



5.15 WATER SUPPLY

This section analyzes projected impacts to water supplies and distribution systems that may result from the implementation of the proposed General Plan 2035. The purpose of this analysis is to document and describe the existing water supply, water consumption, and distribution infrastructure in the City of Murrieta, and to evaluate impacts associated with buildout of the proposed General Plan 2035. This section is based upon information from the Eastern Municipal Water District (refer to Appendix L1); Elsinore Valley Water District (refer to Appendices M1, M2, and M3); Rancho California Water District (refer to Appendices N1, N2, and N3); and Western Municipal Water District (refer to Appendices O1 and O2).

5.15.1 REGULATORY SETTING

FEDERAL

Clean Water Act

The Clean Water Act (CWA) is a Federal law intended to protect surface waters of the United States (U.S.), which include lakes, rivers, coastal wetlands, and “waters of the U.S.” The CWA regulates all discharges to waters, which are considered illegal unless authorized by an appropriate permit. Discharge of dredged and fill materials, construction-related storm water discharges, and other activities that may result in discharges of pollutants to waters of the U.S. are regulated by the permit. If waters of the U.S. are located on a project site, the project is likely to discharge to them, due to site topography and/or drainage characteristics. Potential discharges to such waters would be considered an impact, and the applicant would be required to obtain a CWA Section 401 Water Quality Certification from the appropriate Regional Water Quality Control Board (RWQCB).

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996, and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. The SDWA applies to every public water system in the United States.

The SDWA authorizes the U.S. EPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in



drinking water. The U.S. EPA, states, and water systems work together to make sure that these standards are met.

Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

STATE

California Water Plan

The California Water Plan is prepared by the California Department of Water Resources. The Plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses.

The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs. The Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy, involve communities in decision-making, and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management.

The Plan was last updated in 2009. The Department of Water Resources is currently working on the 2013 California Water Plan Update.

California Water Code

The *California Water Code* contains provisions that control almost every consideration of water and its use. Division 2 of the *California Water Code* provides that the State Water Resources Control Board (SWRCB) shall consider and act upon all applications for permits to appropriate waters. Division 6 of the *California Water Code* controls conservation, development, and utilization of the State water resources, while Division 7 addresses water quality protection and management.



Senate Bill 610

On January 1, 2002, Senate Bill (SB) 610 took effect. SB 610, which has been codified in the California Water Code beginning with Section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single-dry and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with the project.

SB 610 requirements do not apply to the general plans of cities or counties, but rather to specific development projects.

Senate Bill 221

Enacted in 2001, SB 221, which has been codified in the California Water Code beginning with Section 10910, requires that the legislative body of a city or county that is empowered to approve, disapprove, or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term “sufficient water supply” is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses.

SB 221 requirements do not apply to the general plans of cities and counties, but rather to specific development projects.

Urban Water Management Act

In 1983, the California Legislature enacted the Urban Water Management Planning (UWMP) Act (Division 6 Part 2.6 of the *California Water Code* Sections 10610 - 10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Section 10620 (a) requires “Every urban water supplier shall prepare and adopt an urban water management plan.” The California Water Code describes the contents of the UWMP, as well as how urban water suppliers should adopt and implement the plans. These plans are to be updated every five years and submitted to the Department of Water Resources (DWR).



Requirements for the urban water management plans include:

- Assessment of current and projected water supplies
- Evaluation of Demand and Customer Types
- Evaluation of the reliability of water supplies
- Description of conservation measures implemented by the urban water supplier
- Response plan for in the event of water shortage
- Comparison of demand and supply projection

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act acts in cooperation with the CWA to establish the State Water Resources Control Board (SWRCB). The SWRCB is divided into nine regions, each overseen by a RWQCB. The SWRCB, and thus each RWQCB, is responsible for protecting California's surface waters and groundwater supplies.

The Porter-Cologne Water Quality Control Act develops Basin Plans that designate the beneficial uses of California's rivers and groundwater basins. The Basin Plans also establish narrative and numerical water quality objectives for those waters. Basin Plans are updated every three years and provide the basis of determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. The Porter-Cologne Water Quality Control Act is also responsible for implementing CWA Sections 401-402 and 303(d) to SWRCB and RWQCBs.

California Title 22 Drinking Water Standards

California Title 22 Drinking Water Standards (*Title 22*) incorporates the Federal requirements of the Safe Drinking Water Act, and compliance with *Title 22* is required by all water service providers. Therefore, the monitoring of all regulated chemicals as well as a number of unregulated chemicals, in the drinking water supply, as required by *Title 22*, is conducted by water agencies in the upper watershed.

In order to be in compliance with *Title 22*, each water agency must ensure that the regulated chemicals meet established primary drinking water standards to ensure the safety of the water supply. In addition to the primary drinking water standards, secondary drinking water standards have been set for some minerals based on non-health-related aesthetics, such as taste and odor. Both primary and secondary standards are expressed as the maximum contaminated levels (MCL) that are allowable for a given constituent. Unregulated chemicals do not have established drinking water standards, but are chemicals of concern for which standards may be eventually adopted. These unregulated chemicals often have a "notification level," which is a health based advisory level established by California Department of Health Services (DHS) for chemicals in drinking water that lack MCLs.



LOCAL

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.

The intent of the IRWMP is to pave the way for 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, regional water agencies, flood control districts, water districts, counties, cities, land and nature conservancies, universities, Indian tribes, Camp Pendleton Marine Corps Base, federal, state, local agencies, and other stakeholder groups collaborate across jurisdictional boundaries to implement water resource management projects to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions. The IRWMP also provides an opportunity to provide information on the present and future needs of the watershed for the California Water Plan.

Development of the IRWMP for the Upper Santa Margarita Watershed required a cooperative effort on the part of three agencies that have authority for planning and implementation of water management strategies in the watershed:

- Rancho California Water District (RCWD)
- Riverside County Flood Control and Water Conservation District (RCFC)
- County of Riverside

In June and July 2007, RCWD, RCFC, and the County of Riverside signed a Memorandum of Understanding (MOU) by which the three agencies agreed to cooperate and work collaboratively with other stakeholders in the Upper Santa Margarita Watershed in Riverside County toward the completion of the watershed's IRWMP.

Rancho California Water District

URBAN WATER MANAGEMENT PLAN

RCWD provides retail water for urban and agricultural uses to the City of Temecula, portions of the City of Murrieta, and unincorporated Riverside County lands in the surrounding area. RCWD comprises approximately 100,000 acres (approximately 156 square miles) in the southwestern portion of Riverside County, California. The RCWD UWMP complies with the Urban Water Management Planning Act. The Plan provides an assessment of water sources and supply, reliability of supplies, water use efficiency measures, and water demand and supply comparison. In addition, recent legislation, the Water Conservation Bill of 2009, requires urban



water suppliers to report in their UWMPs base daily per capita water use (baseline), urban water use targets for the year 2020, and interim water use targets for the year 2015. This information would be included in RCWD’s 2010 UWMP Update, which is anticipated to be adopted by July 1, 2011.

REGIONAL INTEGRATED RESOURCES PLAN

RCWD prepared a Regional Integrated Resources Plan (IRP) to develop a long-range water supply plan to reliably meet the needs of the District through 2050. The IRP addresses issues of imported water supply availability, system capacity constraints, rising imported water costs, and water quality. The IRP evaluates and examines a set of water supply objectives against different water supply alternatives such as increased water conservation, additional groundwater storage and reuse, conversion of agriculture from imported water to untreated water or advanced-treated recycled water, groundwater recharge using advanced-treated recycled water, and water transfers. The evaluation resulted in a preferred plan to meet the objectives and resulted in the following benefits: 1) increased groundwater production; 2) increased use of recycled water; 3) reducing peak imported water demand; and 4) water supply cost efficiency through multiple measures.

