

CHAPTER 3 BENEFICIAL USES

INTRODUCTION

Basically, a beneficial use is one of the various ways that water can be used for the benefit of people and/or wildlife. Examples include drinking, swimming, industrial and agricultural water supply, and the support of fresh and saline aquatic habitats.

Section 303(d) of the federal Clean Water Act (33 U.S.C. § 1313) defines water quality standards as consisting of the uses of the surface (navigable) waters involved, the water quality criteria which are applied to protect those uses and an antidegradation policy. Under the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Chapter 2 § 13050) the uses of waters and water quality criteria are separately considered as beneficial uses and water quality objectives. Beneficial uses and water quality objectives are to be established for all waters of the state, both surface and subsurface (groundwater).

BENEFICIAL USES

Beneficial uses were tabulated and discussed in Chapters 1 and 2 of the 1975 Basin Plan and in Chapter 2 of the 1983 Basin Plan. In 1983, twenty-one beneficial uses were defined statewide. Of those, eighteen were identified and recognized in the 1983 Plan: **MUN, AGR, IND, PROC, GWR, NAV, POW, REC1, REC 2, COMM, WARM, COLD, BIOL, WILD, RARE, SPWN, MAR, and SHEL.**

In 1988, the State Board adopted the Sources of Drinking Water Policy (SWRCB Resolution No. 88-63) which directed the Regional Boards to add the Municipal and Domestic Supply (**MUN**) Beneficial Use for all waterbodies not already so designated, unless they met certain exception criteria. To implement this Policy, the Regional Board revised the table of Beneficial Uses in the 1983 Basin Plan, adding the **MUN** designation for certain waterbodies and specifically excepting others (RWQCB Resolution No. 89-42). Shortly thereafter, this revised Beneficial Use table was reviewed again and changes were made, including the addition of the Water Contact Recreation (REC1) use for some waterbodies, the revision of some Beneficial Use designations from intermittent (I) to existing or potential (X), and the addition of more waterbodies (RWQCB Resolution No. 89-99).

In the update to the Basin Plan approved by the Regional Board in 1994 (RWQCB Resolution No. 94-1), further changes to the Beneficial Use table were made. Significant waterbodies not previously identified were included and their beneficial uses were designated. Certain of these waters were excepted from the **MUN** designation. The designation **RARE** was added where substantial evidence indicated that the waterbody supports rare, threatened or endangered species (Appendix II). Certain known wetlands in the Region were listed in a new waterbody category (see wetlands discussion below). A revised list of Beneficial Uses was developed as part of a comprehensive statewide

Industrial Service Supply (**IND**) waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well repressurization.

Industrial Process Supply (**PROC**) waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to product manufacture or food preparation.

Groundwater Recharge (**GWR**) waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality or halting saltwater intrusion into freshwater aquifers.

Navigation (**NAV**) waters are used for shipping, travel or other transportation by private, commercial or military vessels.

Hydropower Generation (**POW**) waters are used for hydroelectric power generation.

Water Contact Recreation (**REC1: Primary Contact Recreation***) waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.

Non-contact Water Recreation (**REC2: Secondary Contact Recreation***) waters are used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing and aesthetic enjoyment in conjunction with the above activities.

Commercial and Sportfishing (**COMM**) waters are used for commercial or recreational collection of fish or other organisms, including those collected for bait. These uses may include, but are not limited to, uses involving organisms intended for human consumption.

* The **REC 1** and **REC 2** beneficial use designations assigned to surface waterbodies in this Region should not be construed as encouraging or authorizing recreational activities. In some cases, such as Lake Matthews and certain reaches of the Santa Ana River and its tributaries, access to the waterbodies is prohibited by other agencies because of potentially hazardous conditions and/or because of the need to protect other uses, such as municipal supply or sensitive wildlife habitat. Where **REC 1** or **REC 2** is indicated as a beneficial use in Table 3-1, the designations are only intended to indicate that such uses may occur or that the water quality of the waterbody may be capable of supporting recreational uses unless a Use Attainability Analysis demonstrates otherwise and the Regional Board amends the Basin Plan accordingly.

More than one beneficial use may be identified for a given waterbody. The most sensitive use must be protected. The Regional Board reserves the right to resolve any conflicts among beneficial uses based on the facts in a given case.

RECREATION BENEFICIAL USES

As part of the work that led to the adoption of recreation standards amendments in 2012, the Stormwater Quality Standards Task Force considered the merits of and various alternatives for modifying the REC1 definition to improve clarity and precision. This was based on careful consideration of the scientific basis of the 1986 USEPA bacteria criteria for REC1 waters and earlier criteria guidance. Specifically, as discussed in the 1986 criteria document and other USEPA guidance and regulation (see, for example, USEPA 2004), USEPA's recommended bacteria quality criteria were intended to reduce the risk of waterborne illness to acceptable levels for those engaged in swimming or similar recreational activities where immersion and ingestion of water are likely. The Stormwater Quality Standards Task Force documentation, which essentially comprised the administrative record for the 2012 recreation standards amendments, includes a memorandum to the Task Force that was prepared by Camp Dresser and McKee, Inc. (CDM), one of the Task Force consultants ("Scientific Basis for EPA Recommended Water Quality Objectives for Bacteria", CDM, April 10, 2006). This memorandum discusses the scientific basis of the criteria, as well as that of the Basin Plan water quality objectives for fecal coliform in freshwaters that were replaced by the *E. coli* objective in the 2012 Basin Plan amendments. The administrative record also documents the extensive consideration of alternatives appropriate to clarify the REC1 definition to reflect the underlying scientific assumptions of the USEPA criteria, and expectations regarding the likelihood of immersion and ingestion.

In response to State Board staff comments that a consistent statewide definition for REC1 should be maintained absent statewide consideration of revisions to the definition, the specific recommendations developed by the Task Force for refining the definition of that use were not included in the recreation standards amendments adopted by the Regional Board in 2012. These Task Force recommendations should be considered on a statewide basis. Until such time as such statewide consideration occurs, it was thought sufficient for the purposes of the 2012 amendments to add reference to "primary contact recreation" in the name of the REC1 use (see BENEFICIAL USE DEFINITIONS) and to incorporate the following clarifying discussion.

USEPA has provided explicit direction regarding the types of recreational activities to which the USEPA bacteria guidance should be applied. Specifically, USEPA's 1986 criteria (and prior bacteria criteria guidance) are intended for "Bathing (Full Body Contact) Recreational Waters". The 1986 criteria document states:

"In 1986, EPA published Ambient Water Quality Criteria for Bacteria-1986. This document contains EPA's current recommended water quality criteria for bacteria to protect people from gastrointestinal illness in recreational waters, i.e. waters designated for primary contact recreation or similar full body contact uses. States and Territories

typically define primary contact recreation to encompass recreational activities that could be expected to result in the ingestion of, or immersion in, water, such as swimming, water skiing, surfing, kayaking or any other recreational activity where ingestion of, or immersion in, the water is likely."

As defined statewide, the REC1 use includes recreational activities involving body contact with water where ingestion of water is reasonably possible including, but not limited to: swimming, wading, water-skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.

The Regional Board has always considered the REC1 designation as functionally equivalent to USEPA's description of primary contact recreation. In practice, the phrase "reasonably possible" is synonymous with the term "likely" when evaluating the probability of ingestion when persons swim or engage in similar body contact recreation. To reflect this, reference to "primary contact recreation" in the REC1 nomenclature was incorporated as part of the 2012 recreation standards amendments, as noted above.

USEPA's rule promulgating *E. coli* objectives for recreational freshwaters in certain Great Lakes states (USEPA 2004, p. 67222) provides that the pathogen indicator objectives apply "only to those waters designated by a State or Territory for swimming, bathing, surfing or similar water contact recreation activities, not to waters designated for uses that only involve incidental contact." USEPA defines this "secondary contact" recreation as "those activities where most participants would have very little direct contact with the water and where ingestion of water is unlikely. Secondary contact activities may include wading, canoeing, motor boating, fishing, etc." (USEPA 2002, p. 39).

The Basin Plan definition of the REC 2 beneficial use is functionally-equivalent to that described by USEPA as "Secondary Contact Recreation." Therefore, the 2012 recreation standards amendments added "Secondary Contact Recreation" to the REC2 nomenclature (see BENEFICIAL USE DEFINITIONS). The Regional Board will rely on federal regulation and guidance to determine which waterbodies should be designated REC 2. Relatively brief incidental or accidental water contact that is limited primarily to the body extremities (e.g., hands or feet) is generally deemed REC 2 because ingestion is not considered reasonably possible.

Some confusion may arise as to whether wading and fishing should be considered primary contact recreation (REC1) activities or secondary contact recreation (REC2) activities. Wading and fishing cover a multitude of activities involving a wide range of potential water contact. To avoid misapplication of the *E. coli* objectives, it is important to apply USEPA's recommended criteria for primary contact recreation only where ingestion of water is reasonably possible. For example, fly-fishing in the middle of a stream or fishing from a float tube would be considered REC-1 activities as it is likely that the person fishing may ingest water. On the other hand, fishing from a riverbank or lake dock is more appropriately deemed REC-2 activity because ingestion, while conceivable, is not considered reasonably possible. Similarly, walking beside or

crossing through a shallow creek and getting ones feet wet is also not considered water contact recreation (REC-1.) This activity is more akin to beachcombing, a recognized "non-contact recreation" (or REC-2) activity. It is not reasonably possible to ingest appreciable quantities of water by merely touching or being splashed by the water. The *E. coli* objectives established in this Basin Plan are not intended or needed to protect this and similar incidental contact. However, a child sitting in the middle of a low flow creek playing in the water represents the sort of activity that is encompassed by the REC-1 use designation. The Basin Plan *E. coli* objectives properly apply to this type of activity. (State Board staff spoke to and confirmed these views in a message to Regional Board staff on April 12, 2012. This message is part of the administrative record for the recreation standards amendments approved in 2012.)

The Regional Board's longstanding approach to determining appropriate recreational use classifications is entirely consistent with federal guidance. A review of historical records indicates that USEPA relied heavily on pre-existing definitions to describe primary and secondary contact recreation:

"The Subcommittee defines primary contact recreation as activities in which there is prolonged and intimate contact with the water involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard. Examples include wading and dabbling by children, swimming, diving, water skiing, and surfing. Secondary contact sports include those in which contact with the water is either incidental or accidental and the probability of ingesting appreciable quantities of water is minimal." ("Report of the Committee on Water Quality Criteria" (aka "Green Book"), US Department of Interior, Federal Water Pollution Control Administration, 1968, p. 11)

In summary, some forms of wading and fishing are considered REC-1 because immersion is likely and ingestion is reasonably possible. Other forms of wading and fishing, involving only limited incidental or accidental water contact (primarily to hands and feet) are considered REC-2 because immersion is unlikely and ingestion is not reasonably possible.

Acknowledging that California's REC1 definition has always been considered synonymous with the federal definition of Primary Contact Recreation ensures that the *E. coli* objective, adopted as part of the 2012 recreation standards amendments, is applied in a manner that is neither more nor less stringent than the federal Clean Water Act requires.

Pursuant to the federal Clean Water Act and implementing regulation, all defined waters of the United States are presumed to be capable of supporting Primary Contact Recreation and shall be designated REC 1 unless a Use Attainability Analysis (UAA) demonstrates that this use is not an existing use and is not attainable and the Basin Plan is revised accordingly. A suite of factors must be considered when UAAs are conducted to determine whether to downgrade or delete the REC 1 use from any waterbody. The relevant factors are identified in federal and state regulations.

