

Conservation / Open Space Element

City of Mission Viejo

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INTRODUCTION TO THE CONSERVATION AND OPEN SPACE ELEMENT

The purpose of this Element is to address the preservation and use of the City's important natural resources and open space areas. The goals and policies in this Element build upon those in the other elements of the General Plan, especially the Land Use Element. The Conservation / Open Space Element focuses on the preservation and enhancement of these resources to ensure a high quality living environment for future years. The Element also addresses the City's parks and recreation system and includes a park enhancement plan. An open space and recreational facilities system was established as part of Mission Viejo's development. The City has both public and private parks and facilities at the community and neighborhood level. Opportunities exist to expand and enhance the recreational components of the City as the remaining lands are developed.

PURPOSE OF THE CONSERVATION / OPEN SPACE ELEMENT

This Element meets State requirements concerning the Conservation and Open Space Elements as defined in Sections 65302(d) and 65302(e) of the Government Code. According to these requirements, the Conservation Element must contain goals and policies that further the protection and maintenance of the State's natural resources such as water, soils, wildlife, minerals, and other natural resources, and prevents their wasteful exploitation, degradation, and destruction. The Conservation Element provides direction regarding the conservation, development, and utilization of natural resources. The Open Space Element must contain goals and policies concerned with managing all open space areas, including undeveloped wilderness lands and outdoor recreation areas. The Open Space Element guides the comprehensive and long-range preparation and conservation of open space land. State law requires that the use of open space for the following purposes be addressed in the Open Space Element: preservation of natural resources, management of production resources, outdoor recreation, and protection of public health and safety reasons. Additionally, while air quality is not a State-mandated element, air quality is included in the Conservation / Open Space Element to address reducing pollutant levels through stationary source, mobile source, transportation and land use control, and energy conservation measures.

SCOPE AND CONTENT OF THE CONSERVATION / OPEN SPACE ELEMENT

The Conservation / Open Space Element are the City's general goals and policies regarding the preservation and protection of the environment, including natural resources and open space. The

goals identify City desires and consist of broad statements of purpose and direction. The policies serve as guidelines for minimizing environmental effects, preserving open space resources, and planning for future community service and facility needs in the City. The Conservation Plan and Open Space Plan describe how goals and policies will be achieved or implemented.

RELATED PLANS AND PROGRAMS

There are several existing plans and programs that are directly applicable to the aims and objectives of this Element. These plans and programs were enacted through Federal, State, and local legislation and are administered by agencies or special districts that have been delegated with powers to enforce Federal, State and local laws.

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) administered by U.S. Fish and Wildlife Service applies to federally listed species and habitat occupied by federally listed species. Federally listed species are most likely to occur within riparian habitat area in the City's floodplains, canyons, and hillsides. ESA 9 forbids specified acts that directly or indirectly harm listed species. Section 9 also prohibits "taking" any species of wildlife or fish listed as endangered. These restrictions apply to all federal agencies and all persons subject to United States jurisdiction.

U.S. Fish and Wildlife Service and California Department of Fish and Game

Both the U.S. Fish and Wildlife Service and California Department of Fish and Game have regulations to protect wildlife resources. Special permits are required for alteration, dredging, or any activity in a lake or stream, as well as other activities that may affect fish and game habitat. Both agencies also regulate impacts to sensitive plant and animal species. Any future development or redevelopment in the City that has potential to affect wildlife habitat will be subject to the regulations of these federal and state agencies.

Federal Clean Water Act

The Federal Clean Water Act (CWA) administered by the Environmental Protection Agency (EPA) employs a variety of regulatory and non-regulatory tools to reduce or eliminate direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so they can support the protection and propagation of fish, shellfish, and wildlife.

Americans with Disabilities Act (ADA)

The Federal Americans with Disabilities Act (ADA) of 1991 was adopted to make public areas, including public facilities, parks and play areas accessible to all persons. Playground equipment,

trails, and facilities must be usable by adults and children with disabilities under ADA. The City utilizes ADA accessible design standards in the construction of new public and recreational facilities and the retrofitting of existing facilities.

California Environmental Quality Act and Guidelines

The California Environmental Quality Act (CEQA) was adopted by the State legislature in response to a public mandate for more thorough environmental analysis of projects that might affect the environment. Provisions of the law and environmental review procedures are described in the CEQA statutes, State CEQA Guidelines, and the City's guidelines implementing CEQA. CEQA is the instrument for ensuring that environmental impacts of local development projects are appropriately assessed and mitigated.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the Federal Endangered Species Act and is administered by the California Department of Fish and Game. CESA prohibits the "taking" of listed species except as otherwise provided in State law. Any future development or redevelopment in the City that has potential to affect wildlife habitat will be subject to the regulations of this Act.

National Pollutant Discharge Elimination System (NPDES)

Mission Viejo is under the jurisdiction of the San Diego Regional Water Quality Control Board (SDRWQCB) which implements the National Pollutant Discharge Elimination System (NPDES) permit for the San Diego area (including southern Orange County). The NPDES permit, a requirement under the Clean Water Act, addresses pollution from urban runoff that impacts water quality of receiving waters (such as streams and lakes). Under the NPDES permit, each jurisdiction must implement measures to reduce urban runoff during all phases of land use development starting with: planning, during construction, and after completion of the development. Requirements include incorporating Best Management Practices to reduce water runoff from new and redevelopment sites, construction activities, and existing uses, reporting any violations to the SDRWQCB and educating the community of the negative water quality impacts from urban runoff. In 2010, the City adopted a Standard Storm Water Mitigation Plan to implement low impact development techniques for new and redevelopment sites and develop a Hydromodification Management Plan to manage increases in runoff discharge rates and durations from new and redevelopment sites.

South Coast Air Quality Management Plan

The City of Mission Viejo is located in the South Coast Air Basin. The South Coast Air Quality Management District (SCAQMD) sets and enforces regulations for stationary sources in the basin. The SCAQMD in coordination with the Southern California of Governments (SCAG) periodically develops an Air Quality Management Plan (AQMP) for the air basin. The AQMD includes a comprehensive analysis of future emission forecasts which reflect demographic and economic

growth forecasts provided by SCAG. The build-out of the City of Mission Viejo is included in these forecasts.

Natural Community Conservation Plan and Habitat Conservation Plan (NCCP / HCP)

The County of Orange has prepared a Natural Community Conservation Plan and Habitat Conservation Plan (NCCP / HCP) for the Central, Coastal, and Southern subregions of the County of Orange. The NCCP / HCP for these subregions were prepared in cooperation with the U.S. Fish and Wildlife Service and the California Department of Fish and Game. The intent of the NCCP / HCP program is to provide long-term, regional production of natural vegetation and wildlife diversity, while allowing compatible land use and appropriate development and growth. The NCCP / HCP is accomplished with the institution of a subregional Habitat Reserve System, and implemented through a coordinated program to manage biological resources within the habitat reserve.

County of Orange General Plan Resources Element

The County of Orange General Plan Resources Element includes an inventory of the county-wide resources such as agricultural, mineral, and wildlife resources, energy, water, air, open space, and cultural-historic resources. The element also includes goals, policies and programs for the development, management, preservation, and conservation of the County's resources.

County of Orange Master Plan of Local Parks

The County of Orange Master of Plan Local Parks provides goals, objectives and policies and provides implementation programs for a comprehensive county-wide park Plan. In conjunction with the County's Local Park Code, specific criteria are intended to provide an adequate supply of usable parkland. This plan is important from the City's standpoint because many of Mission Viejo's parks were developed under the County's Local Park Code.

County of Orange Master Plan of Regional Riding and Hiking Trails

The County of Orange Master Plan of Regional Riding and Hiking Trails provides policies and programs to implement the future development and operation of the county-wide trails system. The plan includes an inventory of existing and proposed trails and standards and criteria for new trails. The City has incorporated the County's trails criteria into the Conservation and Open Space Element.

County of Orange Master Plan of Regional Recreation Facilities

The County of Orange Master Plan of Regional Recreation Facilities includes an inventory of existing and proposed regional parks, harbors, marine life refuges, County beaches, and historical sites. The purpose of the plan is to provide a countywide regional recreation network to meet the needs of present and future residents of Orange County.

City of Mission Viejo General Plan Land Use Element

The City of Mission Viejo General Plan Land Use Element contains two land use designations that encompass open space land uses: Recreation/Open Space and Community Facility. The Recreation/Open Space land use designation encompasses most of the open space that exists in the City including active and passive parkland and natural open space. Distinctions between the active recreation/open spaces and the passive recreation/open areas including wilderness areas are made in the Development Code and on the Zoning Map. The Community Facility land use designation contains more intensive recreational and/or cultural facilities such as community or cultural facilities, museums, and art galleries.

City of Mission Viejo Development Code

Chapter 9.13 of the City of Mission Viejo Development Code which is embodied in the Mission Viejo Municipal Code contains the regulations for the Open Space Zone and Recreation Zone. The regulations are intended to provide for the preservation of the City's important natural resources and open space areas, and to provide for public and private recreational land use activities necessary to meet both passive and active recreation needs of City residents.

City of Mission Viejo Community Services Master Plan

In 2006, the City Council adopted a Community Services Master Plan. The purpose of the master plan is to provide a guide towards the orderly development of recreation programs, recreation facilities, parks, and open space areas in the City. The master plan provides a set of actions for implementation of goals, policies, and objectives as well as community services for the public. The Community Services Master Plan is one of the primary implementation tools for the Conservation / Open Space Element and the goals and policies it contains.

City of Mission Viejo Green Building Program

In 2006, the City Council adopted a two year Green Building Pilot Program. The goal of the program is to improve the quality of life for Mission Viejo residents through recommendations for energy efficiency, water conservation, better indoor air quality, the use of sustainable materials, and the reduction of environmental impacts. In 2008, the City Council approved this program as the City's permanent "Green Building Program."

City of Mission Viejo Wireless Master Plan

In 2007, the City Council received and filed a Wireless Master Plan relating to the future development of cell sites throughout the City. The goals of the Wireless Master Plan are to: 1) reduce the number of potential cell site locations through a coordinated co-location process; 2) mitigate the visual impact of towers and antennas from view of the community by adopting design standards that employ the best available "stealth" technologies; and 3) facilitate the development of efficient wireless networks by taking a proactive approach and implementing a wireless master plan.

CONSERVATION AND OPEN SPACE GOALS AND POLICIES

Mission Viejo is located along Interstate 5 in southern Orange County. Most of the natural open space and biological habitat has been recently replaced with urban development. The undeveloped area of Mission Viejo, in the eastern portion of the City, contains natural resources, such as steep slopes, canyons, and drainage courses that are associated with the physical characteristics of the land. These natural resources can act as constraints to development, but also define the area's environmental character.

