs in Marin County are low paying, and many of these jobs are going to immigrants. For workers who are non-English speaking, language poses a barrier.

Job growth in Marin continues in many sectors. The number of jobs in Marin grew from just under 110,000 in 1990 to more than 120,000 in 2000. This number is projected to increase to 150,000 by 2020. Industries that experienced growth in employment between 1998 and 1999 include: information construction (19 percent); management of companies and enterprises (12 percent); administrative, support, waste management, and remediation (11 percent); finance and insurance (9 percent); education services (8 percent); transportation and warehousing (5 percent); wholesale trade (4 percent); motion picture production (4 percent); services (3 percent); miscellaneous services (3 percent); real estate, rental and leasing (2 percent); professional, scientific, and technical services (2 percent); retail trade (2 percent); and accommodation and food services (2 percent). In addition to growth in these sectors, home-based businesses have been steadily increasing in the county. Home-based businesses accounted for 27 percent of all businesses in Marin in 2001, an increase from 23 percent in 1999 (Marin Economic Commission).

Some sectors have experienced a decrease in employment. Industries in which employment decreased include manufacturing (–11 percent) and health care and social assistance (–4.4 percent). The arts, entertainment, and recreation industry saw no significant change in employment (Marin Economic Commission). In the late 1990s, software, multimedia, and Internet businesses were among the fastest growing employment sectors in Marin. Wages in this sector were relatively high. The number of service jobs in this sector grew from fewer than 4,000 in 1993 to 7,000 in 1999, while high-technology manufacturing jobs remained steady at about 2,000 (Figure IV-1) (Marin Profile 2001). Recently this trend has changed as high-technology employment has decreased across the Bay Area.

Figure IV-1
High Technology Employment

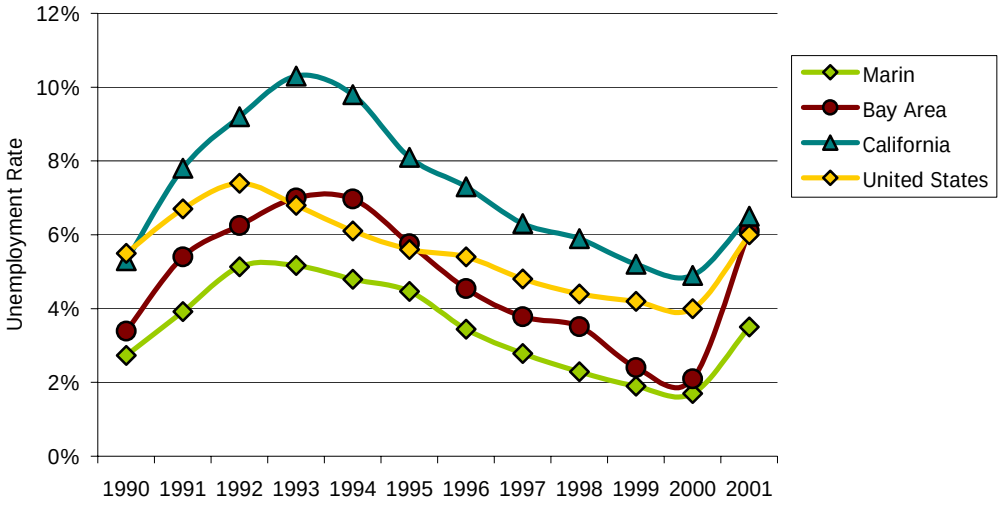


Source: 2001 Marin Economic Commission

The unemployment rate in Marin is generally low. The unemployment rate reached its highest point of 5.2 percent during the recession of 1992 and dropped to 1.7 percent in 2000 (Figure IV-2). Unemployment increased to 2.7 percent in September 2001. Since 1998 the number of cases enrolled in the CalWORKS program has decreased 35 percent, from 986 cases to 643 (as of December 2001), primarily due to the program's focus on putting parents into the workforce. The number of people

statewide receiving financial aid for unemployment has fallen to roughly 1.4 million from 2.3 million four years ago (Marin County Department of Health and Human Services).

Figure IV-2
Unemployment Rate, 1990–2001



Source: 2002 Employment Development Department

➢ Issues

(See also II. Natural Systems, D. Food and Agriculture.)

Marin's economic vitality needs to be enhanced.

a) Existing businesses need additional support to address the shortage of community and residential space, traffic congestion, and other key issues.

b) Compatible businesses need to be recruited to the county, and new local enterprises need to be supported.

c) There is a need for increased economic development in some geographic areas, such as in the Canal community and Marin City.

There is a need for a more equal relationship between jobs and housing.

a) More workforce housing is needed near job centers, and employment centers are needed near existing housing. It is becoming more difficult to bring in labor from Sonoma County because Sonoma's wages are rising and housing costs in Sonoma County are lower than in Marin.

b) In addition to the ongoing need for affordable housing for workers and families, a growth in the service industry has added to the need for very-low income and entry-level housing.

c) Marin has a high percentage of residents whose income is derived from sources other than jobs such as investments. There is a need to look at how this impacts Marin's economy.

The cost of moving goods and people is high due to traffic congestion.

a) Employers must pay high salaries to compensate for the high cost of housing and traffic congestion. It is difficult for employers to retain employees because of high levels of traffic congestion combined with limited affordable housing and the low unemployment rate.

b) Time spent in traffic results in a loss of productivity and increased fuel costs. There is a need for development patterns that support public transit and improve transportation options.

c) Traffic congestion results in indirect costs, such as air pollution, impacting community health and the environment.

d) While the trend in the increase in home-based businesses is generally beneficial economically and in terms of reducing commuting, one potential downside is that some traffic may be more redistributed and focused in specific neighborhoods and in local city centers.

Some businesses are relocating from Marin to other counties.

a) The impact of business relocation on number of jobs, level of wages, and other factors is not clear.

b) There is a need to identify which businesses are relocating from Marin to other counties and why.

The county needs to maintain and manage its tourism industry.

a) Tourism plays a significant role in Marin's economy. The number of bed-and-breakfast facilities and commercial uses serving tourism is increasing. In addition, there is an increasing demand for parking, camping, hotel, and motel accommodations.

b) The events of September 11, 2001, the California energy crisis, and the economic downturn have had an effect on the number of tourists visiting Marin.

c) Sustainable tourism in Marin needs to be supported by encouraging visitors to patronize locally owned businesses.

Marin's agricultural economy needs support to remain economically viable.

a) The necessary input of resources and output of sales for agriculture to be self-sufficient needs to be defined.

b) The wages of agricultural workers are not adequate to cover the county's high cost of living.

Interest in green businesses is increasing and needs support.

a) The County's Green Business Program needs to further refine standards and indicators to better identify green businesses. There needs to be ongoing cooperation between government and businesses for this to occur.

b) An expedited approval process is needed for projects that meet a published list of criteria and standards for green businesses.

c) The County does not currently have a set of milestones or a timeline for making County procurement more sustainable—for example, buying more recycled products, minimizing packaging and virgin materials, and using renewable resources whenever possible for fuel, energy, and paper.

Marin's high cost of living threatens the county's economic vitality.

a) The wages of many Marin workers are not adequate to cover the county's high cost of living. A high cost of living reduces households' purchasing power.

b) People are increasingly spending beyond their means and having to deal with debt.

c) Most young people living in the county are working in low-paying jobs and need support for housing and education.

More job training is needed.

a) Cooperative government, school, and business partnerships are needed to initiate local workforce job training, business education, and entrepreneurial skill building.

b) Some workers who are hired do not meet minimum language, training, or skill requirements needed for a given job.

c) Job training in schools and for adults is needed so that local companies can hire from within the community.

➢ Strategies

Vibrant, viable, and sustainable economy

Identify and support the types of businesses that comprise a vibrant, viable, and sustainable economy.

a) Retain and reinvent community resources. Identify criteria for businesses that should be targeted for development in and attraction to Marin County. Undertake a business expansion, retention, and attraction study.

b) Evaluate the prospects for a business mentoring and incubation program to be undertaken in cooperation with the private sector.

c) Foster a diverse but balanced mix of economic uses and expand the fiber optic network to attract high-tech businesses.

d) Decrease the import of products from outside the county. Foster development of a closed-loop system for Marin's economy, capturing and recycling both resources and dollars.

e) Provide increased employment opportunities that match the skills of the Marin County workforce by identifying the occupations of workers who commute to jobs outside Marin County and evaluating the possibility of attracting industries with such occupations to locate in Marin County.

Ensure that sites suitable for economic development are available, and make information about those sites available to businesses that may be considering a Marin County location.

a) Prepare an inventory of existing commercial space, vacant sites that are zoned for nonresidential use, and underdeveloped sites that could be redeveloped with more intensive nonresidential use. If possible, create an integrated searchable database for this information in conjunction with the cities of Marin County.

b) In conjunction with the cities of Marin County, study the potential to increase permitted intensities of nonresidential use, in order to create greater redevelopment potential on underdeveloped and underutilized sites near transit stops.

c) Study the economic development potential of identified economic development sites, and formulate and adopt strategies to attract businesses to those sites.

d) Encourage the provision of jobs near transit stops and along transit corridors by identifying and eliminating barriers to development on sites that would be suitable for employment-related and mixed-use development, with a view toward increasing the overall density/intensity of development. Suitable sites would be, at a minimum, currently designated for housing and outside of sensitive habitats. Allow employment-related and mixed-use development by right (but not requirement) on identified sites.

e) At the same time, identify and evaluate sites near transit stops or along transit corridors that are currently designated for housing but that are not suitable for employment-related or mixed-use development, and protect those sites from additional uses.

Support the agricultural economy.

a) Provide assistance to facilitate the processing of applications for uses related to production agriculture and to help county farmers comply with environmental regulations.

b) Develop criteria and standards to permit related accessory uses and agriculture-related tourism on agricultural lands. Support agricultural conservation easements.

c) Develop and adopt buying programs to support local agricultural production (for example, require government agencies to adopt a “Marin First” purchasing protocol for agricultural products).

d) Explore opportunities to diversify/intensify agricultural use of agricultural lands and to enhance the viability of the agricultural business sector.

e) Increase the supply of housing for agricultural workers and address child-care and education needs related to agricultural operations.

f) Institute a media campaign and public education on the benefits of local agriculture.

Recognize and support tourism as a significant contributor to the Marin County economy, while reducing adverse effects that visitor activity may have on the environment.

a) Study the County’s approval process for visitor accommodations, and modify the process if necessary to reduce uncertainty. Modifications could include, for example, clarifications to the zoning ordinance and preapplication review to identify issues that might arise during the approval process.

b) Provide cost-effective public transit for visitors, and maximize its use by visitors.

c) Maintain contact with various tourist attractions to address needs of that industry sector.

Continue and expand support for the development of green businesses.

a) Disseminate adopted standards and indicators that identify what a green business is.

b) Define levels of performance for future green business certifications. Facilitate the development application, review, and approval process for green businesses.

c) Establish a program for making County procurement more sustainable. Set goals, milestones, and a timeline for reaching that target, which include more recycled products and fewer virgin materials, locally grown food, reduced packaging, and use of renewable resources for fuel, energy, and paper whenever possible.

d) Formulate and adopt a strategy for conforming Marin County operations to green business principles and practices.

e) Encourage the cities of Marin County and other public agencies to establish programs for more sustainable procurement. Encourage the cities of Marin County and other public agencies to conform their operations to green business principles and practices.

Ensure the availability of adequate and appropriate infrastructure to serve the businesses of Marin County's future.

a) Monitor the condition and adequacy of infrastructure systems, and identify potential constraints, to ensure that sufficient capacity is available to meet the needs of existing and planned business operations.

b) Identify strategies to ensure that Marin County maximizes the effective capacity of its infrastructure systems and resources.

c) Identify and adopt strategies to encourage and facilitate the development of an advanced electronic communications infrastructure to provide digital connectivity.

Promote corporate responsibility.

a) Evaluate publicly supported economic development programs, investments, and subsidies for their long-term benefits and impacts on the whole community, not on short-term job or revenue increases.

b) Ensure that public investments should support environmental and social goals. Prioritize infrastructure and supportive services that promote the vitality of all local enterprises instead of individual firms.

c) Encourage businesses to contribute to the communities and regions where they operate, protecting the natural environment and providing workers with opportunities for upward mobility.

Improve job readiness of unemployed and underemployed residents of Marin County.

a) Continue to disseminate an inventory of workforce skills programs, updating that inventory as necessary. Publish this inventory in English, Spanish, and other languages spoken by a critical mass of Marin County residents.

b) Investigate additional means for the County to facilitate connections and communications between the private sector and the educational/workforce training sector to improve workforce preparedness and lifelong learning.

c) Encourage cooperation between the public and private sectors to provide job training and job placement services to unemployed and underemployed Marin County residents.

d) Increase workforce preparedness of unemployed and underemployed Marin County workers by implementing the policies and programs of the Land Use Element and Housing Element of the Countywide Plan to ensure the availability of housing for Marin County workers.

Address the high cost of living in Marin and reduce poverty.

a) Conduct an analysis of the impacts of adding high-end versus low-end jobs. Discourage new businesses that primarily create low-paying jobs.

b) Ensure that any business working with the County of Marin has a closed-loop system, such as hiring local people, paying living wages, having adequate health benefits, and providing child care and education opportunities to employees.

c) Promote jobs that match the skills of existing residents and Improve the skills of low income individuals, addressing the needs of immigrants and of families moving off welfare.

Workforce housing

(See also III. The Built Environment, C. Housing.)

Increase the supply of housing affordable to workforce households in Marin County.

a) Encourage the provision of housing near transit stops and along transit corridors by identifying and eliminating barriers to development on sites that would be suitable for residential and mixed-use development, with a view toward increasing the overall density/intensity of development on these sites. Suitable sites would be, at a minimum, currently designated for employment-related uses and outside of sensitive habitats.

b) Encourage the construction of new residential units at higher densities than may currently exist on sites near jobs or transit.

c) Remove economic and financial obstacles that inhibit smaller families that occupy large housing units from moving into smaller units.

d) Publicize the availability of residential property tax relief consistent with Proposition 60.

e) Recruit high-paying employment into Marin.

Ensure the availability of sites for employment and housing close to each other, consistent with the health and safety of Marin County residents.

a) Encourage businesses to locate on sites that are served by transit.

b) Encourage the provision of housing for the workers to be employed in all new commercial development.

c) Commit County resources to increasing the number of housing units affordable to workforce households.

d) Implement policies and programs of the Housing Element of the Countywide Plan that provide for development of workforce housing, affordable housing, and higher density housing in an effort to increase the supply of units affordable to workforce households with members who are employed in Marin County.