Western Municipal Water District

URBAN WATER MANAGEMENT PLAN

The Western Municipal Water District (WMWD) provides wholesale and retail water to the cities of Corona, Norco, and Riverside, other unincorporated areas, and the water agencies of Elsinore Valley and Rancho California. The WMWD consists of approximately 510 square miles within western Riverside County.

The WMWD Urban Water Management Plan (WMWD UWMP) identifies existing conditions within the District’s retail water service area and addresses the long-term management of regional water supplies and ability to meet projected demands. Measures are identified for the long-term protection and provision of both potable and non-potable water to users within WMWD’s General District.

INTEGRATED REGIONAL WATER MANAGEMENT PLAN

The Integrated Regional Water Management Plan (WMWD IRWMP) for the WMWD’s service area addresses long-range water quantity, quality, and environmental planning needs within the District’s service area. The WMWD IRWMP is intended to identify and evaluate water management strategies that could increase local water supply, thereby improving water supply reliability; address local and regional water quality, environmental, and disadvantaged community issues; identify regional planning efforts that impact water management within the WMWD’s service area; estimate water demands by member agencies; identify water supplies



(e.g. local groundwater, recycled water, surface water, imported water) available to the agencies; and, coordinate investments in water management, as appropriate, between agencies.

Eastern Municipal Water District

URBAN WATER MANAGEMENT PLAN

The Eastern Municipal Water District (EMWD) Urban Water Management Plan (EMWD UWMP) was prepared to comply with the Urban Water Planning Act and provides assessment and verification of available water supply for areas served by the District, as required by Senate Bills 610 and 221 of 2001. The EMWD UWMP provides guidance and management measures for delivery of imported water to supplement local groundwater; groundwater production; desalination; water filtration; wastewater collection and treatment; and, regional water recycling.

City of Murrieta Municipal Code

California law required 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. In 2010, the City of Murrieta adopted the latest *Water Efficient Landscape Ordinance* (Chapter 16.27 Water Efficient Landscape). The purpose and intent of this ordinance is to:

- Promote water efficient landscaping, water use management, and water conservation through the use of water efficient landscaping, wise use of turf areas and appropriate use of irrigation technology and management;
- Reduce the water demands from landscape while maintaining landscape quality and quantity;
- Retain flexibility and encourage creativity through appropriate design;
- Ensure the attainment of water efficient landscape goals by requiring that landscapes not exceed a maximum water demand of eighty percent (80%) of its reference evapotranspiration (ET_o) or any lower percentage as may be required by State legislations;
- Eliminate water waste from overspray and/or runoff; and
- Achieve water conservation by raising the public awareness of the need for an effective management program through education and incentives.



5.15.2 ENVIRONMENTAL SETTING

The City of Murrieta is located within the Santa Margarita Watershed, which drains a rectangular area of approximately 750 square miles (475,000 acres) in southwestern Riverside and northern San Diego Counties in southern California. The City is located within the portion of the watershed known as the Upper Santa Margarita Watershed.

GROUNDWATER RESOURCES

Groundwater is water contained within natural underground water systems below the Earth's surface wherein 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 its Sphere of Influence. Numerous wells have been drilled within the groundwater basins to allow for the extraction of water from the underlying reservoirs.

Groundwater Basins

Major groundwater basins underlying the City and its Sphere of Influence include the Murrieta-Temecula Basin and the French Basin. The Murrieta-Temecula Basin is the largest groundwater basin in the hydrologic unit assigned to the area drained by the Santa Margarita River. The Murrieta-Temecula Basin underlies approximately 60,000 acres and has an estimated storage capacity of 1.2 million acre-feet.¹ The Basin extends from the Murrieta basin in the north to the base of the Aqua Tibia Mountains in the south, and east from the Santa Rosa Plateau to the mesa and valley areas. The Basin underlies all of portions of the Murrieta Creek channel, Warm Springs Creek, Pechanga, and Temecula Creeks, which serve as important sources of groundwater recharge for the underlying aquifers. Water flows from the Basin to the Lake Elsinore area in the northwest and to the Santa Margarita River to the southwest. Many wells extracting groundwater from this Basin are present within the Murrieta area.

In addition, from the northeast, the French Basin extends into the General Plan Study Area and is recharged by underflow from Auld Basin and other surface streams. The Basin underlies approximately 3,500 acres and discharges to Warm Springs Creek.

Groundwater quality varies within the Murrieta and French Basins. In general, water that is extracted at higher elevations and from deeper unconfined aquifers is typically of higher quality.

¹ City of Murrieta 1994 General Plan Technical Reports – Chapter V. Conservation/Open Space.



SURFACE WATER RESOURCES

The City of Murrieta and its Sphere of Influence are located within the inland portion of the Santa Margarita River Basin, which is comprised of 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.

Murrieta Creek generally runs through the Murrieta Valley, slowing southwesterly through the older areas of the City between Interstate 15 and the base of the Santa Rosa Plateau. Murrieta Creek generally runs from the northern limits of Murrieta to the southern City limit near Cherry Street, along the Rancho Temecula Line. Murrieta Creek joins with Temecula Creek near Temecula Canyon, southwest of Temecula, to form the Santa Margarita River. From this point, the Santa Margarita River flows to the Pacific Ocean.

Murrieta Creek extends approximately 14 miles and drains an area approximately 220 square miles, or 37 percent, of the upper watershed.² Stream courses occur intermittently throughout the area and transport seasonal runoff from area slopes and valleys to the Creek. Major tributaries to Murrieta Creek include Santa Getrudis Creek, Tocalota Creek, and Warm Springs Creek. 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. Streamflow within the Murrieta Creek Basin is generally ephemeral, although various sections occur where streamflow is perennial flow with visible standing or flowing waters; however, stream flow within the Creek is highly variable, both on a seasonal and annual basis.

Warm Springs Creek extends approximately 21 miles and drains extensive valley and upland areas. The Creek generally flows southwest from its headwaters in the Domenigoni Valley, through the Murrieta Hot Springs area, to its confluence with Murrieta Creek in the southern portion of the City. Warm Springs Creek is generally without improvements, with exception of the Warm Springs Channel which runs from Murrieta Creek to Interstate 15 (I-15).

In addition, Diamond Valley Lake, operated by the Metropolitan Water District of Southern California (MWD), is a reservoir located at the northernmost portion of the Santa Margarita Watershed. The Diamond Valley Lake, constructed in the Domenigoni Valley approximately four miles southwest of the City of Hemet, provides an additional 810,000 acre-feet of water storage.³ MWD also operates a reservoir located at Lake Skinner, located approximately seven miles to the northeast of Murrieta. Lake Skinner Reservoir provides storage for imported water at a capacity of approximately 44,000 acre-feet.

² City of Murrieta 1994 General Plan Technical Reports – Chapter V. Conservation/Open Space.

³ Metropolitan Water District of Southern California. <http://www.mwdh2o.com/index.htm>. Accessed January 8, 2010.



