

## **4.9 HYDROLOGY AND WATER RESOURCES**

This section summarizes the regulatory and planning framework with regard to surface water and groundwater resources within the Hemet planning area, presents existing conditions, and analyzes impacts on surface water and groundwater resources associated with implementation of the Draft General Plan. Impacts related to water supply and wastewater treatment are discussed in Section 4.14, “Utilities and Energy.” Impacts related to mudslides are discussed in Section 4.6, “Geology and Soils.”

### **4.9.1 REGULATORY SETTING**

Federal, state, and local laws, regulations, and policies that pertain to surface water and groundwater in the planning area relative to the Draft General Plan are described below.

#### **FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS**

##### **Federal Clean Water Act**

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for managing water quality. The Clean Water Act (CWA) is the primary federal law that governs and authorizes EPA and the states to implement activities to control water quality. The various elements of the CWA that address water quality and are applicable to the proposed project are discussed below. Wetland protection elements administered by the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA, including permits to dredge or fill wetlands, are discussed in Section 4.4, “Biological Resources.”

##### **Water Quality Criteria and Standards**

EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body, and (2) criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

EPA is the federal agency with primary authority for implementing regulations adopted under the CWA. EPA has delegated to the State of California the authority to implement and oversee most of the programs authorized or adopted for CWA compliance through the state’s Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act), described below.

##### **National Pollutant Discharge Elimination System Permit Program**

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. A discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase 1 of the permitting program applied to municipal discharges of stormwater in urban areas where

the population exceeded 100,000 persons. Phase 1 also applied to stormwater discharges from a large variety of industrial activities, including general construction activity if the project would disturb more than five acres. Although the planning area population is less than 100,000, the area was subject to the requirements of Phase I NPDES stormwater permit regulations based on its location in an urbanized area. As such, the planning area was included in the first term Riverside County Area-wide Municipal Separate Storm Sewer (MS4) Permit, Order 90-104 (NPDES No. CA 8000192), for Urban Runoff adopted July 13, 1990. This Permit and subsequent renewals require implementation of structural and nonstructural control measures to reduce pollutant loads from industrial, commercial, and residential areas. The planning area is also subject to a statewide NPDES General Permit requiring the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for most construction and certain industry-related discharges. The planning area is subject to the requirements of Phase 2 of the NPDES stormwater permit regulations, which require that NPDES permits be issued for construction activity for projects that disturb one acre or more. Phase 2 of the municipal permit system (known as the NPDES General Permit for Small Municipal Separate Storm Sewer Systems [MS4s]) requires small municipal areas of less than 100,000 persons to develop stormwater management programs. California's Regional Water Quality Control Boards (RWQCBs) are responsible for implementing the NPDES permit system (see additional information under "State Plans, Policies, Regulations, and Laws" below).

### ***Section 401 Water Quality Certification or Waiver***

Under Section 401 of the CWA, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certificate from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to nine RWQCBs.

Proposed dredge and fill discharges to waters of the state that are not subject to federal jurisdiction may be regulated by waste discharge requirements (WDRs) issued by the Regional Board under authority of the California Water Code.

The value of wetlands and riparian areas has been recognized in California through the enactment of the California Wetlands Conservation Policy that sets a goal to "ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property" (Executive Order W-59-93). Impacts to water quality standards of surface waters of the State, including ephemeral drainages, must be avoided by land development and associated infrastructure construction wherever possible. Where avoidance is not practicable, impacts to beneficial uses of these waters must be minimized.

### **Antidegradation Policy**

The federal antidegradation policy is designed to protect existing uses, water quality, and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

- ▶ Existing in-stream uses and the water quality necessary to protect those uses shall be maintained and protected.
- ▶ Where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development.
- ▶ Where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

## Safe Drinking Water Act

Under the Safe Drinking Water Act (Public Law 93-523), EPA regulates contaminants of concern to domestic water supply that pose a public health threat or that alter the aesthetic acceptability of the water using primary and secondary maximum contaminant levels (MCLs) applicable to treated water supplies. MCLs are reviewed triennially. Amendments to the Safe Drinking Water Act established an accelerated schedule for setting MCLs for drinking water.

EPA has delegated to the California Department of Public Health (CDPH) the responsibility for administering California's drinking-water program. CDPH is accountable to EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by EPA. The applicable state primary and secondary MCLs are set forth in Title 22, Division 4, Chapter 15, Article 4 of the California Code of Regulations, and described in "Title 22 Standards" below.

## Section 303(d) Impaired Waters List

~~Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a Total Maximum Daily Load (TMDL) for each of the listed pollutants. The TMDL is the amount of loading that the water body can receive and still comply with water quality objectives. The TMDL can also act as a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The TMDL must include an allocation of allowable loadings to point and nonpoint sources, considering background loadings and a safety margin. The TMDL must also include an analysis links load reductions to attainment of water quality objectives. The EPA must either approve a TMDL prepared by the state or, if it disapproves the state's TMDL, issue its own. NPDES permit limits for listed pollutants must be consistent with the waste load allocation prescribed in the TMDL. After implementation of a TMDL, the problems that led to placement of a given pollutant on the Section 303(d) list should be remediated.~~

Pursuant to Section 303(d) of the Clean Water Act, Regional Water Quality Control Boards must identify and list impaired water bodies. These are water bodies where the limits or levels of water quality constituents or characteristics are being violated and it is presumed designated Beneficial Uses (uses of water necessary for the survival of man, plants and wildlife) are not met.

Federal regulations require that a Total Maximum Daily Load (TMDL) be established for each 303(d) listed water body for each pollutant causing impairment. A TMDL is the maximum load of a pollutant(s) that can be discharged from point and nonpoint sources without exceeding water quality standards in the water body. Each state is required every two years to review its existing 303(d) List, make changes as necessary, and submit its 303(d) List and TMDL priorities to the U.S. EPA.

On December 20, 2004, the Santa Ana Region Water Quality Control Board amended the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to incorporate the Lake Elsinore and Canyon Lake Nutrient TMDLs. These TMDLs include urban waste load allocations and specify numeric targets and response numeric targets to reduce nitrogen and phosphorus in Urban Runoff. The planning area is subject to these requirements and participates on a TMDL Task Force to jointly implement and coordinate tasks assigned to specific dischargers/stakeholders, and to monitor, evaluate, and revise BMPs based on monitoring results.

## National Toxics Rule and California Toxics Rule

EPA promulgated the National Toxics Rule under the Clean Water Act to establish numeric criteria for priority toxic pollutants in California. The National Toxics Rule established water quality standards for 42 pollutants not covered under California's statewide water quality regulations at the time. As a result of a court-ordered revocation of California's statewide Basin Plans in September 1994, EPA issued the California Toxics Rule,

which includes all the priority pollutants for which EPA has issued numeric criteria not included in the National Toxics Rule.

## **National Flood Insurance Program**

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) identifying land areas subject to flooding. The design standard for flood protection is established by FEMA, with the minimum level of flood protection for new development determined to be the one-in-100 annual exceedance probability (AEP) (i.e., the 100-year flood event). Specifically, where levees provide flood protection, the levee crown is required by FEMA to have three feet of freeboard above the one-in-100-AEP water surface elevation, except in the vicinity of a structure such as a bridge, where the levee crown must have four feet of freeboard for a distance of 100 feet upstream and downstream from the structure. As developments are proposed and constructed, FEMA is also responsible for issuing revisions to FIRMs through local agencies that participate in the NFIP.

## **Executive Order 11988**

Executive Order 11988 (Floodplain Management) addresses public safety, conservation, and economic issues associated with flooding. It generally requires federal agencies constructing, permitting, or funding a project in a floodplain to avoid incompatible floodplain development, be consistent with NFIP standards and criteria, and restore and preserve natural and beneficial floodplain values.

## **U.S. Bureau of Reclamation**

The U.S. Bureau of Reclamation (USBR) is responsible for development and conservation of most water resources in the western United States. The USBR covers a wide range of interrelated functions, including providing municipal and industrial water supplies through the Central Valley Project (CVP).

## **Section 401 and 404 Permits**

USACE is responsible for issuing permits for the placement of fill or discharge of material into waters of the United States. These permits are required under Sections 401 and 404 of the CWA. Water supply projects that involve instream construction (i.e., dams, diversion structures) trigger the need for these permits and related environmental reviews by USACE.