Where the Regional Board determines, through a UAA and requisite public hearing(s), that a waterbody or portion of a waterbody has not supported and cannot support REC 1 or REC1 and REC 2 uses, that waterbody or portion of a waterbody will be identified with table note “u” in Table 3-1, below, and, for clarity, also listed in Table 3-2. Waters designated REC 2 but not REC 1, and waters not designated either REC1 or REC2, will be reassessed as part of the Basin Plan triennial review process to determine whether conditions have changed sufficiently to warrant one or both of these recreation use designations. This reassessment does not necessitate a new UAA; it is sufficient to determine whether there has been a significant change in the factor or factors on which the Regional Board originally relied to justify reclassifying each waterbody as something other than REC-1. Where such a change has occurred, revision of the recreational use designations will be considered through the Basin Planning process.

Use Attainability Analyses were conducted for several stream segments as part of the work of the Stormwater Quality Standards Task Force. Technical reports to support these UAAs were prepared by CDM and are a part of the administrative record of the 2012 recreation standards amendments. These UAA reports were intended not only to provide the technical and factual data necessary to consider recreation standards changes for the waters evaluated, but also to serve as informal “templates” to guide similar stream assessment studies in the future. In particular, the UAA reports illustrate the type of scientific and technical documentation needed to meet federal and state requirements for subcategorizing or reclassifying a recreational use. Regional Board staff relied heavily on the data and analyses provided in the CDM technical UAA reports in formulating specific recommendations for recreation beneficial use changes for these waters (CRWQCB – Santa Ana Region, “Staff Report, Basin Plan Amendments, Revisions to Recreational Standards for Inland Fresh Waters in the Santa Ana Region”, January 12, 2012). The approved changes are summarized in Table 3-2 and reflected in Table 3-1.

Recreational use of certain inland surface waters is precluded under certain flow conditions that make recreational activities unsafe. Recreation use designations (and the applicable pathogen and pathogen indicator objectives) are temporarily suspended when such conditions exist. The criteria for suspension of recreation uses (and objectives), and for termination of the suspension, are described in detail in Chapter 5, Implementation, Recreation Water Quality Standards, *High flow suspension of recreation standards*). Temporary suspensions of recreation standards do not apply to waters other than the inland surface streams identified in Appendix VIII and Appendix IX.

WETLANDS

The Clean Water Act was enacted by Congress to restore and maintain the chemical, physical and biological integrity of the nation’s waters. The nation’s waters include *wetlands*, as well as rivers, streams, lakes, estuaries and the territorial seas. Generally, wetlands include swamps, marshes, bogs, sloughs, mangroves, wet meadows, savannas, wet tundra, playa lakes and vernal pools. Wetlands serve a number of

important functions, including absorption of floodwaters, shoreline erosion control and water quality improvement by the removal of pollutants. They also provide habitat for wetland species, and have important aesthetic, recreational, scientific and educational values. More than half of the wetlands in the United States have been destroyed. Due to this high loss, a goal of “no net loss” of wetlands has been established at both the federal and state level.

The definition of wetlands varies widely among the federal agencies, however both the United States Army Corps of Engineers and United States Environmental Protection Agency (US EPA) agree on the definition in Section 404 of the Clean Water Act, which specifies that wetlands are “those areas that are inundated or saturated with surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Wetlands are generally agreed to have three characteristics: hydrophytic vegetation; hydric soils; and wetland hydrology. Hydrophytic vegetation describes those plants adapted for growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. Hydric soils are those soils that are oxygen-depleted due to saturation for long periods during the growing season. Wetland hydrology can be described as the presence of water at or above the soil surface for a sufficient period of the year to significantly influence the plant types and soil that occur in the area. Strict definitions of these characteristics have not been formally adopted. The Regional Board includes these characteristics and criteria as general reference and not as guidance.

As part of an overall effort to protect the Nation’s wetland resources, US EPA has called for states to adopt water quality standards (beneficial uses and water quality objectives) for wetlands. Applying water quality standards to wetlands provides a regulatory basis for a variety of wetlands management programs. For example, these standards will play an important role in the State and Regional Boards’ water quality certification process by providing the basis for approving, conditioning or denying federal permits and licenses as appropriate. (This certification process, conducted in accordance with Section 401 of the CWA is described in more detail in Chapter 5.)

The 1975 and 1983 Basin Plans listed a number of waterbodies which are known to be or to include wetlands (*e.g.*, San Joaquin Freshwater Marsh, Upper Newport Bay, Anaheim Bay-National Wildlife Refuge). These Plans specified both beneficial uses and water quality objectives for these waterbodies. In the earlier Plans, these waters were not specifically identified as wetlands. In this plan, a “Wetlands” waterbody category has been added to the Table of Beneficial Uses. Certain waters known to be wetlands are listed under this category and their beneficial uses are designated. (Note: estuarine wetlands continue to be shown in the “Bays, Estuaries and Tidal Prisms” category). The numeric objectives specified for these wetlands in the earlier Basin Plans are included in this Plan (Chapter 4). Additional numeric objectives will be developed and implemented as part of the ongoing Basin Planning process. Further detailed review of the water resources within the Region is also expected to result in the listing of additional wetlands.

The intent of including the wetlands category is to provide a more accurate description of the Region's waters. The listing of specific wetlands does not trigger any new or different regulatory actions by the Regional Board. Standards applied to permitting, 401 certification, and/or enforcement actions will not be affected by this listing. Again, the listing of wetlands in this Plan is a partial one only and should not be construed as placing any limitations on the exercise of the Regional Board's responsibilities or authorities with respect to the protection of wetlands in the region. Nor is the present listing intended to define wetlands which are subject to the United States Army of Corps of Engineers jurisdiction.

Figure 3-1 shows the general locations of the wetlands listed in this Plan. The specific boundaries of each of these wetland areas will be determined on an as-needed basis (for 401 certifications and the like), using the methods described in the 1987 Corps of Engineers Wetland Delineation Manual or other accepted techniques.

A brief description of each of the wetlands listed in this Plan is provided in Appendix III. Some of these wetlands occur naturally. Others were created, either incidentally, as the result of the construction of dams or levees, or purposefully, as mitigation for development projects elsewhere. Examples of created wetlands include those in the Prado Basin, which resulted from the construction of Prado Dam, and the San Joaquin Freshwater Marsh, created for development mitigation purposes.

A third type of wetlands, constructed wetlands, is proposed for the Santa Ana Region. Constructed wetlands would be designed, built and managed to provide wastewater treatment to meet specific waste discharge requirements. Constructed wetlands do not include percolation ponds, equalization basins or other conventional treatment works. At this time, the proposed use of constructed wetlands in the region would be principally for nitrogen removal. The use of constructed wetlands for management of stormwater flows may also be proposed. Currently, the Orange County Water District is using approximately 600 acres of ponds in the Prado area to investigate the use of constructed wetlands for nitrogen removal. The City of Riverside proposes to construct and operate wetlands treatment ponds in the Hidden Valley area. Constructed wetlands are also being contemplated by Eastern Municipal Water District and Elsinore Valley Municipal Water District.

While the purpose of these constructed wetlands would be to provide wastewater treatment, they will inevitably have other uses and benefits, including the support of waterfowl and other wildlife and opportunities for education and recreation. The Regional Board's approach toward regulation of the use of these constructed wetlands will be to ensure that these affiliated uses are reasonably protected, while appropriate wastewater treatment uses are supported. As an example, the Board could allow the use of constructed wetlands for the treatment of various parameters such as nitrogen and phosphorus. However, the Board may disallow the use of wetlands for treatment of certain parameter such as toxics if there is evidence that these parameters would adversely and unreasonably affect the affiliated uses of the constructed wetlands. In this

case, the Board would require compliance with toxics limits prior to discharge to the constructed wetlands.

In August 1993, the “California Wetlands Conservation Policy” was announced by the Governor. The Policy, included in the Appendix III, has three principal objectives:

- to ensure no overall net loss of wetlands and achieve a long-term gain in the quantity, quality and permanence of wetlands acreage and values;
- to reduce procedural complexity and confusion in the administration of wetlands conservation programs; and
- to make cooperative planning efforts and landowner incentive programs the primary focus of wetland conservation and restoration.

The methods identified to achieve these objectives are numerous and include:

- a statewide wetlands inventory and identification of conservation, restoration and enhancement goals;
- development of a consistent wetlands definition, standards, and guidelines for regulatory purposes; and
- integration of wetlands policy and planning with other environmental and land use processes.

An interagency task force on wetlands is to be created to direct and coordinate administration and implementation of this policy.

This space has been intentionally left blank

GROUNDWATER (The following was added under Resolution No. R8-2004-0001 and No. R8-2012-0002)

Groundwater subbasin boundaries included in the 1975 and 1984 Basin Plans, and initially in this 1995 Basin Plan, were, for the most part, based on data and information collected in the 1950's and 1960's. Since these boundaries were first established in the 1975 Basin Plan, a considerable amount of new water level, water quality and geologic data has become available. As part of the 2004 update of the TDS/Nitrogen management plan in the Basin Plan (see further discussion of this work in Chapter 5 – Salt Management Plan), these new data were used to review and revise the sub-basin boundaries.

To accomplish this task, all available geologic studies of the Santa Ana Region, through 1995, were gathered and re-analyzed. A comprehensive database of water level and water quality data and well drilling logs was created and utilized to delineate revised groundwater subbasin boundaries, now designated as groundwater “Management Zones”. The groundwater Management Zones are shown in Figures 3-3 through 3-7.

The specific technical basis for distinguishing each groundwater Management Zone is provided in the report entitled “TIN/TDS Study – Phase 2A Final Technical Memorandum,” Wildermuth Environmental, Inc., July 2000. In general, the new groundwater Management Zone boundaries were defined on the basis of (1) separation by impervious rock formations or other groundwater barriers, such as geologic faults; (2) distinct flow systems defined by consistent hydraulic gradients that prevent widespread intermixing, even without a physical barrier; and (3) distinct differences in water quality. Groundwater flow, whether or not determined by a physical barrier, was the principal characteristic used to define the Management Zones. Water quality data were used to support understanding of the flow regime and to assure that unusually high or poor quality waters were distinguished for regulatory purposes.

In addition to these technical considerations, water and wastewater management practices and goals for the Chino Basin were considered and used to define an alternative set of Management Zone boundaries for that area. These so-called “maximum benefit” Management Zone delineations, shown in Figure 3-5a, were developed as part of recommendations by the Chino Basin Watermaster and the Inland Empire Utilities Agency (IEUA) to implement a “maximum benefit” proposal, including an Optimum Basin Management Plan (OBMP), for the area.¹ These agencies have committed to the implementation of a specific set of projects and requirements in order to demonstrate that the “maximum benefit” Management Zone boundaries, and particularly the “maximum benefit” nitrate-nitrogen and TDS objectives for these Zones

¹ The term “maximum benefit” is drawn from the state’s antidegradation policy (SWCRB Resolution No. 68-16; see Chapter 2)), which provides that high quality water can be lowered only if beneficial uses are fully protected and water quality consistent with *maximum benefit* to the people of the state is maintained.

