Chapter 8: Conservation Element
Chapter 8
Conservation Element

8.1 INTRODUCTION

The purpose of the Conservation Element is to provide direction regarding the conservation, development, and utilization of natural and cultural resources. It serves as a guide for the City of Murrieta, its residents, and its businesses to understand what natural or other resources exist in the City, how development impacts these resources, and methods to maintain, preserve, or conserve these resources. The Conservation Element considers the following resources in the natural environment: water; hills and ridges; and mineral, paleontological, and biological resources. It also considers resources within the built environment: urban ecology, farmland, cultural, energy, and solid waste.

Because many of these resources are embodied in the natural and built landscape of Murrieta, the Land Use Element is an essential part of the City’s conservation efforts. Other Elements that directly relate to natural resources are Infrastructure, Recreation and Open Space, and Air Quality.

The following Community Priorities relate most directly to this Element:

- Protect the natural beauty of the mountains, hills, and waterways.
- Preserve elements of Murrieta's rural heritage.
- Create a vibrant, prosperous Historic Downtown that serves as a community center and provides a variety of quality shopping and dining experiences.

8.2 AUTHORITY FOR ELEMENT

California Government Code Section 65302 (d) requires “that a General Plan include a conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals and other natural resources.”
8.3 SETTING THE CONTEXT:  
KEY ISSUES AND CHALLENGES

The Conservation Element is designed to protect, maintain, and enhance Murrieta’s natural resources, and balance current community resource needs with the ability of the community’s natural resources to meet those needs and benefit the common good. Murrieta recognizes that resources are finite, and is only able to support the human economy and the global ecosystem if they are used at a sustainable rate and allowed to replenish. Conservation of resources will also enable the City to become more self-sufficient, and reduce long-term costs associated with energy, water, and waste. Murrieta promotes sustainability as a core principle, and this concept applies directly to the management of resources as discussed in this Element. Additionally, protecting and enhancing the natural environment contributes directly to the community’s quality of life.

NATURAL ENVIRONMENT

Murrieta’s natural environment provides resources such as water, landscape, minerals, plants, and animals. Some of these resources are actively used in the City and must be managed for those purposes. While not directly used by the current inhabitants of the area, plants and animals are inseparable parts of the functioning ecosystem in the natural landscape. Their fossilized remains provide a record of natural history. The community benefits from natural systems such as waterways that allow groundwater recharge and plants that prevent erosion. It is therefore important to understand how these natural systems work.

Water

WATERSHED AND GROUNDWATER

The City of Murrieta and most of the Sphere of Influence (SOI) are located within the inland portion of the Santa Margarita River Basin, which comprises approximately 750 square miles. Murrieta Creek and Temecula Creek collect water from the upper watershed and represent the main tributaries to the Santa Margarita River. Western portions of the City are within the southern portion of the Santa Ana River Basin. The regional boundary for the two basins divides the Santa Margarita River drainage area from that of the San Jacinto River, which normally terminates in Lake Elsinore.

Murrieta Creek extends approximately 14 miles and drains an area of approximately 220 square miles. Warm Springs Creek is a major tributary of Murrieta Creek that traverses Murrieta. Both creeks remain in a semi-natural state, with areas of significant native vegetation occurring along portions of each. There are other minor tributaries and intermittent stream courses that occur within the General Plan Planning Area, as well as vernal pools and seasonal wetlands.

Storm water runoff represents the primary source of surface water within the Murrieta Creek Basin. Additional sources of surface water include groundwater from springs, runoff from agricultural uses, and snowmelt.
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Groundwater is water contained within natural underground water systems below the Earth’s surface, in which the water flows through porous formations called aquifers. Groundwater recharge is an important source of water supply to each of the retail water purveyors that serve the City and the Sphere of Influence. Numerous wells have been drilled within the groundwater basins to allow for the extraction of water from the underlying reservoirs.

Major groundwater basins underlying Murrieta and the Sphere of Influence include the Murrieta-Temecula Basin and the French Basin. The Murrieta-Temecula Basin underlies approximately 60,000 acres, including the Murrieta Creek channel and Warm Springs Creek, which serve as important sources of groundwater recharge. Water flows from the Basin to the Lake Elsinore area in the northwest and to the Santa Margarita River to the southwest. In the northeast, the French Basin underlies approximately 3,500 acres and discharges to Warm Springs Creek.

Water use and supplies in Murrieta and the Sphere of Influence are discussed in the Infrastructure Element.

UPPER SANTA MARGARITA INTEGRATED REGIONAL WATER MANAGEMENT PLAN

The Integrated Regional Water Management Plan (IRWMP) is a planning and management tool to facilitate efficient use of water resources and to develop effective water conservation measures, using a regional- and watershed-based approach. Development of the IRWMP is a cooperative effort by the Rancho California Water District, Riverside County Flood Control and Water Conservation District, and County of Riverside.

The intent of the IRWMP is to enable greater watershed-wide coordination and management of water resources within the Santa Margarita Watershed as a whole, as well as adjoining watershed and regional planning and funding efforts. Through the IRWMP, stakeholders collaborate across jurisdictional boundaries to implement water resource management projects. These stakeholders include regional water agencies; flood control districts; counties; cities; and federal, state, and local agencies. The IRWMP also provides opportunities to identify and evaluate information on the present and future needs within the watershed for consideration in the California Water Plan.

STORM WATER MANAGEMENT

Storm water drainage infrastructure within the City of Murrieta consists of a network of natural streams, improved channels, storm drains, catch basins, and detention basins. These facilities and their necessary maintenance are provided by the Riverside County Flood Control and Water Conservation District and the City.

To minimize detrimental effects of runoff water quality, the City of Murrieta implements its Storm Water Management Plan (SWMP). The SWMP identifies methods to reduce potential storm water runoff and the contribution of pollutants to the storm drain system from industrial, commercial, residential, and municipal sources.
Hills and Ridges

Murrieta’s natural setting offers views and vistas of features that have both scenic and ecological value. A variety of rolling hillsides, mountain ranges, the Valley floor, and varied natural vegetation contributes to the unique visual character of Murrieta, as well as the surrounding region.

The Hogbacks are a prominent visual feature within the Murrieta landscape that can be seen from many vantage points. This ridgeline crosses the eastern portion of the City and supports areas of relatively undisturbed natural vegetation along the western slope.