WATER SUPPLY

Water supply for the City comes from local sources of groundwater and surface water, imported from the Metropolitan Water District’s Colorado River Aqueduct and the State Water Project, recycled water reclamation facilities, and water transfers and exchanges. The City receives water from four water and wastewater Districts:

- Rancho California Water District (RCWD)
- Elsinore Valley Municipal Water District (EVMWD)
- Western Municipal Water District (WMWD)
- Eastern Municipal Water District (EMWD)

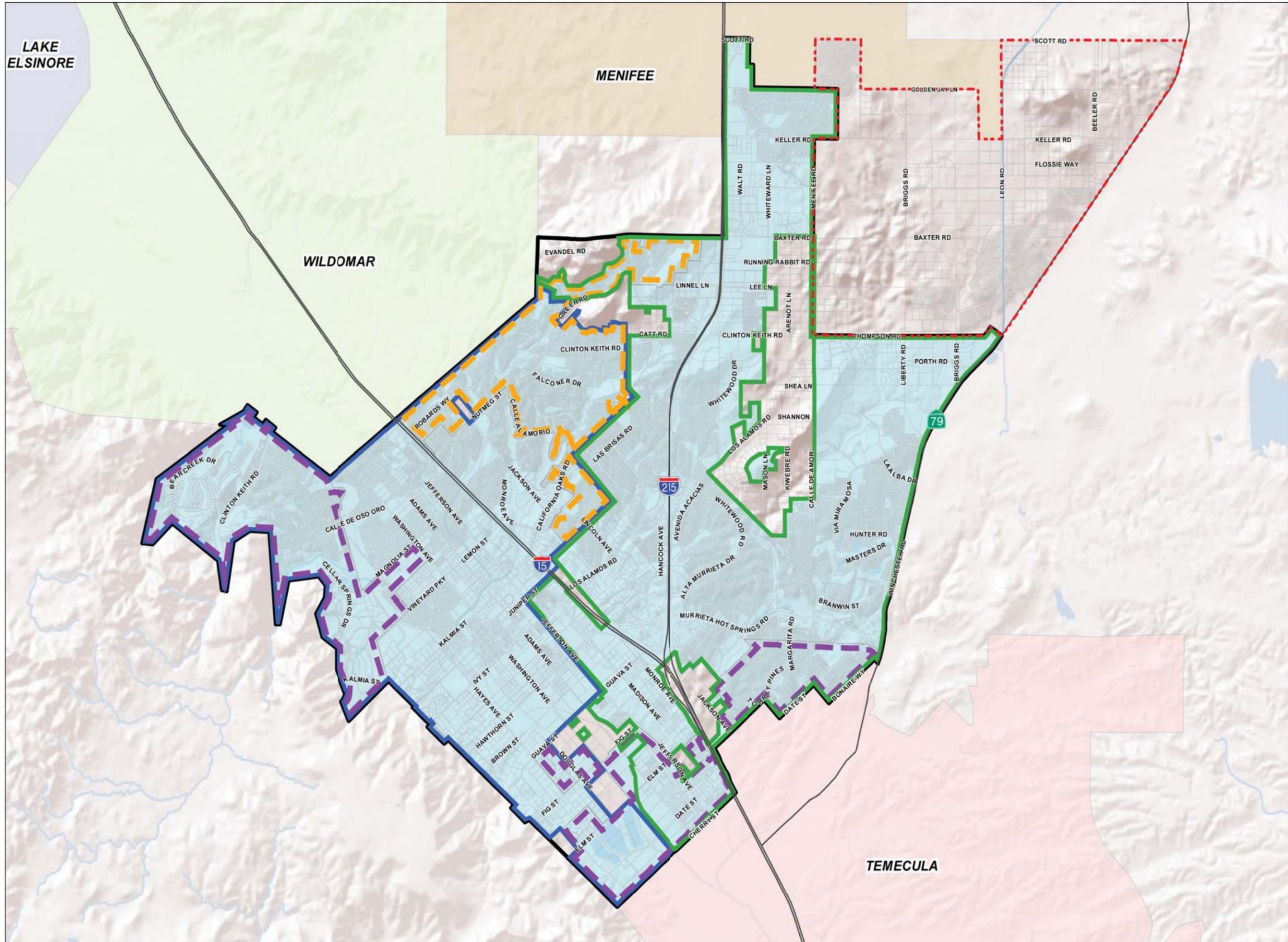
The Elsinore Valley and Rancho California Water Districts encompass the largest land area within the City of Murrieta; refer to *Exhibit 5.15-1, Water District Service Area Boundaries*. The majority of the Focus Areas lie within the RCWD and EMWD. EVMWD, WMWD, and EMWD are both wholesale and retail water agencies. The RCWD is a retail agency. A portion of northeast Murrieta is not served by any water district, and residents in this area rely on wells; this area is commonly referred to as the “keyhole.” Other, smaller areas throughout the City also lie outside the boundaries of all the water districts. The total existing water demand within the City of Murrieta is 34,953,699 gallons per day (gpd) or 39,179 acres feet per year (AF/Y); refer to *Table 5.15-1, Existing Water Demand*. *Table 5.15-1* averaged the RCWD Water Supply Generation Factor with the EVMWD Water Supply Generation Factor to calculate the entire City’s existing water demand as these were the only available Water District Generation Factors. WMWD and EMWD were contacted but no Water District Generation Factors were made available. The WMWD and EMWD UWMPs were reviewed but didn’t include Water District Generation Factors.

Due to the varied topography in the City, providing sufficient water pressure can be a challenge. Each water district maintains multiple pressure zones in the City with pump stations and reservoirs. In some areas, such as the western edge of the WMWD area, private pumping systems may be necessary to maintain adequate pressures beyond the meter connection.

POTABLE WATER SUPPLY – PROVIDERS/PURVEYORS

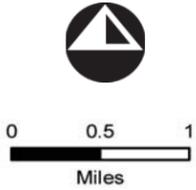
Water connection services within the City of Murrieta are provided by four water districts:

- Rancho California Water District
- Elsinore Valley Municipal Water District
- Western Municipal Water District
- Eastern Municipal Water District



LEGEND

- Water Districts**
- Rancho California
 - Elsinore Valley
 - Western Municipal
 - Eastern Municipal
 - Area within Water District
 - Parcels
 - Sphere of Influence
 - City Boundary



Source: City of Murrieta and ESRI - World Shaded Relief.



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**Table 5.15-1
Existing Water Demand**

| Land Use | Units (du/sf/ac) | RCWD Generation Factor ¹ | Water Demand | EVMWD Generation Factor ² | Water Demand | Average gpd ³ |
|---------------------------|------------------|-------------------------------------|----------------------|--------------------------------------|-------------------|---|
| Rural Residential | 543 du | 3,000 | 1,629,000 | 750.0000 | 407,250 | 1,018,125 |
| Single-Family Residential | 28,062 du | 1,500 | 42,093,000 | 750.0000 | 21,046,500 | 31,569,750 |
| Multi-Family Residential | 4,032 du | 400 | 1,612,800 | 500.0000 | 2,016,000 | 1,814,400 |
| Commercial | 7,887,887 sf | 0.0344 | 271,343.3128 | 0.0402 | 317,093 | 294,218 |
| Office | 1,372,863 sf | 0.0344 | 47,226.4872 | 0.0689 | 94,590 | 70,908 |
| Business Park | 2,162,333 sf | 0.0344 | 74,384.2552 | 0.0275 | 59,464 | 66,924 |
| Industrial | 978,469 sf | 0.0344 | 33,659.3336 | 0.0689 | 67,417 | 50,538 |
| Civic/Institutional | 1,577,344 sf | 0.0344 | 54,260.6336 | 0.0528 | 83,284 | 68,772 |
| Parks & Open Space | 1,833 ac | 0.0002 | 0.366506 | 0.0689 | 126 | 63 |
| Total | - | - | 45,815,674.39 | - | 24,091,724 | 34,953,699 gpd (39,179 AF/Y) |

Note: The RCWD Water Supply Generation Factor was averaged with the EVMWD Water Supply Generation Factor to calculate the entire City's existing water demand as these were the only available Water District Generation Factors. WMWD and EMWD were contacted but no Water District Generation Factors were made available. The WMWD and EMWD UWMPs were reviewed but didn't include Water District Generation Factors

1 = Rancho California Water District Water Supply Generation Factor
 2 = Elsinore Valley Municipal Water District Water Supply Generation Factor
 3 = Rancho California Water District Water Supply Generation Factor averaged with Elsinore Valley Municipal Water District Water Supply Generation Factor (the only available Water District Generation Factors) to calculate the entire City's existing water demand.

du = dwelling unit
 sf = square foot
 ac = acre
 gpd = gallons per day
 AF/Y = acres feet per year

Rancho California Water District⁴

The Ranch California Water District (RCWD) is a “Special District” organized and operated pursuant to the *California Water Code*. RCWD is governed by a seven-member Board of Directors (Board) that is elected by the voters of the region. RCWD serves as a retail water provider. RCWD serves the area known as Temecula/Rancho California, which includes the City of Temecula, portions of the City of Murrieta, and unincorporated areas of Riverside County. RCWD’s existing water supplies include:

- Groundwater – Temecula and Pauba groundwater basins.