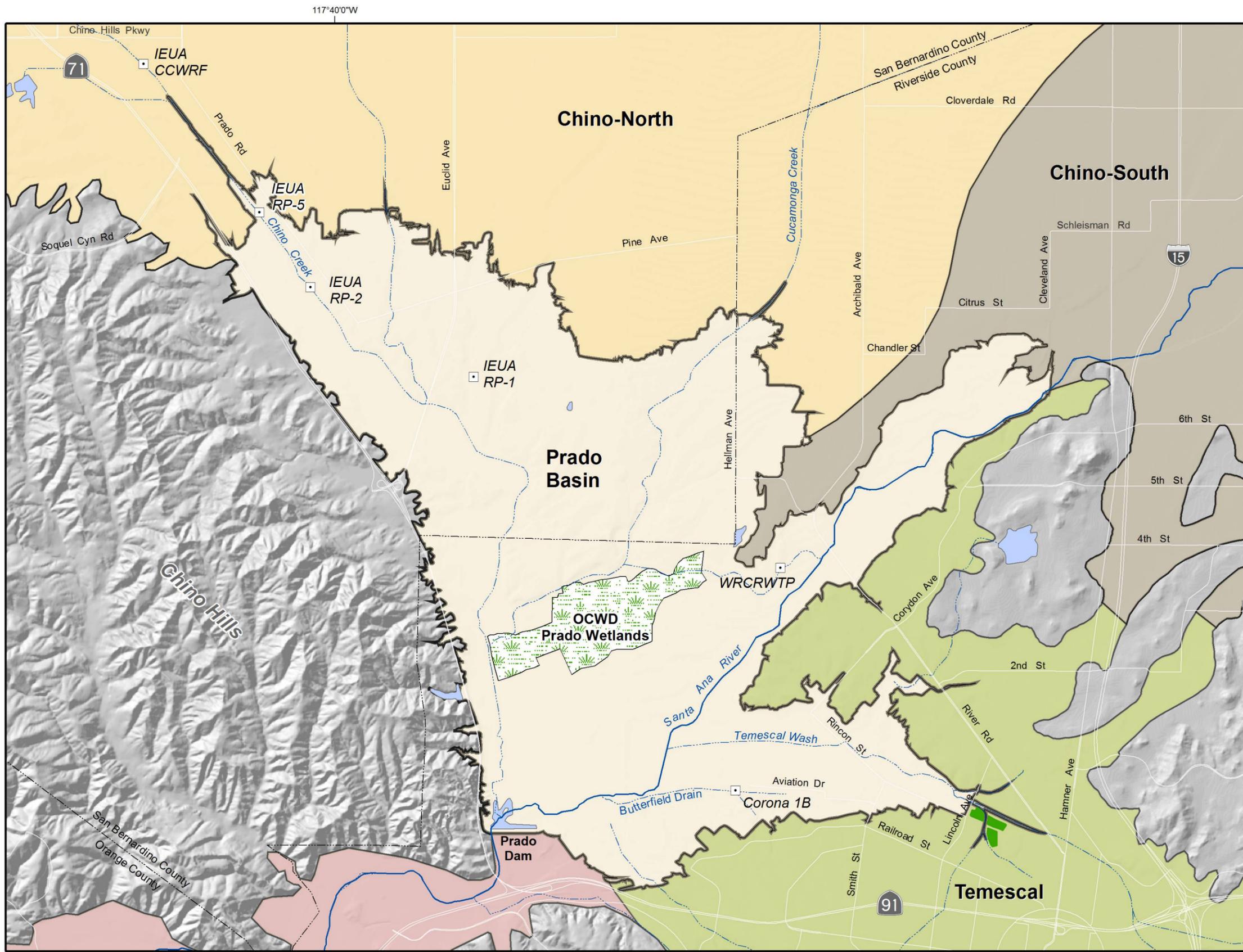
(see Chapter 4), assure protection of beneficial uses and are of maximum benefit to the people of the state (see Chapter 5, VII. Maximum Benefit Implementation Plans for Salt Management, A. Salt Management – Chino Basin and Cucamonga Basin). These “maximum benefit” Management Zone boundaries apply for regulatory purposes provided that the Regional Board continues to find that the Watermaster and IEUA are demonstrating “maximum benefit” by timely and appropriate implementation of these agencies’ commitments. If, after consideration at a duly noticed Public Hearing, the Regional Board finds that these commitments are not being met and that “maximum benefit” is not being demonstrated, then the Management Zone boundaries for the Chino Basin shown in Figure 3-5b apply for regulatory purposes.

PRADO BASIN SURFACE WATER MANAGEMENT ZONE (PBMZ)

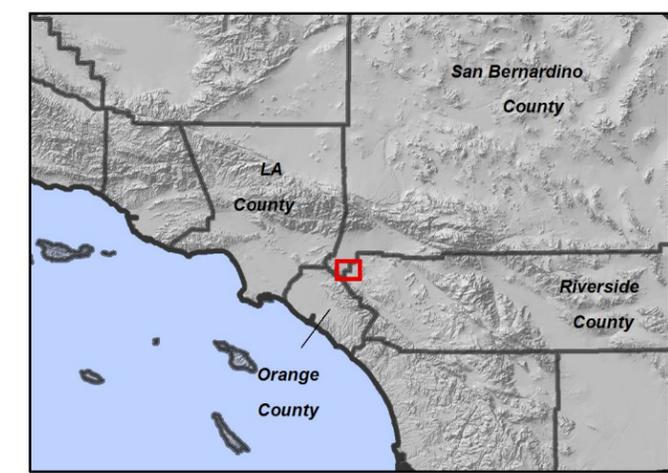
The flood plain behind Prado Dam has unique hydraulic characteristics. Chino Creek, Cucamonga Creek (which flows into Mill Creek) and Temescal Creek join the Santa Ana River behind the dam. Flood control operations at the dam, coupled with an extremely shallow groundwater table and an unusually thin aquifer, significantly affect these surface flows, as well as subsurface flows in the area. Depending on how the dam is operated, surface waters may or may not percolate behind the dam. There is little or no groundwater storage in the flood plain behind the dam. Any groundwater in storage is forced to the surface because the foot of Prado Dam extends to bedrock and subsurface flows cannot pass through the barrier created by the dam and the surrounding hills. Given these characteristics, this area is designated as a surface water management zone, rather than a groundwater management zone. The Prado Basin Management Zone is generally defined by the 566-foot elevation above mean sea level. It extends from Prado Dam up Chino Creek, Reach 1A and 1B to the concrete-lined portion near the road crossing at Old Central Avenue, up the channel of Mill Creek (Prado Area) to where Mill Creek becomes named as Cucamonga Creek and the concrete-lined portion near the crossing at Hellman Road, up what was formerly identified as Temescal Creek, Reach 1A (from the confluence with the Santa Ana River upstream of Lincoln Avenue) (this area is indistinguishable because of shifting topography and is now considered a part of the Prado Basin Management Zone), and up the Santa Ana River, Reach 3 to the 566-foot elevation (just west of Hamner Avenue). The Prado Basin Management Zone encompasses the Prado Flood Control Basin, which is a created wetlands as defined in this Plan (see the discussion of wetlands elsewhere in this Chapter). Orange County Water District’s wetlands ponds are also located within the Prado Basin Management Zone.

The beneficial uses of the proposed PBMZ include all of the beneficial uses currently designated for the surface waters identified above. The PBMZ also incorporates the Prado Flood Control Basin. The beneficial uses previously identified for this Basin are designated also for the Zone (See Table 3-1, Beneficial Uses, page 3-21).

The Prado Basin Management Zone is shown in Figure 3-2.



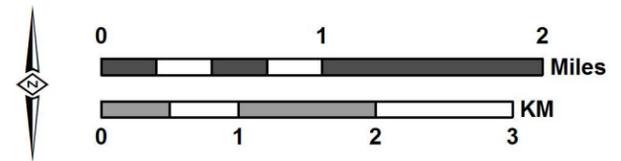
-  Prado Basin Management Zone
-  Recycled Water Discharge Locations
-  Lincoln/Cota Ponds



Produced by:

 23692 Bircher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wildermuthenvironmental.com

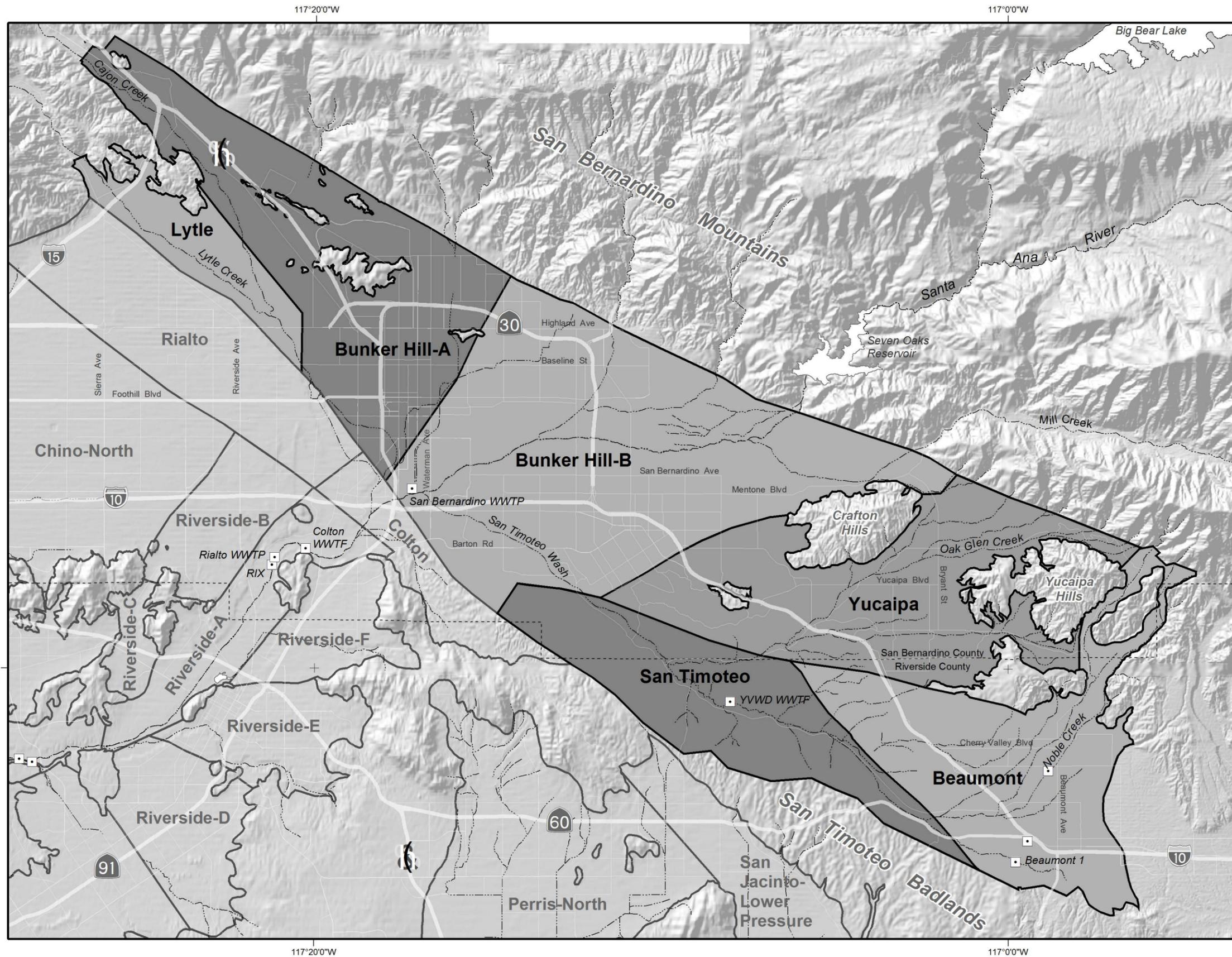
Author: AEM
 Date: 20110927
 File: BPA_PBMZ_Map.mxd