Transportation

(See also III. The Built Environment, A. Transportation.)

Support efforts to improve the county's transportation system.

a) Maintain a highly accessible public transportation system.

b) Improve transit service for home-work trips within the county by improving service between residential areas and business concentrations.

c) Provide intra-city shuttle service for home-school, home-shopping, and other nonwork-related trips.

Encourage patterns of land development that support public transit as a way to reduce traffic congestion during commute hours.

a) Encourage businesses to locate on sites that are served by transit by increasing the maximum floor-area ratio permitted on those sites.

b) Establish a minimum density for residential development near transit nodes.

c) Reduce parking requirements for new and existing buildings that participate in subsidy programs for transit riders and new buildings located near transit hubs.

Encourage use of public transit and other alternatives to single-occupant vehicles by Marin county workers as a way to reduce traffic congestion during commute hours.

a) Identify incentives that would encourage employers to participate in subsidy programs for transit ridership and other alternative travel modes for their employees. Continue subsidy programs, such as Golden Gate Transit Ride Value bus tickets, to encourage transit ridership by County employees.

b) Implement bikeway improvements and continue free bike tune-ups for County employees who commute by bicycle.

c) Continue programs for County government employees such as at-cost fuel purchase and preferential parking incentives for registered carpools, ride-matching service for carpools, and guaranteed ride home to encourage carpooling.

d) Identify incentives that would encourage private sector and other (non-County) public sector employers to participate in subsidy programs for carpools, similar to or exceeding those currently used for County government workers (Program 3.3.5), for their employees.

e) Identify conditions under which new employment-related developments should be required to adopt Transportation Demand Management (TDM) programs, and require adoption of such programs when the identified conditions are met.

f) Encourage telecommuting, home-based work, and home-based businesses as a way to reduce the need for work-based trips during commute hours.

g) Implement the policies and programs of the Transportation Element of the Countywide Plan to ensure the adequacy and appropriateness of the transportation system to support the economy of Marin County.

h) Promote programs that provide transportation passes or incentives to businesses to address traffic congestion and Provide worker education on transit use.

Institutional framework

a) Exert strong leadership to achieve cooperation among County departments and, as feasible, between the County and other agencies, to provide a reliable process for approval (or disapproval) of businesses that meet the criteria established for targeted business expansion, retention, and attraction.

b) Create a one-stop preapplication review system for early review of potential projects by County departments. Create a fast-track review and approval system for minor projects (such as interior tenant improvements). Assign “approval process navigators” to shepherd applications for development of targeted industries and workforce housing.

c) Establish a regular project review meeting schedule that includes attendance by all agencies involved in the development-permit review and approval process.

d) Work with other agencies involved in the development-permit review and approval process to identify and agree on additional strategies to facilitate economic development that is consistent with the General Plan.

e) Conduct a multi-jurisdictional analysis and study of job demand and fiscal needs, address the fiscal viability of governments and local agencies.

f) Focus CEQA review on true environmental impacts and avoid NIMBY ("Not in my backyard") statements.

Ensure that information about the Marin County economy is available to all County decisionmakers.

a) Maintain a full-time economic policy analyst on County staff to support the work of the Marin Economic Commission.

b) Use the powers and staff of the County Redevelopment Agency to pursue redevelopment of underutilized sites.

c) Establish a plan, strategy, and timeline for implementation of the programs in this element.

➢ Sample indicators

a) Rate of employment by industry (Bureau of the Census).

b) Unemployment rate (California Employment Development Department).

c) Nonresidential vacancy rate (Orion Partners).

d) Nonresidential construction and renovation (Marin County Community Development Agency).

e) Taxable sales (Board of Equalization).

f) Annual Gross Regional Product (Bay Area Council).

g) Annual Genuine Progress Indicator (Redefining Progress).

h) Value of agriculture production (Marin County Department of Agriculture).

i) Number of businesses certified by the Green Business Program (Marin County Community Development Agency).

j) Number of new living-wage jobs (California Employment Development Department).

k) Number of workers with jobs earning less than living wage (percentage of the workforce) and without benefits (U.S. Census Bureau).

l) Number of new small businesses, including data by ethnicity and gender (U.S. Small Business Administration).

➢ Sample targets

a) Implement a jobs-housing linkage program by 2004.

b) Implement telecommuting and live-work programs, such that at least 30 percent of all workers will not need to commute by 2010.

c) Increase the Gross Regional Product 10 percent by 2020.

d) Increase the Genuine Progress Indicator 10 percent by 2020.

e) Maintain or increase gross agricultural sales annually.

f) Increase the percentage of Marin Green Business membership by at least 20 percent per year between 2002 and 2010.

g) Increase the number of living-wage jobs by 20 percent in 2020.

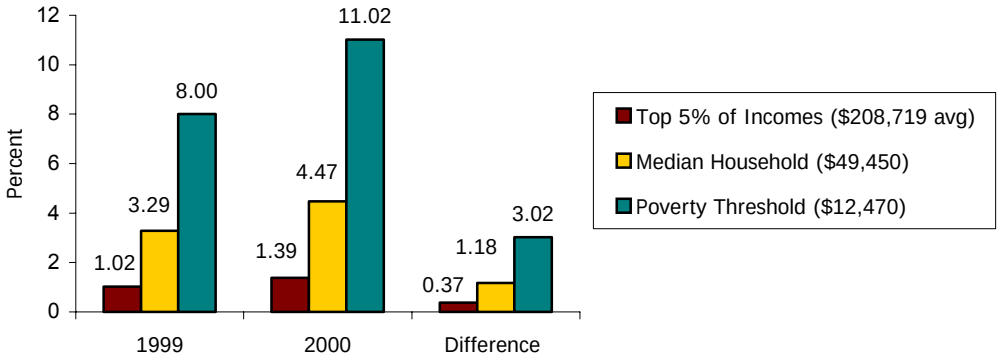
B. ENERGY

➢ Background and trends

The energy supply in Marin County has been impacted by the fallout from deregulation, the subsequent "energy crisis," and the current uncertainty of future fuel supplies. The increase in energy costs has put a strain on all businesses, but particularly small businesses because of the proportional cost increase. In addition, higher energy costs have disproportionately impacted low income families.

The cost of energy particularly impacts low income households. The percentage of income that low income households spend on energy is significantly higher than that of median and high income households, and is increasing (Figure IV-3). Low income households are less able to invest in energy-saving appliances and renovations due to the up-front costs.

Figure IV-3
Percentage of Household Income Spent on Energy



Source: 2000 Alliance to Save Energy

➢ Issues

(See also III. The Built Environment, B. Energy.)

The uncertainty of energy costs impacts businesses and households, particularly small businesses and low income households.

a) Increased energy costs affect the economy by impacting business costs and consumer spending power. Low income individuals and families are disproportionately impacted by uncertain energy costs.

b) Renters find themselves in a tough position between wanting to make energy-saving improvements and not wanting to invest in a home or apartment they do not own. Landlords are resistant to energy-saving retrofits because the renters pay the energy bills.

There is a need for increased renewable energy production in Marin.

a) Increasing the localized production and distribution of energy would help stabilize the energy market.

b) Increased renewable energy generation would reduce air pollution, including carbon emissions but more economic incentives are needed to encourage renewable energy installations.

➢ Strategies

a) Create an energy office, joint powers authority, or regional energy agency that will address the energy needs of 11 cities and the county.

b) Provide energy efficiency analyses, interventions, projects, and consulting to government, nonprofit organizations and businesses.

c) Invest in renewable energy generation facilities, such as solar, wind, wave power, and hydroelectric (on existing dams).

d) Research ways to use renewable energy in affordable housing. Promote programs, such as PG&E's CARE and Energy Partners programs, that provide free weatherization services and reduced energy rates to qualified low income individuals and families.

e) Offer free energy efficiency consulting assistance to low income families, nonprofits, and other social service agencies through County Planning.

f) Include funding and preferences for renewable/energy efficiency features in publicly assisted building projects and economic development efforts.

➢ Sample indicators

a) The percentage of income Marin residents use to purchase energy (County of Marin).

b) The percentage of income that low income residents spend on energy (California Energy Commission and the U.S. Department of Commerce).

c) Energy consumption per capita, per fuel type, and by sector (California Energy Commission).

d) The number of households assisted through County energy programs (County of Marin).

e) The annual energy cost per capita (U.S. Department of Commerce).

f) The percentage of the County budget dedicated to purchasing energy (County of Marin).

➢ Sample targets

a) Increase by 10 percent the amount of energy assistance going to low income residents from 2000 to 2010.

b) Twenty percent of all persons receiving building permits utilize a County energy or Green Building Program by 2010.

c) Thirty percent of Marin's energy is produced using renewable sources by 2020.

C. SOCIAL EQUITY AND PUBLIC HEALTH

Equity is defined as freedom from bias or favoritism. Marin's ability to maintain social equity and public health is key to maintaining a strong foundation for a healthy, vibrant, and sustainable community. While Marin has experienced some success in many areas, including community participation, education, and public safety, other areas such as child care, housing, and public health are in need of considerable attention. High test scores in schools and low crime rates in our neighborhoods are counterbalanced by alarming cancer rates, lack of diversity and a growing gap between rich and poor.

This section will explore many of the social equity and public health trends in Marin and suggest strategies for addressing the issues faced today. Included below are the following sections: child care, community participation, cultural and ethnic diversity, education, environmental justice, housing, public health, public safety, transportation, and workforce training and compensation. More specific information on housing and transportation can be found in Chapter III of this report.

1. Child Care

➢ Background and trends

In Marin County the demand for child care consistently exceeds the licensed supply. Low income families experience the brunt of the child-care crunch, an issue exacerbated by the weakened economy, which has precipitated cuts in subsidized child care for those who need it most. In addition, there are not adequate affordable sites on which to locate or develop child-care facilities. Furthermore, the combination of low wages paid to child-care workers and the high cost of living in Marin County make finding and retaining qualified staff a challenge.

Child-care demand greatly outweighs supply. While the licensed child-care supply has increased significantly over the last decade, estimated demand for care continues to exceed available licensed supply for both infant and school-age care (Figure IV-4). Between 1990 and 1999, licensed child-care supply increased by approximately 39 percent from about 8,202 to 9,144 spaces. This increase varied by age group, with the estimated infant-care supply increasing by 57 percent, preschool care by 2 percent, and school-age care by 17 percent (Marin County Child Care Commission).

Figure IV-4
Marin's Child-Care Demand vs. Licensed Supply—October 1999

Age of Child	Total Demand (estimated by number of children in working families)	Total Supply*	Difference	Number of Children per Licensed Slot
Under 3 years	4,759	1,102	3,657	4.3
3 to 5 years	4,759	5,288	–529	Less than 1
6 to 13 years	15,714	2,754	12,960	5.7
TOTAL	25,232	9,144	16,088	2.7

Source: 2002 Marin County Child Care Commission

An estimated 25,232 children under 14 live in working families (that is, families with two working parents or a single working parent) and are likely to need care for their children. Of these, there are an estimated 4,759 children under 3 competing for 1,102 licensed infant spaces. Estimated demand of school-age children also exceeds supply with 15,714 competing for 2,754 licensed spaces (Marin County Childcare Commission).

More financial subsidies are needed for child care. While financial subsidies for child care have increased slightly over the last few years through the Head Start and CalWORKS programs, these

subsidies do not completely cover the income-eligible population. More than 300 children are enrolled in the Head Start program, while 250 additional children are waiting to enroll.

➢ Issues

An increased supply of affordable child-care options is needed.

a) Parent fees do not cover the full costs of child care. This is particularly true for infant care, which has a high staff-to-child ratio. When subsidies are provided, they do not cover the full cost of care. Providers are reimbursed approximately 55 percent of the actual cost of infant care. Fees paid by middle- and upper-income families cover only an estimated 70 to 80 percent of costs. Subsidized infant care covers 8 percent of income-eligible infants. Subsidized preschool care covers 59 percent of income-eligible preschoolers.

b) There is a lack of child-care funding for low income families. With a weaker economy, cuts in federal and state funding for the CalWORKS program and other programs for child-care assistance may occur.

c) The need for child care is expected to grow as the local labor-force base expands to include more women, and implementation of welfare reform continues. Projected job growth in the lower paying service and retail trade sectors will increase the need for subsidized and affordable child care.

d) Many employers do not provide or support child care for employees with children.

Additional child-care facilities are needed.

a) High land values, high rents, and a low vacancy rate make leasing and acquiring space for child-care facilities difficult.

b) As class size is lowered in schools, school facilities currently being used for day care are being taken back for classroom use by the schools. This situation is creating a shortage of space for child-care facilities, particularly for centers serving lower income families.

c) There is a severe shortage of funding to support child-care capital projects and to pay for ongoing facility costs. Land use and zoning policies make siting and development of child-care services difficult.

d) Child-care providers have limited real estate skills to navigate the complex and technical facility-development process.

Additional child-care workers are needed to staff child-care facilities.

a) The low wages traditionally paid to child-care workers, coupled with the high cost of housing, make it difficult to hire and retain qualified child-care workers.

b) High turnover rates in child-care facilities have an impact on the quantity and quality of child care.

➢ Strategies

Encourage new sites for child-care facilities through land use policies and zoning.

a) Undertake an assessment of current zoning regulations and definitions pertaining to child care, and propose changes if necessary, particularly to increase the number of zoning designations where child care is a permitted use.

b) Encourage large (up to 14 children) child-care facilities in all residential zones as a permitted use subject to development standards (rather than a conditional use) consistent with state law and local provisions. Grant churches and schools the right to have child care on site as a permitted use

c) Increase floor area ratio (FAR) requirements, and ease parking requirements for employers or developers who include child-care facilities in the design of new housing and commercial establishments.

d) Expedite the permit process for child-care facilities, designate staff to facilitate the permit-application process for proposed child-care centers and adopt a lease-first policy for child-care and after-school programs.

e) Provide real estate assistance (including loan assistance) to child-care providers seeking to site facilities in the county.

f) Conduct a nexus study to determine the quantifiable need for child-care slots created by new commercial or residential units. Use results of the nexus study as the basis for an inclusionary ordinance or lieu fee for all new residential and commercial buildings.

g) Support marketing and media campaigns to promote child-care uses in businesses, commercial shopping center developments, schools, churches, and hospitals.