The Mission Viejo study area includes lands outside of the City's boundaries having physical attributes that relate to planning in Mission Viejo. The unincorporated lands to the north and east of Mission Viejo contain natural resources significant to the sub-region. The City of Mission Viejo does not exercise control over these unincorporated lands. However, from a regional context, these lands are important in relation to planning for the open space uses in the City and the conservation of resources.

The undeveloped portions of Mission Viejo contain natural habitat directly adjacent to the biologically and archaeologically important Arroyo Trabuco which runs in a southerly direction between the City of Mission Viejo and the City of Rancho Santa Margarita and County of Orange unincorporated areas. The steep slopes along Mission Viejo's eastern City boundary form an edge between Mission Viejo and the Arroyo Trabuco. The undeveloped areas of the City are only the remnants of a pre-developed environment. Plant and animal species that were once common are now confined to the greatly reduced remaining habitats.

The goals and supporting policies included in the Element are concerned with specific issues and opportunities to conserve the city's remaining sensitive lands and to enhance the open space within the City. Some of the goals and policies in this Element are intended to protect the sensitive lands that exist along the City's borders, especially those adjacent to the Arroyo Trabuco and Upper Oso Reservoir. Other goals and policies are formulated to take advantage of recreational and open space opportunities that augment the City's existing recreational systems.

ECOLOGICAL AND BIOLOGICAL RESOURCES

For a city that is near build-out, it is important to conserve its remaining natural resources. The creeks provide scenic beauty and provide wildlife corridors. The quality of the water that reaches the creeks is important to the overall health of the habitat. Mission Viejo contains many important ecological and biological resources such as Aliso, Oso, and Trabuco Creeks, O'Neill Regional Park, and the natural plants and wildlife that inhabit them. Another important resource is the oak woodland, a reflection of the community's ranch history. The coast Live Oak (*Quercus agrifolia*),

was named as the Official City Tree by the City Council on April 9, 1990. To conserve these important resources for future generations and to preserve the quality of life in the community, these ecological and biological resources need to be protected. The following goal and policies support the protection of the City's natural resources.

GOAL 1: Protect and enhance the significant ecological and biological resources within and surrounding the community.

Policy 1.1: Preserve and protect important natural plant and animal communities and their associated habitats, such as areas supporting rare and endangered species, riparian areas, wildlife movement corridors, wetlands, and significant tree stands through appropriate site planning and grading techniques, revegetation, and soil management practices and other resource management techniques.

Policy 1.2: Utilize a development proposal review process to mitigate the impacts of development on sensitive lands such as steep slopes, wetlands, cultural resources, oak woodlands and sensitive habitats.

Policy 1.3: Regulate the removal or destruction of the Coast Live Oak (*Quercus agrifolia*) tree.

Policy 1.4: Participate in the development of Natural Community Conservation Plan / Habitat Conservation Plan Programs for threatened habitats located within the city, such as coastal sage scrub.

Policy 1.5: Establish and manage wildlife habitat corridors within public parks and natural resource protection areas where appropriate to allow for wildlife use.

Policy 1.6: Encourage programs to educate youth and adults about natural resources to develop concern and support for conservation and preservation.

PROTECT NATURAL RESOURCES AS OPEN SPACE AREAS

The open space that is undeveloped in Mission Viejo contains natural and cultural resources and provides habitat for plant and animal species that help define the remaining land's natural character and form. Sensitive plant communities, such as riparian areas and coastal sage scrub, provide habitat for locally or regionally important animal species. Due to the City's proximity to the natural open space of the O'Neill Regional Park and other regional open space, Mission Viejo identifies with the vicinity's regional importance and value as natural habitat. The City will utilize careful planning of its remaining natural lands to provide a gradual transition between urban uses and natural open space and to allow the City to utilize its remaining open space effectively.

GOAL 2: Protect open space areas to preserve natural resources.

- Policy 2.1:** Preserve unique and important geographic features and landforms unique to Mission Viejo.
- Policy 2.2:** Support preservation of portions of the Arroyo Trabuco as a prime bird nesting/foraging habitat and major wildlife movement corridor.
- Policy 2.3:** Support the preservation of the remaining prime bird nesting/foraging habitats in the City, particularly in the canyon areas and ridgelines.
- Policy 2.4:** Protect environmentally sensitive buffering areas such as the area between Upper Oso Reservoir and O’Neill Regional Park.
- Policy 2.5:** Support the efforts of other agencies to preserve undisturbed portions of the O’Neill Regional Park identified as a sensitive habitat.
- Policy 2.6:** Ensure long term preservation of identified open spaces through the use of conservation easements, or land purchases by community organizations that assist in land acquisitions for conservation purposes, or land purchases by the City for similar purposes.

PROVIDE FOR BALANCED PARKS, RECREATIONAL, AND OPEN SPACE NEEDS

Mission Viejo has a strong and well distributed recreational land use component. The City’s recreational components consist of public and private parks, golf courses, regional trails, greenbelts, utility easements, recreational centers, Lake Mission Viejo, and the O’Neill Regional Park. Opportunities exist to enhance the City’s parkland within the eastern portion of the City along Arroyo Trabuco Creek and to complete the City’s open space and recreational system.

In 2006, the City Council adopted a Community Services Master Plan. The purpose of the master plan is to provide a guide towards the orderly development of recreation programs, recreation facilities, parks, and open space areas in the City. The master plan provides a set of actions for implementation of goals, policies, and objectives as well as community services for the public.

GOAL 3: Provide for the orderly development of exceptional recreation programs, recreation facilities, parks, and open space areas in the City.

- Policy 3.1:** Implement and periodically update the Community Services Master Plan.
- Policy 3.2:** Implement a comprehensive maintenance program for existing and future recreational facilities.

- Policy 3.3:** Ensure that new residential development provides some on-site passive recreation and/or park land or in-lieu fees as specified in the City of Mission Viejo Subdivision Code using the established standard of five acres of park land per 1,000 population.
- Policy 3.4:** Coordinate and cooperate with adjacent jurisdictions to develop and enhance adjacent open space lands, regional parks, and access to parkland.
- Policy 3.5:** Participate and assist in the implementation of the regional parks / open space / trails corridors such as the Aliso Creek, Arroyo Trabuco Creek, and San Juan Creek corridors.
- Policy 3.6:** Investigate the opportunity for trail connections between the Upper Oso Reservoir and the O'Neill Regional Park and between Upper Oso Reservoir and the local trail following the north/ south Southern California Edison easement.
- Policy 3.7:** Preserve views of significant scenic value along streets and highways that adjoin such areas as a lake, hillside, ridgeline, creek, open space, or recreational area.
- Policy 3.8:** Encourage and maintain high quality long term maintenance programs for architectural and landscape improvements to preserve the community's visual character and promote continuous rehabilitation.
- Policy 3.9:** Provide a range of recreational facilities, including physical, cultural, and social types serving all ages, to meet the needs of City residents.
- Policy 3.10:** Preserve public and private open space lands for active / passive recreational opportunities.
- Policy 3.11:** Utilize utility easements as open space linkage corridors.
- Policy 3.12:** Encourage and implement a public / private outdoor public art program for new development and rehabilitation of existing development.
- Policy 3.13:** Encourage and implement architectural and landscape improvements that are consistent with City design standards, guidelines and criteria.
- Policy 3.14:** Preserve public and private golf courses in their entirety as important and valuable community recreational amenities and open space lands.
- GOAL 4:** **Establish a long-term funding mechanism for the acquisition, development, and maintenance of future city park facilities**
- Policy 4.1:** Actively pursue all available sources of financing for parkland acquisition, development, and maintenance.
- Policy 4.2:** Encourage the joint use, planning, and funding of school district and City park facilities.

- Policy 4.3:** Establish a reserve fund and reserve account for the repair and future renovation of City park facilities.
- Policy 4.4:** Develop a system of user fees and charges for recreational facility use and programs to supplement operational and overhead maintenance costs.
- Policy 4.5:** Encourage and utilize volunteers as resources to improve and beautify parks, trails, and open spaces as appropriate, such as past large scale community events like Tierra Nativa and Artes de la Vida.

WATER SUPPLY AND CONSERVATION

The City depends on imported water for its urban activities. Urban development depends on adequate water supplies of water. The City must promote the conservation of water resources in order to sustain existing and future economic population and growth.

- GOAL 5:** **Promote an adequate supply of water through the conservation of water resources.**
- Policy 5.1:** Work with local water districts and regional suppliers to ensure that adequate water supply is provided to meet the demands of new development and reuse of properties in the City.
- Policy 5.2:** Participate in and implement local and regional programs that promote water conservation for residential and non-residential uses.
- Policy 5.3:** Encourage the production, distribution, and use of recycled and reclaimed water for landscaping projects throughout the community while maintaining urban runoff water quality objectives.
- Policy 5.4:** Reduce the amount of water used for landscaping by employing water efficient irrigation and maximizing use of native, low water / drought tolerant plants.
- Policy 5.5:** Continue to inspect, maintain, and enhance City facilities for water use and to ensure they are water efficient.
- Policy 5.6:** Specify and install water conserving plumbing fixtures and fittings in public facilities such as parks, community and recreation centers, and government buildings.

WATER QUALITY, STORM WATER, AND URBAN RUNOFF MANAGEMENT

The City of Mission Viejo has ground and surface water resources such as Lake Mission Viejo, Upper Oso Reservoir, El Toro Reservoir, Aliso Creek, Oso Creek, and Trabuco Creek that are subject to various sources of pollution associated with urban runoff. To protect public safety and these water resources the quality of our water resources needs to be monitored and protected.

The City of Mission Viejo is committed to minimizing the effects of storm water and urban runoff pollution. Not only does storm water runoff affect local groundwater, it has the potential to impact neighboring jurisdictions and the region. Unlike sewage which goes to treatment plants, urban runoff flows untreated through the storm drain system. Anything thrown, swept or poured into the street gutter, or catch basin (the curbside openings that lead into the storm drain system) can flow directly into channels, creeks, bays, and the ocean. The problem is particularly acute during heavy rains, but can be a problem at any time during the improper disposal of products associated with business, industry, restaurants, and home, garden, and automotive maintenance.

Management of storm water is a federal requirement mandated by the San Diego Region of the California State Water Resources Control Board. The Clean Water Act requires permitting under the National Pollutant Discharge Elimination System (NPDES). The County of Orange serves as the principal permittee while Orange County Flood Control District and all incorporated municipalities are co-permittees. The mandate requires the development and implementation of twelve distinct programs, to the “Maximum Extent Practicable,” which are intended to prevent and reduce pollution from urban runoff and storm water as these sources are considered significant contributors of pollutants to waters of the United States. This includes, but is not limited to, illegal discharges and illicit connections to storm drains, runoff from construction sites, restaurants, outdoor storage sites, and industrial areas.

GOAL 6: Promote a safe supply of potable water for community uses.

Policy 6.1: Coordinate water quality programs with responsible local water districts and state and federal agencies.