California Regional
 Water Quality Control Board
 Santa Ana Region (8) 

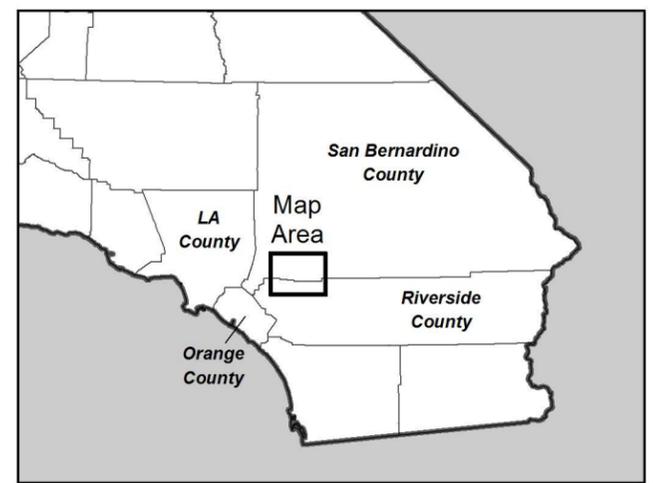
Prado Basin Management Zone

Figure 3-2



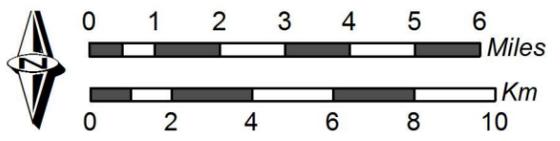
Map Explanation

-  Management Zone Boundary
-  Rivers & Streams
-  Recycled Water Discharge Location



Produced by:
WE WILDERMUTH ENVIRONMENTAL, INC.
 23692 Bircher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wild-environment.com

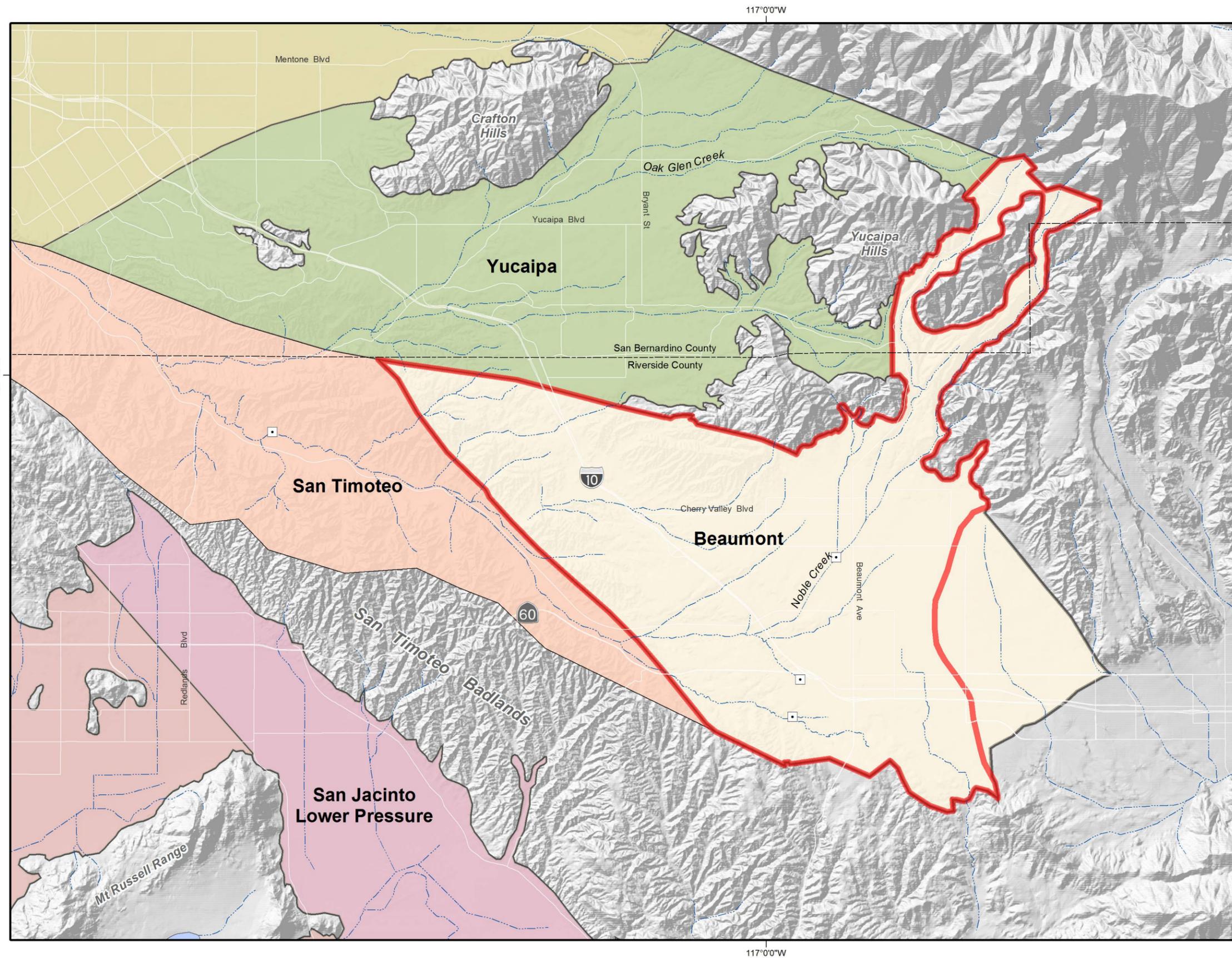
Author: AEM
 Date: 20160216
 File: Figure_3-3a.mxd



Produced for:
TIN/TDS Task Force
TIN/TDS Study Phase 2A -- Task 3
Develop Updated Boundary Maps for Management Zones (as Ammended and Revised)

Management Zone Boundaries
San Bernardino Valley & Yucaipa/Beaumont Plains

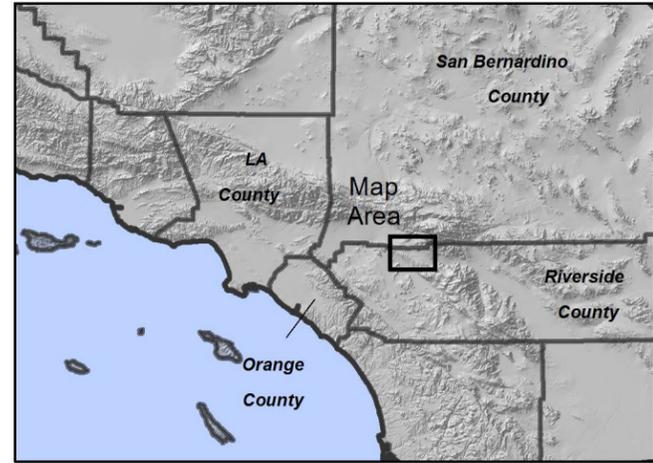
Figure 3-3a -- Legal Boundary



Map Explanation

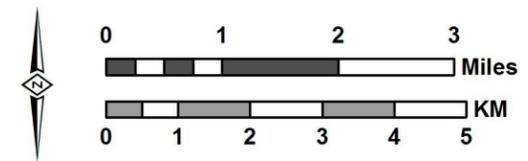
- Existing MZ Boundary
- Proposed MZ Boundary
- Rivers & Streams
- WWTP Discharge Locations

** The eastern-most boundary of the Beaumont groundwater management zone is defined by the jurisdictional boundary, established in the California Water Code, between the Santa Ana Regional Water Board (Santa Ana Water Board) and the Colorado River Regional Water Board (Colorado Water Board). This legal boundary separates the two regions based on topography and surface water drainage. However, with respect to groundwater flow and quality, hydrogeological and water quality data indicate that the Beaumont groundwater management zone actually extends to the east of the current legal boundary, into the jurisdictional domain of the Colorado Water Board. The Santa Ana and Colorado Water Boards will work together to coordinate regulatory actions for discharges that occur in this area of the management zone.



Produced by:
WILDERMUTH
 ENVIRONMENTAL INC.
 23692 Birtcher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wildermuthenvironmental.com

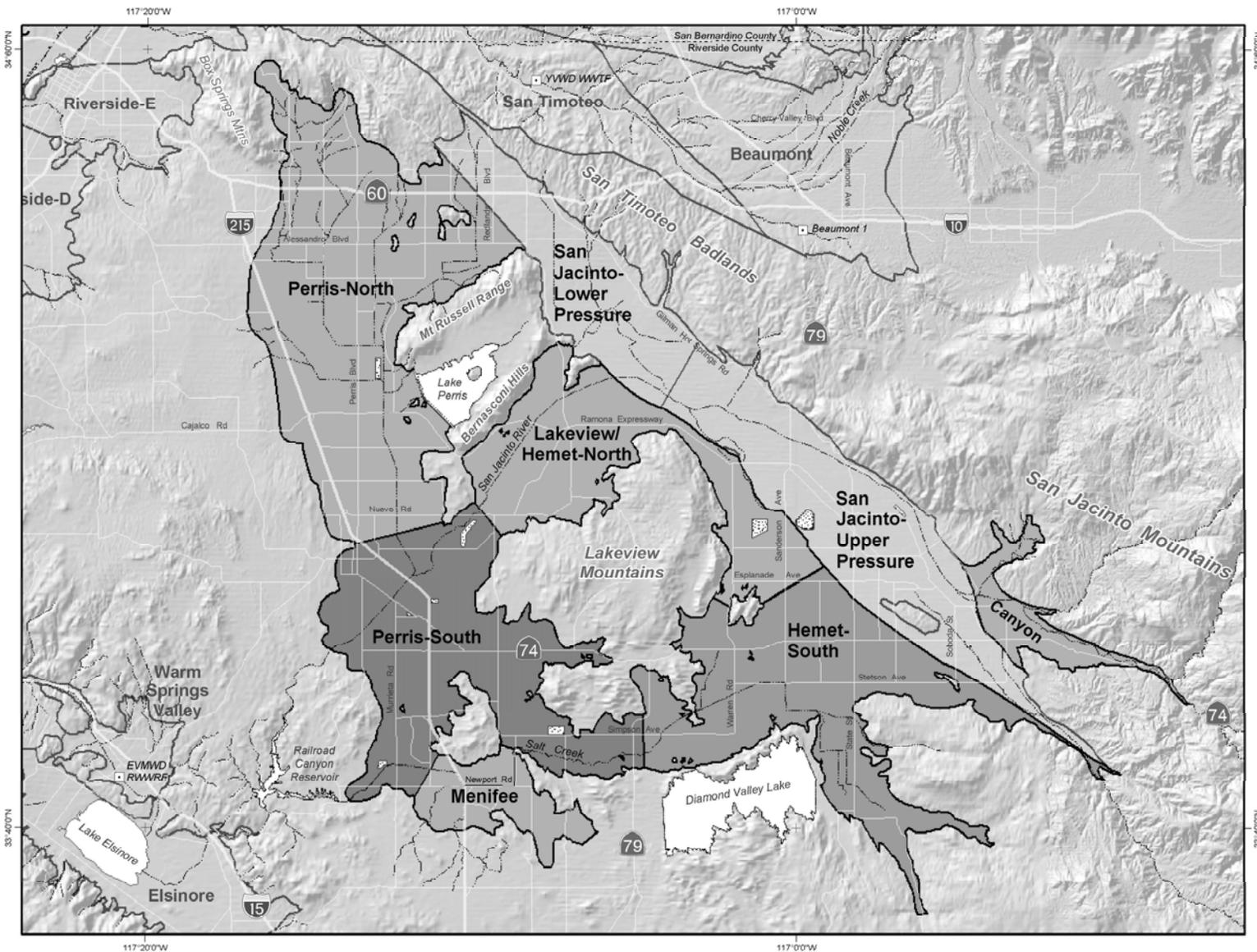
Author: AEM
 Date: 20160216
 File: Figure 3-3b.mxd