## **STATE PLANS, POLICIES, REGULATIONS, AND LAWS**

### **Basin Plans**

California's RWQCBs formulate and adopt Basin Plans establishing water quality objectives (or "criteria" under the Clean Water Act). The planning area is located in two regions: the Santa Ana Region (Region 8), and the San Diego Region (Region 9). The term "water quality standards," as used in the CWA, includes both the beneficial uses of specific water bodies and the quality which must be met and maintained to protect those uses. Basin Plans include implementation plans describing the actions of Regional Boards and others necessary to achieve and maintain these standards.

State regulations applicable to the demonstration of adequate water supply for the future water demands resulting from implementation of the proposed project are addressed further in Section 4.14, "Utilities and Energy."

## **Title 22 Standards**

Municipal and domestic supply (MUN) is among the “beneficial uses” defined in Section 13050(f) of the Porter-Cologne Act, as uses of surface water and groundwater that must be protected. California MCLs are defined in Title 22 of the California Code of Regulations (CCR), Division 4, Chapter 15, Domestic Water Quality and Monitoring. Drinking water MCLs apply to water supply systems “at the tap,” and enforced by CDHS and the Riverside County Health Department. California MCLs apply directly to groundwater and surface water resources according to enforceable limits prescribed in Basin Plans.

### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Act is California’s statutory authority for the protection of water quality. Under the act, the state must adopt water quality policies, plans, and objectives that protect the state’s waters for the use and enjoyment of the people. The act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update Basin Plans. The act also requires waste dischargers to notify the RWQCBs of their activities through the filing of reports of waste discharge (RWDs) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWDs and/or WDRs for broad categories of “low threat” discharges that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

### **California State Nondegradation Policy**

As required under the federal antidegradation policy described above, the SWRCB has adopted a nondegradation policy. The nondegradation policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows:

- ▶ Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the State and would not unreasonably affect present and anticipated beneficial uses of such water.
- ▶ Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet waste discharge requirements, which would ensure (1) pollution or nuisance would not occur and (2) the highest water quality consistent with the maximum benefit to the people of the State would be maintained.

### **California Toxics Rule and State Implementation Plan**

The California Toxics Rule (CTR) was issued in response to requirements of the EPA National Toxics Rule (NTR), and establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The CTR criteria are regulatory criteria adopted for inland surface waters, enclosed bays, and estuaries in California subject to CWA Section 303(c). The CTR includes criteria for the protection of aquatic life and human health. Human health criteria (water and organism based) apply to all waters designated as a municipal (MUN) and/ domestic (DOM) beneficial use in the Basin Plans.

The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California is also known as the State Implementation Plan (SIP). It translates CTR criteria, NTR criteria, and Basin Plan water quality objectives for toxic pollutants into NPDES permit effluent limits, effluent compliance determinations, monitoring for 2,3,7,8-TCDD (dioxin) and toxic equivalents, chronic (long-term) toxicity control provisions, initiating site-specific water quality objective development, and granting of exceptions for effluent

compliance. The goal of the SIP is to establish a consistent standard approach for permitting toxic discharges to inland surface waters, enclosed bays, and estuaries.

## **NPDES Permit System and Waste Discharge Requirements for Construction**

The SWRCB and Santa Ana and San Diego RWQCBs have adopted general NPDES permits for a variety of activities that have potential to discharge wastes to waters of the state. Per the requirements of the 2010 Riverside County MS4 permit, the City is obligated to advise the development, construction, and business communities of the need to comply with the following general waste discharge requirement permits:

### **Construction General Permit**

Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

### **General Industrial Permit**

The Industrial Storm Water General Permit Order 97-03-DWQ (General Industrial Permit) is an NPDES permit that regulates discharges associated with 10 broad categories of industrial activities. The General Industrial Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described.

### **General DeMinimus Permit**

Order No. R8-2009-0003, General Waste Discharge Requirements for Dischargers to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality (General De Minimus Permit) regulates de minimus discharge projects within the Santa Ana Region.

Wastewater discharges regulated under this Order include the following discharges:

Construction dewatering wastes; wastes associated with well installation, development, test pumping and purging; aquifer testing wastes; dewatering wastes from subterranean seepage, except for discharges from utility vaults; discharges resulting from hydrostatic testing of vessels, pipelines, tanks, etc.; discharges resulting from the maintenance of potable water supply pipelines, tanks, reservoirs, etc.; discharges resulting from the disinfection of potable water supply pipelines, tanks, reservoirs, etc.; discharges from potable water supply systems resulting from initial system startup, routine startup, sampling of influent flow, system failures, pressure releases, etc.; discharges from fire hydrant testing or flushing; air conditioning condensate; swimming pool discharge; discharges resulting from diverted stream flows; decanted filter backwash wastewater and/or sludge dewatering filtrate water from water treatment facilities; and other similar types of wastes as determined by the Regional

Water Board Executive Officer, which pose a de minimus threat to water quality yet must be regulated under waste discharge requirements. The General De Minimus Permit prohibits discharge of pollutants, establishes effluent limitations for various constituents, and requires monitoring and reporting.

The NPDES permits involve similar processes, including submittal to the RWQCB of notices of intent (NOI) to discharge, and implementation of stormwater pollution prevention plans (SWPPPs) that include best management practices (BMPs) to minimize those discharges.

Activities subject to the general construction activity permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. The permit also requires dischargers to consider the use of permanent post-construction BMPs that would remain in service to protect water quality throughout the life of the project. NPDES permits also require inspection, monitoring, and reporting. Water quality sampling is required if the activity could result in the discharge of turbidity or sediment to a water body that is listed as impaired under Section 303(d) because of sediment or siltation, or if a release of a non-visible contaminant occurs. Where such pollutants are known or should be known to be present and have the potential to contact runoff, sampling and analysis is required. NPDES permit requirements include incorporating BMPs to reduce runoff from construction and operation, reporting violations to the RWQCB, and education regarding the negative water quality impacts from urban runoff.

## **Urban Water Management Planning Act**

Each urban water supplier in California is required to prepare an Urban Water Management Plan (UWMP) and update the plan on or before December 31 in years ending in 5 and 0, pursuant to California Water Code Sections 10610–10657, as last amended by Senate Bill (SB) 318 (Chapter 688, Statutes of 2004), the Urban Water Management Planning Act. The City of Hemet submitted the 2010 Urban Water Management Plan to the California Department of Water Resources in 2011.

## ***Regional Urban Water Management Plan***

The Metropolitan Water District of Southern California (Metropolitan) has prepared a Draft Regional Urban Water Management Plan (RUWMP), dated June 2010. The 2010 RUWMP provides a comprehensive summary of Metropolitan's demand and supply outlook through 2035. As a reporting document, the RUWMP will be updated every five years to reflect changes in water demand and supply projections. The 2010 RUWMP satisfies all the reporting requirements mandated by the Urban Water Management Planning Act. The key reporting points of this report are as follows:

- ▶ Metropolitan has supply capabilities that would be sufficient to meet expected demands from 2015 through 2035 under single dry-year and multiple dry-year conditions.
- ▶ Metropolitan has comprehensive plans for stages of actions it would undertake to address up to 50% reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. Metropolitan also developed an Emergency Storage Requirement to mitigate potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region, including seismic events along the San Andreas Fault. In addition, Metropolitan is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region, such as a maximum probable seismic event in the Delta that would cause levee failure and disruption of SWP deliveries.
- ▶ Metropolitan has plans for supply implementation and continued development of a diversified resource mix including programs in the CRA, SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

## **Senate Bill 610**

SB 610 (Chapter 643, Statutes of 2001) requires urban water suppliers, cities, and counties to prepare water supply assessments for residential projects greater than 500 units, or projects that would increase the number of public water supply connections by 10%.

## **Senate Bill 221**

SB 221 (Chapter 642, Statutes of 2001) requires a county or city to include as a condition of approval of any tentative map, parcel map, or development agreement for certain residential subdivisions a requirement that a “sufficient water supply” be available. Proof of a sufficient water supply must be based on a written verification from the public water system that would serve the development.

## **Recycled Wastewater Requirements**

Wastewater recycling in California is regulated under Title 22, Division 4, of the CCRs under the jurisdiction of DPH to ensure protection of public health associated with the use of recycled water. The regulations establish acceptable levels of constituents in recycled water for a range of uses and prescribe means for ensuring reliability in the production of recycled water. The RWQCBs establish water reclamation requirements under Title 22 and is responsible for implementing wastewater recycling projects.