Policy 6.2: Participate in applicable enforcement local, regional, state, and federal efforts to protect and enhance potable water quality.

Policy 6.3: Encourage the development of new water sources, especially efforts made by the El Toro, Moulton-Niguel, and Santa Margarita Water Districts.

GOAL 7: Reduce urban runoff flow and the discharge of pollutants from existing and new development.

Policy 7.1: Ensure compliance with Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City.

Policy 7.2: Continue to implement urban runoff reduction programs consistent with regional

and federal requirements which include requiring and encouraging the following:

- Increase permeable area and install filtration controls (including grass lined swales and gravel beds) and divert flow to these permeable areas to allow more percolation of runoff into the ground;
- Use natural drainage, detention ponds or infiltration pits to collect runoff; and
- Prevent rainfall from entering material and waste storage areas and pollution-laden surfaces.

Policy 7.3: Cooperate with surrounding jurisdictions and the County of Orange to provide adequate storm drainage facilities.

Policy 7.4: Require new development and significant redevelopment to utilize site preparation, grading, and best management practices that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways.

Policy 7.5: Coordinate with Federal, State, and local resource agencies on development projects and construction activities affecting waterways and drainages.

Policy 7.6: Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.

Policy 7.7: Provide public information and outreach materials regarding proper materials handling practices to assist residents and businesses in complying with surface water quality regulations and to increase awareness of potential impacts to the environment resulting from improper containment or disposal practices.

AIR QUALITY, CLIMATE CHANGE, ENERGY CONSERVATION, AND GREEN BUILDING PRACTICES

Air quality within the South Coast Air Basin does not presently meet state and federal standards. Cooperation among agencies in the basin is necessary to achieve desired improvements to air quality. Mission Viejo can participate and contribute its share to those efforts by proper planning and participation in regional and state air quality management programs.

In 2006, a new state law known as “The California Global Solutions Warming Act of 2006” (AB 32, Nunez) was approved by the Governor to address the issue of global warming and climate change. The law requires the California Air Resources Board to adopt regulations regarding the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program. The law also requires the California Air Resources Board to adopt

a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emission levels in 1990 to be achieved by 2020. Greenhouse gas or greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. As it plans for future development, the City will need to address air quality impacts on the environment and seek ways to reduce greenhouse gas emissions.

Most activity in the City depends on adequate supplies and distribution of energy in the form of electricity and natural gas. The City promotes both conservation of energy and the identification of alternative energy sources in order to sustain existing and future economic and population growth. The City's growing energy conservation programs and outreach efforts offer practical advice on making homes more energy efficient.

The City has taken a leading role in promoting environmentally friendly energy-efficient and sustainable development by establishing and implementing a "green building" program. In 2006, the City Council adopted a two year Green Building Pilot Program. The goal of the program is to improve the quality of life for Mission Viejo residents through recommendations for energy efficiency, water conservation, better indoor air quality, the use of sustainable materials, and the reduction of environmental impacts.

GOAL 8: Cooperate with local, regional, and state agencies to improve air quality and reduce greenhouse gas emissions.

Policy 8.1: Cooperate with South Coast Air Quality Management District and Southern California Association of Governments in their efforts to implement the regional Air Quality Management Plan.

Policy 8.2: Cooperate with the California Air Resources Board in their efforts to prepare and implement plans and programs to address the issue of global warming and climate change.

Policy 8.3: Integrate air quality planning with land use, economic development, and transportation planning.

Policy 8.4: Consider future development or redevelopment that mixes homes with businesses to minimize the length and frequency of vehicle trips.

Policy 8.5: Encourage local serving businesses such as childcare centers, restaurants, banks, family medical offices, drug stores, and other similar services near employment centers to minimize mid-day vehicle use.

Policy 8.6: Encourage alternate modes of transportation, such as walking, biking, and public transportation to reduce emissions associated with automobile use.

Policy 8.7: Support the development of publicly accessible alternative fuel stations and other infrastructure.

- Policy 8.8:** Continue replacing city vehicles with alternative fuel vehicles.
- Policy 8.9:** Continue to expand the City’s current recycling program with the goal of creating a comprehensive recycling program that makes recycling mandatory for all types of residential and non-residential uses in the City.
- GOAL 9: Continue to encourage energy conservation programs and site design practices that reduce and conserve energy.**
- Policy 9.1:** Participate in local, regional, and state programs that promote energy conservation and alternative energy sources.
- Policy 9.2:** Collaborate with energy suppliers and distributors to institute energy conservation programs, and inform the public of these programs.
- Policy 9.3:** Continue to maintain and update energy conservation programs and information provided to the public.
- Policy 9.4:** Enforce building code requirements and apply standards that promote energy conservation.
- Policy 9.5:** Encourage increased use of passive and active solar design in existing and new development such as orienting buildings to maximize exposure to cooling effects of prevailing winds and locating landscaping and landscape structures to shade buildings.
- Policy 9.6:** Encourage energy efficient retrofitting of existing buildings throughout the City.
- Policy 9.7:** Work with utility providers to provide free energy audits for the public.
- GOAL 10: Encourage building and site design standards that reduce energy costs.**
- Policy 10.1:** Continue to encourage green building designs for new construction and renovation projects within the City.
- Policy 10.2:** Continue to evaluate opportunities to enhance the City’s “Green Building Program” for residential and commercial / industrial applications.
- Policy 10.3:** Encourage designs that incorporate solar and wind exposure features such as day-lighting design, natural ventilation, space planning, and thermal massing.

RELATED GOALS AND POLICIES

A number of goals and policies included in the other elements of the City’s General Plan will also support, either directly or indirectly, the goals and policies that correspond with the major issue areas considered in the Conservation and Open space Element. Table COS-1 illustrates the consistency between these General Plan elements by describing related policies.

RELATED GOALS AND POLICIES

A number of goals and policies included in the other elements of the City’s General Plan will also support, either directly or indirectly, the goals and policies that correspond with the major issue areas considered in the conservation and Open space element. Table COS-1 illustrates the consistency between these General Plan elements by describing related policies.

**TABLE COS-1
CONSERVATION AND OPEN SPACE POLICIES BY ELEMENT**

ISSUE AREA	POLICIES BY ELEMENT						
	Land Use	Housing	Circulation	Noise	Public Safety	Economic Development	Growth Management
Conserve Natural Resources	2.8- 2.9 3.3 4.1-4.4 9.1 9.3-9.4	2.2	3.3-3.8 4.1-4.7 5.1-5.8 6.1-6.3		3.4-3.5 3.7 6.7 8.3	3.10	1.5
Protection of Open Space	1.3 3.1-3.4 4.1-4.4	4.1-4.4	5.1-5.8 6.1-6.3	2.1	3.1 8.3		
Provision of Recreational and Open Space	2.1-2.8 4.1-4.4 7.3		5.1-5.8		3.1 3.8		
Balanced Recreational System	7.3		5.1-5.8				
Long-Term Funding						1.1-1.7 3.1-3.3	

CONSERVATION PLAN

The undeveloped land remaining in Mission Viejo exists mainly in the eastern portion of the City, as well as a few parcels scattered throughout the City. These lands, on the eastern edge of the City particularly, offer or represent opportunities for preservation and use. Some of these lands contain natural resources, some contain constraints that make them difficult to develop, and some provide potential connections to regionally significant open space uses. The Conservation Plan identifies those undeveloped lands that contain open space for the preservation of natural resources, open space for the managed production of resources, and open space for public health and safety. This element's goals and policies were formulated as ways in which these lands can benefit the City as open space resources.

CONSERVATION / OPEN SPACE FOR THE PRESERVATION OF NATURAL RESOURCES

Figure COS-1 identifies those lands that represent the natural resources in the Mission Viejo study area. The natural resources include riparian corridors, biologically sensitive lands, steep slopes (slopes over 30 percent), water bodies, and lands that may contain cultural resources. Most of these lands are located along the City's eastern border, still largely undeveloped.

Studies associated with the Foothill Transportation Corridor have identified lands that contain archaeological and paleontological resources as well as lands that are biologically sensitive. The lands surrounding the Upper Oso Reservoir contain a high potential for cultural resources that provide information about the area's history. The steep slopes along Naciente Ridge provide a natural edge between developed and undeveloped lands and also act as a transition between developed lands and the sensitive habitat of the O'Neill Regional Park. The three riparian corridors that exist within the City occur along the Aliso Creek, north of the Upper Oso Reservoir, along portions of Oso Creek, and along Trabuco Creek which runs through the southeast edge of the City. The regionally significant riparian corridors along Aliso and Trabuco Creeks begin in the Cleveland national forest and terminate at the Pacific Ocean. The City has incorporated the existing regional corridors into their overall Conservation and Open Space Plan. Riparian open space also exists along Oso Creek which extends from Lake Mission Viejo to west of Interstate 5. Water resources are described in greater detail in the Land Use Element of the General Plan which includes goals and policies to protect potable water resources.