California Regional
 Water Quality Control Board
 Santa Ana Region (8)

**Beaumont
 Management Zone Boundaries**

Figure 3-3b**

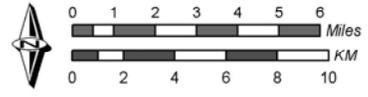


- Map Explanation**
-  Management Zone Boundary
 -  Rivers & Streams
 -  Recycled Water Discharge Location
 -  Recycled Water Pond



Produced by:
WE WILDERMUTH ENVIRONMENTAL, INC.
 23692 Britcher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wild-environment.com

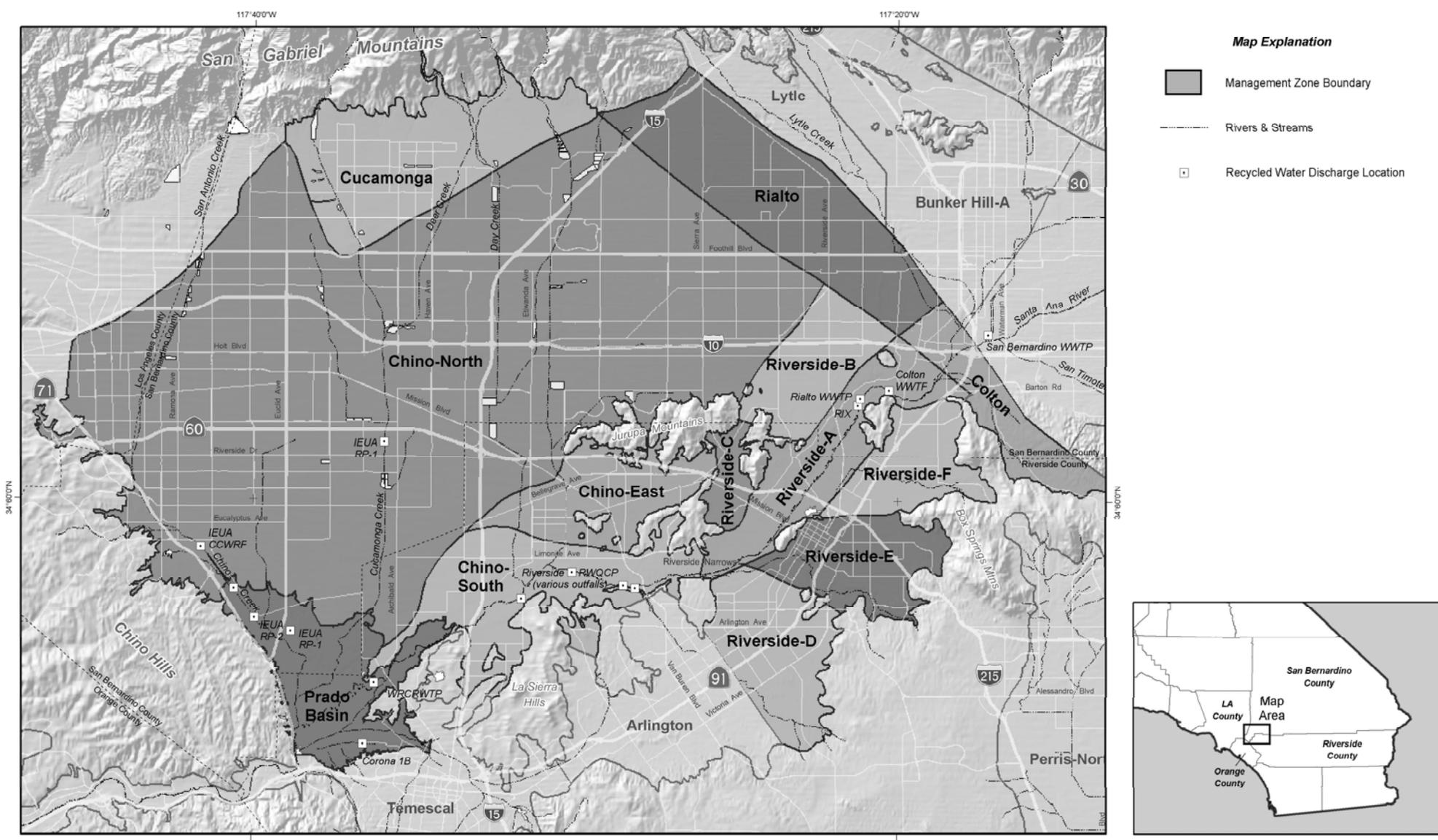
Author: AEM
 Date: 20031113
 File: Figure_3-4.mxd



Produced for:
TIN/TDS Task Force
 TIN/TDS Study Phase 2A – Task 3
 Develop Updated Boundary Maps
 for Management Zones
 (as Ammended and Revised)

Management Zone Boundaries
 San Jacinto Basins

Figure 3-4



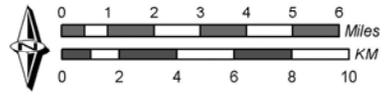
Map Explanation

- Management Zone Boundary
- Rivers & Streams
- Recycled Water Discharge Location



Produced by:
WE WILDERMUTH ENVIRONMENTAL, INC.
 23692 Birtcher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wild-environment.com

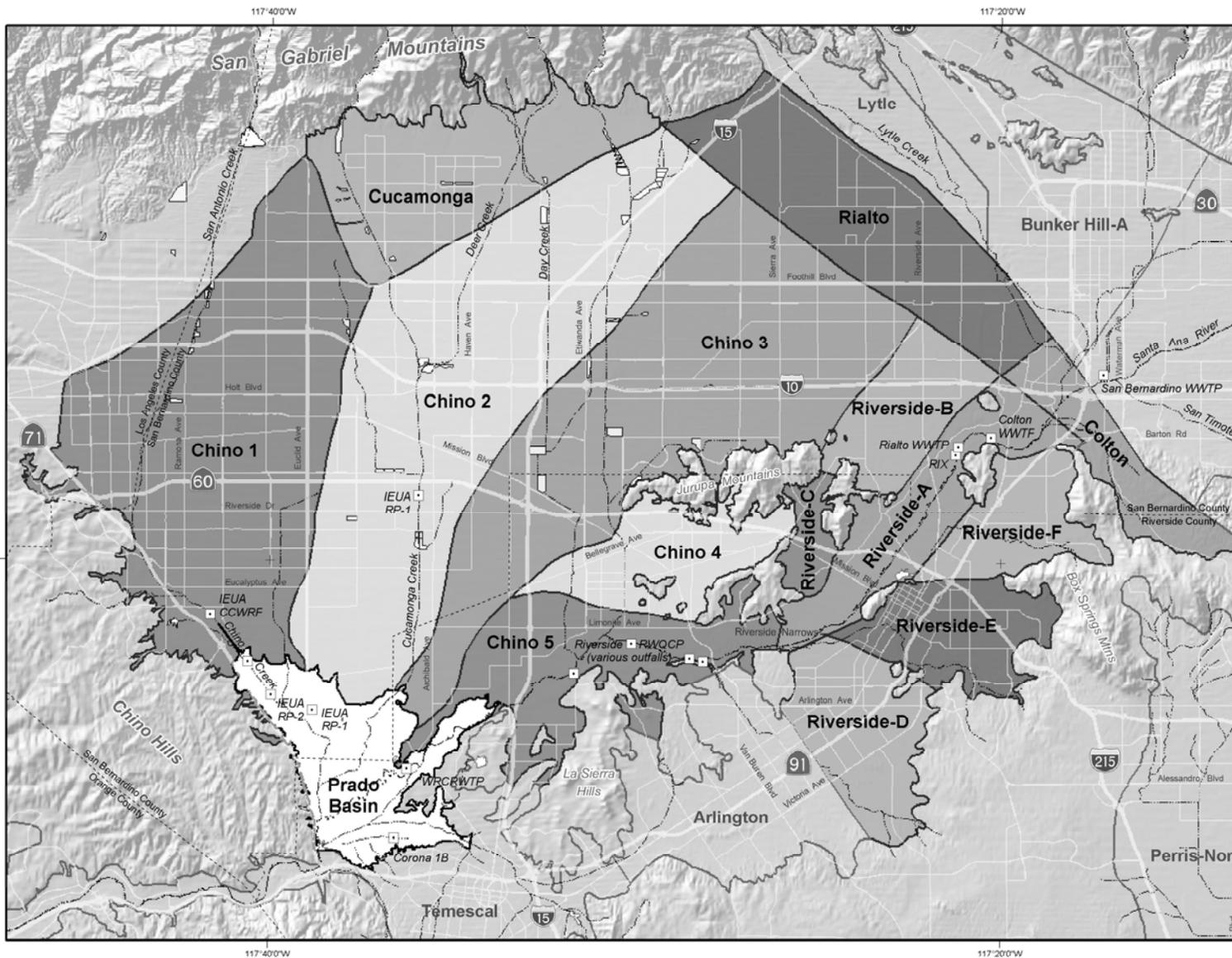
Author: AEM
 Date: 20031113
 File: Figure_3-5a.mxd



Produced for:
TIN/TDS Task Force
 TIN/TDS Study Phase 2A – Task 3
 Develop Updated Boundary Maps
 for Management Zones
 (as Ammended and Revised)

Management Zone Boundaries
 Chino (Maximum Benefit), Rialto-Colton,
 & Riverside Basins

Figure 3-5a



- Map Explanation**
-  Management Zone Boundary
 -  Rivers & Streams
 -  Recycled Water Discharge Location



Produced by:
WE WILDERMUTH ENVIRONMENTAL, INC.
 23692 Birtcher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wild-environment.com