Expand the supply of affordable child-care options.

a) Provide financial support for child care.

b) Coordinate efforts with the school districts to enhance existing extended-day child-care programs.

c) Provide incentives to employers, such as fast-track permitting, tax credits, tax breaks, and fee reductions, to include on site child care. Provide child care at the Marin County Civic Center for County employees.

d) Promote the Marin Childcare Council's Web site, which allows users to search for child-care information and resource referral.

e) Promote the Special Needs Project and the Early Childhood Mental Health Project to enhance care for children with special needs.

Improve the quality of child care.

a) Support and promote existing training opportunities for licensed and license-exempt child-care providers. Support new and existing caregivers by providing training for providers and parents.

b) Support fair wages for child-care workers by exploring ways to subsidize their wages. Consider the use of Proposition 10 funds or other funds available through the Marin CARES program.

c) Support appropriate legislation and conduct advocacy to legislators to increase the availability and quality of child care.

Increase accessibility of child-care programs.

a) Encourage housing that incorporates on site or shared child-care facilities.

b) Work to ensure that child-care facilities are adequately served by public transportation.

Promote a healthy child-care environment.

a) Prohibit the siting of new alcohol and cigarette sales establishments within one mile of schools and child-care centers.

b) Create incentives for the siting of healthy fresh food (organic where possible) businesses near schools and child-care centers.

➢ Sample indicator

a) Child-care supply and demand by child age group and income categories (Marin County Child Care Commission).

➢ Sample target

a) Child-care supply grows until it is within 10 percent of child-care demand for all age and income categories by 2020.

2. Community Participation

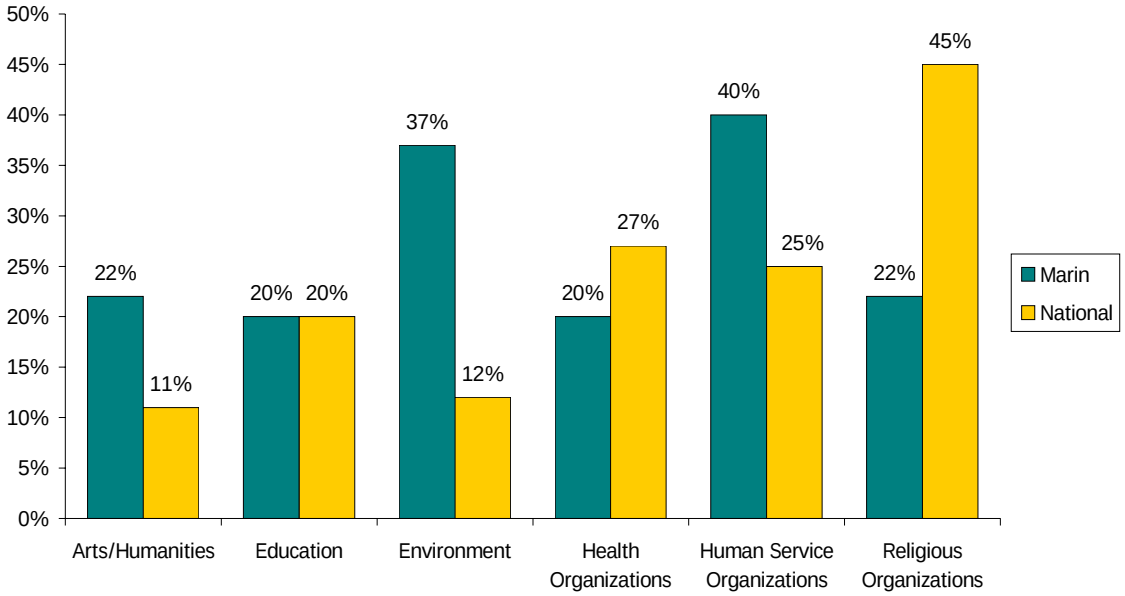
➢ Background and trends

Community participation reflects the interaction between Marin residents and government. A majority of Marin's residents identify themselves as voters, and more than one-third either belong to a neighborhood or community organization or have attended a public meeting during the past year. While the overall participation level in Marin is substantial, the diversity of the general population is not reflected in governmental commissions, councils, and advisory groups. In addition, a disproportionate part of the population does not participate in civic activities such as voting or is not active in the community. In particular, there is not enough ethnically diverse participation in community decisionmaking.

The individual's age and length of residence in Marin appear to affect participation in civic endeavors. Marin County residents generally share a commitment to traditional civic engagement and have backgrounds that include personal community involvement. While 72 percent of all Marin residents say they voted in a local or statewide election during the past year (well above the national and state averages), older (91 percent) and longer-term residents (82 percent) are much more likely to vote than those age 18 to 35 (52 percent) and newer residents (58 percent). Even those age 36 to 53 vote at a significantly lower rate (73 percent) than those who are older (Marin Community Foundation).

Marin residents generally have high rates of giving money and time to help others. Residents have a widespread commitment to giving and volunteering, and historically have done so at rates at or above the national average. A recent survey found that 63 percent of Marin residents did volunteer work when they were young, compared with 52 percent nationally. Fifty-eight percent of residents were active in religious organizations, compared with 46 percent nationally, and 60 percent had parents who were active in the community. Younger and newer residents are less likely to vote than older and longer-term residents (Marin Community Foundation). The majority of Marin residents make some kind of charitable contribution, and do so at rates well above the national average (Figure IV-5). Recently, however, the percentage of county residents indicating that they spend time volunteering dropped slightly below the national average of 56 percent to 52 percent.

Figure IV-5
What Marin Residents Support Compared with National Giving Trends



Source: 2001 Marin Community Foundation

➢ Issues

Community participation is not spread throughout the population.

a) Ethnically diverse participation in governmental advising groups is not proportionate to the ethnic makeup of the general population.

b) An ethnically proportionate part of the population does not participate in civic activities such as voting or is not active in the community. This population often lacks the information and resources needed to fully participate in community decision-making in a meaningful way.

➢ Strategies

Encourage and incorporate opinions of diverse segments of the community in decisionmaking.

a) Hold community meetings at times and in locations that encourage meaningful involvement by the members of the affected communities. Build the capacity of disenfranchised community members to participate through education.

b) Provide concise, understandable notices prior to public meetings. Publicize public meetings in non-English-language newspapers and radio, as well as on the Internet.

c) Identify key community groups in the areas affected by a given meeting to assist with outreach about the meetings. Ask representatives of these groups to attend the meetings.

d) Provide language translation at all public meetings as needed, and provide meeting materials in multiple language formats.

Diversify decisionmaking bodies in Marin.

a) Provide leadership and training programs to encourage community participation. Inform residents on how they can participate.

b) Establish training programs that promote diversity in leadership (using San Rafael's and Novato's Chamber of Commerce leadership training as an example) and provide support to small businesses to allow employees to attend.

c) Support programs that develop leadership in diverse communities.

d) Develop sequenced curriculum for high school juniors and seniors about the County planning process (similar to mock court), teaching planning and conceptualizing.

e) Limit tenure of commissioners to ensure turnover.

➢ Sample indicators

a) Racial, gender, and age diversity on County commissions, boards, and committees (County of Marin).

b) Marin voter turnout (County of Marin Registrar of Voters).

c) County employee and county resident volunteer hours per capita (County of Marin).

➢ Sample targets

a) Racial, gender, and age diversity on County commissions, boards, and committees equals county demographics by 2020.

b) Voter turnout is increased by 10 percent in local and 15 percent in national elections by 2020.

c) Maintain or increase volunteer hours per capita annually.

3. Cultural and Ethnic Diversity

➢ Background and trends

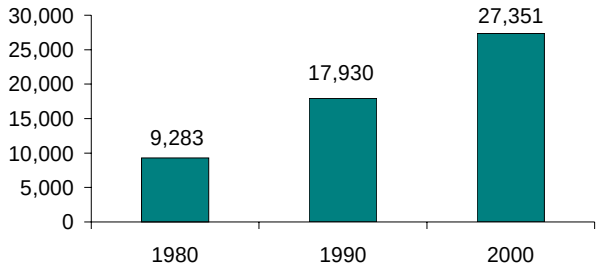
Cultural and ethnic diversity is an area of profound importance in Marin County. The county's population is not very ethnically diverse compared with the state and the region. Currently, Marin is increasing in diversity and its immigrant community is growing, but integration is limited. Communities such as Marin City and the Canal neighborhood in San Rafael are home to a large proportion of the Latino, African American, and Asian populations, while many of Marin's other communities are predominately Caucasian. Some residents believe that racial, ethnic, and cultural diversity is not supported. Also, while Marin's high cost of living results in less income diversity, the lower income residents who do live in Marin are concentrated in certain communities and almost nonexistent in others.

The ethnic diversity of Marin's population is low but is increasing. In 1990, 89 percent of the population was white, and 11 percent was African American, Asian, Pacific Islander, or of other races. People of Latino origin (who may be of any racial group) composed 8 percent of the population. In 2000, the nonwhite population increased to 16 percent and the Latino population to 11 percent (Figure IV-6), while the white population was 84 percent (United States Census Bureau).

There are instances of housing discrimination based on race. Eighteen percent of housing complaints logged in 1999–2000 were based on race or ethnicity. A "Race Audit" conducted in 2000 concluded that a

black person could encounter discrimination or difficulties when finding housing 47 percent of the time (Fair Housing of Marin).

Figure IV-6
Persons of Latino Origin, 1980–2000



Source: 1993- 1999 United States Census Bureau

➢ Issues

Many of Marin's communities lack ethnic diversity.

a) There is an increased concentration of minority communities in some neighborhoods. The cultural and economic vitality of these neighborhoods needs to be supported.

b) People of color have difficulty finding housing due to discrimination.

c) Bilingual and bicultural services are needed where public services are provided.

Immigrant communities face a variety of challenges.

a) New immigrants must face the challenges of meeting basic needs like jobs and housing. Longer-term immigrants may experience cultural gaps. Often, immigrants do not have the support needed to face such challenges.

b) The documentation status of immigrants affects their ability to get education.

c) English as a second language (ESL) classes are overcrowded.

d) Many immigrants do not know how to get health benefits and may not be legally eligible to receive them.

e) The school dropout rate among immigrants is high because immigrants cannot afford to stay in school and need to help earn income for their families.

➢ Strategies

Create diversity in housing.

a) Promote equal opportunity in the housing market for all persons regardless of race, color, religion, ancestry, or other arbitrary factors.

b) Enforce the anti-discrimination ordinance prohibiting discrimination in rental housing and fund the Fair Housing Program to resolve cases of alleged housing discrimination.

c) Design and implement strategies to ensure that agencies contracting with the County have nondiscrimination policies and practices.

d) Increase lending to support diversity in community economies.

e) Create innovative financial mechanisms to promote diverse ownership in Marin's housing stock, especially in areas where infill housing will be encouraged.

Increase the bilingual and bicultural capacity of County services and information.

a) Provide training and classes in understanding and valuing cultural diversity.

b) Provide language training classes to County employees.

c) Provide support and access to information for the immigrant communities as well as linkages to nonimmigrant communities.

d) Increase the salaries of bilingual employees by 5 percent above standard pay scale.

e) Enhance translation services on the County's Web site.

Promote leadership in minority communities.

a) Support documentation of immigrants through programs by the Novato Human Needs Center, the Canal Community Alliance, and Legal Aid of Marin.

b) Recruit leaders from minority communities for County staff positions.

c) Create a mentor program for the County where senior-level staff work with minority or low income youth to educate them about the workplace.

d) Provide support and incentives to small businesses that provide leadership opportunities for minority or low income residents.

e) Allow reduced-fee or free-of-charge use of County facilities for ESL classes.

➢ Sample indicators

a) Marin's ethnic distribution by jurisdiction and compared with the Bay region (U.S. Census Bureau).

b) Ethnic distribution of County staff (County of Marin).

➢ Sample targets

a) Marin's ethnic distribution grows closer to the Bay Area's ethnic distribution.

b) Marin County staff composition reflects the community in ethnicity within a 10 percent margin by 2020.

4. Education

➢ Background and trends

Education is generally strong in Marin, especially when compared with the state overall. The dropout rate is much lower, more dollars are spent per pupil, and standardized test scores are higher than in California at large. Despite these successes, educational inequities based on income, geography, and race exist,

and need to be addressed. Also, a considerable influx of children is placing a burden on the educational system.

In general, the public education system is under pressure to serve more children with limited resources and to increase the services provided. In Marin not all children have access to early education programs, there is a higher dropout rate for immigrants, and more resources are needed for adult education in order to provide lifelong learning opportunities.

Education in Marin ranks higher than in most of California. The high school dropout rate in Marin County is one-fourth the rate of California's and decreased by half between 2000 and 2001. Marin County's average expenditure per pupil exceeds the California average, and the average class size remains below that of California, as does its pupil-to-teacher ratio. Marin County has scored better on Standardized Testing and Reporting (STAR) tests than California for the last four years (Applied Survey Research).

Inequities exist in the educational system based on geography and race. The percentage of Marin students receiving free or reduced-cost meals remains far below the California percentage but has risen recently and is concentrated geographically. In the San Rafael City Elementary and Sausalito Elementary schools, at least half the students received free or reduced-cost meals, 50.0 percent and 56.1 percent, respectively during the 2000–2001 school year (Applied Survey Research).

➢ Issues

The public education system is under pressure to serve more children with limited resources and to increase the types of services provided.

a) Additional support services are needed for adolescents.

b) Parental involvement in schools needs to be encouraged.

There are educational inequities based on income, geography, and race.

a) Not all children have access to early education programs and to a quality education.

b) The graduation rates of immigrants need to be improved.

c) Public after-school programs are needed, particularly for lower income families.

d) Ethnic diversity of teachers should reflect that of students.

Lifelong learning opportunities need to be enhanced.

a) More ESL classes are needed across the county.

b) Classes on financial management would benefit youth and adults.

c) Opportunities for people of all ages to learn about sustainability are needed.

d) Library services could be enhanced.

➢ Strategies

Enhance K–12 education.

a) Continue to require property subdividers to dedicate land or pay fees for school purposes.

b) Support programs to reduce the high school dropout rate of immigrant students.

c) Identify ways to expand and support school curriculum about the principles of sustainability for children and adults at the local and state levels.

Enhance preschool and after-school educational programs.

a) Expand existing preschool and after-school education programs.

b) Work with the school districts to provide appropriate after-school child and youth activities and free after-school tutoring opportunities, especially for children from low income families. Support after-school programs at local community facilities owned or controlled by the County.

c) Encourage cooperation between the County and the school districts to provide high-quality summertime programs at the schools that incorporate traditional summer-school and day-care programs every day after school. Support expansion of summer camp opportunities to children from low income families.

d) Identify ways to provide or support education about finance management, sustainability, and food health for after-school programs.