## **Lake and Streambed Alteration Program**

The California Fish and Game Code (Section 1602) requires the City to notify the Department of Fish and Game (DFG) of any proposed activity that may substantially modify a river, stream, or lake, including:

- ▶ substantially diverting or obstructing the natural flow of any river, stream or lake;
- ▶ substantially changing or using any material from the bed, channel, or bank of, any river, stream, or lake; or
- ▶ depositing or disposing of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

If DFG determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement must be prepared to document reasonable conditions necessary to protect those resources.

## **REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES**

### **Santa Margarita River Watershed Management Plan**

The Santa Margarita River Watershed Management Plan is a watershed management plan funded by the SWRCB and the County of San Diego, Department of Land Use and Planning. The Plan includes seven management areas, including the Diamond Valley Management Area within the Hemet planning area. The management area is tightly defined as the sub-basin surrounding the recently constructed Diamond Valley Reservoir, an imported water storage facility operated by Metropolitan. Water quality in the Diamond Valley Management Area is generally good and water quality risks are minimal due to the undeveloped land control by Metropolitan in this area (Anchor Environmental 2004).

### **Master Flood Control and Drainage Plan**

Stormwater drainage infrastructure and maintenance services within the planning area are provided by both the Riverside County Flood Control and Water Conservation District (RCFCWCD) and the City of Hemet. A Master

Flood Control and Drainage Plan addressing the current and future drainage needs of the community was completed in 1984.

The major stormwater drainage facilities in the planning area include Hemet Channel, Stetson Channel, and Salt Creek. Both Hemet Channel and Stetson Channel are owned and maintained by the RCFCWCD. The City owns and maintains Salt Creek. Currently, 24 City-owned retention and detention basins are located within Hemet. In addition, 26 basins are privately owned and maintained, and one basin is owned and maintained by the RCFCWCD.

Historically, street curbs and gutters have been the primary flood control devices in the planning area. Storm flows generally discharge into streets flowing from east to west without underground facilities, except in the western portion of the City. As a result, numerous dips in roadways have been constructed to convey flows across intersections. Most stormwater collected in the City is ultimately discharged into Salt Creek. A small northeast portion of the City drains into the San Jacinto River. Both Salt Creek and the San Jacinto River ultimately discharge into Lake Elsinore, which is the terminus point of the San Jacinto River Watershed.

### **Riverside County Drainage Area Management Plan-Santa Ana and Santa Margarita Regions**

Basic procedures for the management of all non-point source (NPS) pollutants associated with land development, including agricultural conversion, are currently in place through the City's implementation of the Riverside County Drainage Area Management Plan-Santa Ana and Santa Margarita Regions-April 2007 (DAMP), as required by the 2005 Riverside County municipal separate storm sewer system (MS4) permit. The DAMP includes requirements related to the planning and permitting of development projects, including projects that convert agricultural lands to residential and commercial uses, to ensure that pollutant loads from these projects have been reduced to the Maximum Extent Practicable (MEP). In addition, the City is preparing to implement provisions of the 2010 MS4 Permit for the Santa Ana Region, which will implement many new requirements related to land development, including the implementation of Low Impact Development principles through project-specific Water Quality Management Plans.

### **2010 Riverside County MS4 Permit**

The 2010 Riverside County MS4 permit requires the Co-permittees to incorporate Low Impact Development (LID) site design principals in the revised WQMP. Low Impact Development (LID) is a stormwater management approach with a basic principle that is modeled after nature: manage rainfall at the source using uniformly distributed decentralized micro-scale controls. LID's goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Instead of conveying and managing/treating storm water in large, costly end-of-pipe facilities located at the bottom of drainage areas, LID addresses storm water through small, cost-effective landscape features located at the lot level.

The design goal is to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed infiltration, retention, detention, evapotranspiration, filtration and treatment system. The revised WQMP incorporating LID principles was submitted to the Regional Board for approval on July 29, 2011.

### **Groundwater Quality Objectives**

On January 22, 2004, the Santa Ana RWQCB adopted Resolution No. R8-2004-0001, amending the Basin Plan to set appropriate water quality objectives for certain surface and ground waters, and to establish groundwater management zones (GMZs). The table below provides information related to the GMZs underlying and downgradient of the Hemet area:

| <b>Table 4.9-1</b><br><b>Groundwater Quality Objectives</b>                                                                                               |                                      |                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------|
| Groundwater Management Zone (GMZ)*                                                                                                                        | Total Dissolved Solids (TDS) in mg/l | Nitrate-Nitrogen (N-NO <sub>3</sub> ) in mg/l |
| Hemet-South                                                                                                                                               | 730                                  | 4.1                                           |
| Lakeview/Hemet-North                                                                                                                                      | 520                                  | 1.8                                           |
| San Jacinto Upper Pressure                                                                                                                                | 320                                  | 1.4                                           |
| Downgradient of GMZs above:                                                                                                                               |                                      |                                               |
| San Jacinto Lower Pressure                                                                                                                                | 520                                  | 1.0                                           |
| Perris South                                                                                                                                              | 1260                                 | 2.5                                           |
| Menifee                                                                                                                                                   | 1020                                 | 2.8                                           |
| * For all of these GMZs, there is no assimilative capacity for additional TDS or N-NO <sub>3</sub> , therefore, waste discharge must meet the objectives. |                                      |                                               |

Beneficial uses of the above GMZs include: Agricultural supply (AGR); Municipal Supply (MUN), Industrial Service Supply (IND) and/or Industrial Process Supply (PROC). Implementation of the WQMP requirements consistent with the 2010 Riverside County MS4 Permit will include development guidelines designed to protect, and improve if possible, the quality of groundwater in local GMZs. Treatment control BMPs utilizing infiltration must comply with a number of minimum requirements to protect groundwater, including restricting use in locations with known soil or groundwater contamination, locating BMPs at least 100 feet horizontally from any water supply well, provision of adequate pretreatment of runoff prior to infiltration on sites with gas stations, large commercial parking lots and industrial activity, and prohibiting placement of infiltration BMPs at any facility involved in vehicular repair work. In addition, the revised WQMP will require implementation of LID site design strategies which employs a variety of natural and built features to reduce the rate of surface water runoff, filter pollutants out of runoff, and facilitate infiltration of water into the ground.

## 4.9.2 ENVIRONMENTAL SETTING

### REGIONAL HYDROLOGY

Exhibit 4.9-1 illustrates drainage areas, water bodies, and the approximate boundary of the groundwater basin in the planning area.

### Local Surface Water Hydrology

The planning area contains river systems, numerous lakes and reservoirs, and natural drainage areas. Major waterways within the planning area include Diamond Valley Lake, the San Jacinto River, San Diego Aqueduct, Hemet Channel, Lake Hemet Main Canal, Salt Creek Flood Control Canal, Bautista Wash, and Casa Loma Canal Aqueduct.

The planning area lies within two distinct water basins defined by the RWQCB; the Santa Ana River Basin and the San Diego Basin. The Santa Ana River Basin drains into the Pacific Ocean in Orange County, while the San Diego Basin drains into the Pacific Ocean in San Diego County. These large watersheds are further divided into smaller sections by internal water drainage areas and groundwater basins.

Local water bodies which have been assigned beneficial uses in the Water Quality Control Plan for the Santa Ana River Basin, 1995, as amended (Basin Plan) include:

- San Jacinto River, Reaches 5 & 6: Intermittent Beneficial Uses are Agricultural Supply (AGR), Groundwater Recharge (GWR), Water Contact Recreation (REC1), Non-Contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), and Wildlife Habitat (WILD).

- ▶ Bautista Creek: Non-Intermittent Beneficial Uses are Municipal Supply (MUN), Cold Freshwater Habitat (COLD), and AGR, GWR, REC1, REC2, and WILD.
- ▶ Salt Creek: Intermittent Beneficial Uses are REC1, REC2, WARM, and WILD.

Specific waters which are not listed have the same beneficial uses as the streams, lakes or reservoirs to which they are tributary or the groundwater basins or subbasin to which they are tributary or overlie.

### ***Santa Ana Region***

The Santa Ana Region includes the upper and lower Santa Ana River watersheds, the San Jacinto River watershed, and several other smaller drainage areas. The Santa Ana Region covers parts of southwestern San Bernardino County, western Riverside County, and northwestern Orange County (Santa Ana RWQCB 1995). The Santa Ana Region is the smallest of the nine regions in the state (2,800 square miles), but the region's approximately five million residents make it one of the most densely populated.

The portion of the planning area within the Santa Ana Region is located within the San Jacinto River Hydrologic Unit (Santa Ana RWQCB 1995). The unit drains into Lake Elsinore, and includes the San Jacinto Valley hydrologic area, via the Hemet, Gilman Hot Springs, Lakeview, and Winchester subunits.