⁴ RCWD 2005 Urban Water Management Plan.



- Imported Water – Metropolitan Water District of Southern California’s (MWD) Colorado River Aqueduct (CRA) and the State Water Project (SWP).
- Recycled Water – Santa Rosa Water Reclamation Facility (SRWRF) operated by RCWD, and the Temecula Valley Regional Water Reclamation Facility (TVRWRf) operated by EMWD. RCWD has a vast infrastructure network to serve its service area.

As recently as 2010, RCWD’s current service area represents 99,000 acres, and has 878 miles of water mains, 37 storage reservoirs, one surface reservoir (Vail Lake), 48 groundwater wells, and 133,200 people are served through 42,988 service connections.⁵

Approximately 109,000 people are currently served by RCWD. RCWD receives its imported water (treated and untreated) through six MWD water turnouts (three in EMWD’s service area, three in WMWD’s service area). Water delivered to homes and businesses is a blend of well water (approximately 25 percent) and import water (approximately 75 percent). *Table 5.15-2, Rancho California Water District Planned Water Supplies Acre-Feet/Year* shows the planned water supply sources.

**Table 5.15-2
Rancho California Water District Planned Water Supplies Acre-Feet/Year⁶**

| Water Supply Sources | 2010 | 2015 | 2020 | 2025 | 2030 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|
| Imported Water (MWD) | | | | | |
| Treated | 37,214 | 45,527 | 50,723 | 52,131 | 52,577 |
| Untreated ¹ | 16,500 | 16,500 | 16,500 | 16,500 | 16,500 |
| Local Groundwater Pumping | 25,000 | 26,000 | 26,000 | 26,000 | 26,000 |
| Recycled Water | 4,593 | 4,972 | 3,854 | 3,854 | 3,854 |
| Total | 83,307 | 92,999 | 97,077 | 98,485 | 98,931 |

Source: RCWD projection for average annual water demand in the 2010 UWMP Update.
 1. Used for groundwater recharge, surface water discharge to the Santa Margarita River, and eastern service area agriculture (after conversion of system).

RCWD does not add fluoride to its water supply; however, fluoride occurs naturally in RCWD’s groundwater. The local water supplies are blended with water imported from the MWD. MWD started adding fluoride at each of its five water treatment plants in fall 2007, adjusting the natural fluoride level in water (ranging from 0.1 - 0.4 parts per million (ppm) to the optimal range of 0.7 - 0.8 ppm) as State regulations require that fluoridating systems comply with temperature-appropriate fluoride levels as indicated in Section 64433.2 of the *California Title 22 Code of Regulations*. RCWD’s average fluoride level becomes 0.60 ppm, or milligrams per liter (mg/L).

⁵ The environmental baseline for the EIR is 2009 as stated in Section 3.0, Project Description. However, the Rancho California Water District provided an update to the 2009 data presented in the Draft EIR with 2010 data that has been included in the Final EIR.

⁶ Ibid.



The maximum allowable level of fluoride at the state level is 2.0 mg/L. Moderate levels of fluoride are helpful in preventing tooth decay.

NEAR-TERM AND LONG-TERM WATER SUPPLY⁷

The implementation of RCWD's Regional Integrated Resources Plan (IRP), would allow the District to meet demands over the next 45 years in a sustainable and cost-effective manner. It would also reduce the dependency on treated imported water from MWD, and help hedge against droughts and other emergencies by maximizing local groundwater.

The IRP has determined that its local supply of groundwater and recycled water is 100 percent reliable for the period extending to 2030. To minimize fluctuations in groundwater production, the IRP recommends increasing groundwater recharge with additional purchases of imported water. This increase would permit increased withdrawals of groundwater while minimizing the chance of overdraft conditions and allow for storage of excess water for use in years when natural recharge is diminished as a result of hydrologic conditions. Recycled water supplies may insignificantly fluctuate during varying hydrologic conditions as conservation increases, but these slight fluctuations would not reduce the reliability of the recycled water supply. Normal year supplies vary and would continue to increase in the future as the population base in the service area increases requiring additional groundwater withdrawals and recycled water.

The IRP is designed to minimize any inconsistencies in its local supply sources and provide multiple flexible sources of water. Inconsistencies that could impact groundwater production include legal, environmental, water quality, and climatic conditions. Legal issues include use of groundwater basin by other producers, rights to store water at Vail Lake for recharge outside of the current period between November 1 and April 30. Environmental issues include disposal of brine associated with construction of a microfiltration/reverse osmosis (MF/RO) recycled water facility. Water quality issues revolve around contamination of groundwater basins, potential changes to water quality standards, and the use of MF/RO water for agricultural use.

RCWD's imported water supply is purchased through EMWD and WMWD, but is obtained directly from MWD's facilities. The agency demand projections for these two wholesalers are combined to arrive at one demand on MWD. Table 8-5 of the *2005 Update of the Urban Water Management Plan, Rancho California Water District* (refer to Appendix N1, 2005 Urban Water Management Plan), illustrates MWD's existing and planned sources of water for the period 2010-2030. In summary, through 2030, the total MWD current and planned source of water is 3,459,500 AFY.

MWD has determined in the Rancho California Water District UWMP (RCWD UWMP) that its resource mix is 100 percent reliable for non-discounted non-interruptible demands using previous dry periods for the forecast period 2005-2030. Even though MWD can reliably meet

⁷ 2005 Update of the Urban Water Management Plan, Rancho California Water District, CDM, December 2005 (refer to EIR Appendix N1: 2005 Urban Water Management Plan).



RCWD’s demands, the capacity constraint issue associated with the turnouts would potentially cause future peak day water shortages after 2025. Implementation of RCWD’s IRP would eliminate the capacity constraints and resolve any peak day water shortages.

Overall, during single-dry and multiple-dry years RCWD’s combined local and imported resource mix is 100 percent reliable for non-agricultural customers with implementation of RCWD’s IRP. The IRP delineated supply sources are flexible and designed to supplement each other if one source is reduced.

Elsinore Valley Municipal Water District⁸

The Elsinore Valley Municipal Water District (EVMWD) was formed as a public agency in 1950 to protect local water supplies and import supplemental water. EVMWD serves as a retail and wholesale water provider in both incorporated and unincorporated areas in its 96 square miles service. Wholesale services are provided to two retail agencies as supplemental water. EVWMD also provides wastewater treatment and is legally empowered to provide stormwater disposal and fire protection facilities, but does not do so at this time.

EVMWD’s service area is divided into the Elsinore and Temescal Divisions. Only the Elsinore Division is within the upper watershed. The Elsinore Division serves approximately 32,000 accounts, while the Temescal Division serves approximately 900 accounts. *Table 5.15-3, Elsinore Valley Municipal Water District Planned Water Supplies Acre-Feet/Year* shows EVMWD’s water supply projections for its entire service area to wholesale and retail customers. This table is a summary of the data presented in the EMWD Urban Water Management Plan.

**Table 5.15-3
Elsinore Valley Municipal Water District Planned Water Supplies Acre-Feet/Year**

| Water Supply Sources | 2010 | 2015 | 2020 | 2025 | 2030 |
|--------------------------|---------------|---------------|---------------|---------------|---------------|
| Total¹ | 66,590 | 66,690 | 66,690 | 72,627 | 77,919 |

Source: Elsinore Valley Municipal Water District 2005 Urban Water Management Plan
 1. The projected normal water year supply includes local groundwater and surface water as well as imported Metropolitan Water District of Southern California (MWDSC) water sources.