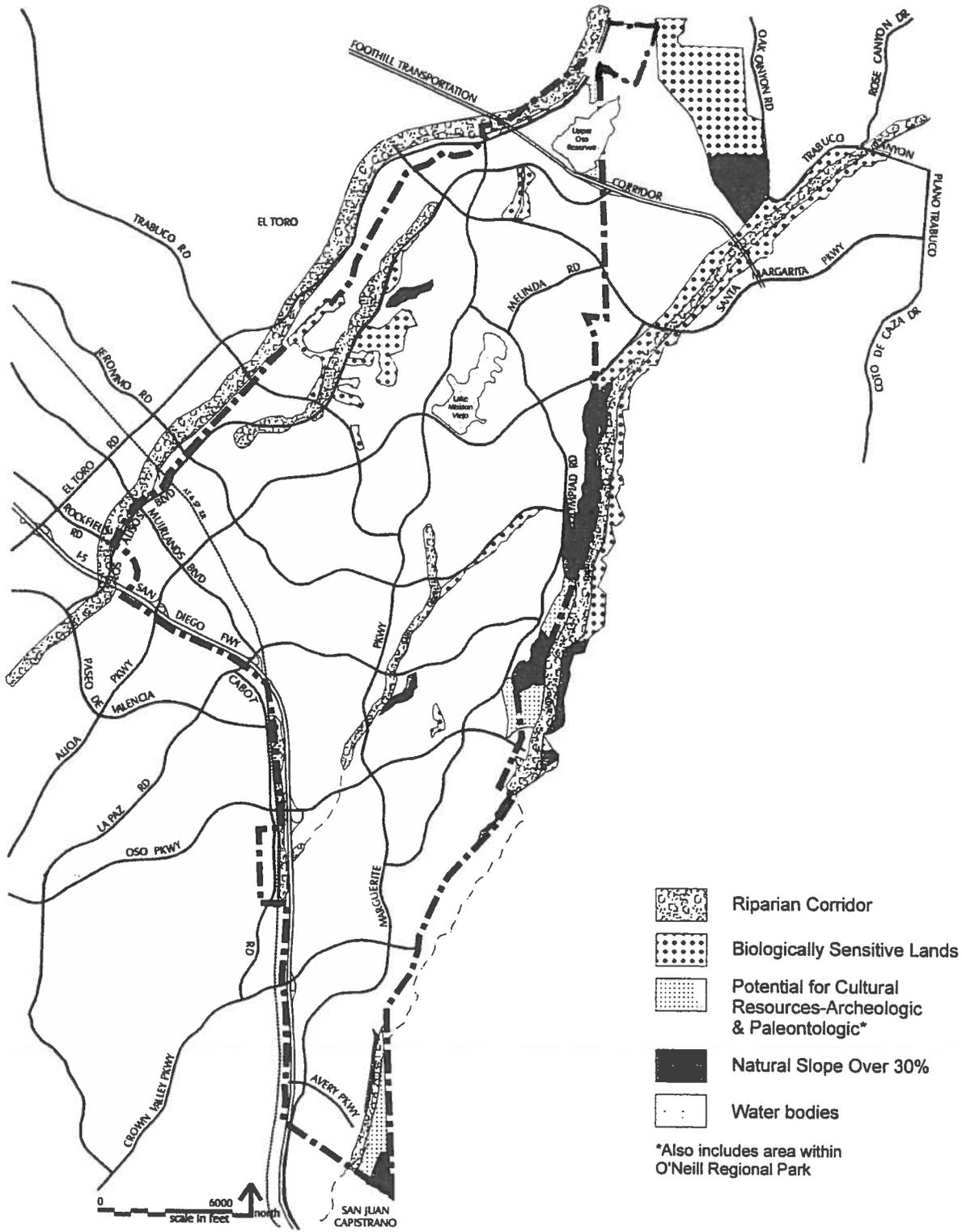


Figure COS-1
Open Space for the Preservation
of Natural Resources

The City has also adopted water efficient landscape regulations. These regulations apply to all new and rehabilitated landscaping for public agency project and private development projects that require a permit. The goal of the City's water efficient landscape regulations is to promote alternative landscape and irrigation methods and strategies for water conservation. Drought tolerant vegetation and responsible water management practices are encouraged in order to reduce dependency on the water supply.

Watershed protection is a regional concern. The City, the County, other local agencies and the U.S. Army Corp of Engineers are developing a partnership effort to study south county watersheds. Two Watershed Studies involving Mission Viejo began in 1998; San Juan Creek Watershed and Aliso Creek Watershed. The City will continue it's involvement with programs to improve streambeds, water quality, riparian habitat, flooding, and recreation opportunities.

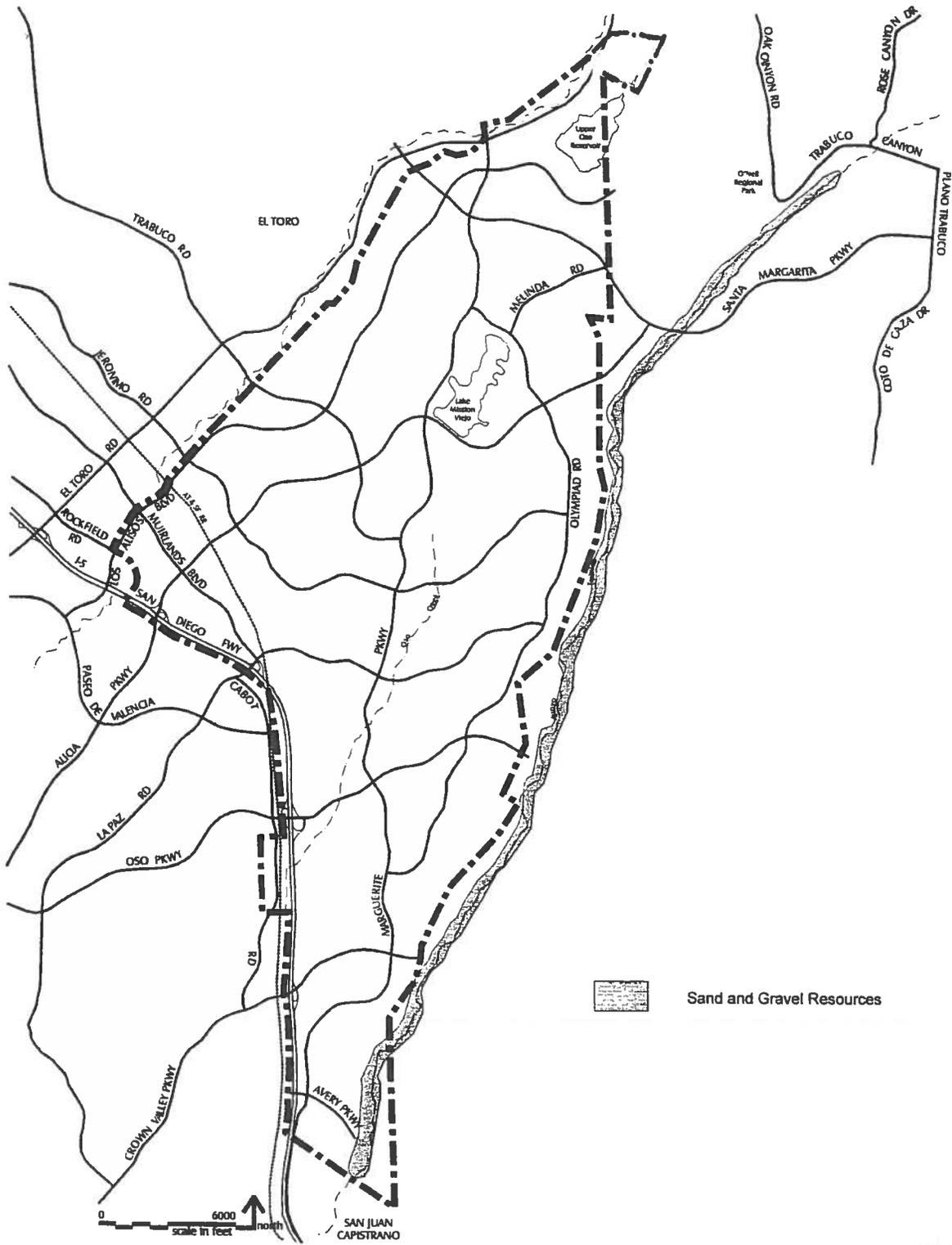
Properties supporting natural resources will be planned in a manner that recognizes the importance of these sites to the City and the region.

CONSERVATION / OPEN SPACE USED FOR THE MANAGED PRODUCTION OF RESOURCES

Currently, there is no managed production of natural resources in Mission Viejo. Figure COS-2 identifies the Trabuco Creek flood plain. Only a small portion of Trabuco Creek runs through the southeast portion of the City, and is located within the Arroyo Trabuco Golf Club.

CONSERVATION / OPEN SPACE USED FOR PUBLIC HEALTH AND SAFETY

As an incorporated city, Mission Viejo must protect the public health and safety. This involves the identification of lands that pose a threat to health and safety and the implementation of proper planning techniques to minimize potential threats to health and safety. Figure COS-3 depicts the lands in the City that require special planning considerations to avoid those potential impacts. These lands include the 100-year floodplain zones, dam inundation areas, slopes over 30 percent grade, and Very High Fire Hazard Severity Zone areas. Floodplain zones occur along Aliso Creek, English Canyon channel, Oso Creek, and the southern portion of Trabuco Creek. Areas that are susceptible to inundation in the event of a dam failure exist downstream of the Upper Oso Reservoir, the El Toro Reservoir, and Lake Mission Viejo. The City's Special Fire Protection Area occurs near the undeveloped canyons and hillsides in the northern and eastern portions of Mission Viejo. Dry grasslands and brush provide fuel for potential fires that may threaten development within eastern Mission Viejo.



 Sand and Gravel Resources


Figure COS-2
Open Space Used for the
Managed Production of Resources

The hillsides and canyons in Mission Viejo occur along the west side of Trabuco Creek. These lands contain slopes over 30 percent that represent a constraint to traditional development practices. The steeply sloped lands also define the natural landform of Mission Viejo and are an aesthetic resource. The canyons form a separation and a natural edge between the development in Mission Viejo and the sensitive lands of the O’Neill Regional Park.

CONSERVATION MEASURES

To protect and conserve sensitive lands that occur within the eastern and northeastern portions of the City, the following measures will be utilized:

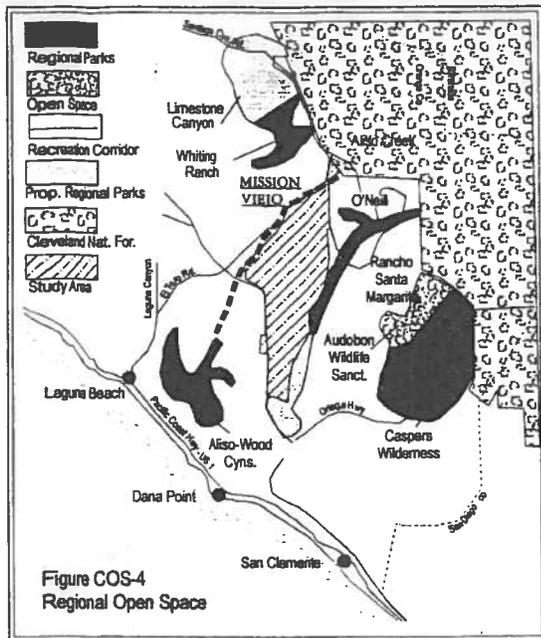
- Grading shall not be permitted on slopes with a grade equal to or over 30 percent except grading necessary for the construction of Circulation Element roadways or public improvement projects unless a site-specific geologic/soils study indicates that no safety problems will result from such grading.
- Archaeological and biological surveys shall be required for any development projects on lands identified in this Element as archaeologically or biologically sensitive. Mitigation measures shall be developed and implemented to mitigate any significant impacts.
- The following techniques may be used to acquire or dedicate land for open space purposes:
 1. *Open Space Easements* – pursuant to the Open Space Easement Act of 1974 (Government Code Section 51070 et seq.).
 2. *Conservation Easements* – pursuant to the Conservation Easement Act (Civil Code Sections 815-816).

The City may accept or purchase easements from private landowners for open spaces and resource conservation purposes. The deed transferring the easement to the City restricts the transferred properties use to open space or resource conservation activities.