Views to the Santa Rosa Plateau occur along the I-15 and I-215 Freeways, as well as from lands located to the west of the Hogbacks. Views from these locations also include the largely undisturbed ridgelines that extend to the north and south of the Plateau, combined with hillside areas supporting chaparral habitat. Oak woodland habitat and a variety of canyons are also present along the foothills of the Santa Ana Mountains and add to the existing visual character.

The Murrieta Municipal Code establishes guidelines for future development proposed along the City’s hillsides. Section 16.24, Hillside Development, provides measures for the long-term protection of existing natural topography and scenic character whenever feasible through the regulation of grading activities, intensity, and density of development proposed, structural massing, building height, and other characteristics in order to minimize potential impacts on the existing viewshed.

SCENIC CORRIDORS

Views from the major freeways traversing Murrieta play a large part in defining the community’s identity for people passing through the area. Both freeways have been recognized as possessing scenic qualities.

Interstate 15 is included in the Master Plan of State Highways Eligible for Official Scenic Highway Designation, and Interstate 215 was previously shown on the County’s Master Plan of Scenic Highways as being eligible for official designation as a County Scenic Highway.

Mineral Resources

The City lies within the Temescal Valley Area within Riverside County, which has become a major area for mining. Existing mineral extraction activities and commodities produced in this area primarily consist of clay, specialty sands, and specialty stone. Construction aggregate (crushed rock, sand, and gravel) also represents a valuable mineral commodity. Sand, gravel,
and clay are generally used for fill purposes, for the construction of roads and highways within urban and suburban development, and for other infrastructure purposes such as canals and aqueducts.

The extent and significance of mineral deposits in the City and the Sphere of Influence are largely unknown. *Exhibit 8-1, Mineral Resources*, shows the locations of known resources. Five resource sites are identified within the City. These sites contain support clay, sand and gravel (construction), feldspar, feldspar/silica, and gold. One geothermal resource is also identified within the City boundaries. Three additional sites are identified within the Sphere of Influence, which contain feldspar, gold, and stone (crushed/broken). According to the State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), no underlying oil fields are present in the City, the Sphere of Influence, or in outlying areas.

The Murrieta *Development Code* provides guidelines for the review of surface mining permit applications that are intended to create and maintain an effective surface mining and reclamation policy, as authorized by the California Surface Mining and Reclamation Act of 1975. The *Development Code* gives provisions for the regulation of surface mining operations in order to prevent or minimize potentially adverse effects, and provides for reclamation of mined lands.

**Paleontological Resources**

Paleontological resources are the fossil remains or traces of past life forms, including both vertebrate and invertebrate species, as well as plants. The Murrieta area is generally underlain by highly fossiliferous rock units that include the Pauba formation and Unnamed Sandstone formation. The San Bernardino County Museum Earth Sciences Division has classified the majority of the City and the Sphere of Influence as having a high potential for containing significant, nonrenewable paleontological resources.

Formations in the Murrieta area have yielded extensive fossil remains that include mammoth, mastodon, ground sloth, dire wolf, short-faced bear, saber-toothed cat, tapir, camel, llama, and pronghorn. Known deposits have also yielded smaller vertebrate fossils including rabbit, rodent, bat, shrew, bide, amphibian, lizard, tortoise, and turtle.

**Biological Resources**

**WILDLIFE HABITAT**

Approximately 8,374 acres of undeveloped land with potential wildlife habitat are present within the approximate 26,852-acre General Plan Planning Area, excluding agricultural lands. Concentrated areas of natural vegetation occur along the foothills and canyons in the western portion of the City, in the northern portion of the City along the northeastern hillsides, along Murrieta and Warm Springs Creeks, and along the slopes and base of the Hogbacks.

Plant communities within the General Plan Planning Area include annual grassland, coastal sage scrub, chaparral, oak woodland, riparian, and wetland habitat. *Table 8-1, Wildlife Habitat in Murrieta and Sphere of Influence*, lists specific categories and acreages of the plant communities.
communities within the General Plan Planning Area. *Exhibit 8-2, Vegetation and Land Use*, identifies the location of potential wildlife habitat areas within the General Plan Planning Area.

### Table 8-1
**Wildlife Habitat in Murrieta and Sphere of Influence**

<table>
<thead>
<tr>
<th>Wildlife Habitat*</th>
<th>Wildlife Habitat Mapping Units (Common Name)</th>
<th>Approximate Area (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Grassland</td>
<td>California annual grassland alliance</td>
<td>2,340</td>
</tr>
<tr>
<td>Coastal Oak Woodland</td>
<td>Five different plant associations</td>
<td>303</td>
</tr>
<tr>
<td>Coastal Scrub</td>
<td>Sixteen different plant associations</td>
<td>3,372</td>
</tr>
<tr>
<td>Cropland, Orchard, Vineyard</td>
<td>Agricultural Land Use</td>
<td>5,662</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>Eucalyptus Alliance</td>
<td>35</td>
</tr>
<tr>
<td>Fresh Emergent Wetland</td>
<td>Bulrush-cattail</td>
<td>107</td>
</tr>
<tr>
<td>Lacustrine</td>
<td>Water mapping unit</td>
<td>128</td>
</tr>
<tr>
<td>Mixed Chaparral</td>
<td>Twelve different plant associations</td>
<td>1,636</td>
</tr>
<tr>
<td>Riverine/Lacustrine</td>
<td>Sandbars, mud flats, riparian shrubs and trees associated with a river</td>
<td>137</td>
</tr>
<tr>
<td>Urban</td>
<td>Five different mapping units</td>
<td>12,816</td>
</tr>
<tr>
<td>Valley Foothill Riparian</td>
<td>Nine different plant associations</td>
<td>316</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>26,852</strong></td>
</tr>
</tbody>
</table>

* Using the Wildlife Habitat Relationship (WHR) system of vegetation classification. Descriptions of each habitat type and associated wildlife are provided in the Existing Conditions Report.

### SPECIAL-STATUS SPECIES

Special-status species include plants and animals that are listed as rare, threatened, endangered, or otherwise identified for tracking and protection at the state or federal level. Conservation efforts in the *Western Riverside Multiple Species Habitat Conservation Plan* are largely aimed at species associated with unusual soil types. Special-status plant species are likely to occur in habitat areas associated with vernal pools and clay soils, wetlands, and areas supporting chaparral, scrub, and woodlands.