EVMWD water supply sources include:

- Imported water – from MWD via EMWD and WMWD, resulting in a blend of State Water Project (SWP) and Colorado River Aqueduct (CRA) water.
- Groundwater – local potable sources include Elsinore Basin, Temescal Valley Basin, San Bernardino Bunker Hill Basin, Rialto-Colton and Riverside-North Basin, and Coldwater Basin; non-potable sources include Elsinore Basin, Bedford Basin, and Coldwater Basin.

⁸ EVMWD 2005 Urban Water Management Plan.



- Surface Water – potable from natural runoff to Canyon Lake and imported untreated water from MWD via WMWD; non-potable from Lee Lake, Temescal Wash, Horsethief Canyon, and Indian Canyon
- Recycled Water – non-potable water from the Regional Water Reclamation Facility, Railroad Canyon Water Reclamation Facility, and Horsethief Canyon Water Reclamation Facility.
- Transfers/Exchanges – WMWD.

EVMWD receives imported water from WMWD treated at MWD’s Skinner Filtration Plant through the Auld Valley Pipeline. Under a Water Facility Capacity Agreement for the Auld Pipeline, EVMWD has rights to purchase a maximum flow rate of 37.50 cubic feet per second (cfs) from EMWD through its connection to MWD. Under the agreement WMWD obtains the water from EMWD and then sells it to EVMWD.

EVMWD also obtains imported water treated at MWD’s Mills Filtration Plant through the Temescal Valley Pipeline via WMWD’s Mills Gravity Pipeline. EVMWD has entered into lease agreements for capacity rights for a total of 21 cfs from the Mills Gravity Pipeline.

EVMWD has multiple sources of non-potable water: groundwater, surface water, and recycled water. EVMWD operates the Temescal Valley Pipeline System delivering non-potable well water to agricultural users in the Temescal Valley. Non-potable surface water is obtained from multiple lakes in the region. Wastewater is treated to tertiary standards for non-potable use by three water reclamation plants: Regional, Horsethief, and Railroad Canyon. In the future, additional recycled water may be available from another proposed wastewater treatment plant and from a disposal pipeline carrying treated water from EMWD’s Temecula Valley Effluent Disposal Pipeline and RCWD’s Santa Rosa Water Reclamation Facility. The disposal pipeline passes through EVMWD’s service area.

NEAR-TERM AND LONG-TERM WATER SUPPLY⁹

The projected normal water year supply includes local groundwater and surface water as well as imported MWDSC water sources. Table 5.15-3 above summarizes the projected normal water year supply until 2030. According to the *Urban Water Management Plan, Elsinore Valley Municipal District* (refer to Appendix M1, 2005 Urban Water Management Plan), current and anticipated future supplies are sufficient to meet the projected normal year water demand through 2030.

EVMWD has predicted that sufficient supply also exists to meet the current and anticipated future demands for both single dry year and multiple dry year requirements through 2030. Dry years may prompt additional water conservation measures to ensure sufficient supply is

⁹ *Urban Water Management Plan Final Report, Elsinore Valley Municipal Water District, MWH, December 2005 (refer to EIR Appendix M1: 2005 Urban Water Management Plan).*



maintained. After 2020, additional water from the MWDSC, not including the supply already planned for through the Auld Valley Pipeline (AVP) and Temescal Valley Pipeline (TVP), would be imported to supply increasing maximum day demand (MDD).

Western Municipal Water District¹⁰

The Western Municipal Water District (WMWD) was formed in 1954 as a public agency to bring additional water to western Riverside County. WMWD is governed by a five-member Board of Directors elected by voters in five geographical divisions within district boundaries. WMWD’s service area encompasses 510 square miles with service provided to approximately 19,000 retail customers and nine wholesale customers. Approximately one-third of the total water supplied by WMWD is for retail customers, with the remainder for wholesale customers. Within the upper watershed, WMWD wholesales water to EVMWD and RCWD and directly supplies retail water to numerous other areas. WMWD also provides wholesale and retail water to areas and agencies outside of the watershed.

In 2005, WMWD merged with Murrieta County Water District (MCWD) to form the Murrieta Division, a separate retail area which services to approximately 2,600 customers within a 6.5-square mile service area. Since 2003, MCWD had purchased small quantities (100 to 200 Acre-Foot/Year) of imported water through the EMWD. The Murrieta Division’s average annual water production requirement is estimated to increase from 1,900 AF in 2005 to approximately 7,400 Acre-Foot (AF) at ultimate development in the year 2025. The recommended water production requirement for existing conditions is 3,100 gallons per minute (gpm), which includes a 700-gpm reserve capacity, and 10,700 gpm for ultimate development, which includes a 1,500-gpm reserve capacity). The Murrieta Division delivers primarily groundwater from the Murrieta-Temecula Groundwater Basin. Currently supplemental water to meet current peak demands is imported from MWD through an interconnection with EMWD. WMWD also plans to construct interconnections with the EVMWD system for emergency and daily use.

The Murrieta Division estimated water production for ultimate development is based on the following assumptions:

- Water from future imported supplies (4,400 AF/Y) will be delivered at a constant rate of 1,500 gpm in January, February, March, April, November, and December; 3,000 gpm in May; and 4,200 gpm in June, July, August, September, and October.
- The balance of the water production requirements (5,000 gpm, 3,000 AFY) will be provided by existing and future Murrieta Division wells.

WMWD receives water from the following sources:

¹⁰ WMWD 2005 Urban Water Management Plan.



- Imported water - treated and untreated water from MWD (State Water Project and Colorado River Aqueduct).
- City of Riverside supplemental water (emergency/off season only).
- Groundwater - pumped from San Bernardino and Riverside on behalf of WMWD and transported through pipes with an EVWMD agreement; there are no direct groundwater extraction facilities operated by WMWD.
- Surface Water - Seven Oaks reservoir can deliver surface water to various treatment plants or to groundwater recharge.
- Recycled water - March Wastewater Reclamation Facility (irrigation only).

Potable water is received from MWD with supplemental water available from the City of Riverside. Potable water from MWD is treated at MWD’s Mills Filtration Plant and then conveyed to WMWD’s distribution system. Potable water from the City of Riverside is purchased when surplus water available (off-season) and during emergency situations. An inter-connection with the City of Riverside and a portable chlorination station allows WMWD to treat this water.

WMWD’s UWMP analyzes the District’s reliability based on normal, dry and multiple dry years. Based on this analysis, the WMWD will be able to meet the demands of its service area through 2030. The Riverside/Corona Feeder project will provide infrastructure to allow WMWD to purchase SWP water from MWD, store it in the San Bernardino Basin Area, and extract as needed.

Table 5.15-4, Western Municipal Water District Planned Water Supplies Acre-Feet/Year, shows wholesale and retail water supply projections for WMWD’s service area.

**Table 5.15-4
Western Municipal Water District Planned Water Supplies Acre-Feet/Year**

| Water Supply Sources | 2010 | 2015 | 2020 | 2025 | 2030 |
|--|----------------|----------------|----------------|----------------|----------------|
| Imported Water (MWD) | | | | | |
| Retail Service Area | 31,007 | 35,726 | 41,278 | 47,809 | 55,491 |
| Wholesale Service Area | 88,902 | 101,146 | 111,837 | 123,784 | 134,028 |
| Agriculture Water Purchase | 6,000 | 6,000 | 6,000 | 6,000 | 6,000 |
| Recycled Water | 2,680 | 3,850 | 4,430 | 5,210 | 6,130 |
| Riverside/Corona Feeder (as needed) ¹ | | 10,000 | 40,000 | 40,000 | 40,000 |
| Total | 128,589 | 156,272 | 203,545 | 222,803 | 241,649 |

Source: Urban Water Management Plan 2005 Western Municipal Water District
 1. Water supply may include imported water and local runoff.