- The City will participate in regional and state efforts for Natural Community Conservation Plan/Habitat Conservation Plan Programs (NCCP)/(HCP) for multi-species habitat protection. NCCP is intended to protect wildlife heritage while continuing to allow appropriate development. It is a regional program that seeks to protect a particular habitat verses a single-species. The City has participated in the NCCP/HCP for Coastal Sage Scrub that targets the protection of the California gnatcatcher, the coastal cactus wren the orange-throated whiptail lizard.
- The City will work with the U.S. Fish and Wildlife Service to pursue grant funding to create a

Habitat Conservation Plan for portions of the City. The City desires to improve open spaces to assist in the protection of sensitive plants, animals, and their habitats in the City. For example, the City is specifically interested in the conservation potential of undeveloped City-owned property along the north side of El Toro Road easterly of State Route 241, 60 acres of property easterly of Los Alisos Boulevard and Vista del Lago, and property along the east edge of the City generally located between Alicia Parkway and Oso Parkway bordering O'Neill Regional Park. In addition, the City desires to provide a combination of conserved open space and housing or other urban development on approximately 37 acres of City-owned property located off Hillcrest / Center Drive, easterly of the City's animal shelter and Saddleback College. The City is also interested in potential habitat improvements to open spaces that are not City-owned. The work to be completed includes review of existing vegetation and species distribution information, information regarding property ownership and habitat improvement constraints and opportunities, and development of a draft Habitat Conservation Plan to protect, restore, and manage open space lands within the City while allowing for needed urban development. The plan will include the placement of conservation easements on property identified by the City to be protected from future development. The end point is a draft plan that will be submitted for public review and permitting by the appropriate agency or agencies. This plan will maintain or improve the status of threatened and endangered species and assist in eliminating the need for future listings of species under the Federal and State Endangered Species Acts. Specifically, the plan will benefit the federally threatened coastal California gnatcatcher and the federally and state endangered least Bell's vireo. The plan will also benefit other native plants and animals and be complementary to the recently completed Orange County Southern Subregion Habitat Conservation Plan. The City's plan will be the basis for continued conservation of important biological resources while accommodating planned housing and economic growth.

OPEN SPACE PLAN



The open space in Mission Viejo plays an important part in the lives of Mission Viejo residents. Mission Viejo has been developed with several open space amenities including local and community parks, recreational facilities, pedestrian and bicycle trails, and other public open spaces. Regional recreational opportunities also exist in Mission Viejo due to its location in relation to regional trails that connect the Cleveland National Forest to the Pacific Ocean and to regional recreational facilities as depicted in Figure COS-4. Opportunities exist to complete the linkage between the open space resources in the City to form a contiguous system of opens space.

RELATION TO THE LAND USE PLAN

The City's Land Use Plan places parkland and recreational facilities into the categories of Recreation/Open Space and Community Facility. The following is a description of each of these land use designations.

Recreation / Open Space

The Recreation / Open space designation includes both public and private recreational uses necessary to meet the active and passive recreational needs of City residents. Active recreation activities include golf courses, equestrian centers, community recreational facilities, public parklands, and indoor and outdoor sports/athletic facilities. Passive recreation uses include museums, galleries, nature preserves, outdoor theater, designated open space, and similar uses.

Community Facility

The Community Facility designation includes a wide range of public, quasi-public, and private uses such as school sites, churches, child-care centers, government offices and facilities, public utilities, libraries, museums, art galleries, theaters, hospitals, and cultural and recreational activities. Also included are Saddleback Community College and other institutions of higher learning.

PARKS CLASSIFICATION AND STANDARDS

The Open Space Plan establishes a classification system that applies to all existing and future park and recreation facilities in the City. The overall Open Space Plan is described on Figure COS-7 and Tables COS-2, 3, and 4. Because much of Mission Viejo developed while under the jurisdiction of the County of Orange, the city's park classification system is based on the County of Orange Master Plan of Local Parks. Specific standards, based on existing parkland, have been developed for each category of park and facility that address the spatial requirements, function, service area, and desired improvements.

The parkland policy for the establishment of future parkland is a minimum of five (5) usable acres of parkland for every 1,000 persons living in the City. Usable parkland acreage must meet the local parks criteria in the City's Development Code. Parkland includes public neighborhood and community parkland that has been dedicated to the City. The City also provides for other open space land consisting of greenbelts, natural open space linkages between public and private parkland, joint school/recreation uses, and trails. Standards for each parkland type are summarized in Table COS-5, along with typical facilities to be provided for each park category.

Mission Viejo is different from many Orange County communities in that the privately-owned parkland in the city contributes greatly to the City's overall recreational picture. The largest privately owned recreational assets are Lake Mission Viejo, Mission Viejo Country Club golf course, Casta del Sol Golf Course, and Arroyo Trabuco Golf Club as shown in Figure COS-5. There are also numerous recreational facilities and areas owned and maintained by homeowner associations.

The following is a breakdown of the parkland classification system in Mission Viejo. Parkland is categorized into mini-parks, neighborhood parks, community parks, open space linkages, regional parks, joint-use schools, and trails.

Mini-Parks

Mini-parks are small, passive local parks, generally less than one acre in size. Most mini-parks are established in higher density areas as a substitute for backyards. Size and location are usually determined by the availability of vacant land. These parks may serve any age group, depending on the characteristics of the neighborhood. They usually feature a paved area for wheeled toys, benches, and landscape treatment. They may also feature children's passive play areas, quiet game areas, and some sports activities such as multi-purpose courts, if space allows. Some mini-parks are natural areas with minimal improvements (e.g., benches) which safeguard identified archaeological / paleontological sites or other natural resources, or serve as viewpoints. Mission Viejo, due to its suburban nature and relatively low density, has established few mini-parks within its overall park system. As the City approaches build-out, it becomes more important to take advantage of opportunities available to the City for the establishment of park space. For example, mini-parks could be established in areas that lack conveniently accessible parkland.

TABLE COS-2
MISSION VIEJO PUBLIC PARKLAND – EXISTING

NO.	PARK NAME	LOCATION	ACREAGE	FACILITIES
MINI PARKS				
1	Aegean Hills Park	25362 Maximus	0.5	Tot-lot, play area
2	Castlewood Park	22126 Castlewood	0.9	Turf
3	Seville Park	22832 Alturas Drive	0.9	Tot-lots
TOTAL MINI PARKS			2.3	
NEIGHBORHOOD PARKS				
4	Aurora Park	23202 Via Guadix / Marguerite	8.9	Basketball, softball, soccer/football, volleyball, tot-lot, turf
5	Barbadanes Park	26462 Barbadanes / Felipe	7.0	Basketball, soccer/football, tot lot
6	Barcelona Park*	22800 Via Santa Maria / Via Tercero	3.5	Soccer/football, volleyball, tot-lot, turf
7	Birchwood Park	21992 Birchwood / Cedarwood	2.0	Turf, walking trail, picnic tables
8	Sgt. Matt Davis Park	26210 Camino Largo	6.0	Turf
9	Castille Park	27032 Via Oviedo / Via Victoria	6.0	Softball, soccer/football, volleyball, tot-lot, turf
10	Christopher Park	26801 Valpariso	2.7	Softball, soccer/football, basketball, tot-lot, turf
11	Cordova	26931 El Retiro / Nogal	12.7	Softball, soccer/football, volleyball, turf, trail, tot-lot
12	Coronado Park	26652 Las Ondas Dr.	2.2	Tot-lot
13	Crucero Park	27672 Crucero / Camorgo	5.2	Softball, soccer/football, basketball, tot-lot
14	Doria Park	24692 Doria / Aurora	2.5	Volleyball, basketball, tot-lot, turf
15	Eastbrook Park	21530 Eastbrook	4.8	Soccer/football, turf, tot-lot
16	El Dorado Park	24335 Carrillo / Papagayo	4.9	Turf, tot-lot
17	Florence Joyner Olympiad Park	22760 Olympiad	19.9	Baseball, soccer/football, Olympiad Gardens, Plaza of Champions, turf, tot-lot, picnic
18	Granada Park	27122 Via Grande// Puerta Real	3.8	Softball, soccer, tot-lot
19	La Mancha Park	26482 Country Club Drive	5.2	Turf
20	Linda Vista Park	26601 Pepita Dr.	3.3	Tot-lot, turf
21	Madrid Fore Park	26182 Via Oceano / Marino	3.1	Basketball, tot-lot, turf
22	Melinda Park	28951 Melinda / Santa Pola	8.3	Softball, soccer/football, basketball, tot-lot
23	Minaya Park	27552 Minaya	3.8	Volleyball, turf, tot-lots
24	Napoli Park*	27682 Ridgemark / Napoli	4.0	Soccer/football, turf
25	O'Neill Park, Marguerite M.	24771 San Doval / San Rogue	3.4	Basketball, tot-lot
26	Pacific Hills Park	28050 Fieldcrest / Baccara	7.8	Basketball, soccer/football, turf, tot-lot
27	Pavion Park*	24051 Pavion	5.0	Soccer/football, play area, tot-lot
28	Pinecrest Park	21310 Pinecrest / Santa Margarita	15.3	Soccer/football, turf, trails, picnic area
29	Preciados Park	27033 Preciados Dr.	2.0	Tot-lot, turf
30	Spendlove Park, Bart	25801 Delta Avenue / Po	7.5	Volleyball, turf, tot-lot
31	Sycamore Park	25101 Charlinda	6.5	Volleyball, turf, tot-lot, play area
32	Valyermo Park	24091 Valyermo / Oro Grande	1.9	Softball, basketball, turf
33	Vista del Lago Park	27642 Vista del Lago / Marguerite	5.0	Baseball, softball, basketball, turf
TOTAL NEIGHBORHOOD PARKS			174.2	
COMMUNITY PARKS				
34	Alicia Park	23650 Via Linda / Alicia	16.7	Softball, volleyball, tot-lot
35	Beebe Park, William M.	24190 Olympiad	9.8	Baseball, soccer/football, skateboard park, tot-lot, play area
36	Curtis Park, Robert A.	24460 Olympiad	6.0	Softball, soccer/football, basketball, turf, tot-lot
37	Gilleran Park, James G.	24960 Felipe	15.2	Baseball, soccer/football, tot-lot, play area

*Joint Powers Agreement with Capistrano Unified School District or Saddleback Unified School District