Promote adult education.

a) Continue programs that provide education about financial management, especially for low income families.

b) Encourage schools to remain open for afternoon and evening use to serve community needs.

c) Increase the number of ESL classes.

d) Promote lifelong learning by offering affordable classes within the communities they target.

Encourage youth, children, and adults to participate in the process of education.

a) Implement a county youth volunteer program that will encourage community involvement, provide training as needed, and match volunteers with projects and activities.

b) Enact a service-oriented program for high school students to work in the community.

c) Utilize the experience and knowledge of Marin's adults, both working and retired, to provide volunteer and mentoring resources.

d) Make computers with Internet access available in underserved areas of Marin.

Strengthen local libraries.

a) Ensure that adequate funding is available to support and maintain the County library in perpetuity.

b) Create a library task force to promote, strengthen, and preserve library services.

c) Market and communicate current library programs.

d) Expand existing library programs through the use of teen and senior volunteers.

e) Offer after-school tutoring and/or homework help at libraries through the use of volunteers.

➢ Sample indicators

a) High school dropout rate by district, school, and ethnicity (Marin County Office of Education and Healthy Marin Partnership).

b) Level of educational attainment (adults 25 and older), by ethnicity (U.S. Census Bureau and Healthy Marin Partnership).

c) Average total educational scores by district (Marin County Office of Education).

d) Student-to-teacher ratios (Marin County Office of Education).

e) Funding per student per district (Marin County Office of Education).

f) Ethnic diversity of teaching staff (Marin County Office of Education).

g) Number of community-driven special courses and seminars offered per year in County facilities (County of Marin).

h) Internet-accessible computers in libraries and other community facilities (Marin County Free Library).

➢ Sample targets

a) High school dropout rate does not vary more than 5 percent by ethnicity by 2020.

b) Educational scores rank 75 percent of national percentile or higher by 2010.

c) Funding per student is at least 10 percent above 2000 levels by 2020 and does not vary along racial or income lines.

5. Environmental Justice

➢ Background and trends

Environmental justice is 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 polices. In some cases in Marin there is disproportionate siting of facilities that use and/or emit toxic substances into the air or groundwater in low income communities and communities of color. In addition, 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. Asthma rates for Latino children (13 percent) are higher than for white children (9.6). Asthma rates in Marin for African American adults (21.4 percent) are higher than for white adults (9.1 percent).

Marin's pattern of consumption results in environmental impacts on communities outside of the county. For example, Marin does not have any large-scale power generation facilities, but imports gas and electricity from other cities and countries. Across the bay in Richmond, however, power plants create airborne toxins which may impact the health of their neighborhoods. To add to this inequity the air pollution generated on Marin's roadways and freeways is blown over to the east bay communities by the prevailing wind patterns off the coast.

➢ Issues

There are environmental inequities in Marin based on both race and income level.

a) Low income communities have less access to pesticide-free food.

b) Children from low income families are disproportionately exposed to lead-based paint, as well as toxins in the air, soil, and water.

c) In Marin County, low income families are disproportionately affected by traffic and air pollution impacts from our congested freeway system.

➢ Strategies

Decrease the impact of toxins in all communities, including low income communities and communities of color.

a) Ensure that public documents and notices relating to human health or environmental issues are concise, understandable, and readily accessible to the public, and in multiple languages as needed.

b) Ensure that a range of reasonable alternatives are identified when siting facilities that may adversely affect low income communities or communities of color, and identify sites that would minimize or eliminate environmental impacts on these communities.

c) Decrease the impact of lead and toxins on children in low income families by expanding education, prevention, and treatment programs of Marin's Department of Health and Human Services.

d) Reduce toxic exposure in low income residences and schools by reducing or eliminating the use of toxic pesticides, hazardous cleaning products, and other toxins. Provide education and information on how residents can reduce the use of toxic materials.

e) Substantially reduce or phase out the use of toxic pesticides, hazardous cleaning products and exposure to dangerous materials in Marin.

Increase access to healthy food, air, and soil by low income communities and communities of color.

a) Increase the number of sites available to low income communities and communities of color for community gardens.

b) Provide training in alternatives to toxic pesticides at community gardens in low income communities and communities of color.

c) Work with certified green businesses and members of the Marin Organic label program to donate surplus organic food to food banks and shelters in Marin.

➢ Sample indicators

a) Number of licensed hazardous-waste facilities by zip code (Marin County Department of Public Works).

b) Number of community gardens in low income communities and communities of color (Marin County Community Development Agency).

c) Percentage of organic food provided at food banks and homeless shelters (Marin Community Food Bank).

➢ Sample targets

a) No increase in the number of licensed hazardous-waste facilities that are located in low income communities or communities of color and a 25% decrease in emissions by 2010.

b) Increase the number of community gardens in low income communities or communities of color by 50 percent by 2020.

c) Provide 20 percent organic food in food banks and homeless shelters in Marin.

6. Housing

(See also III. The Built Environment, C. Housing.)

➢ Background and trends

Housing and social equity issues are strongly linked throughout the county. The lack of affordable housing disproportionately burdens low income individuals, minority communities, and immigrant families. Because housing development is profit oriented, it often does not adequately serve low income individuals, families, or seniors.

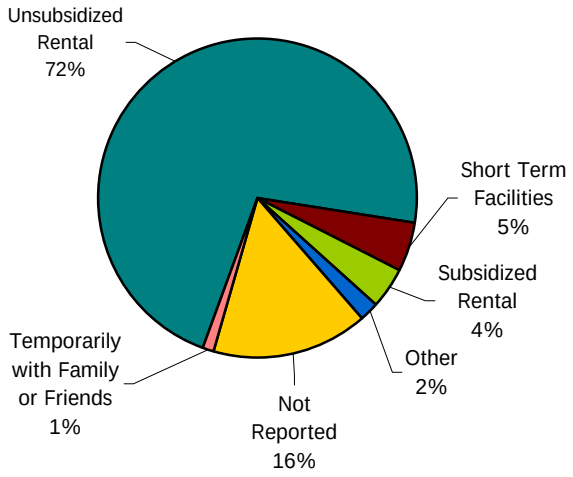
Low income and no-income people, especially seniors and young people, often have to leave the county because of a lack of affordable housing. When affordable housing is provided, the income requirements are often too high to help most low or no-income families. In addition, undocumented residents, who are a significant part of Marin's workforce, do not have access to adequate housing and are denied Section 8 housing certificates, and as a result must often share small rental units with multiple families. A lack of affordable housing also affects the ability to recruit and retain workers in many social service and health care jobs, including professional staff in social service agencies, teachers, child-care workers, staff in long-term care facilities, and nurses.

The lack of affordable housing compounded by transportation congestion creates a significant barrier to equity and economic vitality. The many people employed in Marin who must live outside the county do not participate in local events and do not have a personal stake in Marin communities. In the western part of the county there is a shortage of housing for people in the workforce, including firefighters and other emergency personnel, as many homes are being converted to vacation chalets or bed and breakfast facilities. In other parts of the county, emergency personnel also have difficulty finding affordable housing and thus would need to commute to Marin in case of an emergency, potentially putting our county at risk.

There are significant numbers of homeless individuals and families in Marin. A 1999 census identified 2,698 households, comprising 4,281 individuals, including 1,104 children, that were homeless during 1999. This survey also identified 4,266 households, comprising 11,090 individuals, that were at risk of becoming homeless during 1999. More than half of the households at risk of becoming homeless were working families earning around $947 per month, which is 20 percent of the median income in Marin.

Nearly 10 percent of Marin's population was either homeless or at risk of becoming homeless. Most of the at-risk households live in unsubsidized rental units (Figure IV-7).

Figure IV-7
Living Situation of At-Risk Households, 2000



Source: 2000 Marin Continuum of Housing and Services

➢ Issues

There is a need for more affordable housing for much of Marin's population.

a) The lack of affordable housing affects the ability of employers to recruit and retain workers in many social service and health care jobs, including professional staff in social service agencies, teachers, child-care workers, staff in long-term care facilities, doctors, nurses, and emergency response workers.

b) Low income and no-income people, especially seniors and young people, need to be targeted for housing.

c) There is need for affordable housing and services that are accessible to persons who are physically, emotionally, or developmentally disabled.

d) Families with children and those using Section 8 to pay rent can face discrimination when seeking housing.

➢ Strategies

Utilize housing assistance programs to increase housing opportunities.

a) Provide rental assistance through existing programs. Provide cash aid to assist low income or homeless families with security deposit and moving expenses.

b) Continue to improve the success of the Section 8 program.

c) Provide mortgage assistance.

d) Explore options for rent stabilization.

Encourage housing for special populations.

a) Address shelter needs for special-needs populations, including safe havens for homeless people with severe mental illness.

b) Provide efficient and effective support programs for special needs populations. Provide emergency housing assistance.

c) Create more options for homeless people, including emergency housing, temporary housing, and rental assistance.

d) Advocate for state and federal tax incentives for affordable housing for special populations.

e) Adopt an ordinance prohibiting discrimination based on family composition or source of income for rental units.

f) Comply with state regulations regarding handicapped access to commercial, apartment, and public buildings.

g) Support and promote the use of existing housing for housing and services for special populations.

h) Promote senior networking service programs which allow people to share homes and exchange services so that seniors and the disabled could enjoy living in their homes and be part of their local communities.

Provide services for people who are homeless or living in low income housing.

a) Support and promote housing for seniors, single-parent households, and handicapped persons where there is accessibility to health and social services.

b) Support and promote housing that incorporates on-site or shared health and social services, including medical clinics and child-care facilities.

c) Support and promote existing programs that provide housing and services for special populations including homeless people.

➢ Sample indicators

a) Affordable units in Marin compared with ABAG projected need by jurisdiction (County of Marin).

b) Proportional distribution of new home prices (Healthy Marin Partnership).

c) HUD-defined fair-market rents in Marin by number of bedrooms (Healthy Marin Partnership).

d) Estimated average rents by selected area (Healthy Marin Partnership).

e) Number of Section 8 units occupied annually in Marin (County of Marin).

f) Number of Fair Housing complaints annually (Fair Housing of Marin).

➢ Sample targets

a) Marin's number of affordable units will annually increase so that the ABAG projections are met in each planning period.

b) At least twenty-five percent of new housing units built will be affordable to median-income families by 2020.

c) Increase the number of units available for people with disabilities, emergency shelter, and transitional housing each 20 percent by 2020.

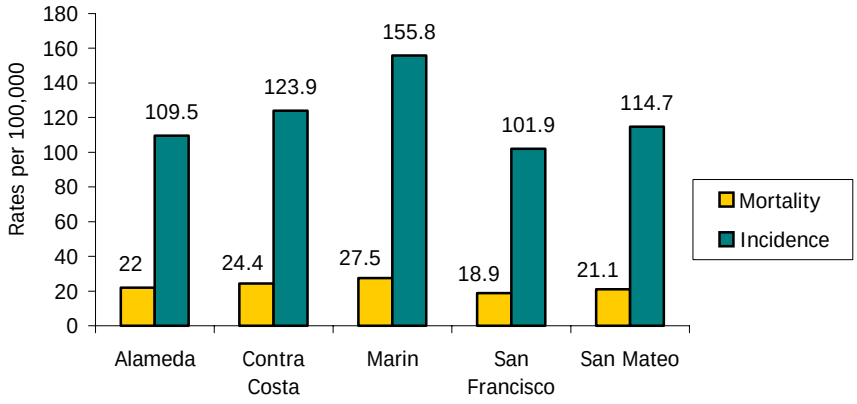
7. Public Health

➢ Background and trends

Overall, Marin County residents are healthy and participate in many preventive health measures. A health and wellness survey of residents indicated that during the past 12 months, more than two-thirds had received a general health exam, and 71 percent said they performed some type of regular physical activity or exercise. Further, the immunization rate for children was 91 percent in 2001 and has been rising. Finally, 70 percent of those surveyed reported that they had visited a doctor and 66 percent had visited a dentist in the last six months (Applied Survey Research).

There are, however, some disturbing health concerns that face Marin's population. The breast cancer rate in Marin is the highest in the United States and one in seven Marin women will be diagnosed with breast cancer in her lifetime. Both the mortality and incidence rates of breast cancer for Marin are the highest in the Bay Area (Figure IV-8). The death rate from breast cancer in Marin is 25 percent higher than rates for other Bay Area counties and other urban areas of California. It went from 23.7 deaths per 100,000 annually in 1995–97 to 21.1 in 1996–98, as compared with the breast cancer rate for California: 18.9 annually in 1995–97 and 18.3 annually in 1996–98 (Futcher).

Figure IV-8
Average Annual Age-Adjusted Invasive Breast Cancer Incidence and Mortality Rates, 1988–1998



Source: 2001 Marin County Department of Health and Human Services

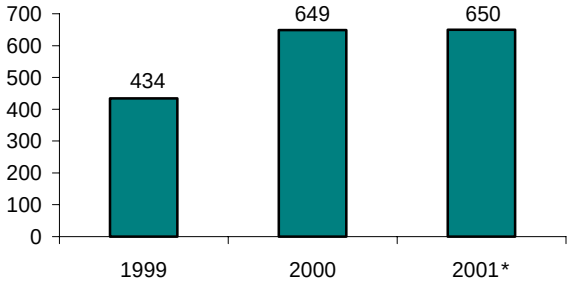
Other cancer rates in Marin are also high. The number of cases of prostate cancer in Marin exceeds the number of breast cancer cases and the prostate cancer rate for white, non-Latino men is the highest in the Bay Area. Bladder cancer and malignant melanoma cases are also comparatively high (Field Research Corporation). Additional public health trends such as relatively high levels of obesity, depression, and suicide, as well as a lack of health insurance for some populations are outlined below.

Obesity rates for adults, seniors, and children are of concern. Obesity rates are high for both adults and children. Fifty-eight percent of adult men are overweight or obese. Forty-nine percent of

seniors are overweight or obese. Thirty-eight percent of boys and 30 percent of girls between the ages of 2 and 17 are overweight or obese (Field Research Corporation).