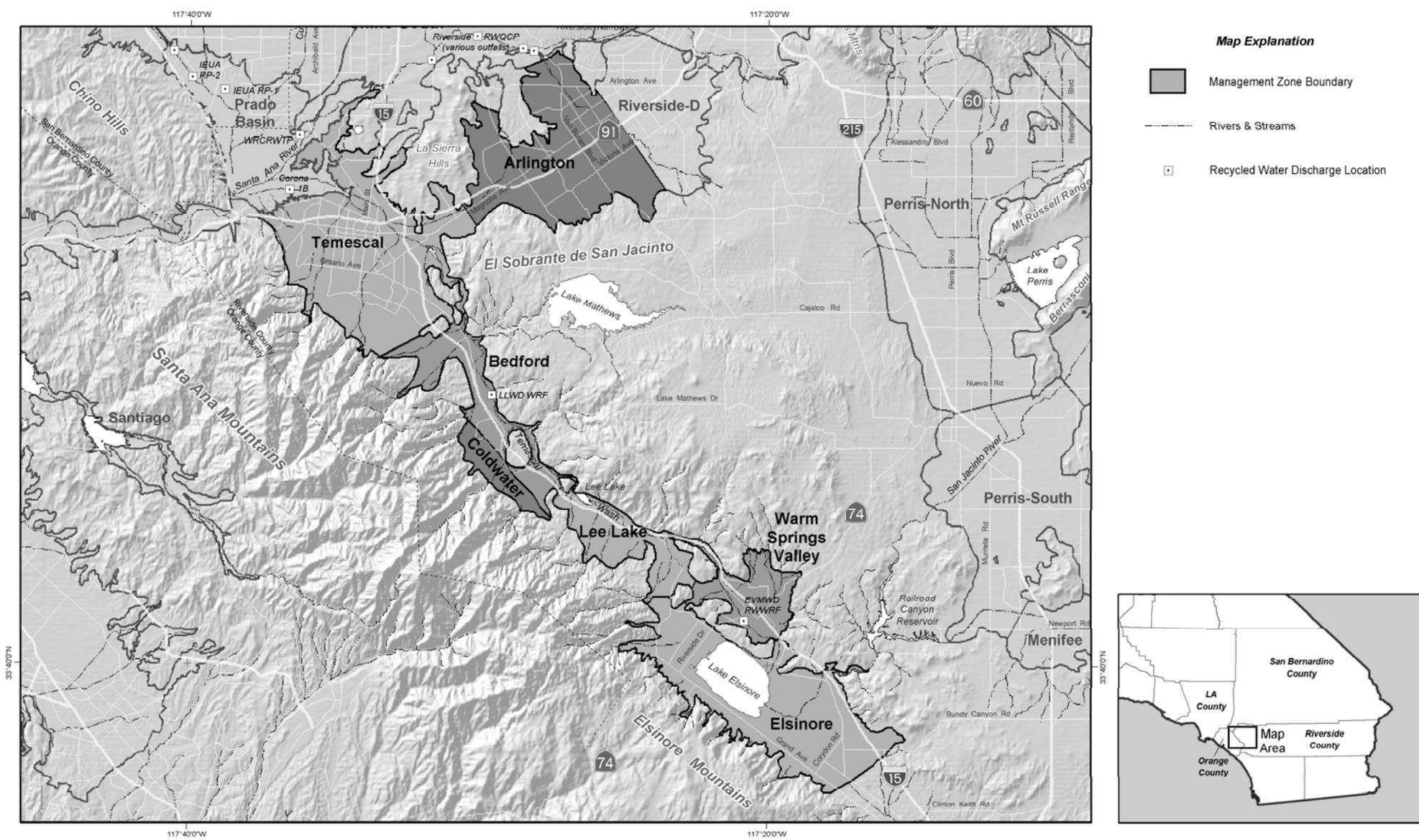
Author: AEM
 Date: 20031113
 File: Figure_3-5b.mxd



Produced for:
TIN/TDS Task Force
 TIN/TDS Study Phase 2A – Task 3
 Develop Updated Boundary Maps
 for Management Zones
 (as Ammended and Revised)

Management Zone Boundaries
 Chino (Anti-degradation), Rialto-Colton,
 & Riverside Basins

Figure 3-5b



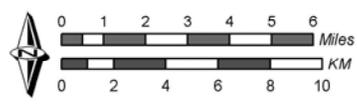
Map Explanation

-  Management Zone Boundary
-  Rivers & Streams
-  Recycled Water Discharge Location



Produced by:
WE WILDERMUTH ENVIRONMENTAL, INC.
 23692 Birtcher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wild-environment.com

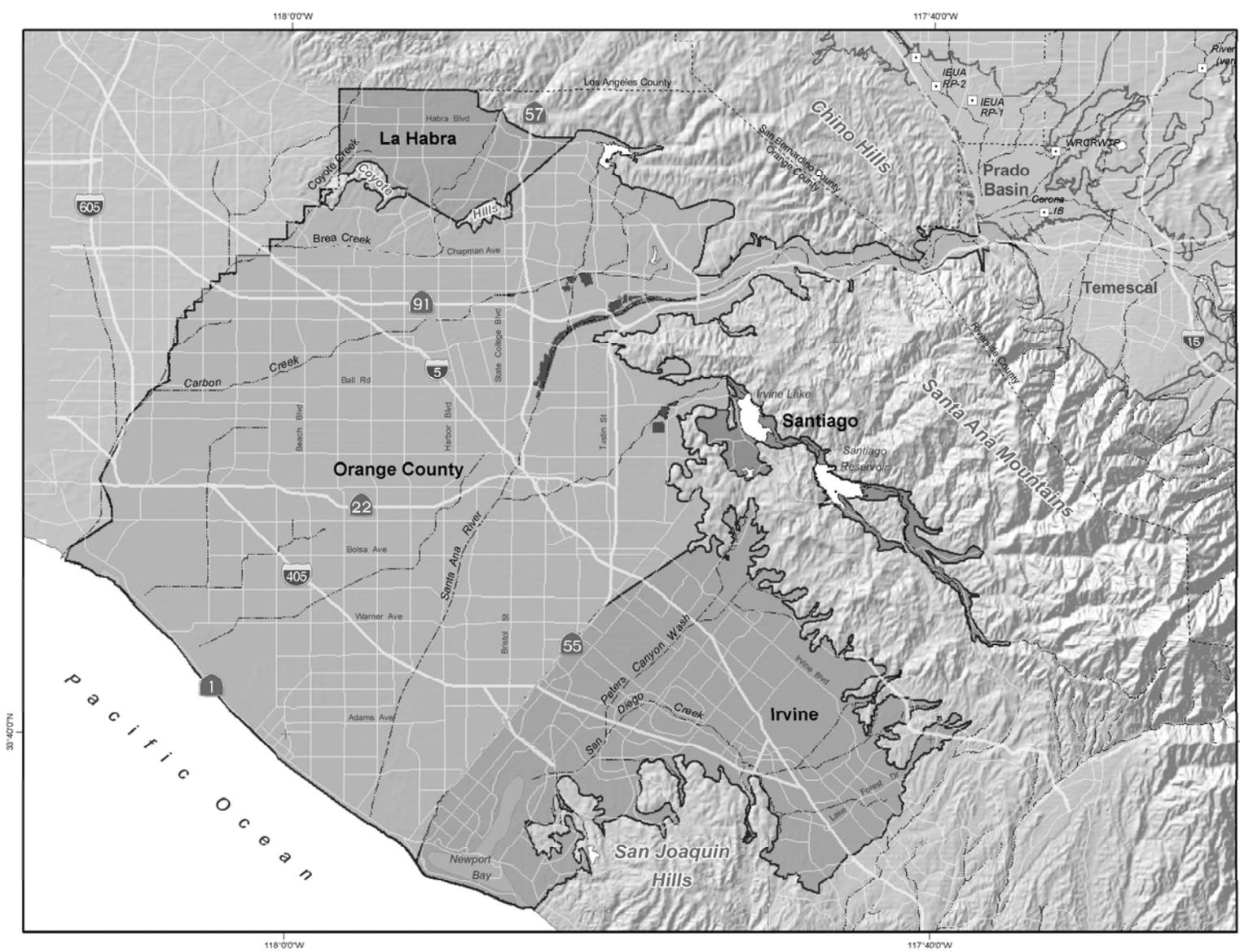
Author: AEM
 Date: 20031113
 File: Figure_3-6.mxd



Produced for:
TIN/TDS Task Force
 TIN/TDS Study Phase 2A – Task 3
 Develop Updated Boundary Maps
 for Management Zones
 (as Amended and Revised)

Management Zone Boundaries
 Elsinore/Temescal Valleys

Figure 3-6

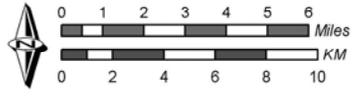


- Map Explanation**
-  Management Zone Boundary
 -  Rivers & Streams
 -  Recycled Water Discharge Location
 -  Orange County Water District Forebay Recharge Facilities



Produced by:
WE WILDERMUTH ENVIRONMENTAL, INC.
 23692 Blitcher Drive
 Lake Forest, CA 92630
 949.420.3030
 www.wild-environment.com

Author: AEM
 Date: 20031113
 File: Figure_3-7.mxd



Produced for:
TIN/TDS Task Force
 TIN/TDS Study Phase 2A – Task 3
 Develop Updated Boundary Maps
 for Management Zones
 (as Amended and Revised)

Management Zone Boundaries
 Orange County Basins

Figure 3-7

(End of section adopted under Resolution No. R8-2004-0001 and No. R8-2012-0002)

BENEFICIAL USE TABLE

Table 3-1 lists the designated beneficial uses for waterbodies within the Santa Ana Region. In this table, an “X” indicates that the waterbody has an existing or potential use.² Many of the existing uses are well-known; some are not. Lakes and streams may have potential beneficial uses established because plans already exist to put the water to those uses, or because conditions (e.g., location, demand) make such future use likely. The establishment of a potential beneficial use serves to protect the quality of that water for such eventual use.

An “I” in Table 3-1 indicates that the waterbody has an intermittent beneficial use. This may be because water conditions do not allow the beneficial use to occur year-round. The most common example of this is an ephemeral stream. Ephemeral streams in this region include, at one extreme, those which flow only while it is raining or for a short time afterward, and at the other extreme, established streams which flow through part of the year but also dry up for part of the year. While such ephemeral streams are flowing, beneficial uses may be made of the water. Because such uses depend on the presence of water, they are intermittent. Waste discharges which could impair intermittent beneficial uses, whether they are made while those uses occur or not, are not permitted.

As described above, Table 3-2 shows inland surface waters for which Use Attainability Analyses demonstrated that the REC1 or REC1 and REC2 uses are neither existing nor attainable. These waters, designated with a “u” in in the REC1 column and also, in some cases, the REC2 column in Table 3-1, will be evaluated at least once every three years to determine whether conditions have changed such that these use designations are applicable to these waters and that the Basin Plan should be amended accordingly.

A “+” in the **MUN** column in Table 3-1 indicates that the waterbody has been specifically excepted from the **MUN** designation in accordance with the criteria specified in the “Sources of Drinking Water Policy.”

The listing of waters within the basin attempts to include all significant surface streams and bodies of water, as well as the significant groundwater basins and subbasins which are receiving waters. Specific waters which are not listed have the same beneficial uses as the steams, lakes or reservoirs to which they are tributary or the groundwater basins or subbasin to which they are tributary or overlie.

² Water Code Section 13241 identifies the factors that the Regional Board must consider, at a minimum, when establishing water quality objectives to ensure the reasonable protection of beneficial uses and the prevention of nuisance. Among these factors are the “Past, present, and *probable future* beneficial uses of water. (CWC 13241(a) [italics added] “Potential” beneficial uses are assumed to be the same as “probable future” beneficial uses.

REFERENCES

The Federal Clean Water Act, 33 USC 466 *et seq.*

California State Water Resources Control Board, Resolution No. 88-63, "Sources of Drinking Water Policy," adopted May 19, 1988.

California Regional Water Quality Control Board, Santa Ana Region, Resolution No. 89-42, "Incorporation of 'Sources of Drinking Water' Policy into the Water Quality Control Plan (Basin Plan)," adopted March 10, 1989.

California Regional Water Quality Control Board, Santa Ana Region, Resolution No. 89-99, "Adoption of Revised Table of Beneficial Uses," adopted July 14, 1989.