Within the General Plan Planning Area, listed species with specific soil types include Munz’s onion, San Diego ambrosia, spreading navarretia, California Orcutt grass, and Quino checkerspot butterfly. In addition, coastal scrub and chaparral habitat areas are important habitat for the Quino checkerspot butterfly and California gnatcatcher. Annual grassland and coastal scrub habitat are important to the Stephens’ kangaroo rat, while riparian, lacustrine, and emergent wetland habitat are important to the least Bell’s vireo and southwestern willow flycatcher.
WESTERN RIVERSIDE MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Murrieta is a Permittee under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP), and as such, has existing conservation agreements and also sets aside land parcels within the City as Conservation Land to meet the land acquisition goals of the MSHCP. The conceptual conservation scenario for the MSHCP Reserve Area is based on existing public lands, undeveloped land (Core Areas), and identified potential Linkages between the Core Areas.

Warm Springs Creek and Murrieta Creek are important natural features within the City that are protected for their biotic and aesthetic value; they offer wetland resources and allow for wildlife migration. These features are included in the MSHCP as potential Linkages between Core Areas.

For discussion and planning purposes, the Core Areas and Linkages are grouped into Area Plans and Subunits, as shown in Exhibit 8-3, MSHCP Area Plans and Subunits. The MSHCP identifies the following Biological Issues and Considerations for the Subunits within the City and the Sphere of Influence:

- **Murrieta Creek (SW1) and Santa Rosa Plateau (SW6).** Maintain habitat function as riparian and aquatic species live-in habitat and large mammal movement linkage.
- **French Valley/Lower Sedco Hills (SW5) and Warm Springs Creek/French Valley (SCM1).** Maintain habitat Core for narrow endemic plants (saline/alkali and clay), Quino checkerspot butterfly, Riverside fairy shrimp, Los Angeles pocket mouse, western pond turtle, and habitat linkages through the City limits (east-west and north-south) for wildlife movement and plant dispersal.

BUILT ENVIRONMENT

Murrieta’s built environment interacts with the natural environment by drawing on resources like soil and energy and creating new resources such as farmland, historic structures, and products that can be re-used or recycled. The community also seeks to integrate the natural world into the urban fabric by preserving open space and introducing parks and trees. Developing the City while enhancing the functioning of natural systems is a prudent way to maintain and benefit from natural resources.

Urban Ecology

In urban areas where the majority of land is given over to pavement, buildings, or other kinds of development, ecologically functioning land is a unique and valuable asset with widespread positive impacts. Creeks, wetlands, habitat areas, parks, trees, gardens, storm water management areas, and other open space can serve as interconnecting islands of bio-diversity, providing valuable ecological services.

PARKS AND OPEN SPACE

Discussed extensively in the Recreation and Open Space Element, Murrieta’s parks and natural open space provide opportunities for outdoor recreation and contact with nature. Trails have
been constructed through several parks and open space areas. Much of Murrieta’s open space follows natural drainage courses.

**TREES**

Murrieta has a *Tree Preservation Ordinance* that protects native Oak and Sycamore trees, and trees of historic or cultural significance, groves and stands of mature trees, and mature trees in general. Trees protected under this ordinance include palms and trees at the Murrieta Hot Springs Resort, conifers dating from pre-World War I along Murrieta Hot Springs Road, and a landmark cottonwood tree associated with a former ceremonial ground and trail route located near Lemon Street.

**Farmland**

Murrieta’s economy was once based on agriculture, and there is still farmland within the City and the Sphere of Influence (SOI). California’s Farmland Mapping and Monitoring Program categorizes the quality of farmland in the state based on such factors as soil type, growing season, availability of water, and history of crop production. *Exhibit 8-4, Important Farmland*, shows the location of farmland types in the City and SOI, including 3,207 acres of Farmland of Local Importance within the City boundaries.

*Table 8-2, Farmland Types in Murrieta and Sphere of Influence (2008)*, provides a breakdown of the acreage of lands within each Farmland Mapping Category for the City and the Sphere of Influence. These Farmland Mapping Categories are defined in the Existing Conditions Background Report.

**Table 8-2**

<table>
<thead>
<tr>
<th>Farmland Mapping Category</th>
<th>Total in Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City of Murrieta</strong></td>
<td></td>
</tr>
<tr>
<td>Urban Built Out Land</td>
<td>11,348</td>
</tr>
<tr>
<td>Grazing Land</td>
<td>1,540</td>
</tr>
<tr>
<td>Farmland of Local Importance</td>
<td>3,207</td>
</tr>
<tr>
<td>Prime Farmland</td>
<td>65</td>
</tr>
<tr>
<td>Farmland of Statewide Importance</td>
<td>28</td>
</tr>
<tr>
<td>Unique Farmland</td>
<td>81</td>
</tr>
<tr>
<td>Other Land</td>
<td>5,242</td>
</tr>
<tr>
<td><strong>Sphere of Influence</strong></td>
<td></td>
</tr>
<tr>
<td>Urban Land</td>
<td>442</td>
</tr>
<tr>
<td>Grazing Land</td>
<td>1,164</td>
</tr>
<tr>
<td>Farmland of Local Importance</td>
<td>2,581</td>
</tr>
<tr>
<td>Other Land</td>
<td>1,155</td>
</tr>
</tbody>
</table>

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Exhibit 8-4 and Table 8-2 are based on the Important Farmland maps prepared by the State in 2008. These maps include land that was used for agricultural production anytime in the four years before the maps were prepared. However, by 2010 the extent of land used for agricultural production within the City limits was far less than the farmland depicted in Exhibit 8-4.

WILLIAMSON ACT LANDS

To preserve agricultural uses, the Williamson Act established an agricultural preserve contract procedure by which counties or cities within California can tax landowners at a lower rate, in return for a guarantee that these properties will remain under agricultural production for a period of 10 years.

According to the California Department of Conservation, no Williamson Act encumbered properties are located within the City of Murrieta. Approximately 58 acres of encumbered acreage are located outside of the City boundary within the Sphere of Influence, as shown in Exhibit 8-5, Williamson Act Farmland (2007). None of these contracts are in non-renewal status with the State.