Health insurance and coverage vary by age, income, and ethnicity.
Age: While only 79 percent of adults between the ages of 18 and 24 are covered by health insurance, more than 90 percent of adults 25 and over and 96 percent of children are insured. An estimated 8 percent of adults over the age of 18 are uninsured in Marin.
Income: Sixty-four percent of adults with a household income under the federal poverty level have health coverage; another 33 percent are on Medicare or Medi-Cal, and 31 percent are on private plans. The number of families enrolled in the Healthy Families program, a health coverage program for children from low income families, has been increasing since 1999 (Figure IV-9) (Applied Survey Research).
Ethnicity: Only 76 percent of Marin Latinos have health insurance coverage, while 94 percent of whites, 90 percent of African Americans, and 93 percent of Asians have coverage (Field Research Corporation).

Figure IV-9
Healthy Families Enrollments: New Enrollments



*Data counts for 2001 not complete at time of survey

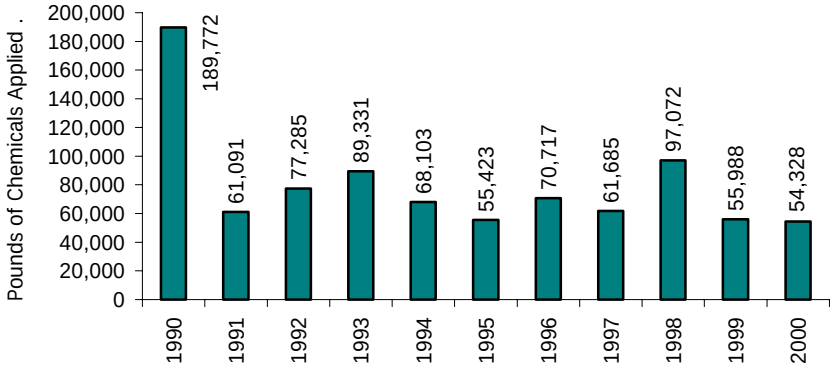
Source: 2001 Applied Survey Research

Seniors are generally healthy, but some face isolation. Nineteen percent of seniors reported a dramatic loss of vision, hearing, mobility, and/or serious illness in the past year; however, 86 percent of seniors feel that in general, their health is good, very good, or excellent. Forty-eight percent of seniors live alone, and 30 percent of those living alone do not see someone else every day (Marin Community Healthy Survey).

Other health trends vary. High blood pressure, cholesterol, and arthritis were the three leading chronic illnesses and conditions among Marin County residents in 2001. The 2001 Marin County Health survey found that 17 percent of Marin residents surveyed consider themselves allergic or sensitive to everyday chemicals, a condition known as Multiple Chemical Sensitivities. The same survey also reported that 17 percent of teenage girls age 12–17 suffer from asthma, and the overall rates of asthma are higher for African American adults in Marin than in the state. Death rates for heart disease, all cancers, stroke, and drugs all decreased slightly between 1993 and 1998 (Figure IV-11).

The quantity of pesticides used in Marin County has decreased over the past decade. Pesticide use has fluctuated between years but has decreased overall since 1990 (Figure IV-10).

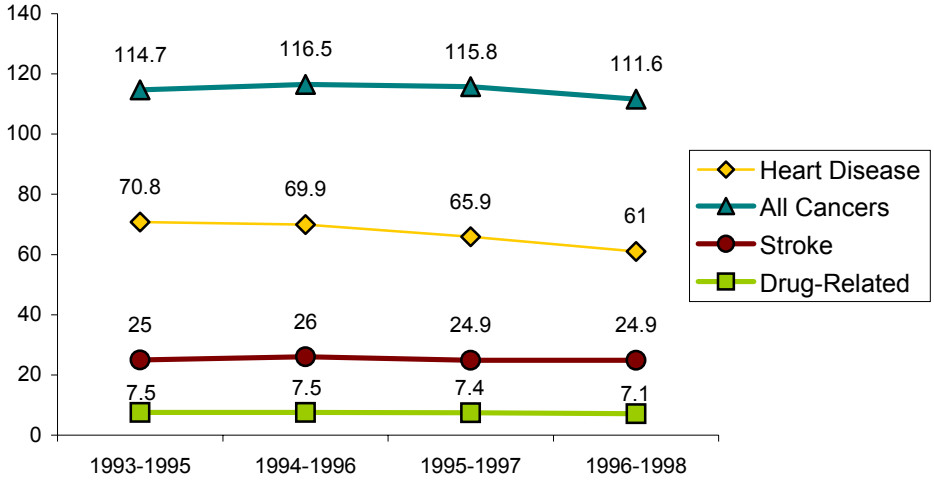
Figure IV-10
Pesticide Use in Marin County*



Source: 2000 California Department of Pesticide Regulation

** Measurement by weight does not indicate toxicity of pesticides. Non- or low-toxicity pesticides may be used in large quantities while more toxic chemicals may represent a small portion of total pesticide weight.*

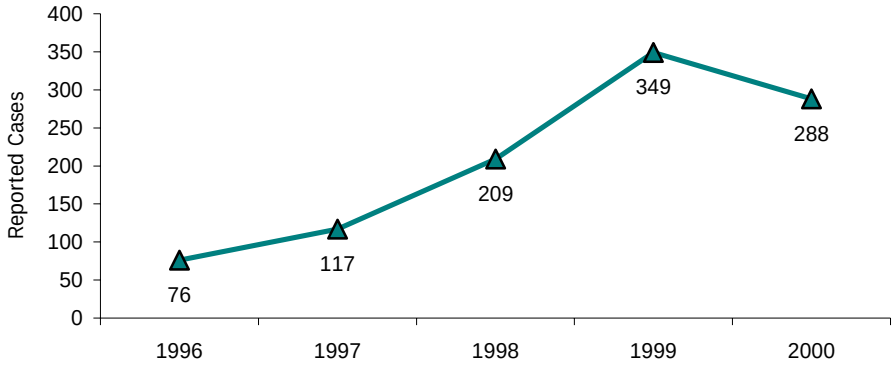
Figure IV-11
Marin County Deaths per 100,000 Population, Age-Adjusted, Three-Year Averages



Source: 2001 Applied Survey Research

While AIDS cases have increased in recent years in Marin, instances of other sexually transmitted diseases have been declining. The incidence of AIDS per 100,000 rose from 1,271 cases reported in 1997 to 1,475 cases reported in 2001, representing a 15.4 percent increase over the four-year period. The number of hepatitis C cases in Marin increased significantly between 1996 and 1999. However, the number of cases dropped between 1999 and 2000 (Figure IV-12). Environmental illnesses including multiple chemical sensitivity, electrical sensitivity, chronic fatigue syndrome and fibromylgia have been more commonly reported in recent surveys (Field Research Corporation).

Figure IV-12
Communicable Disease: Hepatitis C



Source: 2001 Applied Survey Research

Trends in emotional and behavioral health vary. Since 1997, the number of diagnoses for mood disorders such as depression or bipolar disorder has increased from 1,185 in 1997 to 1,421 in 2001 (Applied Survey Research). Marin's suicide rate is slightly higher than the state average. Also, there is a trend away from institutionalizing special needs populations often because funding is available for services but not for housing (National Institute of Mental Health).

Alcohol and drug abuse remains relatively stable. The number of discharges for alcohol-related conditions was 953 in 1996, 1,013 in 1997, and 931 in 1998. The number of discharges for drug-related conditions during the same three years was 541, 538, and 568 (Applied Survey Research).

Teen smoking and drug use are declining. Smoking among Marin teens is declining, and this trend mirrors national smoking trends. Decreases in cigarette smoking were observed for the 8th, 10th, and 12th graders surveyed in Marin, and teen drug abuse appears to be on the decline as well. Alcohol remains the most popular drug with teens, though a slight reduction was reported in 2001 (Associated Press).

➢ Issues

Preventive health care and nutrition need to be promoted.

a) Neighborhoods need to encourage walking, bicycle riding, and exercise to reduce obesity and promote health.

b) There is a lack of nutritious food served in school cafeterias and a lack of education about nutrition. This may contribute to the high obesity rate among children.

c) There may be a correlation between technology, affluence, chemical use, ageing and health issues.

d) Chemicals in our environment may contribute to high cancer rates, learning disabilities, autism and other health impacts in Marin.

e) There are not enough chemical-free buildings or facilities available for public and private use. This is particularly difficult for people with environmental disabilities.

f) There is concern over the placement of cellular antennas and the long-term effects of electromagnetic fields (EMFs) on public health.

Many Marin residents need high-quality free health care.

a) Access to health care is decreasing, especially for low income people. There are too few health care professionals who will serve patients eligible for Healthy Families and Medi-Cal. The Marin Dental Clinic needs to be expanded, especially in West Marin.

b) More culturally diverse health care services are needed.

Targeted health issues need to be addressed.

a) Breast milk monitoring (or "bio-monitoring") may provide a barometer of the health needs and concerns of communities, including but not limited to breast cancer.

b) Marin residents with environmental illnesses or hidden disabilities are unable to access many public buildings and public transportation due to the chemicals in cleaning products, building materials, paint, carpeting, fuel and so on. Public facilities and paths of travel free of chemicals are needed for such residents.

c) Airborne toxins are more likely to impact children than adults due to the surface area of their lungs. These toxins may be increasing the incidence of asthma in children.

d) Toxins in the environment may be contributing to targeted health issues as well as the growing number of cases of chronic fatigue syndrome.

Behavioral health issues need to be addressed.

a) Racism, classism, and sexism contribute to stress-related health problems.

b) The rise in the numbers of mentally ill has created a need for expanded acute clinics and additional psychiatric beds.

c) Because of the lack of programs for individuals with mental illness, these individuals are often brought into the criminal justice system.

d) Homeless people with mental illness need additional outreach and advocacy.

e) Low income families and mentally challenged individuals are often not aware of or are unable to gain access to services and resources that are available in the community.

➢ Strategies

a) Apply the Precautionary Principle, "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken, even if some cause and effect relationships are not fully established scientifically."

b) Enhance the provision of health and social services.

c) Support the Health Council of Marin and other groups responsible for community health promotion. Promote measurable health goals, and work with health-related agencies to monitor their implementation. Encourage coordination between existing social services agencies.

d) Provide incentives, such as co-location of services or rent subsidies, to attract private health and social service agencies.

e) Have a County health advisor available to the public at libraries.

f) More fully utilize main.org to publish a directory of human service agencies and distribute it in the community.

g) Support efforts to inform disabled individuals about the services available to them.

h) Ensure that public, nonprofit, and private facilities providing health or human services be accessible to persons with disabilities.

i) Provide programs to increase the language and cultural skills of health care providers.

Address underlying causes of health issues using prevention and nutrition.

a) Provide educational materials to the community in multiple languages about the relationships between exercise, obesity, walking, and health. Support programs that focus on socialization, recreation, health, and wellness at community centers.

b) Improve indoor air quality by requiring that all new construction or renovation, particularly in school or health care settings, use nontoxic or low-toxicity building materials, and avoid chronic or unsafe exposure to electromagnetic fields.

c) Utilize vacant County property for gardening of fruits and vegetables and support the provision of fresh, healthy, and pesticide-free food in schools and through the Food Bank.

d) Promote the use of alternatives to toxic pesticide use in the county.

e) Require the County government to use alternatives to toxic pesticides in all operations.

f) Promote preventive health care in line with the Child and Adult Preventative Care Guidelines published by the U.S. Public Health Services (1994).

g) Assist in the establishment of more wellness centers to provide preventive health advice, and facilitate greater access to care by linking people to community health services.

h) Promote active living by designing communities to incorporate walking or bicycling into residents' and employees' daily routine. Also, support programs for youth.

Address targeted health issues, including AIDS, high cancer rates, hepatitis C, heart disease, asthma, and environmental illnesses.

a) Pursue sources of private and public funds to address targeted health concerns and support agencies that are addressing targeted health issues.

b) Support adequate state, federal, and private sector funding directed at the cure and treatment of AIDS. Also, participate in organized efforts to educate the public about AIDS and to not allow discrimination against persons with AIDS or AIDS-related conditions.

c) Map the locations of tobacco and alcohol establishments to determine if there is a correlation between the location of stores and the health of nearby residents. Regulate the location and hours of operation of tobacco and alcohol retailers.

d) Continue and expand the programs established by the commission to reduce or avoid pesticides, biocides, herbicides, and other chemicals on County properties and projects.

e) Adopt the California Building Standard Commission's Cleaner Air program to improve access to public facilities for individuals who are environmentally sensitive. Support the evaluation of school environments for indoor air quality.

Make health care accessible to low income families.

a) Continue programs that reach out to low income families for health services, including the Marin Health and Dental Clinic. Support free breakfasts for children in low income families.

b) Promote enrollment in Healthy Families and Provide incentives for health care providers to serve patients in the Healthy Families and Medi-Cal programs.

c) Support measures that would reduce the number of uninsured individuals.

Encourage the provision of health and social services for seniors.

a) Urge public, nonprofit, and private facilities providing health or human services to develop or incorporate facilities and services for older adults.

b) Consider incentives to attract private "senior day-care" services. Support and enhance senior escort services and delivery of meals for low income seniors.

c) Provide opportunities for older adults to volunteer in schools, libraries, and elsewhere using the EASY model or the Elder Volunteer Corps model. Coordinate with local schools and community centers to provide education opportunities targeting seniors.

Reduce environmental hazards through improved guidelines and policies.

(See also II, Natural Systems, B. Environmental Hazards.)

a) Educate city and county councils about lead and other environmental hazards, and explore methods to address such issues through local code enforcement.

b) Convene a committee/interest group involving each of Marin's jurisdictions to hold networking sessions to address environmental health hazards.

c) Drastically reduce or phase out the use of toxic substances in all areas.

d) Consider adopting the City of San Francisco's ordinance implementing the Precautionary Principle.

Address behavioral health issues.

a) Increase the number of psychiatric beds available in Marin.

b) Support and enhance mental health treatment programs.

c) Find a permanent location for a detoxification center.

d) Provide a jail diversion program for the mentally ill.

e) Support treatment for those suffering from major depression.

f) Support forums on racism, classism, and sexism awareness, and events that celebrate diversity.

➢ Sample indicators

a) Rate of breast, prostate, and other cancers compared with national, state, and region rates (Healthy Marin Partnership).

b) Obesity rate and rate of environmental illnesses (Marin County Department of Health and Human Resources).

c) Health and Human Services utilization data, client index, and health survey data (Marin County Department of Health and Human Resources).

d) Health coverage and health insurance by age, income, and ethnicity (Healthy Marin Partnership).

e) Medi-Cal, Medicare, and Healthy Family enrollment data (County of Marin).

f) Pesticide use in County facilities (County of Marin).