California Water Code, Section 13000, "Water Quality" *et seq.*

CDM. Memorandum to Stormwater Quality Standards Task Force re "Scientific Basis for EPA Recommended Water Quality Objectives for Bacteria", April 10, 2006

CRWQCB – Santa Ana Region, "Staff Report, Basin Plan Amendments, Revisions to Recreational Standards for Inland Fresh Waters in the Santa Ana Region", January 12, 2012.

City of Big Bear Department of Water and Power, "Final Report – Task 4, Revised Water Quality Objectives, Big Bear Ground Water Basins," April 1993.

United States Department of Interior. Federal Water Pollution Control Administration. Report of the Committee on Water Quality Criteria (aka "Green Book"). 1968.

United States Environmental Protection Agency "Ambient Water Quality Criteria for Bacteria – 1986" EPA 440/5-84-002, January 1986.

United States Environmental Protection Agency. "Implementation Guidance for Ambient Water Quality Criteria for Bacteria [Draft]. May 2002.

United States Environmental Protection Agency "National Guidance-Water Quality Standards for Wetlands," EPA 440/s-90-011, July 1990.

United States Environmental Protection Agency "Water Quality Standards for Coastal and Great Lakes Recreation Waters; Final Rule" (40 CFR 131.41), November 2004.

Governor Pete Wilson, "California Wetlands Conservation Policy," August, 1993.

This space has been intentionally left blank

Table 3-1 BENEFICIAL USES

OCEAN WATERS	BENEFICIAL USE																		Hydrologic Unit			
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary
NEARSHORE ZONE*																						
San Gabriel River to Poppy Street in Corona Del Mar	+		X			X		X	X	X					X	X	X	X	X		801.11	
Poppy Street to Southeast Regional Boundary	+					X		X	X	X				X	X	X	X	X	X		801.11	
OFFSHORE ZONE																						
Waters Between Nearshore Zone and Limit of State Waters	+		X			X		X	X	X					X	X	X	X				

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

* Defined by Ocean Plan Chapter II B-1.: "Within a zone bounded by shoreline and a distance of 1000 feet from shoreline or the 30-foot depth contour, whichever is further from shoreline..."

Table 3-1 BENEFICIAL USES - Continued

BAYS, ESTUARIES, AND TIDAL PRISMS	BENEFICIAL USE																		Hydrologic Unit			
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary
Los Cerritos Wetlands	+							X	X					X	X	X	X	X			801.11	
Anaheim Bay – Outer Bay	+					X		X	X					X	X	X	X	X			801.11	
Anaheim Bay – Seal Beach National Wildlife Refuge	+							X	X					X	X	X	X	X		X	801.11	
Sunset Bay – Huntington Harbor	+					X		X	X	X					X	X	X	X			801.11	
Bolsa Bay	+							X	X	X				X	X	X	X	X	X		801.11	
Bolsa Chica Ecological Reserve	+							X	X					X	X	X	X	X		X	801.11	
Lower Newport Bay	+					X		X	X	X					X	X	X	X	X		801.11	
Upper Newport Bay	+							X	X	X				X	X	X	X	X	X	X	801.11	

X Existing or Potential Beneficial Use

I Intermittent Beneficial Use

+ Excepted from MUN (see text)

¹ Access prohibited per agency with jurisdiction

Table 3-1 BENEFICIAL USES - Continued

BAYS, ESTUARIES, AND TIDAL PRISMS	BENEFICIAL USE																		Hydrologic Unit			
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	MAR	SHEL	EST	Primary	Secondary
Santa Ana River Salt Marsh	+							X	X					X	X	X		X		X	801.11	
Huntington Beach Wetlands	+							X	X					X	X	X	X	X			801.11	
Tidal Prism of Santa Ana River (to within 1000' of Victoria Street) and Newport Slough	+							X	X	X					X	X		X			801.11	
Tidal Prism of San Gabriel River - River Mouth to Marina Drive	+		X					X	X	X					X	X		X	X	X	845.61	
Tidal Prism of Santa Ana-Delhi Channel – Bicycle Bridge at University Dr. at Upper Newport Bay to 1036 ft. upstream	+							u	X						X	X		X			801.11	
Tidal Prism of Greenville-Banning Channel – Santa Ana River Confluence to Inflatable Diversion Dam [^]	+							u	X						X	X		X			801.11	
Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters	+							X	X	X					X			X			801.11	

X Existing or Potential Beneficial Use

I Intermittent Beneficial Use

+ Excepted from MUN (see text)

[^] The diversion dam is 0.23 mile downstream of confluence with the Fairview Channel.

¹ Access prohibited per agency with jurisdiction

u REC 1 and/or REC 2 are not attainable uses as determined by UAA (See Table 3-2 and Chapter 3, Recreation Beneficial Uses)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
LOWER SANTA ANA RIVER BASIN																				
Santa Ana River																				
Reach 1 – Tidal Prism to 17 th Street in Santa Ana	+							⊗	X		I				I				801.11	
Reach 2 – 17 th Street in Santa Ana to Prado Dam	+	X			X			X	X		X				X	X			801.11	801.12
Aliso Creek	X				X			X	X		X				X	X			845.63	
Carbon Canyon Creek	X				X			X	X		X				X	X			845.63	
Santiago Creek Drainage																				
Santiago Creek																				
Reach 1 – below Irvine Lake	X				X			⊗	X		X				X				801.12	801.11
Reach 2 – Irvine Lake (see Lakes, pg. 3-xx)																				
Reach 3 – Irvine Lake to Modjeska Canyon	I				I			I	I		I				I				801.12	
Reach 4 – in Modjeska Canyon	X				X			X	X		X				X				801.12	
Silverado Creek	X				X			X	X		X				X				801.12	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exempted from MUN (see text)

² Access prohibited in all or part per agency with jurisdiction

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
LOWER SANTA ANA RIVER BASIN																				
Santiago Creek Drainage																				
Black Star	I				I			I	I		I				I				801.12	
Ladd Creek	I				I			I	I		I				I	I			801.12	
San Diego Creek Drainage																				
San Diego Creek																				
Reach 1 – below Jeffrey Road	+							X ²	X		X				X				801.11	
Reach 2 – above Jeffrey Road to Headwaters	+				I			I	I		I				I				801.11	
Other Tributaries: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash*, and other Tributaries to these Creeks	+				I			I	I		I				I				801.11	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

² Access prohibited in all or part per agency with jurisdiction
 * Sand Canyon Wash also has RARE Beneficial Use

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
San Gabriel River Drainage																				
Coyote Creek (within Santa Ana Regional Boundary)	X						X	X		X					X				845.61	
Santa Ana-Delhi Channel																				
Reach 1 – upper boundary of Tidal Prism to intersection of Sunflower Ave./Flower St.	+						u	X		X					X	X			801.10	
Reach 2 – Sunflower Ave./Flower St. intersection to Warner Avenue	+						u	X		X					X				801.10	
Greenville Banning Channel																				
Reach 1- Inflatable Diversion Dam to California Street	+						u	u		X					X				801.10	
UPPER SANTA RIVER BASIN																				
Santa Ana River																				
Reach 3 – Prado Dam to Mission Blvd. in Riverside	+	X			X		X	X		X					X	X	X		801.21	801.21, 801.25
Reach 4 – Mission Blvd. in Riverside to San Jacinto Fault in San Bernardino	+				X		X ³	X		X					X	X	X		801.27	801.44

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

u REC 1 and/or REC 2 are not attainable uses as determined by UAA (See Table 3-2 and Chapter 3, Recreation Beneficial Uses)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Reach 5 – San Jacinto Fault in Bernardino to Seven Oaks Dam ^t	X*	X			X			X ³	X		X				X	X			801.52	801.57
Reach 6 – Seven Oaks Dam to Headwaters (see also Individual Tributary Streams)	X	X			X		X	X	X				X		X		X		801.72	
San Bernardino Mountain Streams																				
Mill Creek Drainage:																				
Mill Creek																				
Reach 1 – Confluence with Santa Ana River to Bridge Crossing Route 38 at Upper Powerhouse	I	I			I			I	I				I		I	I			801.58	
Reach 2 – Bridge Crossing Route 38 at Upper Powerhouse to Headwaters	X	X			X		X	X	X				X		X				801.58	
Mountain Home Creek	X				X		X	X	X				X		X				801.58	
Mountain Home Creek, East Fork	X				X	X	X	X	X				X		X		X		801.70	
Monkeyface Creek	X				X			X	X				X		X				801.70	
Alger Creek	X				X			X	X				X		X				801.70	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exceeded from MUN (see text)

* MUN applies upstream of Orange Avenue (Redlands); downstream, water is excepted from MUN
 t Reach 5 uses are intermittent upstream of Waterman Avenue
 3 Access prohibited in some portions per agency with jurisdiction

Table 3-1 BENEFICIAL USES – Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Falls Creek	X				X		X	X	X				X		X		X		801.70	
Vivian Creek	X				X			X	X				X		X				801.70	
High Creek	X				X			X	X				X		X				801.70	
Other Tributaries: Lost, Oak Cove, Green, Skinner, Momyer, Glen Martin, Camp, Hatchery, Rattlesnake, Slide, Snow, Bridal Veil, and Oak Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.71	
Bear Creek Drainage:																				
Bear Creek	X	X			X		X	X	X				X		X		X		801.71	
Siberia Creek	X				X			X	X				X		X		X		801.71	
Slide Creek	I				I			I	I				I		I				801.71	
Johnson Creek	I				I			I	I				I		I				801.71	
All other Tributaries to these Creeks	I				I			I	I				I		I				801.71	
Big Bear Lake (see Lakes, pg. 3-41)																				

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exempted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Big Bear Lake Tributaries:																				
North Creek	X				X			X	X				X		X		X		801.71	
Metcalf Creek	X				X			X	X				X		X		X		801.71	
Grout Creek	X				X			X	X				X		X		X		801.71	
Rathbone (Rathbun) Creek	X				X			X	X				X		X				801.71	
Meadow Creek	X				X			X	X				X		X				801.71	
Summit Creek	I				I			I	I				I		I				801.71	
Knickerbocker Creek																				
Reach 1 – concrete channel, the Lake to Village Dr.	I				I			I	I				I		I				801.71	
Reach 2 – natural channel, Village Dr. to headwater	I				I			I	I				I		I				801.71	
Other Tributaries to Big Bear Lake: Minnelusa, Poligue, and Red Ant Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.71	
Baldwin Lake (see Lakes, pg. 3-41)																				
Baldwin Lake Drainage:																				

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Shay Creek	X				X			X	X				X		X	X			801.73	
Other Tributaries to Baldwin Lake: Sawmill, Green, and Caribou Canyons and other Tributaries to these Creeks	I				I			I	I				I		I				801.73	
Other Streams Draining to Santa Ana River (Mountain Reaches [†])																				
Cajon Canyon Creek	X				X			X	X				X		X	X			801.52	801.51
City Creek	X	X			X			X	X				X		X	X	X		801.57	
Devil Canyon Creek	X				X			X	X				X		X				801.57	
East Twin and Strawberry Creeks	X	X			X			X	X				X		X		X		801.57	
Waterman Canyon Creek	X				X			X	X				X		X				801.57	
Fish Creek	X				X			X	X				X		X		X		801.57	
Forsee Creek	X				X			X	X				X		X		X		801.72	
Plunge Creek	X	X			X			X	X				X		X	X			801.72	
Barton Creek	X	X			X			X	X				X		X				801.72	
Bailey Canyon Creek	I				I			I	I				I		I				801.72	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use

[†] The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino Bernardino or San Gabriel Mountains