### ***San Jacinto Watershed***

The 732-square mile San Jacinto River Watershed is located in Riverside County and drains to the Santa Ana River through Lake Elsinore and Temescal Wash. Due to the large amount of flood storage in Lake Elsinore, flows from the San Jacinto River rarely reach the Santa Ana River, the last occurrence being in 1916 (San Jacinto River Watershed Council 2005). Major tributaries include Bautista Creek, Poppet Creek, Potrero Creek, Perris Valley Drain, and Salt Creek. The mountainous portion of the drainage area lies principally on the southwest slopes of the San Jacinto Mountains, while the valley portion includes primarily the San Jacinto and Perris Valleys.

Elevations in the watershed area vary from a maximum of 10,804 feet at San Jacinto Peak, to 1,680 feet at the mouth of the canyon near Valle Vista, to 1,382 feet at the crest of the spillway on Railroad Canyon Dam. Most of the rocks of the mountainous drainage area are granitic, and the soils are shallow and stony. The lower slopes east of San Jacinto and also the hills between the lower courses of the South Fork San Jacinto River and Bautista Creek consist chiefly of partly consolidated gritty clay shales, overlain by gravels. Soils in the valleys are recent alluvium, ranging from coarse sand near the base of the mountains to heavy, sandy clays in the lower portions.

### ***San Diego Region***

The San Diego Region forms the southwest corner of the state and occupies approximately 3,900 square miles. The San Diego Region covers most of San Diego County and parts of southwestern Riverside County (San Diego RWQCB 1994). The portion of the planning area within the San Diego Region is located within the Santa Margarita Hydrologic Unit, which includes Diamond Valley Lake. The Santa Margarita Hydrologic Unit is drained mostly by the Santa Margarita River, Murrieta Creek, and Temecula River (San Diego RWQCB 1994). Diamond Valley Lake is an important storage reservoir for the California State Water Project. This reservoir is located in the San Jacinto drainage area and holds 800,000 acre-feet or 260 billion gallons of water.

### **Groundwater Hydrology**

Groundwater is the supply of fresh water found beneath the Earth's surface and is a major source of drinking water in southern California. A groundwater basin is an area underlain by permeable materials capable of storing a substantial amount of water. Groundwater basins are three-dimensional and include both the surface extent and all subsurface fresh water-yielding material.

Most of California's groundwater occurs in material deposited by streams, called alluvium. Alluvium consists of coarse deposits, such as sand and gravel, and finer-grained deposits such as clay and silt. The coarse sand and gravel deposits usually have the best water storage capability and are termed aquifers. The finer-grained clay and silt deposits that have relatively poor water storage capability are called aquitards. California's groundwater basins usually include one or a series of alluvial aquifers with intermingled aquitards.

The largest sources of groundwater for the planning area are the Hemet-San Jacinto Basins, which underlie a majority of the planning area with water-bearing strata. The Hemet-San Jacinto Basins consist of the Hemet South, Hemet North, Canyon, and San Jacinto Upper Pressure subbasins. These basins have a potential capacity of approximately 1.3 million acre-feet; however, only 400,000 acre-feet are estimated to be usable. Groundwater storage in all the Hemet-San Jacinto Basins has been reduced about 14,000 AFY due to overdraft for the period from 1958 to 2001. Current estimates of overdraft are approximately 10,000 AFY. Projections of water supply show the need for an additional 15,000 AFY to accommodate future growth. (Metropolitan Water District of Southern California 2007)

## **WATER QUALITY**

As discussed in the Metropolitan Draft RUWMP, implementing the major components of Metropolitan's planning efforts – groundwater storage, recycled water, and minimized impacts on the Delta – requires meeting specific water quality targets for imported water. Metropolitan has two major sources of water: the Colorado River and the State Water Project (SWP). Groundwater inflows are also received into the SWP through groundwater banking programs in the Central Valley. Each of these sources has specific quality issues (all of which can be overcome through treatment), summarized below. Metropolitan anticipates no significant reductions in water supply availability from these sources due to water quality concerns over the study period.

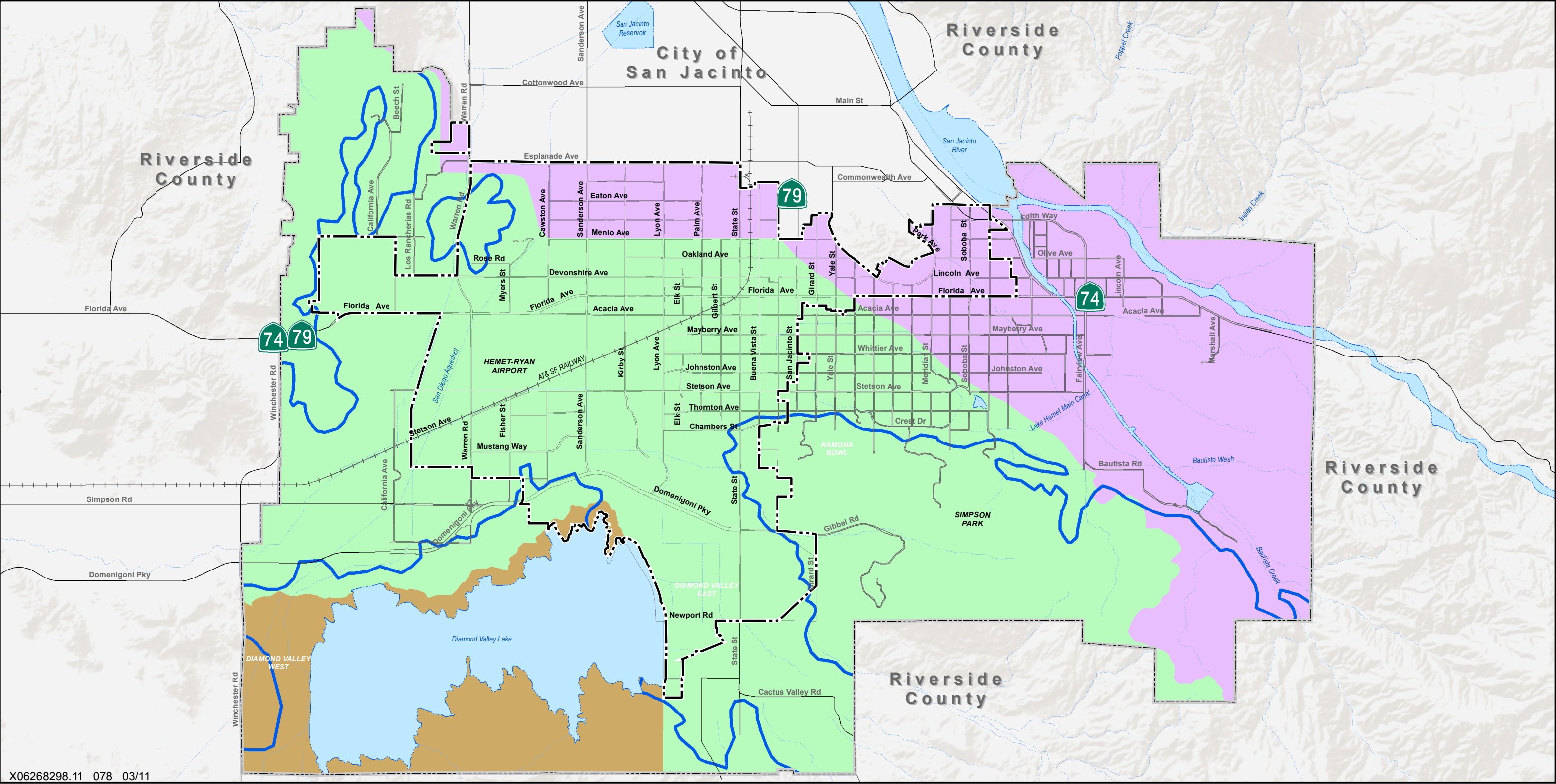
### **Colorado River**

Colorado River supplies have high salinity levels. Metropolitan has also been engaged in efforts to protect its Colorado River supplies from uranium, perchlorate and chromium VI threats. Metropolitan works to protect these supplies from potential nutrient increases from urbanization, as well as investigating the sources and presence of chemicals such as N-nitrosodimethylamine (NDMA) and pharmaceuticals and personal care products (PPCPs). Metropolitan expects its source water protection efforts to be successful, so the only foreseeable water quality constraint to the use of Colorado River water will be the need to blend (mix) it with SWP supplies to meet adopted salinity standards.