NEAR-TERM AND LONG-TERM WATER SUPPLY¹¹

The projected normal water year supply includes both potable water from the SWP for various uses and the untreated non-potable water from the CRA for agricultural and landscape irrigation. Wholesale water sales also comprise a portion of the supply Western receives from MWD. As mentioned above and according to the *Urban Water Management Plan, Western Municipal District* (refer to *Appendix O1, 2005 Urban Water Management Plan*), MWD has projected that sufficient supplies exist to meet the demands for their agencies through 2030

Also mentioned above, MWD has predicted that sufficient supply also exists to meet demands for both single dry year and multiple dry requirements through 2030. As required, droughts may prompt additional water conservation measures to ensure sufficient supply is maintained. However, normal demands are used to provide conservative estimations of demand. MWD has projected that sufficient supplies exist to meet demands during dry years for their agencies. Therefore, supplies would equal demands since MWD would deliver the needed quantities of water while placing supplies not required on a yearly basis into storage for use in emergency conditions or droughts. The Riverside/Corona Feeder project would provide infrastructure to allow WMWD to purchase SWP water from MWD, store it in the San Bernardino Basin Area, and extract as needed.

Eastern Municipal Water District¹²

The Eastern Municipal Water District (EMWD) is public water agency formed in 1950. EMWD is governed by a five-member Board of Directors that is elected by voters within district boundaries. EMWD serves a 555-square mile service area in western Riverside County and in most areas provides retail water and sewer service. EMWD also provides wholesale and retail water service to multiple subagencies including RCWD.

EMWD receives water from the following sources:

- Imported Water – MWD (State Water Project and Colorado River Aqueduct).
- Recycled Water.
- Groundwater – San Jacinto Watershed groundwater that is desalinated for potable use. However, within the Santa Margarita Watershed portion of EMWD’s service area, EMWD serves and wholesales imported water, but not groundwater. They have no plans to serve this area with groundwater.

Imported water received from MWD is treated at two treatment plants: Henry J. Mills (Mills) and Robert F. Skinner (Skinner). At Mills, SWP water is treated and at Skinner a combination of

¹¹ *Urban Water Management Plan, Western Municipal Water District, 2005 (refer to EIR Appendix O1: 2005 Urban Water Management Plan).*

¹² EMWD 2005 Urban Water Management Plan.



SWP and CRA water is treated. Untreated water supplied by MWD is treated by EMWD at a microfiltration plant in Perris. An additional microfiltration plant is located in Hemet.

EMWD is increasing the use of recycled water, through expansion and maximization of the four regional water reclamation facilities. As stated in the EMWD UWMP, EMWD’s recycled water distribution system includes 135 miles of large diameter transmission pipelines, 6,000 AF of surface storage reservoirs (ten separate sites) and four regional pumping plants. EMWD wastewater collection systems include: 1,534 miles of gravity sewer, 53 lift stations, and five regional water reclamation facilities, with interconnections between local collection systems serving each treatment plant.

Table 5.15-5, Eastern Municipal Water District Planned Water Supplies Acre-Feet/Year, shows EMWD’s projected water supply sources for the entire district.

**Table 5.15-5
Eastern Municipal Water District Planned Water Supplies Acre-Feet/Year**

| Water Supply Sources | 2010 | 2015 | 2020 | 2025 | 2030 |
|--|----------------|----------------|----------------|----------------|----------------|
| Imported Water (MWD) | 90,100 | 104,300 | 121,300 | 133,900 | 144,300 |
| Groundwater | 38,800 | 42,000 | 42,200 | 42,000 | 41,900 |
| Recycled Water | 32,400 | 36,700 | 40,300 | 44,000 | 47,000 |
| Desalinated Water ¹ | 7,500 | 12,000 | 12,000 | 12,000 | 12,000 |
| Total | 168,800 | 195,000 | 215,800 | 231,900 | 245,200 |
| Source: Eastern Municipal Water District 2005 Urban Water Management Plan. | | | | | |
| ¹ Desalinated water is not used in the Upper Santa Margarita Watershed. | | | | | |

NEAR-TERM AND LONG-TERM WATER SUPPLY¹³

According to the *Urban Water Management Plan, Eastern Municipal District* (refer to *Appendix LI: 2005 Urban Water Management Plan*), EMWD has the supply needed to meet the demand of its customers through 2030. The conclusion is based on the assurances of MWD that it would be able to supply member agency demands, the reliability of local groundwater supplies achieved through groundwater management plans and the development of recycled water resources.

In addition to meeting the demand for a normal dry year, the law requires that water suppliers meet the need of its customers during a single dry year. For EMWD, meeting the minimal increase in demand due to a dry winter is accomplished through increasing the imports from MWD and utilizing groundwater production. MWD assures its member agencies that their needs would be met even during dry years. The groundwater management plans assure that water recharged into the basins in wet years would be available in dry years.

¹³ *Urban Water Management Plan, Eastern Municipal Water District, 2005 (refer to Appendix LI: 2005 Urban Water Management Plan).*



During multiple dry years, resource planning by EMWD and MWD insures that consumer demands for water would be met. Since local resources are stable during a multiple dry year event and MWD resources are affected by weather fluctuations, the 1990-1992 hydrology conditions were considered. These were the dry years considered by MWD in planning for the worst case multiple dry year scenarios. With the assurance of MWD and the reliability of EMWD’s groundwater and recycled water, EMWD is confident of its ability to meet demand through 2030.

5.15.3 SIGNIFICANCE THRESHOLD CRITERIA

The issues presented in the Initial Study Environmental Checklist (Appendix G of the *CEQA Guidelines*) have been utilized as thresholds of significance in this Section. Accordingly, water supply and distribution systems impacts resulting from the implementation of the proposed General Plan 2035 may be considered significant if they would result in the following:

- Have adverse effects of water supplies sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements need.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Based on these significance thresholds and criteria, the proposed General Plan 2035’s effects have been categorized as either “no impact,” a “less than significant impact,” or a “potentially significant impact.” Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.15.4 PROJECT IMPACTS AND MITIGATION MEASURES

WATER SUPPLY AND DISTRIBUTION

- **IMPLEMENTATION OF THE PROPOSED GENERAL PLAN 2035 COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE WITHIN THE CITY.**

Level of Significance Before Mitigation: Less Than Significant Impact.



Impact Analysis:

Water Supply

Implementation of the proposed General Plan 2035 would result in additional development, resulting in an increase in the City's population and businesses, and thus, an overall increase in total water demand.

The City relies on water connection services provided by four water districts: RCWD, EVMWD, WMWD, and EMWD. The UWMPs for all four water districts provide a long-range (25-year) assessment of water supply for each service area, which includes the City of Murrieta. An UWMP serves as a source document for cities and counties as they prepare their General Plans. Each water district has its own 2030 service area population projection derived from housing projections, SCAG projections, and persons per household data. The studies assess water supply to forecast year 2030 taking into consideration groundwater, imported, recycled and surface water supplies, as well as wastewater. In addition to water supply, the UWMPs address efficient use of water, demand management measures, implementation strategies and schedules, and other relevant information and programs.

The 2005 UWMPs prepared for RCWD, EVMWD, WMWD, and EMWD indicate there are sufficient water supplies based on normal, dry and multiple dry years and water shortage contingency plans to meet existing and future regional water needs through 2030. According to the UWMPs for each water district, the total planned water supply through 2030 for the RCWD, EVMWD, WMWD, and EMWD is 98,931 AF/Y, 77,919 AF/Y, 241,649 AF/Y, and 245,200 AF/Y, respectively for a combined water supply of 663,699 AF/Y; refer to Table 5.15-2, Table 5.15-3, Table 5.15-4, and Table 5.15-5. The City currently consumes approximately 39,179AF/Y¹⁴ of water resources to meet all constituent existing demands; refer to Table 5.15-1. It is anticipated that water demand associated with implementation of the proposed General Plan 2035 would increase by approximately 13,946.036 gpd or 15,632 AF/Y¹⁵ in the year 2035; refer to Table 5.15-6, Forecast Year 2035 Water Demand. The proposed General Plan 2035 growth would require only 2.36 percent of the 2030 water supply from these four water districts. Table 5.15-6 averaged the RCWD Water Supply Generation Factor with the EVMWD Water Supply Generation Factor to calculate the entire City's existing water demand as these were the only available Water District Generation Factors. WMWD and EMWD were contacted but no Water District Generation Factors were made available. The WMWD and EMWD UWMPs were reviewed but didn't include Water District Generation Factors.