➢ Sample targets

a) Rates of breast cancer and prostate cancer decrease by 10 percent by 2020.

b) Obesity rates decline by 10 percent for all age categories by 2020.

c) Reduce incidence of environmental illness by 10% in 2020.

d) Health coverage is available to at least 80 percent of Marin residents of each age, income, and ethnic category by 2020.

e) Enrollment in Healthy Families and number of Healthy Families Providers each increase 50 percent by 2020.

f) Pesticide use in County facilities decreases by 75 percent from the 1997 level by 2004, as set by the County's Integrated Pest Management Ordinance.

8. Public Safety

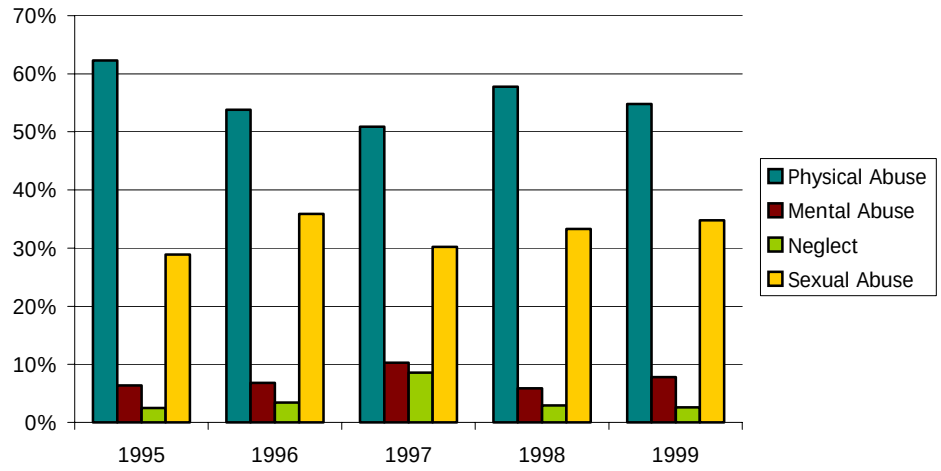
➢ Background and trends

Marin has a strong public safety record, as crime rates have remained consistently lower than in the rest of California for many years. In addition, crime rates for both Marin and the state have been steadily decreasing since 1996, from 7,533 reported crimes in 1996 to 5,902 in 2000.

However, Marin has had a higher percentage of physical abuse cases, including physical child abuse, than the state average since 1998. In addition, the number of youth experiencing violence, the number of violent crimes, and the geographic concentration of hate crimes are all areas of concern in Marin.

Incidence of abuse is high in some areas. Physical abuse cases in Marin are higher than the state average. Physical and sexual abuse cases continue to represent the most common types of abuse of children, followed by mental abuse and neglect. Despite the comparatively high rate, the number of child abuse cases declined 44 percent between 1995 and 2000.

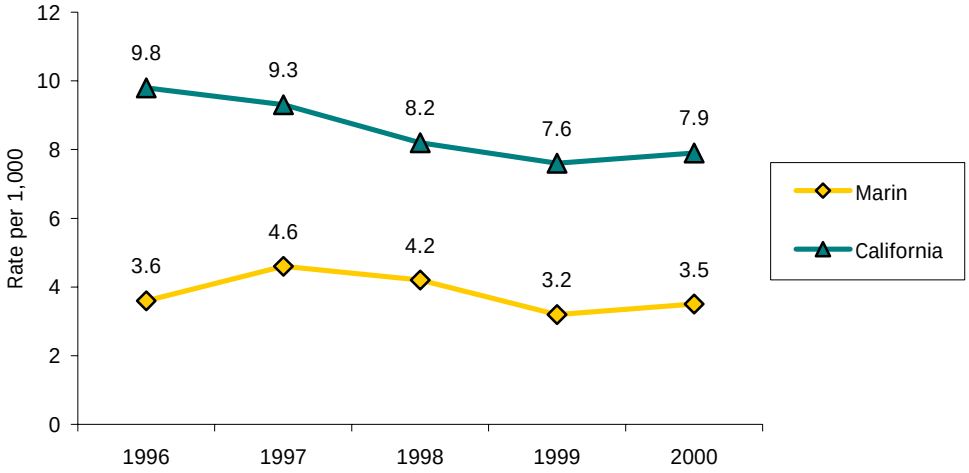
Figure IV-13
Percentage of Child Abuse Cases by Type



Source: 2001 Applied Survey Research

The rate of domestic violence calls in Marin is significantly lower than the rate of domestic violence calls in the state as a whole (Figure IV-14). In addition, the rate of domestic violence calls in Marin decreased slightly from 3.6 in 1996 to 3.5 in 2000.

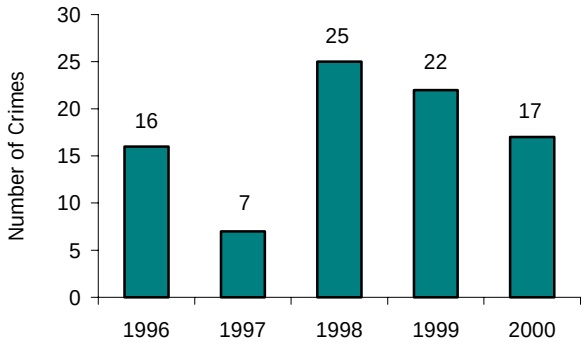
Figure IV-14
Domestic Violence Rate in Marin County



Source: 2001 Applied Survey Research

Hate crimes are less frequent but are concentrated geographically. While the number of reported hate crimes fluctuated between 1996 and 1998, since 1998 the number of reported cases has dropped from 25 to 17, a difference of 47 percent (Figure IV-15). Cities that have reported at least one incident of a hate crime between 1996 and 2000 were Novato (59 offenses), San Rafael (13), Tiburon (2), Fairfax (2), and the unincorporated areas of Marin (11).

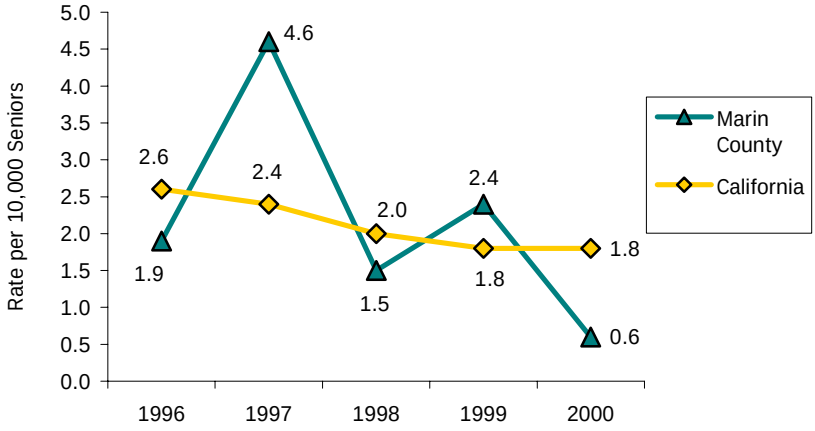
Figure IV-15
Total Number of Hate Crimes in Marin County



Source: 2001 Applied Survey Reseach

The number of violent crimes against the elderly has decreased. While incidents of violent crimes against the elderly have fluctuated since 1996, overall the rate has decreased from 1.9 (per 10,000 seniors) in 1996 to 0.6 in 2000 (Figure IV-16).

Figure IV-16
Violent Crimes Against the Elderly in Marin County and California

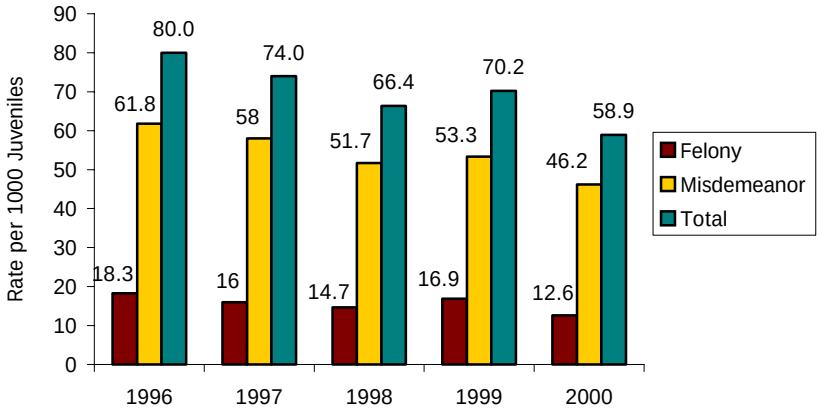


Source: 2001 Applied Survey Research

One in five young adults experiences violence. The 2001 Marin Community Health Survey found that 20 percent of young adults age 18–24 reported experiencing some type of physical violence or threat of violence within the past year.

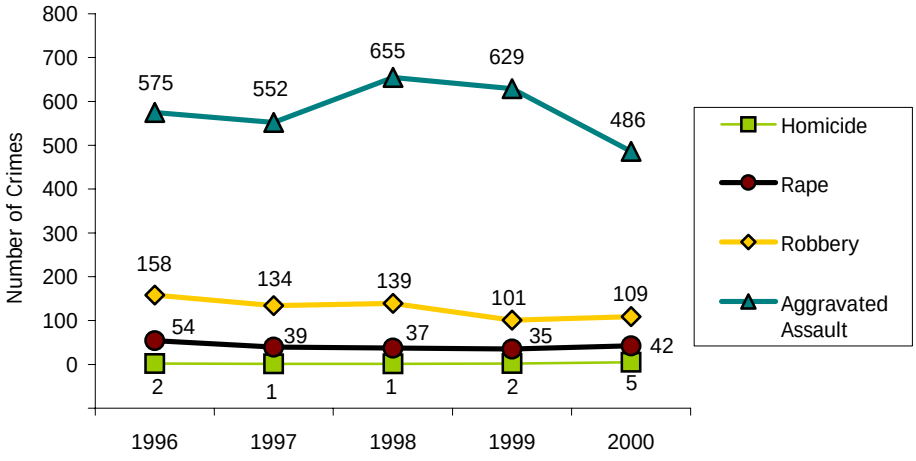
Other crime trends fluctuate. Juvenile misdemeanor and felony crimes have declined since 1996. Overall, the total juvenile arrest rate has been decreasing as well, from a rate of 80 in 1996 to 59 in 2000 (Figure IV-17). Overall, the total number of violent crimes (homicide, rape, robbery, and aggravated assault) has decreased since 1996, while the number of homicides has increased slightly (Figure IV-18).

Figure IV-17
Juvenile Arrest Rate in Marin County



Source: 2001 Applied Survey Research

Figure IV-18
Violent Crimes in Marin County



Source: 2001 Applied Survey Research

➢ Issues

a) Violence prevention needs to be more widespread.

b) Incidents of abuse and domestic violence often arise because people may be living in overcrowded conditions.

c) More needs to be done to prevent child abuse and neglect.

d) There is a need for targeted programs to reduce hate crimes.

IV

➢ Strategies

Maintain Marin County neighborhoods as safe, healthy places to live.

a) Review the design of new and rehabilitated buildings for ways to increase resident safety. Develop neighborhood patterns that encourage social interaction and avoid isolation. Ensure adequate street lighting in communities as needed.

b) Utilize community-based solutions for crime when possible, including community policing and restorative justice programs. Strengthen and expand neighborhood-watch programs, and include businesses. Develop a corrective plan to deal with high-crime areas.

c) Educate communities about hate crime awareness and prevention.

d) Promote self-defense and crime prevention education.

Reduce violence and crime rates among youth and young adults.

a) Support and encourage the work of the Youth Commission.

b) Establish a partnership between service agencies and law enforcement to address violence prevention.

c) Ensure that youth programs are located in areas that are easily accessible by youth.

d) Expand after-school and youth programs. Continue and expand mentoring programs for youth. Work closely with faith-based organizations to reach out to troubled youth.

e) Continue to support the use of mental health staff at juvenile hall to provide counseling.

Reduce the incidence of violence in the home.

a) Require mandatory counseling for perpetrators of child abuse and domestic violence.

b) Provide safe havens for victims of child abuse and domestic violence at fire stations.

c) Promote child abuse and domestic violence awareness and prevention programs.

Reduce substance abuse.

a) Support the education of all age groups in substance abuse prevention.

b) Encourage alcohol and drug abuse programs in the community. Include law enforcement, school districts, service agencies, and vendors of nicotine, alcohol, and prescription drugs in planning and operating programs for substance abuse prevention.

➢ Sample indicators

a) Child abuse and domestic violence rates (Healthy Marin Partnership).

b) Recurrence rates for child abuse and violent crimes (Healthy Marin Partnership).

c) Crime rates by type (Healthy Marin Partnership).

d) Number of hate crimes by city (Healthy Marin Partnership).

e) Rate of reported substance abuse (Healthy Marin Partnership).

➢ Sample targets

a) Rate of child abuse continually decreases through 2020.

b) Number of violent crimes continually decreases through 2020.

c) Number of hate crimes continually decreases through 2020 in all geographic areas.

d) Rate of reported substance abuse decreases continually.

9. Transportation

(See also III. The Built Environment, A. Transportation, and Economic Element.)

➢ Background and trends

Transportation issues are a priority for Marin County residents. Traffic congestion's impact on the economy and the built environment was discussed earlier in this report. Here we will look at the social equity impacts of our transportation system.

Because our transportation system is designed primarily for cars, those without a car are more likely to experience difficulty moving around the community, as well as into and out of the community. Low income families are less likely to own a car or multiple cars. A lack of urban bicycle and pedestrian paths, and of large-scale public transportation, means that often people without cars have difficulty traveling to jobs or to medical services, and difficulty taking advantage of cultural and economic services. For example, 22 percent of women 75 and older reported that a lack of transportation kept them from doing things they wanted to do outside the home (Field Research Corporation).

➢ Issues

a) Public transportation began as a private enterprise and was not considered a public service like police and fire protection. Although it is now public, the funding structure is inadequate.

b) The lack of reliable local public transportation means that many people without a car cannot travel to services or cultural events.

c) Transportation issues regarding the old, the young, and the poor, who are the primary users of public transportation, are not adequately addressed because these users do not have as strong a voice in shaping public policy.

d) Neighbors often do not want health and human services like child care, elder care, and churches in communities because of the traffic that these services generate.

e) Fossil fuels are an uncertain and time-limited fuel source. A transportation system powered by fossil fuel vehicles increases air pollution, including carbon emissions, and can lead to negative health impacts and global warming.