### **State Water Project**

The key water quality issues on the SWP are disinfection byproduct precursors, in particular, total organic carbon and bromide. Disinfection byproducts result from total organic carbon and bromide in the source water reacting with disinfectants at the water treatment plant. Although these byproducts may limit Metropolitan's ability to use SWP water in the short term, Metropolitan expects these limitations to be overcome through the addition of ozone disinfection at its treatment plants.

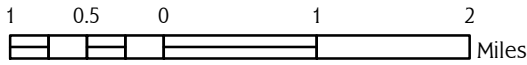
Arsenic is also of concern in some groundwater storage programs. Groundwater inflows into the California Aqueduct are managed to comply with regulations and protect downstream water quality while meeting supply targets. Additionally, nutrient levels are significantly higher in the SWP system than within the Colorado River, leading to the potential for algae growth that can affect water management. Metropolitan is working to protect the quality of SWP water from nutrient increases caused by wastewater treatment plants. Also, as in the Colorado River watershed, Metropolitan is actively studying the occurrence of chemicals like NDMA and PPCPs.



X06268298.11 078 03/11



Sources:  
Census Tiger Line Data 2005  
caSIL 2001  
ESRI 2010



LEGEND

- |                                 |                     |
|---------------------------------|---------------------|
| San Jacinto Groundwater Basin   | Hemet City Boundary |
| Stormwater Drainage Areas       | Planning Area       |
| San Jacinto River Drainage Area | Street              |
| Salt Creek Drainage Area        | Railroad            |
| Santa Margarita Drainage Area   | Creek/Canal         |
|                                 | River/Lake          |

## Local Agency Supplies and Groundwater Storage

As discussed in the Metropolitan Draft RUWMP, new water quality standards for constituents like arsenic and other emerging standards may add costs to groundwater storage, and may affect the availability of local agency groundwater sources. These limitations are not expected to affect the availability of Metropolitan supplies, but they may affect the availability of local agency supplies, which could in turn affect demand on Metropolitan supplies if local agencies abandon supplies in lieu of treatment. Metropolitan has not analyzed the effect that these water quality issues could have on local agency supply availability.

In summary, the major regional concerns identified in the RUWMP include the following:

- ▶ salinity,
- ▶ perchlorate,
- ▶ total organic carbon and bromide (disinfection byproduct precursors),
- ▶ nutrients (related to algal productivity),
- ▶ arsenic,
- ▶ uranium,
- ▶ chromium VI,
- ▶ NDMA, and
- ▶ PPCPs.

## FLOODING

The City of Hemet participates in the NFIP to prepare for and mitigate flood hazards. FIRMs prepared by FEMA show potential flood zones for the 100-year and 500-year floods. Hemet's geographic location within a valley and proximity to several large bodies of water contribute to flood risk. As shown in **Exhibit 4.9-2**, the most substantial flood hazard is present in the southern parts of the planning area.

Large areas covered by floodplains are present north of Domenigoni Parkway and south of Florida Avenue. These flood plains extend west to the Railroad Canyon Reservoir and Canyon Lake. The floodplains affect several major east-west thoroughfares such as Acacia, Mayberry, Whittier, and Stetson Avenues. Additionally, the San Jacinto River and Reservoir contribute to large floodplains in the northern portions of the planning area. Floodplains affect several streets north of Florida Avenue between Cawston Avenue and Yale Street. Most of the flood hazard within the planning area can be attributed to the Hemet Channel, Salt Creek, and San Jacinto Watershed.

The DWR best-available maps for the planning area show the 100-year floodplains, which generally correspond with the FIRMs prepared by FEMA. However, the DWR best-available maps for the planning area do not delineate any 200-year floodplains. While the DWR best available maps show a non-federal levee in Bautista Canyon, no "project levees" are mapped in the planning area (DWR 2011).

Dam failure and inundation could occur when an earthquake, design flaw, or overflow during storms cause a dam to flood. The City lies downstream of several water impoundments. Dam inundation hazards are identified in **Exhibit 4.9-3**. The collapse of the East Dam of Diamond Valley Lake would be the most devastating of the possible dam failures. Maps from the California Office of Emergency Services (OES) indicate the inundation area extends north across Domenigoni Parkway and over most of western Hemet. At Florida Avenue, the flow could cover the area between approximately California Avenue and Lyon Avenue. The inundation could flow out of the City in two directions, north past Tres Cerritos hills into San Jacinto, and southwest into Winchester.

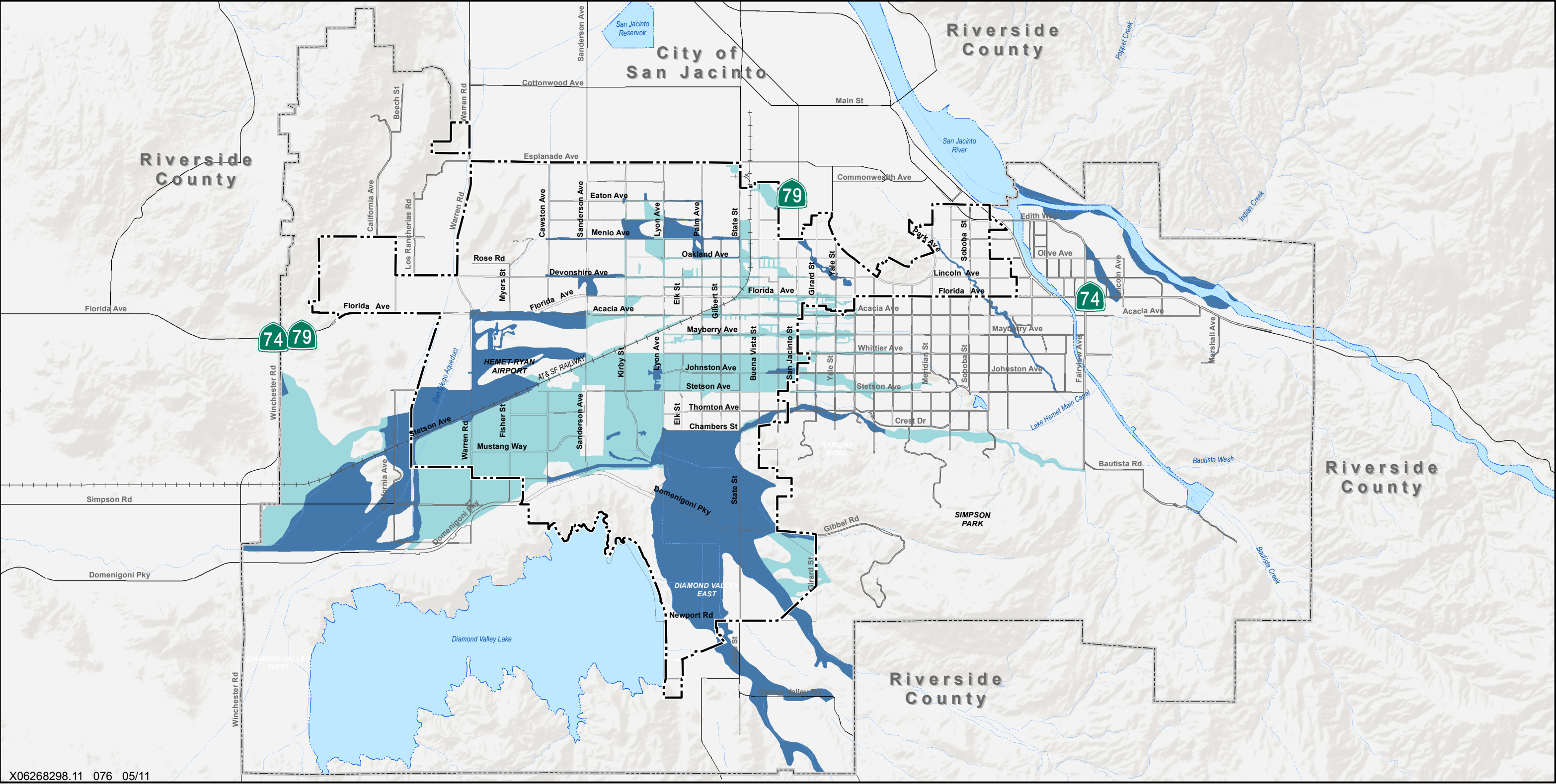
Several other dams pose potential danger to the planning area. The Saddle Dam of Diamond Valley Lake is a smaller dam on the north side of the reservoir, located south of the intersection of California Avenue and Domenigoni Parkway. The inundation zone for this dam covers parts of the southwestern planning area. After spreading around that area, the flow could take water downstream to the west, through Winchester. The

inundation area for the West Dam of Diamond Valley Lake includes only a small portion of the planning area, located within approximately one mile of the intersection of Domenigoni Parkway and Winchester Road. The remainder of the inundation area for the West Dam is located south and west of the planning area. The dam for Diamond Valley Lake's forebay would not inundate any portion of the planning area.