Cultural Resources

ARCHEOLOGICAL AND HISTORICAL RESOURCES

Murrieta enjoys a rich cultural history, with more than 199 documented cultural, archaeological and historic sites. Cultural and archaeological resources include remnants of prehistoric habitation such as milling features and food processing artifacts, stone artifacts (flakes, points, debitage), sites with rock art, village complexes and habitation sites, and prehistoric quarries. Historic sites include built resources and historic archaeological sites (trash scatters, habitation remains). It also includes historic resources such as ranches, homes, and sites of historic buildings that have been demolished. The most historically significant areas generally occur along Washington Avenue, west of the I-15 Freeway, and Los Alamos Road, east of the I-215 Freeway.

The General Plan Planning Area contains a number of roads which, due to their individual qualities or historical significance, may warrant recognition or even conservation programs to preserve their character. The historic value of Los Alamos Road was recognized by the Murrieta City Council on July 16, 1991. In March of the following year, the Riverside County Historical Commission recommended that a four-mile stretch of

This grain elevator, built in 1918, is one of the most noticeable historic structures in Murrieta.
Los Alamos Road, between Via Santee and Winchester Road, be designated as a County Historic Route.

The City has a Cultural Resource Preservation Ordinance that provides “a mechanism by which community resources such as buildings, structures and sites within the City of Murrieta, which are of pre-historic or historic interest or value, or which exhibit special elements of the City’s architectural, cultural, or social heritage may be identified, protected, enhanced, perpetuated and used in the interest of the public’s health, safety, welfare, and enrichment.” Under this ordinance, a natural or constructed feature may be designated as an individual resource, and a geographic area may be designated as an archeological district or a historic preservation district.

The City of Murrieta Historic Preservation Advisory Commission acts in an advisory capacity to the City Council with regard to the preservation of cultural and archaeological resources within the City’s boundaries.

**HISTORIC DOWNTOWN MURRIETA**

The Historic Murrieta Specific Plan, adopted in 2000, provides a framework for the future enhancement and preservation of Historic Downtown Murrieta. The Specific Plan Area is bounded by Jefferson Avenue to the east; Ivy Street to the south; Hayes Avenue to the west; and Kalmia Street to the north. The Specific Plan sets forth guidelines for design of appropriate development including architectural characteristics, site planning, parking, landscaping, and signage. The Specific Plan also identifies several gateways to Historic Murrieta that have visual prominence, including Kalmia Street and Ivy Street, as well as Washington Avenue and Jefferson Avenue. Other elements contributing to the historic character of the area include a variety of large, mature trees, particularly along Washington Avenue.

A number of improvements are planned or have been made in recent years within Historic Downtown Murrieta. These projects include design elements to enhance the overall historic theme and character, infrastructure and street improvements, parks, and upgrades to various City facilities. Historic Downtown continues to be a focal point for future improvements and planning efforts.
Energy

Energy resources are commonly categorized as renewable or nonrenewable. Future availability and environmental costs are growing concerns with nonrenewable energy. Two renewable energy sources, solar radiation and wind energy, are readily available in the area. Geothermal resources also exist, as suggested by the presence of thermal springs. However, most energy used in Murrieta comes from sources located elsewhere.

Electricity is provided by Southern California Edison (SCE), whose facilities include hydroelectric, nuclear, and coal power plants. A growing percentage of the energy supplied by SCE is from renewable sources: wind, geothermal, solar, biomass, and small hydroelectric. Under Executive Order S-14-08, California utilities are required to generate 33 percent of their electricity from renewable resources by the year 2020.

Natural gas is supplied through transmission pipelines by the Southern California Gas Company. In areas of the City where natural gas infrastructure is not available, homes or businesses use propane gas. Individual propane tanks are located on the property and the owners or occupants execute private agreements with propane companies to maintain and refill the tanks.

Transportation energy is supplied primarily by petroleum or fossil fuels, although hybrid and electric-powered vehicles are becoming more available, as well as vehicles powered by alternative fuels. At this time, gasoline and diesel fuels are readily available within the General Plan Planning Area and throughout the Southern California region. The environmentally significant consequence of using these fuels is the atmospheric release of greenhouse gases and other pollutants.

WIND ENERGY

Wind turbines on residential lots can reduce household consumption of utility-supplied electricity. In order to promote the safe, effective, and efficient construction and use of non-commercial wind energy conversion systems on rural residential lots, the Municipal Code includes standards for regulating these systems. The standards are intended to minimize visual, noise, and safety impacts on the surrounding community.

Solid Waste

Murrieta was found to be in compliance with AB 939 in 2006, having made a good faith effort (49 percent diversion rate) to meet the goal of diverting 50 percent of solid waste from landfills. In the two years since AB 939 compliance has been measured according to Annual Per Capita Disposal Rate, Murrieta has succeeded in meeting the AB 939 target set by CalRecycle. The City of Murrieta has established a number of programs in partnership with Waste Management that promote recycling, composting, and waste reduction, all of which have contributed to the City’s increasing diversion rate and decreasing disposal rate in recent years.
8.4 SETTING THE VISION: KEY CONCEPTS AND VISION FOR GENERAL PLAN

NATURAL ENVIRONMENT

Water Supply

Water is a precious natural resource in Murrieta and in California. Water conservation and efficiency efforts in Murrieta are occurring against a statewide backdrop of increased demand for water and decreased supply due to many seasons of drought, which will likely be exacerbated in the future by climate change. In addition, the southern California water supply has been reduced by severe restrictions in water diversions from the Sacramento-San Joaquin River Delta for the State Water Project, which has historically supplemented water supplies along with water from the Colorado River.

California law requires Murrieta and other local governments to adopt ordinances ensuring that large landscaped areas are designed to be water-efficient. Plant choices, efficient irrigation systems, and other landscape design techniques can reduce water consumption from large projects such as parks, golf courses, homeowner association sites, and institutional uses, as well as residential yards and smaller landscaped areas. Murrieta adopted the latest Water Efficient Landscape Ordinance in 2010.

Future water supplies in Murrieta will rely heavily on recycled/reclaimed water to reduce the demand on potable water supplies. Water districts will need to ensure their water reclamation facilities and pipeline infrastructure are planned and installed according to their Urban Water Management Plan projections. Coordination between the City and water districts will be essential as further development is planned.