TABLE COS-2 Continued
MISSION VIEJO PUBLIC PARKLAND – EXISTING

NO.	PARK NAME	LOCATION	ACREAGE	FACILITIES
COMMUNITY PARKS (Continued)				
38	Oso Viejo Community Park*	24932 Veterans Way	52.1	Softball, soccer/football, tot-lot, Oso Creek Trail, community center
39	Youth Athletic Park	22056 Olympiad	41.2	Baseball, soccer/football
COMMUNITY PARKS TOTAL			141.0	
RECREATION & COMMUNITY CENTERS				
40	Felipe Tennis Center	27161 Nogal	9.0	Tennis, tot-lot
41	Marguerite Aquatics Ctr.	27474 Casa Del Sol	4.0	Swimming pools, diving pool
42	Marguerite Tennis Center	23840 Marguerite Parkway	4.0	Tennis
43	Montanoso Rec. Center	25800 Montanoso Drive	1.0	Basketball, swimming pools, tennis, fitness
44	Norman P. Murray Com. & Senior Ctr	24932 Veterans Way	0.3	Community and Senior Center
45	Sierra Rec. Center	26887 Recodo	2.0	Swimming pool, tennis, half court basketball
46	World Cup Center	27301 La Paz Road	7.0	Soccer, meeting rooms
RECREATION & COMMUNITY CENTERS TOTAL			27.3	
OPEN SPACE				
47	Abanico Open Space	27587 Abanco / Hidalgo	9.8	Undeveloped open space
48	Colinas/ Escorial Open Space	23361 Trabuco / Via Bahia / Via San Gabriel	15.1	Turf
49	Corsica Open Space	Corsica/Napoli Way	6.9	Undeveloped open space
50	El Retiro Open Space	El Retiro/Eastern border	2.0	Undeveloped open space
51	El Toro Open Space	El Toro Road	40.0	Aliso Creek Regional Trail, undeveloped
52	Flamenco Open Space	28097 La Barca	19.6	Undeveloped open space
53	Ganiza Open Space	Ganiza & Marguerite	9.1	Undeveloped open space
54	Jeronimo Greenbelt	28072 Jeronimo Rd.	18.0	Walking trails
55	La Paz Open Space	La Paz & Marguerite	29.8	Undeveloped open space
56	Los Alisos Open Space	Los Alisos & Vista del Lago	85.6	Aliso Creek Regional Trail, undeveloped
57	Loyola Park Open Space	22621 Via Santa Maria	5.0	Undeveloped
58	Melinda Open Space	Melinda/Eastern border	13.1	Undeveloped open space
59	Mojave Open Space	22561 Mojavel Lane	38.0	Undeveloped open space
60	Olympiad Open Space	24474 Olympiad	100.0	Walking trails
61	Pacific Circle Open Space	Pacific Circle	8.7	Undeveloped open space
62	Pacific Hills Open Space	Pacific Hills/Glenwood	28.1	Undeveloped open space
63	San Gabriel Park/Open Space	22996 Via San Gabriel	12.0	Undeveloped open space
64	Santa Lucia Park / Open Space	26850 Santa Lucia & Via Santa Rosa	4.6	Undeveloped open space
65	Santa Maria Park/Open Space	22602 Via Santa Maria & Via Fiesta	3.1	Undeveloped open space
66	Wilderness Glen	22500 Los Alisos between Entidad & Trabuco	82.4	Wilderness Trials
67	Vista Del Lago Open Space	27062 Vista Del Lago	61.89	Undeveloped open space
OPEN SPACE TOTAL			592.7	

O.S. = Open Space

*Joint Powers Agreement with Capistrano Unified School District or Saddleback Unified School District

**TABLE COS – 3
MISSION VIEJO PRIVATE PARKLAND – EXISTING**

NO.	PARK NAME	LOCATION	ACRES	FACILITIES
COMMUNITY PARKS				
68	Lake Mission Viejo	22555 Olympiad Road	60.0	Water sports, picnic facilities, beach
PRIVATE GOLF COURSES				
69	Casta del Sol **	27601 Casta del Sol	62.0	Golf course
70	Mission Viejo Country Club	26200 Country Club Drive	160.0	Golf course, tennis courts, rec. facilities
71	Arroyo Trabuco Golf Club**	26772 Avery Parkway	206.0	Golf course, banquet facilities

**Available to Public

**TABLE COS-4
MISSION VIEJO PUBLIC OPEN SPACE - PROPOSED**

OPEN SPACE LINKAGES				
71	Arroyo Trabuco slopes and blufftops	East of Saddleback College	32.71	Trail, access points to O'Neill Regional Park
72	SCE Easements	SCE Utility Easements from northern City boundary to south of Jeronimo Road at eastern City boundary, and from Interstate 5 to eastern City boundary	114+	Trail
73	Oso Creek/ OCTA Railway	Oso Creek riparian area east of OCTA rail line adjacent to Interstate 5	32+	Trail
74	Oso Creek – South of Casta del Sol	Oso Creek open space from Casta del Sol to Oso Viejo Park.	29.6	Trail

TBD = To be Designed

**TABLE COS – 5
PARKLAND STANDARDS**

TYPE	SIZE	SERVICE AREA	LOCATION	USUAL FACILITIES AND REMARKS
Mini Park	1 acre or less	Approximately 1/4 mile radius	In highly developed neighborhoods where neighborhood parkland is unavailable and there are no other services.	Children's play area, landscaping, picnicking, sports.
Neighborhood park	Up to 20 acres	Approximately 1/2 mile radius	Preferably adjoining an elementary school near the center of a neighborhood unit.	Play areas, multi-purpose courts, tennis courts, picnic areas, open turf area, ball fields, on-site or off-site parking as appropriate.
Community Park	15 to 50 acres	Approximately 1 to 3 miles radius	At or near the intersection of major or secondary thoroughfares near center of service area.	Ball fields, court sports, and other active athletic areas, children's play area, on-site parking, restrooms and picnic areas.
Open Space Linkages	No size constraints	Varies	Along easements, flood-plains, steep slopes, greenbelts.	Pedestrian and bicycle paths, natural open space. Generally linear in shape.
Regional Park	No size constraints	Regional	Within 1 to 3 hours travel time from urban populated areas. O'Neill Regional Park.	Hiking, camping and picnic facilities.
Joint-use with schools	5 to 7 acres	Approximately 1/2 mile radius	Park space adjacent to or within a public school site.	Playground, grass, ball fields and multi-purpose courts.
Special Use	No size constraint	Varies	Within floodplain, adjacent to major arterial, private community facilities.	Private country club, golf course, sometimes privately owned land.

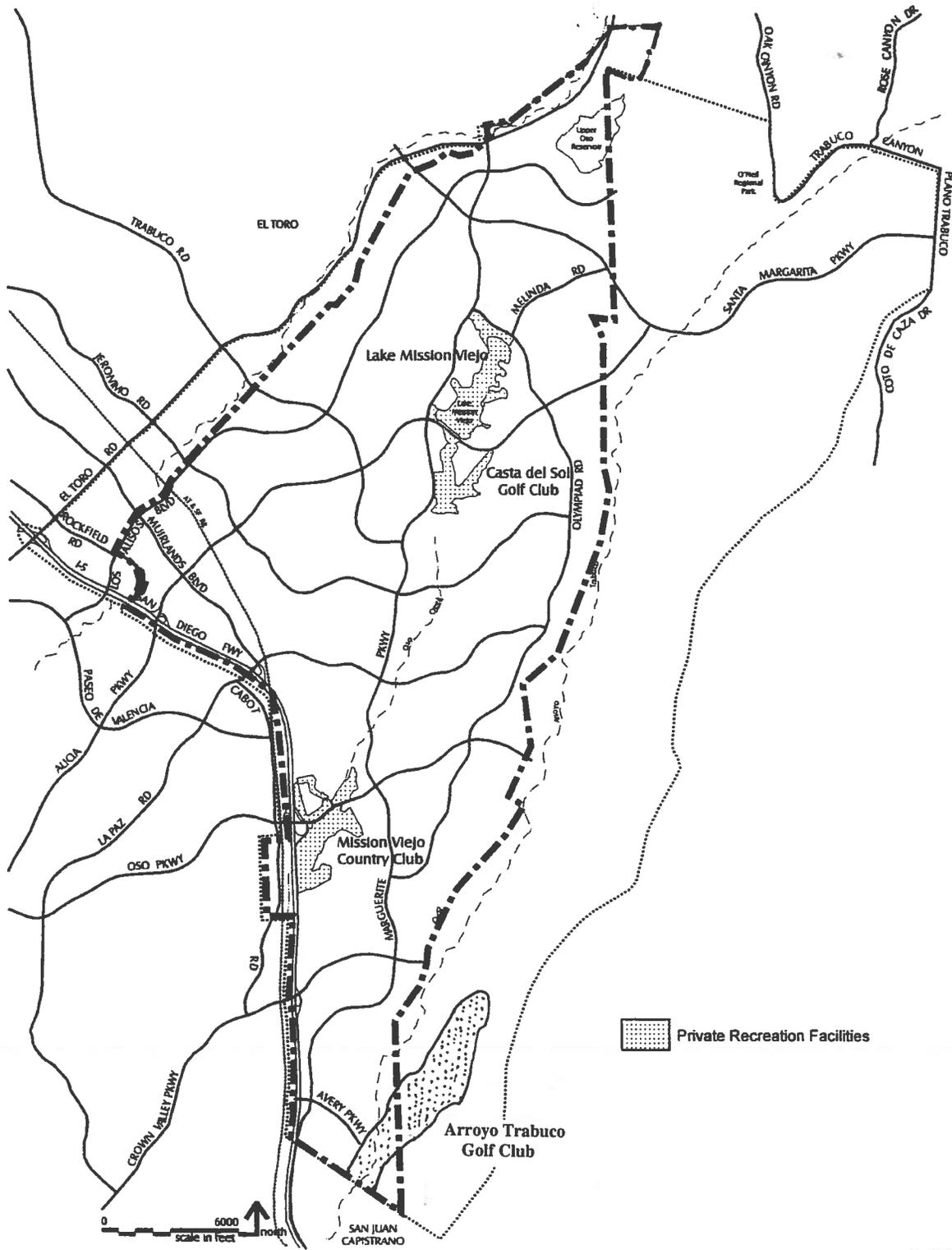




Figure COS-5
Private Recreation Facilities

Neighborhood Parks

A neighborhood park is any general use local park developed to serve the active recreation needs of a particular neighborhood within a community. The size of the park depends on the population within its service area and the extent of the desired amenities, but includes up to 20 acres. Typically, neighborhood parks have a maximum service radius of one-half mile and are within walking or cycling distance of park patrons. The neighborhood parks in Mission Viejo feature such amenities as landscaping, children's play areas, active ball fields, multi-purpose playfields, game courts, open turf areas and lighting for night use. In some cases, the neighborhood parks provide off-street parking and rest rooms. Most of the parks in Mission Viejo are categorized as neighborhood parks serving individual neighborhoods. However, these parks also serve the needs of all residents. Preferably, a neighborhood park should be located adjoining an elementary school and near the center of a neighborhood unit so that it can best serve the pedestrian user.

Community Parks

The community park is typically 15 to 50 acres and is designed to meet the active recreational needs of several neighborhoods. These parks are intended to serve pedestrian and motorists within a radius of up to three miles. They contain facilities which require more space than neighborhood parks and which may include: extensive landscaping; nature areas; lighted multi-purpose playfields for softball, baseball, soccer and football; court sport facilities for basketball, racquetball/handball and tennis; swimming pools; and community centers with adequate off-street parking. Community parks provide the greatest economy of scale in terms of active and passive recreation benefit versus cost of maintenance and operation.