If the dam creating Lake Hemet fails, water would flow downstream along the San Jacinto River as shown on Exhibit 4.9-3. The potential inundation area includes small portions of the eastern and northeastern edges of the planning area, within the banks of the San Jacinto River, where few structures exist or are planned. The inundation area does not extend beyond the banks of the river until it reaches San Jacinto.

If the dam creating Little Lake, located near the intersection of Stetson Avenue and Soboba Street were to fail, water would flow north toward Park Hill as shown in Exhibit 4.9-3. The San Jacinto Reservoir in the City of San Jacinto is no longer being used as a reservoir; rather it is used by the Eastern Municipal Water District as a recharge basin. As such, it keeps only a low level of water and does not maintain an official inundation map.

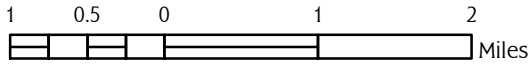
Seismic waves can cause oscillations in enclosed bodies of water called seiche. Portions of the planning area could be subject to seiche hazards from the Diamond Valley Lake and San Jacinto reservoirs.



X06268298.11 076 05/11

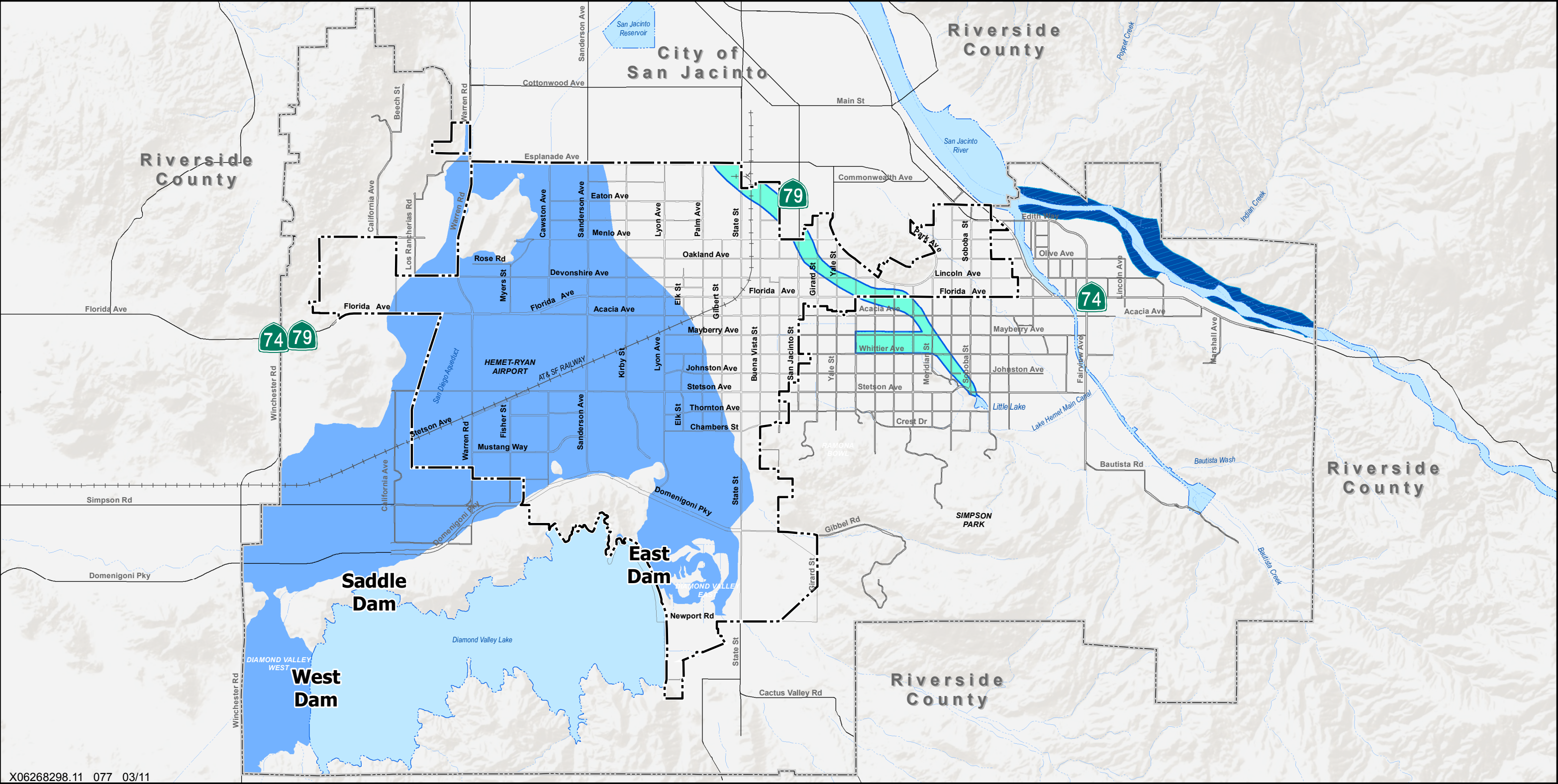


Sources:  
Census Tiger Line Data 2005  
FEMA 2010  
ESRI 2010



LEGEND

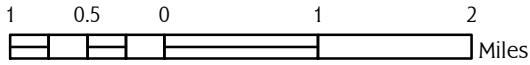
- |                        |                     |
|------------------------|---------------------|
| FEMA DFIRM Flood Zones | Hemet City Boundary |
| 100-year Flood Zone    | Planning Area       |
| 500-year Flood Zone    | Street              |
|                        | Railroad            |
|                        | Creek/Canal         |
|                        | River/Lake          |



X06268298.11 077 03/11



Sources:  
Census Tiger Line Data 2005  
Riverside County TLMA 2005  
ESRI 2010



LEGEND

Dam Inundation Areas

- Diamond Valley Combined
- Lake Hemet
- Little Lake

- Hemet City Boundary
- Planning Area
- Street
- Railroad
- Creek/Canal
- River/Lake

### 4.9.3 IMPACTS AND MITIGATION MEASURES

#### THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines), a drainage, hydrology, or water quality impact is considered significant if implementation of the proposed project would do any of the following:

- ▶ violate any water quality standards or waste discharge requirements ;
- ▶ otherwise substantially degrade water quality through contribution of additional sources of polluted runoff;
- ▶ create or contribute runoff water that would exceed the capacity (peak flow) of existing or planned stormwater drainage systems;
- ▶ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on-site or off-site, or result in increased flooding on- or off-site;
- ▶ substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a substantial lowering of the level of the local groundwater table;
- ▶ place within a flood hazard area structures that would impede or redirect flood flows;
- ▶ expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or inundation by seiche, tsunami, or mudflow.

For purposes of these thresholds, “flood hazard area” means an area that does not meet the minimum level of flood protection required by state or federal law, whichever is more stringent.

The planning area is located inland, and is not subject to tsunami. Therefore this issue is not discussed further in this EIR.

#### ANALYSIS APPROACH

The effects of the Draft General Plan were compared to environmental baseline conditions (i.e., existing conditions) to determine impacts. There is overlap of some Draft General Plan policies and programs as they pertain to water quality and hydrology. Where policies or programs are used for mitigation in more than one impact, their first instance will be described and referred to in subsequent references.

The analysis of impacts is based on the likely consequences of adoption and implementation of the Draft General Plan, including future land uses consistent with the Land Use Diagram, and supporting roadways, infrastructure, and public services; along with implementation of Draft General Plan policies and programs.

For hydrology and water quality impacts, compliance with existing regulations presented in Section 4.9.1, “Regulatory Framework,” and/or implementation of Draft General Plan policies and programs listed below results in a less than significant impact. Policies and programs that reduce hydrology and water quality impacts include:

#### Policies

**CSI-2.6: Common Area Recycled Water** Require the installation of recycled water lines for all appropriate streetscapes and common areas when within one-half mile of either an existing and/or master planned tertiary

water trunk line, as shown on any water district's master plan, as feasible. The facilities shall meet performance standards established by the supplier of reclaimed water to the site.