➢ Strategies

Make transportation accessible, safe, and efficient.

a) Update circulation/transportation elements in Marin's community plans to address the needs of those who are transit-dependent including the elderly, the physically disabled, youth, low income residents, and persons who do not own an automobile.

b) Work with the Marin County Transit District to improve both commute and intra-county transportation services. A significant proportion of transportation funding should be dedicated to serve residents who are transit-dependent. Transit routes should be convenient and flexible to meet the needs of the communities and residents who rely on their services.

c) Ensure that bus stops are located near public services, employment and commercial centers, neighborhoods, senior and youth centers, health care and social service facilities, schools, and hospitals.

d) Advocate a bridge in the Canal between the end of Canal Street and San Rafael High School for bike and pedestrian traffic to San Rafael High School and the Montecito Shopping Center.

e) Support alternatives to the use of vehicles powered by fossil fuels.

Ensure that transportation is affordable and accessible to the elderly, persons with disabilities, youth, and low income residents.

a) Provide for and maintain affordable transportation services to and from health care and social service facilities from all areas of the county, especially for the elderly, the physically disabled, and low income individuals.

b) Support efforts to inform the elderly, persons with disabilities, youth, and low income residents about the transportation services that are available, in multiple languages as needed.

c) Ensure implementation of the Marin Paratransit Development Plan.

d) Promote the Safe Routes to Schools program.

e) Encourage transportation providers to provide reduced rates for senior citizens, the handicapped, and youth.

➢ Sample indicators

a) Percent of transportation funding spent on public transit (County of Marin).

b) Number of complaints about access to public transit (Golden Gate Transit).

c) Percentage of public transportation information provided in multilingual formats (Golden Gate Transit).

➢ Sample targets

a) Increase the percentage of transportation funding spent on public transit by 20 percent in 2020.

b) Number of complaints about access to public transit decreases over time.

c) Language breakdown of transportation information equals percentage breakdown of non-English-speaking ridership on public transit.

10. Workforce Training and Compensation

(See also IV. The Economy, Equity, and Culture, A. Economy.)

➢ Background and trends

Workforce training and compensation is an area of concern as employers in the county have difficulty finding qualified entry-level employees. Compounding the shortage of entry-level workers is the number of jobs offered in Marin that don't pay a living wage.

The CalWORKS caseload in Marin is dropping dramatically, plunging new workers into the workforce. This trend could help employers seeking entry-level employees, but the lack of training, lack of support for child care, and low entry-level wages will act as significant barriers (Marin County Department of Health and Human Services).

➢ Issues

Increased skills are needed for workers.

a) Employers have difficulty hiring entry-level employees with adequate verbal and written communication, and arithmetic skills. Language is a barrier for non-English-speaking workers in service jobs.

b) There is a need for businesses to partner with schools to ensure that students graduate with skills they can use for well-paying, future-oriented jobs.

c) Businesses need to offer employees financial and other incentives to continually upgrade their work skills.

There is a need for equal access to fair job opportunities and adequate compensation for all workers, including entry-level workers.

a) Many service jobs in Marin County are low paying, and most of these jobs are performed by immigrants.

b) Gender inequality exists in the workplace, especially for working mothers.

c) Advocacy is needed for state funding to increase the quantity and quality of jobs, and to increase opportunities for employee advancement.

d) Private employers and unions in key growth industries need to pay a livable wage, and to hire and train unemployed and low income workers from within the county.

➢ Strategies

Enhance job experience opportunities for youth.

a) Link schools with businesses for job shadowing and early job education programs.

b) Encourage the establishment of more technical/vocational programs within the high school system. Implement a youth employment program.

c) Encourage colleges and universities to provide employment counseling and job referral services for students.

d) Provide opportunities for students to learn about sustainability and work in the field.

e) Participate in the School to Career partnership.

Provide mentoring, apprenticeship, and entry-level job opportunities for adults.

a) Develop personnel policies aimed at providing mentoring, apprenticeship, and part-time and entry-level positions, as well as job sharing opportunities.

b) Encourage businesses to provide jobs and mentoring for youth, senior citizens, and people with disabilities.

c) Seek out special grants for job training services for the disabled.

Provide job training for adults.

a) Increase language (especially ESL) classes in the county.

b) Increase financial management classes in the county.

c) Provide job training services for people with disabilities through JTPA funds, and seek out special grants for additional services.

d) Encourage local businesses to train and hire local residents.

e) Help businesses assist employees in upgrading their work skills.

Provide support for working parents.

a) Provide job share opportunities for working parents.

b) Require new commercial developments to include a quiet room for nursing mothers.

c) Allow telecommuting to reduce traffic congestion and provide flexibility for working parents.

Provide job opportunities for economically and physically disadvantaged people wherever possible.

a) Coordinate with nonprofit institutions and businesses that currently provide job opportunities for economically and physically disadvantaged people.

b) Study gender inequality in the workplace and create strategies to address identified issues.

c) Provide preferential job opportunities for applicants who are economically and physically disadvantaged.

d) Create mentor programs to help employees advance in the workplace.

Support fair compensation, especially for low income workers.

a) Apply the County living-wage ordinance for all applicable contracts.

b) Promote fair wages.

c) Support unions.

➢ Sample indicators

a) Unemployment rates by jurisdiction (Healthy Marin Partnership).

b) Number of job training programs for youth and for adults (Marin Employment Connection).

c) Average wages (California Employment Development Department).

➢ Sample targets

a) Unemployment rate in Marin remains below 5 percent.

b) Increase job training programs by 10 percent by 2020.

c) Increase the number of jobs paying a living wage by 10 percent by 2020.

D. CULTURE

➢ Background and trends

Culture is defined for the purpose of this document as the people's artistic and historical expression of the world around them. Marin is a culturally rich community that places importance on exposing the community to and involving the community in artistic expression, both modern and historical.

The arts industry is a strong contributor to the Marin economy. This is a mutually beneficial relationship, as Marin residents report a strong affinity for arts and humanities–related projects. In 1999, the arts industry in Marin employed roughly 2,200 persons. While Marin residents have historically attended cultural events in San Francisco, increased traffic congestion and the tendency of more people to work from home has precipitated a shift toward more Marin-based cultural events.

The primary cultural facility operated by the County of Marin is the Marin Center. Marin residents perceive the Marin Center as a gathering place for residents, rather than just a venue for events or performances. The County is currently preparing a report addressing ways to develop public-private partnerships to renovate the Marin Center facilities to improve its ability to serve as a civic and community gathering place.

The arts and entertainment industry remains a significant portion of Marin's economy. The combined annual operating budgets of 34 arts organization surveyed in 1997 exceeded $11 million, which included more than $5 million for personnel costs to employ people who live, work, shop, and play in Marin. The combined annual production budgets of the surveyed performing and producing organizations was nearly $3 million, providing approximately 1,200 performances of more than 700 productions. The surveyed arts organizations spent $1.5 million on local goods and services in 1996 and 1997 (Marin Arts Council).

In September 2000, a random telephone survey of Marin residents revealed that 22 percent of Marin households gave to the arts and humanities, compared with 11 percent nationally. In recent years, funding for the arts from the Marin Community Foundation (MCF) has been decreasing slightly. In 1987, 10 percent of the MCF's Buck Trust funds were dedicated to the arts and humanities, and in 2001 MCF directed 7 percent of its funds toward the arts (Marin Community Foundation 2001).

Although wages in the arts, entertainment, and recreation industry remain relatively low, they increased 13 percent between 1998 and 1999, from $23,459 to $26,588. This industry employed approximately 2,200 persons in 1999 (Marin Economic Commission).

A 2001 California public opinion poll found that 78 percent of those surveyed were willing to pay $5 more in state income tax if the money went directly to the arts, and 81 percent said they believe that arts programs improve children's overall academic performance (Hamlin).

Renovation and public-private partnerships represent the most viable opportunities for expanded cultural facilities. A survey of seven capital projects of arts facilities in the county found that the majority favor renovating over new construction, indicating a public desire both to rebuild infrastructure and to maintain treasured community landmarks. There is a growing interest in coordinating public-private partnerships to utilize private sources of support for direct capital funding, contributions of land, and/or project-specific approvals from jurisdictions (Saperstein and Associates).

Arts education is perceived to be an indispensable component of quality education for children. A 2001 statewide survey conducted by the California Arts Council found that 74 percent of respondents believe the arts improve the quality of children's overall education. The study also found that 72 percent believe arts education helps children develop skills for working with others as a team, and other strong social skills. When comparing the importance of arts education and sports, the 2001

California Arts Council survey found that few residents said arts education is more important than academics, but more than half, 57 percent, said that arts education is equally important.

Marin has abundant archaeological resources. The State of California has officially recorded 630 archeological sites in Marin County. These sites include settlements and villages, hunting camps, quarries, rock art sites, and trails associated with Native American settlement of the area. The distribution of known archeological sites in the county is concentrated in urban areas and the Point Reyes Peninsula.

1. Arts

➢ Issues

People place a high value on culture and the arts, though other issues and programs often receive higher priority in terms of funding and donations.

a) Community and public art projects need to be promoted because they will facilitate community development and cohesiveness.

b) It can be difficult to get funding for the arts from state and federal sources because of the perception that Marin is a wealthy community and that other communities are more needy. The Marin Community Foundation and the Marin Arts Council are two of the main resources in the county supporting the arts.

Community access to art needs to be increased.

a) Marin does not have a countywide arts and culture commission. The Cultural Development Committee (a subcommittee of the Marin County Parks, Open Space and Cultural Commission) is limited to making recommendations on Marin Center polices and programming.

b) Low income individuals and families do not have access to many arts events due to event costs.

c) Policies that promote or require public art are needed.

There are significant barriers to quality arts education.

a) Academic-achievement pressures on students can discourage them from participating in arts courses.

b) More funds are needed for scholarships, awards, and stipends for artists and students.

➢ Strategies

Improve communication between arts organizations, County decisionmaking bodies, and the public.

a) Evaluate potential barriers to attracting and retaining arts-related groups and ventures in the county.

b) Create a countywide arts and culture commission to develop a countywide vision for the arts in Marin and make policy recommendations.

c) Work with neighborhood associations and other community organizations to provide community arts programs and services. Encourage effective collaboration and communication between the Marin Center Renaissance Committee and the Civic Center Conservancy.

d) Create a bulletin board on the County Web site for the community to post arts events and engage in online arts-focused dialogue.

Expand exhibition opportunities featuring local artists.

a) Solicit performances and exhibitions from local artists of all skill and income levels at County facilities to encouraging a diversity of art styles and mediums. Provide professionally curated exhibition and gallery spaces in County-owned buildings and spaces.

b) Encourage the use of arts landmarks and reference them in County publications.

c) Promote multimodal transportation to cultural events.

d) Modify County development regulations to allow for artist live/work spaces.

Improve arts programming.

a) Conduct a periodic market survey of trends in the arts, then modify programming based on the findings.

b) Focus on the commonalties of art in differing cultures when soliciting and promoting arts programs.

c) Promote multicultural arts-related programs and services, including literature and poetry readings, in the libraries. Encourage and support participation by portions of the community that have been traditionally underrepresented.

d) Promote access to Marin 31 and other public access television for increased arts programming.

e) Promote and expand arts programs for individuals with disabilities.

Develop a public art program that is unique to Marin County.

a) Develop policies to encourage public art.

b) Encourage artist participation on design teams for planning public projects.

c) Identify appropriate sites for placement and inclusion of murals and other art on publicly owned property, such as community centers, parks, schools, and County property.

Enhance marketing and funding opportunities for the arts.

a) Develop promotional strategies for arts programs and facilities.

b) Publicly recognize those who create and support the arts in the county, including institutions, organizations, businesses, and individuals.

c) Assist in securing funds for the arts from state and federal sources. Establish a nonprofit organization that can raise funds and solicit resources for the arts. Encourage private support for the arts through the Marin Arts Council and Marin Community Foundation. Sponsor arts programs, groups, and events.

d) Allocate funds to operate, preserve, and expand access to the Marin Center.

e) Utilize market-based pricing to establish arts-related fees while providing a sliding scale to allow low income participation.

Promote community participation in the arts.

a) Implement measures to ensure that every person in Marin, regardless of age, race, or income, has an opportunity to participate in arts and cultural events.

b) Develop a subsidized ticket voucher program that offers reduced-cost tickets for the elderly, youth, low income, and disabled populations.

c) Involve the community in selecting artists for County-commissioned artwork.

d) Encourage and recognize volunteer involvement in arts programs.

e) Train social, health service, and recreation professionals who work with elderly, youth, disabled, low income, and minority constituencies on integrating the arts into their services.

Promote and expand arts education.

a) Support and expand arts classes in community recreation programs.

b) Explore ways that art can be used as an intervention for at-risk youth.

c) Improve artistic opportunities for Marin's senior population. Encourage all senior and assisted-living centers to include arts programs on site.

Celebrate and promote cultural diversity.

a) Create space in public and private spaces such as shopping malls to be used for cultural awareness activities including art and poetry.

b) Support and enhance murals, events, and community dialogue that focuses on or promotes diversity.

c) Support and enhance community festivals that promote diversity.

d) Create a commission that focuses on cultural diversity.

➢ Sample indicators

a) The number of arts events at public sites throughout the county (Marin County Department of Parks, Open Space, and Cultural Services).

b) Attendance at major arts events or cultural facilities in the county (Marin County Department of Parks, Open Space, and Cultural Services).

➢ Sample targets

a) Increase the number of arts events, performances, and exhibits at public sites by 10 percent by 2020.

b) Increase the attendance at major arts events at the Marin Center and Marin County Fair by 10 percent by 2010.

c) Increase the average instruction time devoted to art education activities and lessons by 5 percent by 2010.

2. Culture and Arts Facilities

➢ Issues

The Marin Center needs to be preserved and enhanced.

a) A survey found that many Marin residents would like the Marin Center to become a community cultural center, but that the resources of the center are not available to them.

b) The Marin Center structures and facilities need to be more versatile to easily accommodate users' needs.

c) Multicultural programs at the Marin Center are important and need to be enhanced.

Improved arts and culture facilities are needed.

a) It can be expensive to rent space for artistic and cultural events in the county. There is a need for more public-private partnerships that allow small groups to utilize facilities for the arts and culture. Many County–controlled facilities could be utilized to bring cultural events to communities underserved by typical cultural events.

b) The preservation of existing buildings is needed to create cultural centers for communities. Renovation of older theaters in downtown San Rafael and Novato is proving to be successful.

c) Space is needed for community art and cultural centers in local neighborhoods. Schools could be more fully utilized as locations for artistic and cultural expression.