Residents and businesses in Murrieta will need to play a role in using water resources efficiently, and this will be encouraged through education and incentives from the City and water agencies.

Storm Water Management and Groundwater Recharge

Groundwater is an important source of water for Murrieta. When land is in its natural state, groundwater supplies are recharged as rain infiltrates the soil. But when areas become urbanized and soil is covered by impervious surfaces, this storm water runs off and is often diverted into channels that carry the water away. As urbanization continues in Murrieta, efforts to recharge groundwater will be important for the long-term sustainability of the City’s water supply.

Groundwater recharge can be integrated into the design of development projects by preserving natural drainage courses, encouraging the use of pervious surfaces, and creating areas for water retention and infiltration. Recharge techniques that may be used on-site or off-site include recharge ponds, injection points, and storm water retention ponds.
Besides recharging aquifers with clean water, implementing a comprehensive storm water management program can reduce pollution and erosion, and prevent flooding. Unmanaged urban storm water runoff can cause polluted and excessive storm water flows that diminish water quality in the Santa Margarita River Basin.

In implementing its Storm Water Management Plan, the City will continue its efforts to keep pollutants from entering urban runoff and to provide measures that remove pollutants before runoff reaches the creeks.

**Hills and Ridges**

Murrieta’s hills and ridges offer scenic and biological values, and are considered to be a community treasure. The City has regulations that protect hillside topography and scenic characteristics and prevent slope erosion, and seeks to preserve habitat areas such as the foothills of the Santa Ana Mountains under the MSHCP.

Scenic corridors through Murrieta allow enjoyment of these views. With formal designation of these corridors, the scenic qualities of Murrieta could be recognized at the County and State level as a community amenity.

**Mineral Resources**

The City of Murrieta recognizes the economic value of mining areas and facilities within its borders. Regulation allows these facilities to co-exist with other land uses and reduces negative impacts that can be associated with mining operations.

**Archaeological Resources**

The City of Murrieta recognizes the value of prehistoric and Native American traditional cultural and archaeological sites within its borders and the need to preserve these sensitive non-renewable resources. The impacts of the area’s traditional inhabitants have played in the historic development of the City is also recognized and important to future growth and development. Appropriate steps and protocols as outlined in the *Cultural Resources Preservation Ordinance* will be taken to carefully balance protection of these archaeological sites, cultural resources and traditional cultural properties with the need to accommodate development.
Paleontological Resources

Paleontological resources in Murrieta will require continued protection during grading and excavation for development. Local displays of excavated fossils could also provide educational benefits and promote a sense of place and history, with the potential to attract visitors as well.

Biological Resources

The preservation of biological resources is of great importance to the City and to the County of Riverside. Ongoing net loss of habitat due to development will contribute to the regional loss of habitat on a cumulative level. Therefore, the City will continue to carefully balance protection of natural lands, habitat, and protection of multiple species with the need to accommodate development. In this effort, Murrieta will maintain compliance with the MSHCP and related state and federal regulations aimed at protecting biological resources.

BUILT ENVIRONMENT

Urban Ecology

Murrieta seeks to balance community needs within the framework of an improved urban ecological system. Whether naturally occurring or constructed, areas with functioning ecology can protect against natural disasters and negative environmental impacts. For example, wetlands can protect urban areas from flooding and provide centers of habitat for ecological restoration work. Trees and landscaping provide a wide array of ecological benefits, including absorbing storm water, cooling surrounding temperatures, removing air pollutants, filtering polluted water, sequestering carbon dioxide, and providing animal habitat. Permeable landscape features that can treat and retain storm water, instead of releasing it immediately during a storm, protect downstream waterways, wetlands, and water bodies from pollution, sedimentation, and flooding.

Preserving native species is a basic requirement for a sustainable ecological system, and can also enhance the quality of life of a community, when residents are provided opportunities to connect with nature and natural systems. Sustaining an ecological system requires protecting it from the negative impacts of invasive species that often accompany the urban edge. It must also be protected from pesticides and herbicides, which can contaminate water, air, and food; breed resistance in pests; and have widespread negative health effects on plants, animals and humans.

Murrieta sets aside natural open space for habitat, drainage, and recreation. In addition, the community constructs a variety of green spaces. As discussed in the Recreation and Open Space Element, the City of Murrieta has a parkland standard of 5 acres per 1,000 people, and seeks to distribute parks among all neighborhoods. Trees and landscaping are promoted throughout developed areas, supporting property values while offering other benefits. Water-efficient landscaping with “California-friendly” plants can also provide habitat for fauna such as butterflies and birds. To assist in storm water management, planted drainage and retention areas will be incorporated into development.
**Agriculture**

Preservation of farmland in areas less suitable for urban uses can offer multiple benefits: scenic value, maintaining a link to Murrieta’s heritage, and providing access to locally grown food. A farmer’s market in Murrieta demonstrates the value that residents place on obtaining fresh, locally grown produce. Residents also have opportunities to see where food is grown when farms and ranches operate farm stands and other visitor-serving agrotourism activities, which can also improve the financial viability of these agricultural uses.

Increasingly, cities and master-planned communities are seeking to incorporate small-scale agriculture as an amenity for urbanized areas. “Urban agriculture” includes urban farms, community gardens, and cultivation on private properties. Facilities for processing and distributing food are another part of a local food system that supports agricultural uses. Consistent with its heritage and interest in community health, Murrieta will encourage opportunities for community members to access fresh, locally grown food.

**Cultural and Historical Resources**

Murrieta promotes the preservation of historically and architecturally significant sites, structures, and landscape features within the community and seeks to encourage proper adaptive reuse of historic structures and sites. In reviewing proposed development projects involving historic resources, the use of the California Historic Building Code and the U.S. Secretary of the Interior’s rehabilitation, reconstruction, restoration, and preservation treatments has assisted in maintaining the historic character of the City while achieving local and regional growth goals.

The City will continue to provide protective measures for the City’s Historic Downtown and Los Alamos area, as well as other historically and architecturally significant sites, structures, and landscape features throughout the community that enhance and/or reinforce the City’s rich history and character.

Historic Downtown Murrieta has been recognized as a special cultural resource in the City of Murrieta. The Historic Murrieta Specific Plan describes this vision and the guiding principles to establish a cultural and governmental center, create an attractive town center, improve the historic and pedestrian scale, and foster proactive economic development.