¹⁴ Rancho and Elsinore Water District generation factors (averaged the generation factors to calculate the entire City's existing water demand).

¹⁵ Rancho and Elsinore Water District generation factors (averaged the generation factors to calculate the entire City's forecast year 2035 water demand).



**Table 5.15-6
Forecast Year 2035 Water Demand**

| General Plan 2035 Land Use | Units (du/sf/ac) | RCWD Generation Factor ¹ | Water Demand | EVMWD Generation Factor ⁵ | Water Demand | Average gpd ⁸ |
|------------------------------|------------------|-------------------------------------|-----------------------|--------------------------------------|-------------------|-------------------------------------|
| Residential | 10,734 du | 1,500 ² | 16,101,000 | 750.0000 ⁶ | 8,050,500 | 12,075,750 |
| Non-Residential ⁴ | 36,210,757 sf | 0.0344 ³ | 1,245,650.041 | 0.0689 ⁷ | 2,494,921 | 1,870,286 |
| Total | - | - | 17,346,650.004 | - | 10,545,421 | 13,946.036 gpd (15,632 AF/Y) |

Note: General Plan 2035 dwelling units and square footage represents growth over existing conditions.
 Note: The RCWD Water Supply Generation Factor was averaged with the EVMWD Water Supply Generation Factor to calculate the entire City's existing water demand as these were the only available Water District Generation Factors. WMWD and EMWD were contacted but no Water District Generation Factors were made available. The WMWD and EMWD UWMPs were reviewed but didn't include Water District Generation Factors

1 = Rancho California Water District Water Supply Generation Factor
 2 = Rancho California Water District Water Supply Generation Factor for single-family residential
 3 = Rancho California Water District Water Supply Generation Factor for commercial, office & research park, business park, and civic/institutional.
 4 = Non-residential land uses include commercial, office and research park, business park, and civic/institutional.
 5 = Elsinore Valley Municipal Water District Water Supply Generation Factor
 6 = Elsinore Valley Municipal Water District Water Supply Generation Factor for single-family residential and rural residential
 7 = Elsinore Valley Municipal Water District Water Supply Generation Factor for office and research park
 8 = Rancho California Water District Water Supply Generation Factor averaged with Elsinore Valley Municipal Water District Water Supply Generation Factor (the only available Water District Generation Factors) to calculate the entire City's forecast year 2035 water demand.

du = dwelling unit
 sf = square foot
 ac = acre
 gpd = gallons per day
 AF/Y = acres feet per year

The 2005 UWMPs have a 25-year planning horizon to 2030, which includes the 2030 growth projections for the existing Murrieta General Plan (1994, amended 2006). The existing General Plan projects a total of 40,845 dwelling units and 49,073,504 square feet of non-residential uses. These uses generate a water demand of 54,355.52 AF/Y, which represents 8.19 percent of the total anticipated supply of the four water districts in 2030. As a point of comparison, the proposed General Plan 2035 includes 44,484 dwelling units and 50,189,652 square feet of non-residential uses. These uses generate a water demand of 59,009.68 AF/Y, which represents 8.89 percent of the total anticipated supply of the four water districts in 2030. The incremental increase of the proposed General Plan 2035 represents a 0.70 percent increase over what is currently accounted in the 2005 UWMPs.

Based upon the 2005 UWMPs, the four water districts would have adequate water supplies based on normal, dry and multiple dry years and water shortage contingency plans to meet the future regional water needs, including the growth anticipated with the proposed General Plan 2035,



through 2030. It is too speculative to determine 2035 water supplies at this time.¹⁶ The water suppliers are planning to meet increased demand and reduce dependence on imported water. Their plans include water storage and groundwater recharge, treatment of wastewater to supply recycled water, and treatment of other non-potable water sources to increase potable water supply. RCWD plans to create additional wells and construct a facility to reduce the salinity of recycled water for agricultural use. EVMWD plans to increase its supplies of imported water and construction additional wells. WMWD plans include developing additional storage and pipeline infrastructure, and seeking diversions from the Santa Ana River. EMWD is seeking to increase water supplies through investment in facilities that treat wastewater, groundwater, and raw water from the State Water Project.

Groundwater recharge is part of most plans to ensure future water supplies. RCWD plans to expand groundwater recharge in the Pauba Valley Basin. EVMWD has prepared a groundwater management plan for the Elsinore Basin to reduce overdraft and improve groundwater supply reliability, which includes replenishment. EMWD does not draw groundwater in the southern part of its service area, where the City lies, but is involved in groundwater recharge in the San Jacinto Watershed.

The City's *Municipal Code* (Section 16.27 Water Efficient Landscape) promotes water efficient landscaping, water use management, and water conservation through the use of water efficient landscaping, wise use of turf areas and appropriate use of irrigation technology and management. The code also achieves water conservation by raising the public awareness of the need for an effective management program through education and incentives.

Future development would be reviewed by the City on a project-by-project basis to ensure adequate water supplies are available to accommodate future projects. The proposed General Plan 2035 Conservation Element includes goals and policies to ensure that a reliable water supply can be provided within the City's service area, while remaining sensitive to the climate. The proposed General Plan 2035 also includes goals and policies that promote water conservation through the use of reclaimed water and water conservation design and technology. Goal CSV-1 promotes conservation, protection, and management of water resources to meet long-term community needs, including surface waters, groundwater, imported water supplies, storm water, and waste water. Goal CSV-2 promotes compliance with requirements from the State and appropriate agencies regarding comprehensive water conservation measures to ensure sufficient water supplies for human consumption, sanitation, and fire protection. Residents and businesses in Murrieta would also need to play a role in using water resources efficiently, and this would be encouraged through education and incentives from the City and water agencies. With adherence to the proposed General Plan 2035 goals and policies and the City of Murrieta *Municipal Code Water Efficient Landscape Ordinance*, compliance with the applicable UWMPs

¹⁶ This EIR is based upon the 2005 UWMPs, which were the most recently adopted UWMPs at the time the EIR was prepared. As of February 2011, the four water districts began the process of updating their 2005 UWMPs to 2010. The 2010 UWMPs will have a horizon year of 2035, but were not completed prior to release of the Draft EIR. The City of Murrieta will provide all four water districts with the Draft General Plan 2035 growth projections for inclusion in the 2010 UWMPs, as required by the California Government and Water Codes.



and Master Plans of all four water districts, coordination between the City and water districts and that Murrieta would only use 2.36 percent of the anticipated water from these four water districts, water supply and infrastructure impacts associated with the proposed General Plan 2035 would be reduced to a less than significant level.

Water Infrastructure

Water conservation in Southern California became increasingly important in the 1980s and early 1990s, when the entire region suffered a severe drought. Drought conditions in southern California directly affect groundwater recharge and groundwater supplies. According to the Master Plans of each water district, the existing water distribution systems are generally adequate in meeting demand. However, several operational improvements have been recommended within the Master Plans to increase each system's reliability and efficiency, and to reduce the cost of delivering water within each of the four water districts in anticipation of future growth. Recommendations include additional water treatment plants, wells, storage reservoirs, booster stations, pressure regulating stations and pipelines as well as pipeline replacement and increased adequate fire flows. The Master Plans prioritize each recommended project and indicate when each project should be implemented. These improvements are planned to occur within the buildout period of 2030 for each Water Master Plan and UWMP of each of the four water districts.