**CSI-2.7: Ground Water Recharge** Ensure that adequate aquifer water recharge areas are preserved and protected through a comprehensive water management strategy.

**CSI-2.8: Best Management Practice Features/Equipment** Require installation of best management practice features for water for all new development and for applicable rehabilitation.

**CSI-4.2: 100-Year Storm Flows** Provide public storm drainage facilities to adequately accommodate expected 100-year flood flows. Ensure that roadways remain passable for at least one lane in each direction.

**CSI-4.3: Pollutant Discharge** Prevent pollutant discharge into storm drain systems and natural drainages and aquifers by cooperating in regional programs to implement the National Pollutant Discharge Elimination System program and providing education on best management practices for the public.

**CSI-4.4: Groundwater Recharge** Require development projects to minimize stormwater runoff and provide on-site opportunities for groundwater recharge that are integrated into the project design and amenities.

**CSI-4.5: Drainage System Mitigation** In accordance with the City's performance standards for drainage facilities mandated by Measure C, require any significant impacts on local and regional storm drain systems associated with proposed development or redevelopment to be mitigated.

**CSI-4.6: Aesthetic Design** Require use of landscaped swales and detention areas that provide percolation to the greatest extent possible using best management practices in order to promote sensitive and aesthetic design solutions for retaining on-site the incremental increases in runoff from a development site.

**CSI-4.7: Bioswales** Discourage lined channels and encourage "soft bottom" channels that provide slower water runoff, first-flush capabilities, groundwater recharge potential, and streambed vegetation.

**CSI-4.8: Street Storm Drains** Require that the design and upgrade of street storm drains be based on the relative risk to public health and safety, the potential for hindrance of emergency access and egress from excessive flood depth, the threat of contamination of the storm drain system with sewage effluent, in the most environmentally-sensitive manner that is feasible.

**CSI-4.9: Master Flood Control and Drainage Plan.** Provide comprehensive and ongoing updates to the City's master flood control and drainage plan to reflect current land use patterns, best management practices, and environmental constraints.

**PS-2.1: Clear Floodways** Ensure that waterways used for flood control are kept clear of obstructions and are regularly maintained.

**PS-2.2: Flood Area Preservation** Encourage flood control infrastructure that does not reduce the natural character or limit use of the site.

## Programs

- ▶ **CSI-P-1: Groundwater Management Plan.** Adopt the multi-agency Groundwater Management Plan to protect and enhance groundwater resources.
- ▶ **CSI-P-3: Reclaimed Water Facilities.** During project review of discretionary projects, require that provision be made for reclaimed water lines and hardware. For tentative tract maps, this should include reclaimed water

lines connecting and serving the overall project. Require the use of recycled water to irrigate public landscape areas, where available, and to create public water elements or lakes to add community design value.

In coordination with EMWD, implement a “fair share contribution” mechanism for all discretionary projects so that a City-wide reclaimed water network can be achieved in the future, and so that there will be a funding mechanism to incrementally extend reclaimed water trunk lines to serve new projects.

- ▶ **CSI-P-5: Master Flood Control and Drainage Plan.** Update the City’s Master Flood Control and Drainage Plan. As part of this plan, identify storm drains that need to be upgraded and establish a consistent storm drain maintenance schedule.

The plan should incorporate an assessment of drainage facilities, and identify five-year facility needs. The plan should also incorporate features to protect and support vernal pool areas in the west Hemet area. Include a watershed-based stormwater management plan for open drainage ways that will serve multiple purposes including flood protection, water quality, groundwater recharge, habitat hydration, public green spaces and trails, and water basin design amenities

- ▶ **PS-P-7: Dam and Flood Hazard Mitigation.** Identify flood control improvements for existing flood hazards and potential hazards from new development, and establish a schedule and funding sources for improvements.

Obtain the latest dam inundation maps from the Governor’s Office of Emergency Services (OES) and use this information in the preparation and updating of any emergency response plans in the City, including the Fire Department’s Emergency Operation Plan.

- ▶ **PS-P-8: Flood Zone Restrictions.** Incorporate State or federal regulations on construction and uses within flood-prone areas, whichever is more restrictive, into the City’s Municipal Codes.

Ensure that critical public facilities, hospitals and dependent care facilities, and uses involving the use and/or storage of substantial quantities of hazardous materials meet all State and federal regulations regarding floodproofing.

Within the FEMA-delineated floodplains, certificates of occupancy shall not be granted until engineering inspectors have approved all floodproofing mechanisms.

- ▶ **PS-P-9: Adequate Flood Control Facilities.** Require the construction of appropriate flood control facilities for proposed development and redevelopment projects.

As needed, require hydrologic studies to determine required flood/storm control facilities for proposed development and redevelopment projects, and require that recommendations of the studies be incorporated into the design of projects.

- ▶ **PS-P-11: Floodway Modification.** If substantial modification to a floodway is proposed, design it to reduce adverse environmental effects to the maximum extent feasible, considering the following factors:

- stream scour;
- erosion protection and sedimentation;
- wildlife habitat and linkages;
- groundwater recharge capability;
- adjacent property; and

- design (a natural effect, examples could include soft riparian bottoms and gentle bank slopes, wide and shallow floodways, minimization of visible use of concrete, and landscaping with native plants to the maximum extent possible).
- **PS-P-12: Floodway Setbacks.** Based upon site-specific study, all development shall be set back from the floodway boundary a distance adequate to address the following issues:
- public safety;
  - erosion;
  - riparian or wetland buffer;
  - wildlife movement corridor or linkage; and
  - slopes

Consider designating floodway setbacks for greenways, trails, and recreation opportunities on a case-by-case basis

## IMPACT ANALYSIS

**IMPACT 4.9-1** *Degrade Water Quality. Adoption and implementation of the Draft General Plan would result in future land uses that would create additional discharges of pollutants to receiving water bodies from nonpoint sources. Such pollutants would result in adverse changes to the water quality of local water bodies. However, with adoption and implementation of Draft General Plan policies and programs and enforcement of current land use, stormwater, grading, and erosion control regulations, this impact would be less than significant.*

Future land uses consistent with the Draft General Plan, especially on undeveloped land in west Hemet, may increase the amount of impervious surfaces within the planning area. Increased impervious surface coverage could lead to increased volumes of urban runoff. Urban runoff would be conveyed via local drainage facilities to water bodies including the San Jacinto River, Hemet Channel, Lake Hemet Main Canal, Salt Creek Flood Control Canal, Bautista Wash, and the Casa Loma Canal Aqueduct, as shown on Exhibit 4.9-1. Stormwater containing urban pollutants (e.g., sediments, nutrients, microbes, and toxic metals and organics) conveyed to the channels has potential to discharge pollutants to the Santa Ana River Basin and the San Diego Basin.

Current NPDES regulations minimize pollutant volumes in urban runoff by requiring use of clarifiers and filters as part of newly constructed runoff collection facilities. Development projects subject to NPDES thresholds will be required to incorporate SWPPPs (for projects greater than 1 acre) that include BMPs during grading, excavation and stockpiling operations and as part of on-site drainage control. The SWPPP is required under the Santa Ana RWQCB Order 00-65 and the City's MS4 permit (Order R8-2002-0011). Implementation of the 2010 California Building Code (CBC) would also apply BMPs to construction on sites of less than 1 acre. Pursuant to NPDES regulations, the City would require that each project comply with existing Santa Ana and San Diego RWQCB and City stormwater controls, including compliance with NPDES construction and operation measures to prevent erosion, siltation, and transport of urban pollutants.

The City of Hemet is a Co-Permittee in, and is required to comply with, the Riverside County municipal separate storm sewer system (MS4) permit (Waste Discharge Requirements for Riverside County - Order No. 2010-0033, NPDES No. CAS618033) adopted by the Regional Board on January 29, 2010. In conformance with this MS4 permit, and the Water Quality Management Plan (WQMP) it requires, applicable new development and significant re-development projects must consider and implement structural and non-structural Best Management Practices (BMPs) to retain and treat pollutants of concern (in dry-weather runoff and first-flush stormwater runoff) consistent with the MEP standard, and minimize hydrologic conditions of concern (HCOCs), both during and post-construction. Mitigation for identified hydromodification impacts must be considered in the project's CEQA document. Additionally, Draft General Plan Policies CSI-4.3 and CSI-4.8 would require the City to prevent pollutant discharge into drainage systems.