Building on its historic resources and the cultures that make up Murrieta, the City can help satisfy community demand for more cultural institutions and events.
Energy

Murrieta recognizes the responsibility of local governments to help combat climate change and ensure stable energy supplies. Energy conservation and improvements in efficiency reduce demand for energy, while production of energy from renewable sources such as wind and solar has far fewer negative impacts than producing energy from fossil fuels. As such, the City is dedicated to using energy more efficiently and reducing greenhouse gas emissions — both in municipal operations and in the community as a whole.

Buildings and transportation combined account for approximately two-thirds of the energy consumption and greenhouse gas emissions in the United States. Therefore, in addition to efforts to reduce energy consumption in buildings, land use decisions and transportation behavior that decrease vehicle miles traveled can play an important role in reducing the energy consumed and emissions produced from transportation.

Solid Waste

Discarded waste uses up finite landfill space and often releases toxic material or produces toxic concentrations of material. Landfill waste also creates greenhouse gas (GHG) emissions that contribute to climate change. Organic waste decomposes anaerobically (without using oxygen) in a landfill, which produces methane gas, a GHG that has approximately 23 times greater greenhouse gas effect than carbon dioxide. In addition, sending recyclable materials to a landfill is a missed opportunity to recapture their “embedded” energy — the energy expended in extracting raw materials and creating these items from scratch.

Waste reduction and recycling efforts are thus proven tools to reduce greenhouse gas emissions along with material waste. They are also opportunities to raise awareness about environmental sustainability and the importance of changing behaviors. Murrieta seeks to continue the success of its efforts to divert waste from landfills. In anticipation of further requirements from the state related to AB 32, Murrieta should look to create a commercial recycling program that would promote recycling and diversion of solid waste from landfill by requiring businesses, nonresidential properties, and commercial buildings to source separate recyclable materials from all other solid waste for recycling and diversion from landfill and provide for the collection of recyclable materials.
Green Building

Green building, either for new construction or retrofits for existing buildings, can greatly reduce the impacts associated with conventional building practices. Green buildings are designed to save energy and water, reduce waste, minimize air pollution (including greenhouse gas emissions), and create healthier and safer indoor environments. Green buildings also aim to reduce impacts to the site vicinity, by reducing development footprint impacts and encouraging native plantings that contribute to local ecosystems.

Municipalities are in the position to effect significant change in the adoption and success of green building practices, either by creating standards or incentivizing green building — for instance, by removing barriers within City codes or review processes. Murrieta intends to encourage the application of green building practices within the community that will lead the way through the upgrade of municipal facilities.

Although the State of California incorporates a set of green building practices into its building standards code, the field of green building will continue to advance. Murrieta can stay abreast of current techniques and save more natural resources by encouraging green construction, where feasible, to go beyond state standards.

8.5 GOALS AND POLICIES

NATURAL ENVIRONMENT

Water Supply

<table>
<thead>
<tr>
<th>GOAL CSV-1</th>
<th>A community that conserves, protects, and manages water resources to meet long-term community needs, including surface waters, groundwater, imported water supplies, storm water, and waste water.</th>
</tr>
</thead>
</table>

POLICIES

CSV-1.1 Encourage the provision of a safe and sufficient water supply and distribution system.

CSV-1.2 Promote the maximization of water supplies through conservation, water recycling, and groundwater recharge.

CSV-1.3 Promote the protection of groundwater supplies from contamination.

CSV-1.4 Support water purveyors in promoting a City-wide recycled water system through project review and coordination with water districts.

CSV-1.5 Encourage the owners of hot springs to protect and enhance them.
**Conservation Element**

**CSV-1.6** Coordinate water resource management with water districts and regional, state, and federal agencies.

<table>
<thead>
<tr>
<th>GOAL CSV-2</th>
<th>Murrieta promotes compliance with requirements from the State and appropriate agencies regarding comprehensive water conservation measures in buildings and landscaping.</th>
</tr>
</thead>
</table>

**POLICIES**

- **CSV-2.1** Ensure that all developments comply with water efficiency requirements, as mandated by the applicable Building Code.
- **CSV-2.2** Work with water districts to encourage and incentivize the retrofitting of building systems, both indoor and outdoor, with water-conserving fixtures and appliances.
- **CSV-2.3** Continue to utilize the programs and assistance of regional and State water agencies to increase water conservation throughout the City and Sphere of Influence.
- **CSV-2.4** Promote water efficient landscaping practices through outreach efforts, project review, and enforcement of City, regional, or State code requirements.
- **CSV-2.5** Consider streamlining municipal regulations pertaining to landscaping so that applicability and requirements are easily understood.

**Storm Water Management and Groundwater Recharge**

<table>
<thead>
<tr>
<th>GOAL CSV-3</th>
<th>A community that participates in a multi-jurisdictional approach to protecting, maintaining, and improving water quality and the overall health of the watershed.</th>
</tr>
</thead>
</table>

**POLICIES**

- **CSV-3.1** Collaborate with partner agencies and other communities to conserve and properly manage surface waters within the City and Sphere of Influence through protection of the watershed and natural drainage system.
- **CSV-3.2** Promote storm water management techniques that minimize surface water runoff in public and private developments.
- **CSV-3.3** Utilize low-impact development (LID) techniques to manage storm water through conservation, on-site filtration, and water recycling, and continue to ensure compliance with the NPDES permit.
CSV-3.4 Encourage the creation of a network of “green” streets that minimize stormwater runoff, using techniques such as on-street bio-swales, bio-retention, permeable pavement or other innovative approaches, as feasible.

CSV-3.5 Seek opportunities to restore natural watershed function as an added benefit while mitigating environmental impacts.

**GOAL CSV-4** Restoration of the natural function and aesthetic value of creeks, while providing flood control measures and opportunities for recreation.

**POLICIES**

CSV-4.1 Prioritize creek preservation, restoration and/or mitigation banking along creeks as mitigation for environmental impacts.

CSV-4.2 Consider alternatives to hardlined bottoms and side slopes within flood control facilities, where technically feasible.

CSV-4.3 Preserve Warm Springs Creek and Cole Creek as a wildlife corridor, while accommodating flood control measures and passive recreation.

CSV-4.4 Retain and restore natural drainage courses and their function where health and safety are not jeopardized.