Currently, portions of the North Murrieta Business Corridor, South Murrieta Business Corridor, and the Golden Triangle North (Central Murrieta) Focus Areas, along with parcels in the "key hole" area, which includes the Los Alamos Hills (refer to [Exhibit 5.15-1](#)), are not located within a water district and operate on individual well systems. For the North Murrieta Business Corridor Focus Area, the area generally north of Clinton Keith Road, west of Meadowlark Lane, south of Baxter Road and east of Menifee Road is not within a water district. For the South Murrieta Business Corridor Focus Area, a small portion north of the I-15 and east of the 1-215 freeway and including parcels both north and south of Jackson Avenue, and parcels generally east of Guava Street, south of Adams Avenue, west of Fig Street, and north of Washington Avenue are not within a water district. For the Golden Triangle North (Central Murrieta) Focus Area, only a small portion just north of the I-15 freeway east of Juniper Street is not within a water district. It is anticipated that future development within these areas would annex to the appropriate water district for service and connection to the infrastructure systems.

New development would be required to pay its share of the costs of infrastructure improvements necessary to accommodate the project. Water districts would need to ensure their water reclamation facilities and pipeline infrastructure are planned and installed according to their UWMP projections. Additionally, coordination between the City and water districts would be essential as further development is planned. Furthermore, the City has identified the protection and conservation of its existing and future water resources within the proposed General Plan 2035 Infrastructure Element goals and policies. Policies INFR-1.1 through INFR 1.7 of the proposed General Plan 2035 Infrastructure Element require new development and redevelopment projects to ensure that water infrastructure systems are adequate to serve the development.



Policy INF-1.8 ensures that fee structures are sufficient for new development and redevelopment to pay its fair share of the cost of infrastructure improvements for water. With implementation of the proposed General Plan 2035 goals and polices along with adherence to the water district Master Plans, water infrastructure impacts associated with the proposed General Plan 2035 would be less than significant.

Goals and Policies in the Proposed General Plan 2035:

CONSERVATION ELEMENT

Goal CSV-1 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.

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.

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

Goal CSV-2 Murrieta promotes compliance with requirements from the State and appropriate agencies regarding comprehensive water conservation measures in buildings and landscaping.

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.
- 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-9.8 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.



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-15.5 Encourage of the use 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.

INFRASTRUCTURE ELEMENT

Goal INF-1 New development and redevelopment is coordinated with the provision of adequate infrastructure for water, sewer, storm water, and energy.

Policies

INF-1.1 Encourage future development to occur in areas where infrastructure for water, sewer, and storm water can most efficiently be provided.

INF-1.2 Discourage development in areas without connections to existing infrastructure, unless infrastructure is being provided.

INF-1.3 Encourage the annexation of unserved areas into water district service areas.

INF-1.4 Ensure that new development and redevelopment provides infrastructure for water, sewer, and storm water that adequately serves the proposed uses, and that has been coordinated with affected infrastructure providers.

INF-1.5 Continue to require new development and redevelopment to provide verification that energy utilities are able to accommodate the additional demand for service.

INF-1.6 Provide information to water districts, Riverside County Flood Control and Water Conservation District (RCFCWCD), and energy utilities in their planning efforts to ensure adequate infrastructure is available for anticipated development.

INF-1.7 Encourage the preparation and updates of master plans by the appropriate providers or agencies to conduct detailed long-range planning to ensure the efficient provision of public services, infrastructure, and/or utilities.



- INF-1.8 Consult with water districts and Riverside County Flood Control and Water Conservation District (RCFCWCD) to ensure that fee structures are sufficient for new development and redevelopment to pay its fair share of the cost of infrastructure improvements for water, sewer, and storm water.
- INF-1.9 Encourage the water districts to proactively manage their assets through the maintenance, improvement, and replacement of aging water and wastewater systems to ensure the provision of these services to all areas of the community.
- INF-1.10 Encourage the water districts to improve water and wastewater services in a way that respects the natural environment.
- NF-1.21 Encourage the use of specific plans, development agreements, or mechanisms that specify the nature, timing, cost, and financing mechanisms to be used to fund water, wastewater, and/or storm drainage improvements and services.
- INF-1.22 Work with property owners to establish a financing mechanism, such as financing districts, to provide infrastructure and maintenance in major employment locations and corridors, such as the North Murrieta Business Corridor, South Murrieta Business Corridor, and at the confluence of the I-15 and I-215 Freeways.
- INF-1.23 Utilize, where appropriate, public financing mechanisms, such as special assessment or community facilities districts to fund water improvement and service costs.
- INF-1.24 Consider the use of redevelopment financing, where appropriate, to provide infrastructure in areas where the City wishes to stimulate development.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the proposed General Plan 2035 are required.

Level of Significance After Mitigation: Not Applicable.

5.15.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- **DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED GENERAL PLAN 2035 AND OTHER CUMULATIVE DEVELOPMENT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO WATER RESOURCES INCLUDING INCREASED DEMAND FOR WATER SUPPLIES AND INFRASTRUCTURE.**



Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Cumulative water impacts are analyzed in terms of impacts to water supplies and facilities operated by the four water districts: RCWD, EVMWD, WMWD, and EMWD. The water supply in the City comes from local sources of groundwater and surface water, imported from the Metropolitan Water District's Colorado River Aqueduct and the State Water Project, recycled water reclamation facilities, and water transfers and exchanges. The City receives water from four water and wastewater Districts: RCWD, EVMWD, WMWD, and EMWD. The Elsinore Valley and Rancho California Water Districts have the largest service areas within the City of Murrieta.

The UWMPs for all four water districts provide a long-range assessment of water supply for each service area, which includes the City of Murrieta. An UWMP serves as a source document for cities and counties as they prepare their General Plans. Each water district has its own 2030 service area population projection derived from housing projections, SCAG projections, and persons per household data. The studies assess water supply to forecast year 2030 taking into consideration groundwater, imported, recycled and surface water supplies, as well as wastewater. In addition to water supply, the UWMPs address efficient use of water, demand management measures, implementation strategies and schedules, and other relevant information and programs. The 2005 UWMPs prepared for RCWD, EVMWD, WMWD, and EMWD indicate there are sufficient water supplies and water shortage contingency plans to protect existing and future regional water needs.

Future development projects in Murrieta and the Sphere of Influence would be evaluated by the City, Riverside County, and applicable water district on a project-by-project basis to determine impacts to water supplies and infrastructure. The continued assessment of individual projects for impacts to the water supply system would assure projects would only be approved if adequate water supplies exist at the time of their implementation. New development would be required to pay its share of the costs of infrastructure improvements necessary to accommodate the project. Water districts would need to ensure their water reclamation facilities and pipeline infrastructure are planned and installed according to their UWMP projections. Additionally, coordination between the City and water districts would be essential as further development is planned. Furthermore, with adherence to the proposed General Plan 2035 goals and policies and the City of Murrieta *Municipal Code Water Efficient Landscape Ordinance*, compliance with the UWMPs and Master Plans of all four water districts, coordination between the City and water districts and that fact Murrieta would only use 0.0236 percent of the anticipated water from these four water districts, impacts regarding water supply, distribution, and infrastructure would be further reduced to less than significant levels. Therefore, implementation of the proposed General Plan 2035 would not result in cumulatively considerable water supply and infrastructure impacts.



Goals and Policies in the Proposed General Plan 2035: Refer to the goals and policies referenced above in this Section 5.15.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the proposed General Plan 2035 are required.

Level of Significance After Mitigation: Not Applicable.

5.15.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Impacts related to water supplies and facilities associated with implementation of the proposed General Plan 2035 for the City of Murrieta would be less than significant with compliance with the goals and policies in the General Plan 2035. Therefore, no significant unavoidable water supplies and facilities impacts would occur as a result of the proposed General Plan 2035.

5.15.7 SOURCES CITED

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