Open Space Linkages

Open space linkages are usually linear strips of open space along lands such as easements, floodplains, and canyons. These linkages form trails and open space systems that connect parkland or neighborhoods. Pedestrian, bicycle, and equestrian trails are usually located along the open space linkages. Natural open space along hilltops, within canyons, or along riparian corridors form excellent linkages to other open space. These linkages include undeveloped open space and several small linear parks throughout the City.

Regional Parks

A regional park does not have any particular size standard. Each is intended to serve a regional population and usually contains a special feature that the county or city wishes to preserve. No specific standards apply to this parkland category other than recognition of its unique function in preserving significant natural ecological areas. Mission Viejo is directly adjacent to the County's O'Neill Regional Park along the Arroyo Trabuco. This 2,400-acre regional park provides passive and active open space for the region consisting of camping facilities, picnic facilities, wilderness areas, playground equipment, a softball field, a nature center, hiking and equestrian trails, and parking facilities. The trails along the Trabuco Creek potentially form a regional trail extending from

the Cleveland National Forest to the Pacific Ocean. The Trabuco Creek travels through the southeastern portion of Mission Viejo. The City may cooperate with the County and other cities in exploring the potential southerly extension of the O'Neill Regional Park. Five potential access points from Mission Viejo to the O'Neill Regional Park, shown on figure COS-6, will help to link the City to this regionally significant open space system.

Joint-Use With Schools

Mission Viejo has established joint-use agreements with the Capistrano Unified School district, the Saddleback Valley Unified School District, and the South Orange County Community College District to share in the use and maintenance of park and school playground facilities. These joint-use agreements allow for jointly funded recreation programming to take place between the school districts and the City. The City has agreements with the school districts for the joint-use of several schools and also has opportunities for additional agreements.

The Saddleback Valley Unified School District has fifteen schools in Mission Viejo including three high schools, two intermediate schools, nine elementary schools and one special facility for the handicapped. The Capistrano Unified School District has six elementary schools, one high school, and one intermediate school in Mission Viejo. The South Orange County Community College District contains Saddleback College. The recreational facilities available at these schools include ballfields, courts, tot lots, and multipurpose rooms.

Trails

The City has established local trails throughout the City and has participated in the County's Master Plan of Regional Riding and Hiking Trails General Plan component. The City has adopted portions of the County's Trail Dimension Criteria in the County Master Plan of Regional Riding and Hiking Trails which establishes standards for trail development.

Local trails consist of the Southern California Edison Easements, the Wilderness Glen trail, the Oso Creek trail, and the Jeronimo greenbelt. These trails connect parkland and other open space features. There are also popular walking trails around and above Lake Mission Viejo. Two regional off-road trails traverse the City: The Aliso Creek Trail, which presently commences at Cook's Corner near the Cleveland National Forest and terminates at Niguel Road, at which point the trail joins on/off-road trails that lead to the Pacific Ocean. The Arroyo Trabuco Trail potentially commences in Trabuco Canyon at the Cleveland National Forest boundary, extends southwesterly along Arroyo Trabuco, and joins the San Juan Creek Trail to terminate near Doheny State Beach.

FUTURE PARK SITE SELECTION STANDARDS

The City's Local Park Code (Chapter 9.85 of the Subdivision Code) was adopted pursuant to Section 66477 of the Government code of the State of California. With this authorization from the State, the City may require the dedication of land or the payment of fees in lieu thereof, or a combination of both, for park and recreational purposes as a condition to the approval for a final tract map or parcel. The formula for park land dedication is five (5) net, usable acres of parkland per 1,000 residents resulting from a new residential subdivision map or tract. The City has the option of accepting a fee in lieu of the land dedication which correlates to the value of the required parkland. The standards identified in Table COS-5 and in the following text, should be utilized in selecting sites for parks and should serve as guidelines governing the acceptance of land dedicated to satisfy the provisions of the City's Local Park Code.

Future park development will focus on expanding and improving existing parks as well as obtaining easements and property for trails.

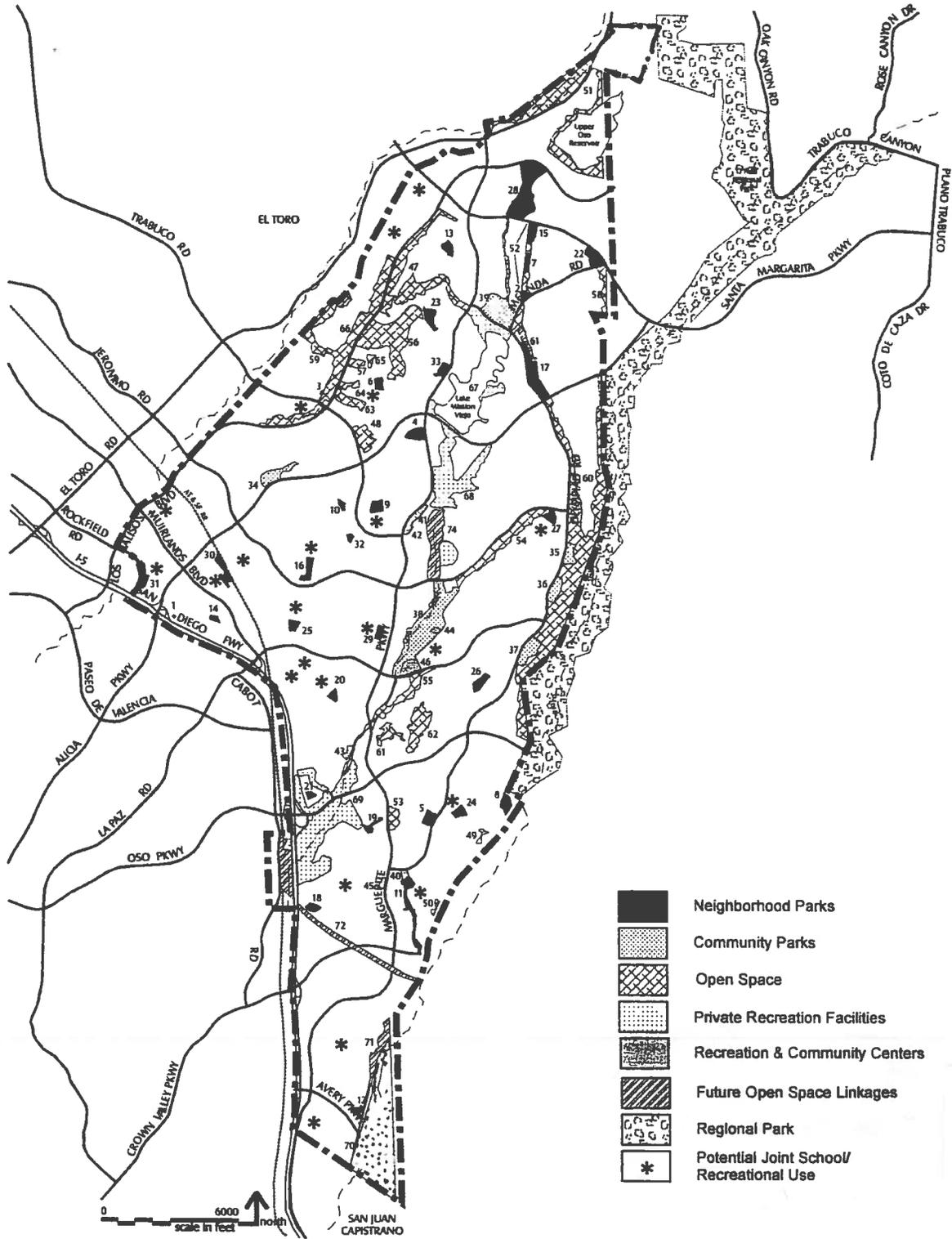
Figure COS-6 illustrates the open space opportunities that exist within Mission Viejo. These opportunities, combined with the City's existing recreational setting, define the City's overall Open Space Plan. The opportunities for additional open space and recreation in the city relate to the linkage of existing parkland to establish an open space system. The Mission Viejo Open Space Plan is shown in Figure COS-7. The completion of the City's Open Space Plan will involve the acquisition and development of new parkland based on the objectives discussed below.

Neighborhood Parks

Many of the facilities located within neighborhood parks are associated with active recreation. All neighborhood parks should contain some area for active and passive recreation depending on the size of the park.

Neighborhood parks should have a minimum parcel size of two (2) acres. Size criteria should conform to the City's standards listed in Table COS-5. The park site should contain consolidated parcels with appropriate area devoted to active recreation such as ball fields, court sports, tot lots, picnic facilities, swimming pools, community buildings, on-site parking, and passive recreation such as seat and picnic areas and garden spaces.

Neighborhood parks should be located near the center of a neighborhood unit and, if possible, adjoining an elementary school. Easy access should be provided to pedestrians, bicyclists, and maintenance and public safety vehicles. The neighborhood park should serve an area approximately within a ½ mile radius. However, these parks also serve the needs of all residents. A neighborhood park should not be separated from its user population by major highways, railroads, or un-traversable obstacles. A neighborhood park should be situated adjacent to or near greenbelts, open space linkages, or other community open space/recreation facilities to facilitate an open space system throughout the City.



MISSION VIEJO
GENERAL PLAN

Figure COS-7
Open Space Plan

Community Parks

Minimum parcel size of a community park should be 15 to 50 acres as they are intended to serve an approximate radius of one (1) to three (3) miles. Individual community parks should meet the size criteria outlined in Table COS-5. No specific shape is required for community parks as they are intended to incorporate both active recreational facilities and passive open space in the form of unique physical features such as a ridgeline. Community parks should encompass pedestrian and bicycle paths and natural open space and may be partially linear in shape.

Community parks should contribute to the City's open space system by connecting to neighborhood parks through open space linkages or connecting to other recreational facilities. They should be located at or near the intersection of an arterial near the center of their service area. Community parks should contain space for active recreational facilities such as ballfields, court sports, and play areas as well as on-site parking, restrooms, and picnic areas. Also, they might include passive recreation such as interpretive gardens, seating, and picnic areas. The City will continue efforts to improve Wilderness Glen Park, a popular park utilized for more passive activities. Further, park improvements and the completion of the trails system will complete this 82.4-acre park.

Open Space Linkages

The City recognizes the following as future open space linkages in its Open Space Plan as shown on Figure COS-7:

- SCE Utility Easements from northern City boundary to south of Jeronimo Road at the eastern City boundary, and from Interstate 5 to eastern City boundary.
- The slopes which form the westerly side of the Arroyo Trabuco.
- Oso Creek riparian area east of the Orange County Metrolink rail line adjacent to Interstate 5.
- Oso Creek open space from Casta del Sol Road to Jeronimo Road. Developing a trail through this open space would connect the Marguerite Recreation Center, and from Via Angelia across the creek to the Oso Creek trail. This would connect the Montanoso Recreation Center to the Oso Creek trail.
- Los Alisos Open Space which includes the ridgeline open space east of Los Alisos Boulevard between Vista Del Lago and Via Noveno and east of Via Santiago.