CSV-4.5 Support efforts for restoration, flood control, and recreation along Murrieta Creek, in coordination with regional and federal plans.

CSV-4.6 Seek funds and provide support for creek restoration, maintenance and protection through grant and mitigation programs, development entitlements, and non-profit organizations.

CSV-4.7 Continue to support the architectural enhancement of bridges over creeks as a scenic resource.

**Hills and Ridges**

**GOAL CSV-5** Hills and ridges are protected for their environmental and aesthetic values.

**POLICIES**

CSV-5.1 Promote compliance with hillside development standards and guidelines to maintain the natural character and the environmental and aesthetic values of sloped areas.
CSV-5.2 Incorporate significant landform features into City parks and open space, where appropriate.

CSV-5.3 Maintain a register of cultural resources that includes landforms with cultural significance.

**Mineral Resources**

**GOAL CSV-6** Mineral resources are managed responsibly with minimal impact to surrounding areas.

**POLICIES**

CSV-6.1 Ensure compliance with City regulations that seek to prevent or minimize potentially adverse effects of mining, and provide for reclamation of mined lands.

**Paleontological Resources**

**GOAL CSV-7** Paleontological resources are conserved as a record of the region’s natural history.

**POLICIES**

CSV-7.1 Continue development review procedures that protect paleontological resources.

CSV-7.2 Encourage local display and educational use of paleontological resources.

**Biological Resources**

**GOAL CSV-8** Conservation of biological resources through habitat preservation and restoration, in coordination with other regional efforts and in compliance with state and federal mandates.

**POLICIES**

CSV-8.1 Facilitate the conservation of habitat areas and wildlife corridors under the Western Riverside Multiple Species Habitat Conservation Plan.
Chapter 8  Conservation Element

CSV-8.2  Address applicable policies and regulations of regional, State, and Federal agencies to achieve common goals for preservation of habitat and the protection of threatened and endangered species.

CSV-8.3  Work with public and private land owners to conserve biological resources.

CSV-8.4  Review development projects to determine their impact on biological resources, and compliance with state and federal regulations.

CSV-8.5  Address Western Riverside Multiple Species Habitat Conservation Plan policies to preserve jurisdictional, wetland, vernal pool and other areas whose hydrology supports habitat and species identified for conservation in the Plan.

CSV-8.6  Address Western Riverside Multiple Species Habitat Conservation Plan policies for an urban interface, to reduce the impacts from toxics, light, noise, invasive plant species and domestic predators (pets).

CSV-8.7  Establish an implementation program to clarify procedures for implementation of the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Habitat Acquisition Negotiation Strategy (HANS) in the City and to provide incentives to facilitate conservation with the MSHCP while recognizing private property rights.

BUILT ENVIRONMENT

Urban Ecology - Trees and Landscaping

GOAL CSV-9  A community that promotes the growth of an urban forest and water-efficient landscaping, recognizing that plants provide natural services such as habitat, storm water management, soil retention, air filtration, and cooling, and also have aesthetic and economic value.

POLICIES

CSV-9.1  Identify and protect native trees, trees of historic or cultural significance, and mature trees, consistent with the Tree Preservation Ordinance.

CSV-9.2  Consider the establishment of street tree standards and a program for street tree planting, maintenance, and replacement.

CSV-9.3  Promote the use of street trees as a buffer between pedestrians and motorized traffic.

CSV-9.4  Encourage the planting of street trees in linear planting beds rather than tree wells in order to support long-living healthy trees.
CSV-9.5  Encourage the planting of trees in private yards and properties.

CSV-9.6  Maintain a guide to preferred trees, shrubs, and ground cover plants of non-invasive species, or refer private parties to an existing guide that meets City needs to assist private landscaping efforts.

CSV-9.7  Allow edible landscaping such as fruit trees, plants that provide foraging opportunities for wildlife, and community gardens on public and private property.

CSV-9.8  Encourage any new landscaped areas requiring permits to respect and incorporate the distinctive elements of the existing community landscape, including the retention of existing trees, to the maximum extent feasible.

CSV-9.9  Promote the use of native plant species in public landscaping of parks, schools, medians and planter strips, as well as in private development throughout the City.

Agriculture

GOAL CSV-10  Fresh food is grown locally and made available through multiple venues that maintain a link to the City’s agricultural heritage and promote healthy eating.

POLICIES

CSV-10.1  Allow agricultural uses to continue in rural residential areas.

CSV-10.2  Consider ways to allow small-scale urban agriculture in parks, schools, and neighborhoods.

CSV-10.3  Ensure that residents are permitted to grow fruits and vegetables in their yards, so long as there are not significant negative impacts to adjacent property owners.

CSV-10.4  Encourage and support the use of public lands for community gardens and other food production facilities, when feasible.

CSV-10.5  Support opportunities for local food production and access, such as farmer’s markets, community gardens, harvest sharing programs, and community-supported agriculture programs.

CSV-10.6  Encourage local farmers to sell fresh food locally.

CSV-10.7  Allow public facilities such as schools, libraries, and community centers to be used as Community Supported Agriculture pick-up sites, where feasible.
Cultural Resources

GOAL CSV-11 Murrieta protects, enhances, and celebrates archaeological, cultural, and historic resources as a way to foster community identity.

POLICIES

CSV-11.1 Promote the protection and preservation of archaeological, cultural, historical, and architecturally significant sites, structures, districts, Native American resources, and natural features throughout the community, consistent with the Cultural Resource Preservation Ordinance. Preferred methods of protection include avoidance of impacts, placing resources in designated open space and allocation of local resources and/or tax credits as feasible.

CSV-11.2 Encourage appropriate adaptive reuse of historic structures and sites.

CSV-11.3 Promote the designation of eligible resources to the City Register of Cultural Resources, the County Landmarks Program, or other regional, state, or federal programs.

CSV-11.4 Encourage the development of programs to educate the community about Murrieta’s historic resources and involve the community in historic preservation.

CSV-11.5 Comply with state and federal law regarding the identification and protection of archaeological and Native American resources, and consult early with the appropriate tribal governments.

CSV-11.6 Investigate the feasibility of establishing a museum or other repository to archive and display Murrieta’s archaeological resources.

CSV-11.7 Maintain the position of archivist/historian at the Murrieta Public Library, and promote the Library’s Heritage Room as a repository for historical information about the Murrieta area.