Adherence to and implementation of Draft General Plan policies and programs requires compliance with existing federal, state, and local water quality laws and regulations. Therefore, program-level impacts related to water quality standards would be **less than significant**. No mitigation measures are required.

IMPACT 4.9-2 Stormwater Drainage Systems and Patterns. *Adoption and implementation of the Draft General Plan would increase the amount of impervious surface within the planning area, thereby increasing the total volume and peak discharge rate of stormwater runoff. This could alter local drainage patterns, increasing watershed flow rates above the natural background level (i.e., peak flow rates). Increased peak flow rates may exceed drainage system capacities, exacerbate erosion in overland flow and drainage swales and creeks, and result in downstream sedimentation. Sedimentation, in turn, could increase the rate of deposition in natural receiving waters and reduce conveyance capacities, resulting in an increased risk of flooding. Erosion of upstream areas and related downstream sedimentation typically leads to adverse changes to water quality and hydrology. However, adoption and implementation of Draft General Plan policies and programs and enforcement of current grading, erosion, and flood control regulations would result in a less-than-significant impact.*

No alterations to streams or rivers or other existing drainage in the Santa Ana and San Diego Basins would occur as a result of adoption and implementation of the Draft General Plan. Future land uses consistent with the Draft General Plan could impact the existing drainage system. Increases to impervious surfaces, such as roofs, patios, driveways, and parking areas would lead to increased stormwater flow.

The City would require new development to retain any increase in stormwater runoff on-site. Policies CSI-4.4 and CSI-4.5 would require the retention of stormwater at or near the site of generation for percolation and mitigation of adjacent flooding. Policy CSI-4.5 would require that individual projects mitigate any significant impacts on local and regional storm drain systems. Policy CSI-4.6 would require that on-site retention of stormwater incorporate vegetated or landscaped swales to the extent possible. Policies PS-2.1 and PS-2-2 would require maintenance of waterways used for flood control to keep them free of obstructions, and require that areas subject to erosive flooding be preserved in a natural state. Implementation of these policies would reduce stormwater runoff, erosion, and related downstream sedimentation.

Although the City has a developed storm drainage system, the planning area is too flat to readily design systems that achieve the proper degree of slope or fall. The City would continue to depend on site improvements and construction and operations BMPs that allow more surface water to percolate into the ground on-site, which would alleviate increased runoff associated with new development. Policy CSI-2.7 would require the City to ensure that adequate aquifer recharge areas are preserved and protected, and Program CSI-P-1 would require adoption of a multi-agency Groundwater Management Plan. Policies CSI-4.4 would require projects to minimize stormwater runoff and provide onsite opportunities for groundwater recharge. To alleviate additional impacts to the storm drainage system, Policy CSI-4.2 would require public storm drainage systems to adequately accommodate a 100-year flood flow, and Policy CSI-4.8 would require the design and upgrade of street storm drains to be based on the relative risk to public health and safety, the potential for hindrance of emergency access, and egress from excessive flood depth.

Adherence to and implementation of Draft General Plan policies and programs and compliance with existing federal, state, and local laws and regulations concerning stormwater drainage would result in a **less-than-significant** stormwater drainage impact. No mitigation measures are required.

IMPACT 4.9-3 Groundwater Recharge or Depletion of Groundwater Supplies. *Adoption and implementation of the Draft General Plan would result in additional impervious surfaces and corresponding loss of groundwater recharge areas. Resulting reductions in groundwater recharge in the groundwater basins underlying the planning area could affect groundwater levels and the yield of hydrologically connected wells. However, with implementation of Draft General Plan policies and programs, this impact would be less than significant.*

Amendments to SB 318 (see Section 4.9.1 above) address drought contingency planning, water demand management, reclamation, and groundwater resources. Under the current law, urban water suppliers with more than 3,000 service connections or water use of more than 3,000 acre feet per year (afy) are required to submit an UWMP to DWR every five years to ensure that groundwater is used at a sustainable rate. The Metropolitan 2010 RUWMP is described above and is also discussed in Section 4.14, “Utilities and Energy” as part of the water supply and demand analysis for the Draft General Plan.

Future land uses consistent with the Draft General Plan, especially on undeveloped land in west Hemet, may increase the amount of impervious surfaces. Increased impervious surface coverage could lead to interference with groundwater recharge and depletion of groundwater supplies. Reductions in groundwater recharge in a given area could affect groundwater levels and the yield of hydrologically connected wells. Furthermore, groundwater is a source of drinking water within the planning area, and the Hemet-San Jacinto basins are currently in a state of overdraft, meaning more water is being removed than can be replaced by the natural recharge rate of the basin.

However Draft General Plan policies and programs are designed to protect groundwater resources in the planning area. Policy CSI-2.7 would require the City to ensure that adequate aquifer recharge areas are preserved and protected, and Program CSI-P-1 would require adoption of a multi-agency Groundwater Management Plan. Policy CSI-4.4 would require projects to minimize stormwater runoff and provide onsite opportunities for groundwater recharge. In order to reduce demand for drinking water (and hence reduce demand for groundwater pumping in the plan area), General Plan Policies CSI-2.6 and CSI-2.8 require the use of BMPs to reduce water consumption, and require the installation of reclaimed water lines for all public area landscaping. Program CSI-P.3 would require project review of discretionary projects to include reclaimed water lines connecting and serving the overall project, and implementation of a mechanism for funding of reclaimed water trunk lines.

Adherence to and implementation of Draft General Plan policies and programs and compliance with existing federal, state, and local laws and regulations concerning groundwater recharge and groundwater supplies would result in a **less-than-significant** groundwater recharge impact. No mitigation measures are required.

IMPACT 4.9-4 Flood, Dam Inundation, and Seiche Hazards. *Adoption and implementation of the Draft General Plan could place residential or commercial structures in areas subject to flood hazards, including floodplains, areas subject to dam inundation, and areas potentially affected by seiche, thereby exposing people and structures to hazards. However, implementation of Draft General Plan policies and programs and enforcement of existing flood control regulations would reduce this impact to a less-than-significant level.*

Drainage plans prepared by the RCFCWCD indicate that many parts of planning area have experienced serious flooding. The Little Lake Area Master Drainage Plan recommends improvements to the Meridian Street Channel, affecting an area immediately east of Park Hill, and purchasing flood easements along the Bautista Wash between Stetson Avenue and Berkley Avenue. Based on the Salt Creek Master Drainage Plan, an unlined channel was constructed extending in a westerly direction from the Seven Hills area, connecting to a channel near Olive Avenue and Lindenger Road.

Flood inundation maps prepared by OES indicate that the planning area and much of the surrounding area are within the flood hazard zones for several impoundments, described in the “Regional Hydrology” section above and shown on Exhibit 4.9-3. Based upon these inundation maps, the City has adopted emergency procedures for the evacuation and control of populated areas below the dams in its Emergency Operations Plan and in the

Riverside County LHMP. In addition, some portions of the planning area located near reservoirs and other small water bodies would potentially be subject to seiche.

Mudflows (or debris flows) are rivers of rock, earth, and other debris saturated with water. They develop when water rapidly accumulates in the ground, such as during heavy rainfall or rapid snowmelt, changing the earth into a flowing river of mud. There would be a potential for mudflows and associated erosion adjacent to hillsides on the western edge of the planning area and in the southern portion of the planning area, especially following removal of natural vegetation or creation of steep graded slopes, including following construction activities or after wildfires.

Future land uses consistent with the Draft General Plan would not place housing or other structures in a 100-year flood hazard area, although new housing or structures could be built in areas subject to inundation in the event of dam failure. In addition, Draft General Plan policies and programs would prevent the exposure of people or structures to flood hazards, including dam inundation and seiche hazards. Policies PS-2.1, and PS-2.2 would ensure waterways and channels are clear and preserved in a natural state. Program CSI-P.5 would require the City to update the Master Flood Control and Drainage Plan, identifying upgrade and maintenance needs. Implementation of Programs PS-P-7, PS-P-8, PS-P-9, PS-P-11, and PS-P-12 would ensure potential flood hazards are mitigated, require identification of funding sources, require incorporation of state and federal flood zone regulations into the City's Municipal Code, require appropriate flood control facilities for all development, and require site-specific studies to identify setbacks from a floodway.

Adherence to and implementation of Draft General Plan policies and programs and compliance with existing federal, state, and local flood hazard laws and regulations would result in a **less-than-significant** flood hazard impact. Standard erosion-prevention practices during grading and avoidance of over-steepened slopes near existing development would result in a **less-than-significant** impact related to mudflow hazards. No mitigation measures are required.