Future Joint School/Recreation Agreements

Several opportunities exist to establish future school/recreation joint use agreements with the three school districts in the City. These opportunities are shown on Figure COS-6 by school name and type. The City will initiate agreements with these schools whenever feasible to enter into a joint school/recreation use and maintenance program. In general, parks and schools that are located next to each other are the most likely candidates for establishing a joint use agreement. However, the City

and districts are not limited to adjacent parks and schools.

Trail System

A number of policies included in this element are concerned with the expansion of the city-wide system of hiking and biking trails particularly those that link into regional trail systems. Precise development standards for the various types of trails are difficult to establish since trail width and gradient will depend on topography, surface features, and availability of an easement. The County's Master Plan of Regional Riding and Hiking Trails contains trail standards which have been adopted as part of this element. The City's trail system includes pedestrian and bike trails within open space corridors and along regional trails which link to local and regional parkland. The bike ways located along the City's street system is addressed in the City's Circulation element. The five major trail corridors to be completed, enhanced, and expanded are shown on Figure COS-6 and are as follows:

- *Completion of Arroyo Trabuco Trail coordination with County* - The County-designated regional Arroyo Trabuco Trail connects the Cleveland National Forest to the Pacific Ocean. A portion of this corridor travels through southeastern Mission Viejo along the Trabuco Creek. The City will cooperate with the County, landowners and other communities to complete and enhance this trail and develop linkages from this trail to other recreation and open space features in the City. The trail has been implemented from Avery Parkway to the southern City border. The emphasis will be to complete the trail from Avery to the north connecting with the trails in Rancho Santa Margarita and other City facilities.
- *Enhancement of Aliso Creek Trail* – The County-designated Aliso Creek Trail also connects the Cleveland National Forest to the Pacific Ocean. This trail travels along the northeastern City boundary. Linkages will be established and enhanced between this trail and Oso Creek Trail.
- *Completion of Wilderness Glen Trail* – Local segments along the Wilderness Glen trail will be completed and will be connected to the open space system with directions to the nearby Aliso Creek Trail.
- *Completion of Naciente Trail* – The Naciente Ridge runs along the City's eastern boundary and provides an opportunity for the public to enjoy a view of the City to the west and the Arroyo Trabuco to the east. Portions of the trail are completed; however, there are possibilities of extending the existing trail to the city parks located along Felipe Road and Marguerite Parkway. Access to O'Neill Regional Park via this trail may be provided subject to County approval.
- *Enhancement of Oso Creek Trail* – This local trail travels from Marguerite Parkway, along the Oso Creek and the Jeronimo Greenbelt, connecting to the Naciente Ridge Trail along the SCE Easement. The Oso Creek Bicycle Trail Feasibility Report identified means of connecting the existing Class II bicycle trail along Camino Capistrano in Laguna Niguel with the Aliso Creek Trail in North Mission Viejo, thereby providing a new north-south linkage for cyclists. In addition, connectors could be provided on the Oso Creek Trail between the Marguerite Recreation Center and the Montanoso Recreation Center, and to the Arroyo Trabuco Trail in O'Neill Regional Park. Another possibility is connecting the trail to Alicia Parkway and Lake

Mission Viejo. During development review, opportunities for extending the Oso Creek Trail should be considered even if the alignment was not analyzed in the Oso Creek Bicycle Trail Feasibility Report.

The standards adopted for the establishment of future trails in the City, as taken from the County's trails criteria, are shown on Figure COS-8 and are shown in Table COS-6.

**TABLE COS-6
TRAIL STANDARDS**

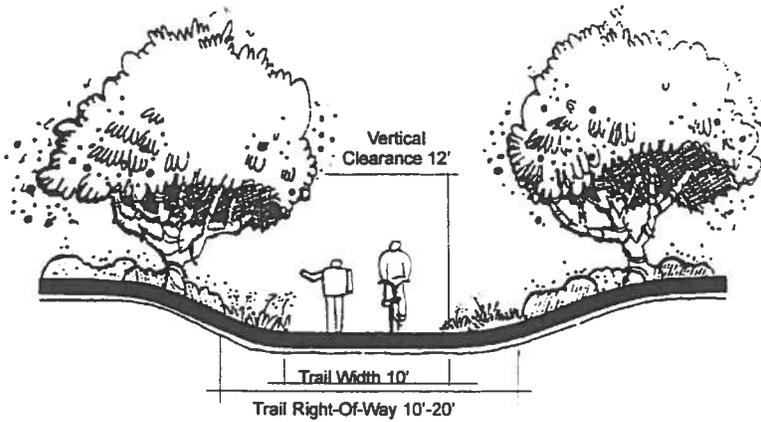
FEATURE	STANDARD
Trail Tread Width (See Figure COS-8)	10 ft. minimum – urban and rural standard 4 ft. minimum – mountain standard
Horizontal Clearance	2 ft. minimum – flat grounds, Clearance; upslope and downslope flatter than 4:1 slope 4 ft. minimum – downslope steeper than 4:1 slope
Right-of-way (See Figure COS-8)	Minimum – Trail tread width plus appropriate horizontal clearances
Setbacks (see Figure COS-8)	5 ft. minimum setback from existing or future curb face, edge of sidewalk or edge of paved or unpaved shoulder 5 ft. minimum buffer separation from bikeway, sidewalk or other trails 2 ft. minimum setback from retaining walls or fences
Vertical Clearance (See Figure COS-8)	12 ft. minimum vertical clearance beneath structures or tree limbs
Proximity to the Roadway	In combined trail systems, bicycle trail should be located closest to a roadway
Trail Signs	a. Trail name signs should be placed at entry points and other points where trail identification is needed b. Directional signs should be placed, as appropriate, to clarify trail destination and direction to trail users

**TABLE COS-6 CONTINUED
TRAIL STANDARDS**

FEATURE	STANDARD
Trail Signs (Continued)	<ul style="list-style-type: none"> c. Signs should offset from the trail edge a minimum of 2 ft. d. Signs should identify hazard points, clearance requirements or safety precautions, as warranted e. Mileage signs may be located at trail heads
Roadway Treatments	<ul style="list-style-type: none"> a. Street signage to warn motorists of impending trail crossings should be located in advance of trail crossings. Signs should meet County and State standards. b. Marking for trail crossings should consist of striping on the roadway surface and, where feasible, texturing (sandblasting) of the roadway surface
Rest Area	<p>Rest areas for trail users should be located within regional or local Parks, State parks, and staging areas as first priority and at other feasible locations to seek a desirable minimum spacing of 3 to 5 Miles. Rest areas should provide the following:</p> <ul style="list-style-type: none"> a. Water for hikers and riders b. Identifications signs c. Picnic tables d. Rest rooms, where feasible e. Shade f. Trash receptacles

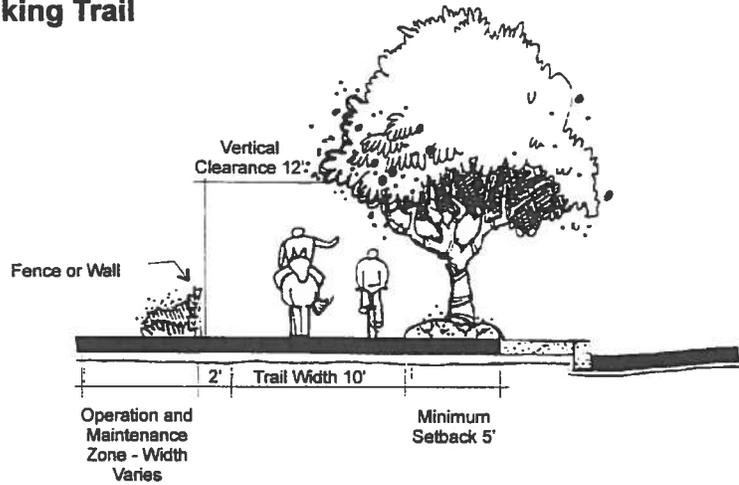
GENERAL PLAN POLICIES AND FUTURE RECREATION FACILITIES

The Land Use Element describes a land use designation that is applicable for identifying areas of the City where existing and future parks, trails, and other recreational facilities are or may be located. Other sites adjacent to these designated areas may be purchased or acquired as development exactions for more intensive recreational uses when land is made available. Figure COS-7 includes those areas designated on the Land Use Plan Map for recreation and open space purposes which are to be preserved as such.

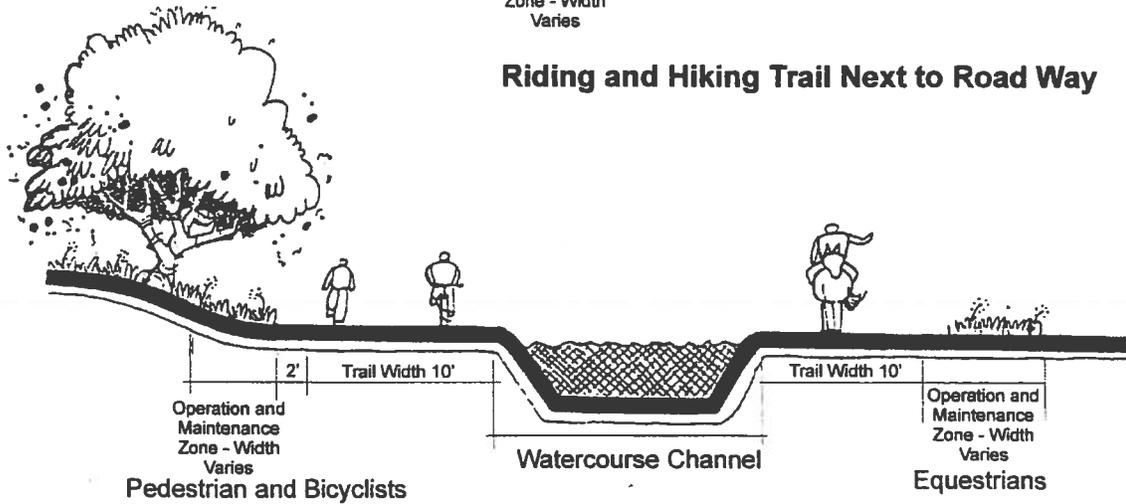


General Riding and Hiking Trail

Note: Reduced trail widths may be necessary in some areas due to topographic constraints, available right-of-way or other limitation. Modified from the County of Orange Master Plan of Regional Riding and Hiking Trails. Trial cross-sections are conceptual. Specific trail standards are described in the City's Master Park Plan



Riding and Hiking Trail Next to Road Way



Trail Adjacent to Watercourse Channel



**Figure COS-8
Trail Standards**