CSV-11.8 Promote the use of historic elements in City parks and public places.

CSV-11.9 Exercise sensitivity and respect for all human remains, including cremations, and comply with all applicable state and federal laws regulating human remains.
Energy

GOAL CSV-12  Energy conservation and the generation of energy from renewable sources is prioritized as part of an overall strategy to reduce greenhouse gas emissions.

POLICIES

CSV-12.1  Ensure that all developments comply with energy efficiency requirements as mandated by the applicable Building Code.

CSV-12.2  Work with energy utilities to encourage and incentivize the retrofitting of building systems with energy-conserving fixtures and appliances.

CSV-12.3  Support the on-site installation and use of renewable energy generation systems for residential, commercial, institutional, and industrial uses.

CSV-12.4  Explore options for addressing aesthetic concerns about renewable energy systems that do not unreasonably restrict the use of these systems, remaining consistent with State law.

CSV-12.5  Consider non-commercial solar power generation in residential areas.

CSV-12.6  Encourage new development projects and significant rehabilitation or expansion projects to incorporate innovative energy conservation or generation amenities such as electric vehicle charging stations, solar canopies, and carports.

CSV-12.7  Support bulk purchasing or financing packages of renewable energy purchasing for residential, business and government facilities.

CSV-12.8  Promote community awareness of opportunities to conserve energy and use renewable energy.

Solid Waste

GOAL CSV-13  Solid waste is diverted from landfills through waste reduction, re-use and recycling.

POLICIES

CSV-13.1  Continue to comply with the landfill diversion requirements of the Integrated Waste Management Program.
CSV-13.2 Ensure that non-residential and multi-family developments provide readily accessible areas for recycling (at a minimum) paper, corrugated cardboard, glass, plastics and metals, as required by California law.

CSV-13.3 Maximize community reuse and recycling of products and materials through waste management contracts and public education.

CSV-13.4 Incentivize businesses that provide solutions for recycling and re-use of specific waste streams such as food waste and cooking oils.

CSV-13.5 Work with local landfills or green waste centers to develop the infrastructure for a composting program.

CSV-13.6 Provide public outreach and education workshops and information on the composting program.

CSV-13.7 Work with local landfills or green waste centers, or other interested parties, as appropriate, to implement a community-wide food scrap collection and composting program.

Green Building

GOAL CSV-14 A community that encourages and incentivizes the sustainable development of buildings and neighborhoods, particularly with respect to durability, energy and water use, and transportation impacts.

POLICIES

CSV-14.1 Ensure all applicable construction projects comply with the California State Green Building Standards Code.

CSV-14.2 Encourage the integration of other principles of green building into development standards and guidelines, looking for opportunities to realize other benefits such as improved health and increased bicycle transportation.

CSV-14.3 Identify and reduce regulatory barriers to green building.

CSV-14.4 Raise community awareness regarding green building methods, incentives, and benefits at community events, the planning counter, and on the City’s website.
Municipal Operations

GOAL CSV-15  A community taking a leadership role in resource conservation and reduction of greenhouse gas emissions by implementing programs to improve municipal operations.

POLICIES

CSV-15.1 Consider renewable energy generation systems on City-owned property for use in municipal operations.

CSV-15.2 Reduce fuel consumption and emissions from municipal fleet vehicles.

CSV-15.3 Continue to implement waste reduction programs at municipal facilities.

CSV-15.4 Consider retrofitting and/or installing water- and energy-efficient fixtures and appliances in municipal facilities, where appropriate and feasible.

CSV-15.5 Encourage the use of recycled water where appropriate and feasible in City parks and landscaped areas, and demonstrate preferred techniques for water-efficient landscaping, including the use of native plants.

CSV-15.6 Demonstrate cutting-edge green building techniques when constructing and retrofitting municipal buildings.

CSV-15.7 Use energy-efficient lighting in parks, streets and other public places.

8.6 IMPLEMENTATION OF THE ELEMENT

Natural resources are shared across jurisdictions and, therefore, conservation of these resources is an effort that is best accomplished through cooperative efforts between cities, counties, and various agencies. As called out in this Element, multi-jurisdictional plans pertaining to conservation include the Upper Santa Margarita Integrated Regional Water Management Plan (IRWMP) and Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). Although implemented by public entities, both plans have implications for private development in Murrieta.

A number of City ordinances exist that promote conservation of natural and cultural resources in Murrieta through the regulation of private activity. These regulations are largely carried out through the development review process and development agreements. The Cultural Resources Ordinance requires proactive measures by the City of Murrieta Historic Preservation Advisory Commission in order to recognize and preserve historical and archaeological resources.
Businesses and residents in Murrieta are the end users of most resources, and they can be stewards as well. Education and outreach efforts to these community members by the City and its partners such as utility providers will go a long way toward conservation of Murrieta’s valuable resources. The City of Murrieta can implement changes in its own operations to set an example for these efforts.
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Exhibit 8-1
Mineral Resources

Source: County of Riverside; City of Murrieta; and the California Department of Conservation.
LEGEND
- Sphere of Influence
- City Boundary

Vegetation and Land Use (2006):
- Annual Grassland
- Coastal Oak Woodland
- Coastal Scrub
- Cropland, Orchard - Vineyard
- Eucalyptus
- Fresh Emergent Wetland
- Lacustrine
- Mixed Chaparral
- Riverine, Lacustrine
- Urban
- Valley Foothill Riparian

Source: SoilDataMart 2003; County of Riverside, 2005; and City of Murrieta, 2009.
Exhibit 8-3

Source: AirPhotoUSA, 2008; County of Riverside, 2006; and City of Murrieta, 2009.
Important Farmland (2008)

Note: The Department of Conservation Farmland Mapping and Monitoring Program updates agricultural land maps every two years. 2008 was the most recent available data for Riverside County.

Source: County of Riverside; City of Murrieta; USGS; ESRI - World Shaded Relief; and California Department of Conservation.
Note: Lands enrolled in Williamson Act and Farmland Security Zone Contracts as of January 1, 2007. The Department of Conservation produces Biennial Land Conservation (Williamson) Act Status Reports in even number years that reflect the previous two years. The last available status report is 2008, covering the years 2006 and 2007.

Source: County of Riverside; City of Murrieta; and California Department of Conservation.