➢ Strategies

Promote and enhance the Marin Center.

a) Prepare a plan to improve facilities through renovation, joint use, and development of new facilities if necessary.

b) Adhere to a regular schedule of inspection and maintenance of Marin Center facilities to ensure that high standards of safety, quality, appearance, comfort, and customer satisfaction are met.

c) Look to other funding sources, in addition to the County general fund, to finance improvements to the Marin Center.

d) Participate in studies for capital improvements for the Marin Center to make the facility as suitable as possible for the performing arts.

Promote and enhance arts and cultural facilities throughout the county.

a) Set up and maintain an inventory of cultural facilities in the county that are suitable for performances, exhibitions, rehearsals, or studio or classroom space, and assess the needs of cultural groups. Seek opportunities to utilize regional arts facilities.

b) Evaluate availability of rehearsal, performance, and studio space for local artists and multicultural events, and consider ways the County can facilitate the provision of space. Encourage existing and new businesses, churches, utility companies, and others to allow use of their facilities by community groups.

c) Determine the desirability and feasibility of constructing a warehouse for arts and theatrical storage to address both space and expense issues.

d) Determine the desirability and feasibility of constructing an arts or natural history museum, possibly at the Marin Civic Center or as part of a San Quentin reuse project, with a focus on art education.

➢ Sample indicators

a) Annually survey Marin Center users to determine if the Marin Center facilities are adequately meeting their needs (Marin County Department of Parks, Open Space, and Cultural Services).

b) Annually track the number of cultural and arts events in Marin facilities (Marin County Department of Parks, Open Space, and Cultural Services).

➢ Sample targets

a) Attain 75 percent user satisfaction at the Marin Center by 2010.

b) Increase facility use for cultural and arts events by 20 percent by 2020.

3. Archeological Resources

➢ Issues

We need to better preserve and protect Marin's archeological and historical resources.

a) The County lacks an updated archeological plan, which hinders the ability to preserve and protect archeological and historical resources.

b) The County lacks sufficient policies about archeological resources.

c) The reliability of current information on archeological resources varies. The exact size and distribution of each known archeological resource site is not well defined.

d) Many of the archeological resources in Marin are in a degraded condition.

➢ Strategies

Identify policies and programs to protect archeological and historic resources.

a) Update the County's archeological-sensitivity map. Develop a historical preservation plan, and consider establishing a Historical Preservation Commission.

b) Develop guidelines for preservation of the exterior design elements of structures of local historical or architectural interest as well as historic trees and landscapes. Include in the development-review process additional consideration of historical, cultural, and Native American concerns.

c) Ensure that field surveys yielding specimens or finds will be evaluated by qualified historians for archeological significance. Refer development proposals that may adversely affect archeological sites to the California Archaeological Inventory. Develop an ordinance to secure temporary delays on the alteration or demolition of designated cultural resources until their preservation or protection can be fully explored.

d) Conduct a survey and evaluation of existing archeology resources every three years. Maintain confidentiality regarding the location of archeological sites in order to protect these resources from vandalism and the unauthorized removal of artifacts.

e) Improve access to unrestricted archeological resources and improve interpretation of archeological history.

f) Encourage the inclusion of significant sites in the Federal or State Historical Register based on the recommendation of local historical societies.

Collaborate with others to protect archeological and historical resources.

a) Encourage and cooperate with the private sector in the implementation of innovative techniques to preserve archeological and historic sites by gifts, private conservancies, and easements. Publicize opportunities and incentives for historical preservation to owners of historic buildings.

b) Continue to assist owners of historic homes in lower-income areas with low-interest loans through Community Development Block Grants (CDBG), when available.

c) Cooperate with Native American representatives and local historical societies to protect significant archeological, cultural and historical artifacts.

Educate the community about archeological and historical resources.

a) Work with the public, the private sector, and community organizations to increase awareness of, protect, and enhance the county's historical resources.

b) Increase public awareness of local history through publications, sponsorship of events, dissemination of resource materials, a speakers bureau, displays, and commemorative plaques.

c) Provide for the placement of historical markers on county roadways to attract and inform visitors of important historical resource sites.

d) Promote historical resources as major contributions to the quality of life, as well as to cultural and economic vitality.

Expand funding opportunities for archeological and historical resources.

a) Increase financial incentives to encourage rehabilitation and restoration of archeological sites.

b) Encourage and promote legislation to provide tax incentives to encourage the rehabilitation of historical resources, including tax credits and tax abatements.

Support historical preservation programs that are holistic in scope.

a) Strive to interpret history and cultural heritage in the most inclusive sense by reaching across barriers of race, ethnicity, religion, class, and income.

b) Seek to protect not only historical resources themselves, but their context in the larger community by ensuring that preservation of significant structures is not limited to preservation of a building's "skin" without adequate consideration of its other component parts and history.

c) Support preservation strategies that respect the heritage, context, design, and scale of older neighborhoods while recognizing the evolution of a neighborhood's built form.

d) Become a Certified Local Government (CLG) by applying to the State Department of Historical Preservation.

e) Adopt and maintain a landmarks ordinance. Modify the zoning regulations to allow "adaptive reuse" of landmark properties.

f) Inform title companies that properties in Marin may be affected by historical preservation regulations.

g) Ensure the protection and preservation of artifacts in known and as-yet-unidentified areas through protective policies.

➢ Sample indicators

a) Number of known archeological and historical sites (Marin County Community Development Agency).

b) Number of community exhibitions or events with an archeological or historical focus (Marin County Department of Parks, Open Space, and Cultural Services).

➢ Sample targets

a) Update the known archeological information base (by revisiting sites to accurately log the exact size and distribution of each archeological resource) by 2020.

b) Increase community exhibitions or events with an archeological or historical focus by 20 percent by 2020.

Sources

Alliance to Save Energy, www.ase.org. 2000.

American Planning Association. *Policy Guide on Historic and Cultural Resources*. April 1997. www.planning.org/policyguides/historic.

Applied Survey Research. *2001 Community Needs Assessment*. Prepared for the Healthy Marin Partnership. Draft, November 2001.

Associated Press. "Smoking, Drug Use Among Teens Is Declining." Marin Independent Journal. December 20, 2001: A5.

Bogardus, Jeanne. Executive director, Marin Arts Council. Interview, July 31, 2001.

Chopson, Jane. Interim director, Division of Health Services, Marin County Department of Health and Human Services. Presentation to the Marin Countywide Plan Working Group, November 6, 2001.

California Arts Council. Public Opinion Survey 2001. www.cac.ca.gov/library/publications/publication_files/Public_Opinion_Survey.pdf.

California Department of Pesticide Regulation. *Pesticide Use in Marin County.* 2000.

City of Benicia. *City of Benicia General Plan: Community Identity Element*. Adopted June 15, 1999.

City of Pasadena. *City of Pasadena General Plan: Cultural and Recreation Element*. 1994.

City of Rancho Mirage. *City of Rancho Mirage General Plan: Arts and Culture Element*. Adopted January 1997.

City of Rancho Palos Verdes. *Rancho Palos Verdes General Plan*.

City of Redwood City. *Redwood City Strategic General Plan: Cultural Element.*

City of Sunnyvale. *City of Sunnyvale General Plan: Arts Sub-Element.* www.ci.sunnyvale.ca.us/elements. Adopted 1995.

City of Sunnyvale. *City of Sunnyvale General Plan: Heritage Preservation Sub-Element.* www.ci.sunnyvale.ca.us/elements. Adopted 1995.

City of Walnut Creek. *City of Walnut Creek General Plan: Cultural Resources Sub-Element.*

City of West Hollywood. *City of West Hollywood's Historic Preservation Plan and General Plan Element.* Adopted September 14, 1998.

Collins, Barbara. Marin County Affordable Housing Specialist. Presentation to the Marin Countywide Plan Working Group, August 23, 2001.

Community Inter-Action Partnership. *A Clear and Present Crisis: A Profile of Homelessness and Near Homelessness in Marin County in 1999.* A Project of the Marin Continuum of Housing and Services.

Community Support Program Advisory Committee. *The Recovery Concept: Implementation in the Mental Health System*. August 1995.

County of Fresno. *Fresno County General Plan Update Draft Environmental Impact Report: Cultural Resources Element*. February 2000. www.fresno.ca.gov/4360/special.htm.

County of Marin. Cultural Development Committee Meeting. September 10, 2001.

County of Marin. *Marin Center* magazine. Fall 2001.

County of Marin. Marin County Community Development Agency. *Draft Vision Summary*. Public Visioning Workshop, February 9, 2002.

County of Nevada. *Nevada County General Plan: Cultural Resources Element.*

Curley, Charles. Chair, Marin County Cultural Development Committee. Interview, August 15, 2001.

Edwards, Patricia. Housing Advocate in Marin City. Interview, July 30, 2001.

Employment Development Department, Labor Market Information Division. www.calmis.ca.gov.

Escobar, David. Aide to Marin County Supervisor Steve Kinsey. Interview, August 9, 2001.

Farley, Jim. Marin Center and County Fair Manager, Marin County Department of Parks, Open Space, and Cultural Services. Interview, August 29, 2001.

Fernandez, Manny. Director, Credit Clean-Up Club. Interview, July 30, 2001.

Field Research Corporation. *Marin Community Health Survey*. Prepared for the Health Council of Marin. Telephone survey. June 2001 to October 2001.

Futcher, Jane. "Low-Cost Program Reaches Out to Uninsured." *Marin Independent Journal*, August 7, 2001: B1.

Futcher, Jane. "Marin's Breast Cancer Rate Jumps 20 Percent." *Marin Independent Journal*, January 17, 2002: A1.

GLS Research. Marin Center Renovation Project: Web Survey. Prepared for the Renovation Planning Committee Meeting, April 30, 2001.

Gurganus, Bruce. Interim director, Division of Community Mental Health Services, Marin County Department of Health and Human Services. Presentation to the Marin Countywide Plan Working Group, November 6, 2001.

Hamlin, Jesse. "Poll Finds Support for the Arts." *San Francisco Chronicle*. December 18, 2001: D1.

Jauch, Dennis. Assistant director, Parks and Open Space. Marin County Department of Parks, Open Space, and Cultural Services. Interview, August 29, 2001.

Jackson, Richard J., and Chris Kochtitzky. *Creating a Healthy Environment: The Impact of the Built Environment on Public Health.* Sprawl Watch Clearinghouse. Washington, D.C.

Kettman, Susan. Marin County Department of Health and Human Services. Interview, July 23, 2001.

Lampert, Suzanne. Mundie and Associates. Presentation to the Marin Countywide Plan Working Group, October 2, 2001.

Local Government Commission. Ahwahnee Principles. 1991. www.lgc.org/center.

Lucas, Greg. "Welfare-Work May Be Hurt by Economy." *San Francisco Chronicle*, November 13, 2001: A18.

Lum, Rebecca Rosen. "Marin's Minorities Speak Out." *Marin Independent Journal*. August 5, 2001: A1.

Marin Arts Council. *Cultural Action Plan for Marin County*. March 1983.

Marin Arts Council. *Economic Impact of the Arts in Marin*. 1997.

Marin Continuum of Housing and Services. *An Update to a Clear and Present Crisis: A Profile of New Cases of Homelessness and Near-Homelessness in Marin County in 2000.*

Marin Community Foundation, et al. *Making a Difference in Marin: A Report on Giving and Volunteering in Marin County*. March 2001.

Marin Community Foundation. *A Day in the Life of the Marin Community: Marin Community Foundation Annual Report*. 2001.

Marin County Child Care Commission. *Marin's Child Care Challenge: Finding the People and Places to Care for Our Children.*

Marin County Child Care Commission. *Making Space for Children: A Five Year Plan of Action for the Marin County Community to Address Its Child Care Facility Crisis, 2001–2006*. August 31, 2000.

Marin County Community Development Agency. *Appendix A: Public Comments for the Local Coastal Program Workshop. October 29, 2002.*

Marin County Community Development Agency. *Vision Summary: Help Design the Future of Marin County*. February 9, 2002.

Marin County Congestion Management Agency. *Moving Forward: A Transportation Vision Plan for Marin County.*

Marin County Department of Health and Human Services. *California Work Opportunities and Responsibility to Kids (CalWORKS) Cash Grant Caseload Movement.* 2001.

Marin County Office of Veterans Affairs. Interview, July 26, 2001.

Marin Economic Commission. *Marin Profile 2001: A Survey of Economic, Social, and Environmental Indicators.* 2001.

National Institute of Mental Health. "Models of Community Care for Severe Mental Illness: A Review of Research on Case Management." *Schizophrenia Bulletin* 24(1): 37–34. 1998.

Nielson, Deanne. Aide to Marin County Supervisor John Kress. Interview, August 13, 2001.

Norelli, Nancy. Aide to Marin County Supervisor Hal Brown. Interview, August 9, 2001.

Olfson, M. "Assertive Community Treatment: An Evaluation of the Experimental Evidence." *Hospital and Community Psychiatry*, 1990, 41(6): 634–641.

Parton, Maureen. Aide to Marin County Supervisor Annette Rose. Interview, August 2, 2001.

Roop, William. "Cultural Resource Element, Marin Countywide Plan." Memorandum to Bob Berman of Nichols-Berman. Archeological Resource Service A.R.S. Project 01-038. December 26, 2001.

Rottger, Liz. Director, Division of Aging, Marin County Department of Health and Human Services. Presentation to the Marin Countywide Plan Working Group, November 6, 2001.

Saperstein, Jeff, and Associates. *Marin Center Renaissance: Phase II Report*. December 2001.

Saperstein, Jeff, and Associates. *Marin Center Renovation Research and Visioning Report*. 2001.

Steele, Linda. Director, Marin Family Action. Interview, July 30, 2001.

Strategy Research Institute. *Securing 2/3-Voter Support for a Half-Cent Transportation Sales Tax: A "Benchmark" Survey of the Marin County Electorate*. Report commissioned by the Marin County Congestion Management Agency. April 2000.

Stewart, Frima. Interim director, Division of Health Services, Marin County Department of Health and Human Services. Presentation to the Marin Countywide Plan Working Group, November 6, 2001.

United Arts, ed. *Arts in Focus: Los Angeles Countywide Arts Education Survey Summary Report.* Commissioned by the Arts Education Task Force of Arts for Los Angeles, 2000.

United States Census Bureau, Department of Commerce. *County Business Patterns, 1993–1999.*

United States Census Bureau, Department of Commerce. *United States Census 1980, 1990, and 2000.*

Weick, Ann, et al. "A Strengths Perspective for Social Work Practice." *Social Work*, July 1989: 350–354.

This page is intentionally left blank.