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Kimbarck Canyon, East Fork Kimbarck Canyon, Ames Canyon and West Fork Cable Canyon Creeks	X				X			X	X		X		X		X				801.52	
Valley Reaches [†] of Above Streams	I				I			I	I		I				I				801.52	
Other Tributaries (Mountain Reaches [†]): Alder, Badger Canyon, Bledsoe Gulch, Borea Canyon, Breakneck, Cable Canyon, Cienaga Seca, Cold, Converse, Coon, Crystal, Deer, Elder, Fredalba, Frog, Government, Hamilton, Heart Bar, Hemlock, Keller, Kilpecker, Little Mill, Little Sand Canyon, Lost, Meyer Canyon, Mile, Monroe Canyon, Oak, Rattlesnake, Round Cienaga, Sand, Schneider, Staircase, Warm Springs Canyon, and Wild Horse Creeks and other Tributaries to these Creeks	I				I			I	I				I		I				801.72	801.71, 801.57

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use

[†] The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
San Gabriel Mountain Streams (Mountain Reaches [†])																				
San Antonio Creek	X	X	X	X	X		X	X	X				X		X				801.23	
Lytle Creek (South, Middle, and North Forks) and Coldwater Canyon Creek	X	X	X	X	X		X	X	X				X		X	X			801.41	801.42, 801.52, 801.59
Day Canyon Creek	X			X	X			X	X				X		X				801.21	
East Etiwanda Creek	X			X	X			X	X				X		X	X			801.21	
Valley Reaches [‡] of Above Streams	I				I			I	I		I				I				801.21	
Cucamonga Creek																				
Reach 1 – Confluence with Mill Creek to 23 rd St. in Upland	+				X			u ³	X			X			X				801.21	
Reach 2 (Mountain Reach [†]) - 23 rd St. In Upland to headwaters	X		X	X	X		X	X	X				X		X		X		801.24	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

[†] The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains
^u REC 1 and/or REC 2 are not attainable as determined by a UAA.(See Table 3-2 and Chapter 3, Recreation Beneficial Uses)
³ Access prohibited in some portions per agency with jurisdiction

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Mill Creek (Prado Area)	+							X	X		X				X	X			801.25	
Other Tributaries (Mountain Reaches †): San Sevaine, Deer, Duncan Canyon, Henderson Canyon, Bull, Fan, Demens, Thorpe, Angalls, Telegraph Canyon, Stoddard Canyon, Icehouse Canyon, Cascade Canyon, Cedar, Falling Rock, Kerkhoff, and Cherry Creeks and other Tributaries to these Creeks																			801.21	801.23
Valley Reaches † of Above Streams																			801.21	801.43
San Timoteo Area Streams																				
San Timoteo Creek																				
Reach 1A – Santa Ana River Confluence to Barton Road	+							³											801.52	
Reach 1B – Barton Road to Gage at San Timoteo Canyon Rd.	+							³											801.52	

X Existing or Potential Beneficial Use
 | Intermittent Beneficial Use
 + Exceeded from MUN (see text)

† The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains
 3 Access prohibited in some portions per agency with jurisdiction

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Reach 2–Gage at San Timoteo Creek to confluence with Yucaipa Creek	+				X			X	X		X				X				801.61	
Reach 3 – Confluence with Yucaipa Creek to confluence with little San Gorgonio and Noble Creeks (Headwaters of San Timoteo Creek)	+				X			X	X		X				X				801.61	
Oak Glen, Potato Canyon, and Birch Creeks	X				X			X	X		X				X				801.67	
Little San Gorgonio Creek	X				X			X	X				X		X				801.69	801.62, 801.63
Yucaipa Creek	I				I			I	I		I				I				801.67	801.61, 801.62, 801.64
Other Tributaries to these Creeks-Valley Reaches [‡]	I				I			I	I		I				I				801.62	801.52, 801.53
Other Tributaries to these Creeks-Mountain Reaches [‡]	I				I			I	I				I		I				801.69	801.67
Anza Park Drain	X							X	X		X				X		X		801.27	
Sunnyslope Channel	X							X	X		X				X	X	X		801.27	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

[‡] The division between Mountain and Valley reaches occurs at the base of the foothills of the San Bernardino or San Gabriel Mountains
³ Access prohibited in some portions per agency with jurisdiction

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Tequesquite Arroyo (Sycamore Creek)	+				X			X	X		X				X		X		801.27	
Prado Area Streams																				
Chino Creek																				
Reach 1A – Santa Ana River confluence to downstream of confluence with Mill Creek (Prado Area)	+							X	X		X				X	X			801.21	
Reach 1B – Confluence with Mill Creek (Prado Area) to beginning of concrete-lined channel south of Los Serranos Rd.***	+							X	X		X				X	X			801.21	
Reach 2 – Beginning of concrete-lined channel south of Serranos Rd. to confluence with San Antonio Creek	+				X			X ³	X		X				X				801.21	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exempted from MUN (see text)

*** The confluence of Mill Creek is in Chino Creek, Reach 1B

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit			
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary	
Temescal Creek																					
Reach 1a – Lincoln Ave. to Arlington Channel confluence	+							u ³	X		X				X					801.25	
Reach 1b – Arlington Channel confluence to 1400 ft. upstream of Magnolia Ave.	+							u ³	X		X				X					801.25	
Reach 2 – 1400 ft. upstream of Magnolia Ave. to Lee Lake	+	X	X		X			X	X		X				X					801.25	
Reach 3 – Lee Lakes (see Lakes, Page 3-41)																					
Reach 4 – Lee Lake to Mid-Section Line of Section 17 (downstream end of freeway cut)	+	X			X			X	X		X				X	X				801.34	
Reach 5 – Mid-section line of Section 17 (downstream end of freeway cut) to Elsinore Ground-water Subbasin Boundary	+	X			X			X	X		X				X	X				801.35	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

³ Access prohibited in some portions per agency with jurisdiction
 u REC 1 and/or REC 2 are not attainable uses as determined by UAA (See Table 3-2 and Chapter 3, Recreation Beneficial Uses)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Reach 6 – Elsinore Groundwater Subbasin Boundary to Lake Elsinore Outlet	+				I			I	I		I				I				801.35	
Coldwater Canyon Creek	X	X			X			X	X		X				X				801.32	
Bedford Canyon Creek	+				I			I	I		I				I				801.32	
Dawson Canyon Creek	I				I			I	I		I				I				801.32	
Other Tributaries to these Creeks	I				I			I	I		I				I				801.32	
SAN JACINTO RIVER BASIN																				
San Jacinto River																				
Reach 1 – Lake Elsinore to Canyon Lake	I	I			I			I	I		I				I				801.32	802.31
Reach 2 – Canyon Lake (see Lakes Pg. 3-42)																				
Reach 3 – Canyon Lake to Nuevo Road	+	I			I			I	I		I				I				802.11	
Reach 4 – Nuevo Road to North-South Mid-Section Line, T4S/R1W-S8	+	I			I			I	I		I				I				802.21	802.21

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excerpted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

INLAND SURFACE STREAMS	BENEFICIAL USE																		Hydrologic Unit	
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
Reach 5 – North-South Mid-Section Line, T4S/R1 W-S8, to Confluence With Poppet Creek	+	I			I			I	I		I				I				802.21	
Reach 6 – Poppet Creek to Cranston Bridge	I	I			I			I	I		I				I				802.21	
Reach 7 – Cranston Bridge to Lake Hemet	X	X			X			X	X				X		X				801.21	
Bautista Creek – Headwaters to Debris Dam	X	X			X			X	X				X		X				802.21	802.23
Strawberry Creek and San Jacinto River, North Fork	X	X			X			X	X				X		X				801.21	
Fuller Mill Creek	X	X			X			X	X				X		X				802.22	
Stone Creek	X	X			X			X	X				X		X				802.21	
Other Tributaries: Logan, Black Mountain, Juaro Canyon, Indian, Herkey, Poppet, and Potrero Creeks and other Tributaries to these Creeks	I	I			I			I	I		I				I				802.21	802.22
Salt Creek	+							I	I		I				I				802.12	
Goodhart Canyon, St. John's Canyon, and Cactus Valley Creeks	I	I						I	I		I				X				802.15	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exempted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

LAKES AND RESERVOIRS	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
UPPER SANTA ANA RIVER BASIN																				
Baldwin Lake	+							I	I		I		I	I	I	I			801.73	
Big Bear Lake	X	X			X			X	X		X		X		X	X			801.71	
Erwin Lake	X							X	X				X	X	X	X			801.73	
Evans, Lake	+							X	X		X		X		X				801.27	
Jenks Lake	X	X			X			X	X				X		X				801.72	
Lee Lake	+	X	X		X			X	X		X				X				802.34	
Mathews, Lake	X	X	X	X	X			X ⁴	X		X				X	X			802.33	
Mockingbird Reservoir	+	X						X ⁴	X		X				X				802.26	
Norconian, Lake	+							X	X		X				X				802.25	
LOWER SANTA ANA RIVER BASIN																				
Anaheim Lake	+				X			X	X		X				X				801.11	
Irvine Lake (Santiago Reservoir)	X	X						X	X		X		X		X				801.12	
Peters Canyon, Rattlesnake, Sand Canyon, and Siphon Reservoirs	+	X						X ⁴	X		X				X				801.11	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

⁴ Access prohibited per agency/company with jurisdiction

Table 3-1 BENEFICIAL USES - Continued

LAKES AND RESERVOIRS	BENEFICIAL USE																Hydrologic Unit			
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
SAN JACINTO RIVER BASIN																				
Canyon Lake (Railroad Canyon Reservoir)	X	X			X			X	X		X				X				802.11	802.12
Elsinore, Lake	+							X	X		X				X				802.31	
Fulmor, Lake	X	X						X	X		X		X		X				802.21	
Hemet, Lake	X	X			X		X	X	X		X		X		X		X		802.22	
Mystic Lake	I							I	I		I			X	X	X			802.11	
Perris, Lake	X	X	X	X	X			X	X		X		X		X				802.11	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

WETLANDS (INLAND)	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
San Joaquin Freshwater Marsh**	+						X	X			X			X	X	X			801.11	801.14
Shay Meadows	I						I	I					I		I				801.73	
Stanfield Marsh**	X						X	X					X		X	X			801.71	
Prado Basin Management Zone®	+						X	X			X				X	X			802.21	
San Jacinto Wildlife Preserve**	+						X	X			X			X	X	X			802.21	802.14
Glen Helen	X						X	X			X				X				801.59	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exceeded from MUN (see text)

** This is a created wetland as defined in the wetland discussion
 ® The Prado Basin Management Zone includes the Prado Flood Control Basin, a created wetland as defined in the Basin Plan (see Chapter 3, pages 3-4 through 3-7)

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
UPPER SANTA ANA RIVER BASIN																				
Big Bear Valley	X			X															801.71	801.73
Beaumont	X	X	X	X															801.62	801.63, 801.69
Bunker Hill - A	X	X	X	X															801.52	801.52
Bunker Hill - B	X	X	X	X															802.52	801.53, 801.54, 801.57, 801.58
Colton	X	X	X	X															801.44	801.45
Chino North "maximum benefit"++	X	X	X	X															801.21	481.21, 481.23
Chino 1 – "antidegradation"++	X	X	X	X															801.21	481.21
Chino 2 – "antidegradation"++	X	X	X	X															801.21	
Chino 3 – "antidegradation"++	X	X	X	X															801.21	
Chino East @	X	X	X	X															801.21	801.27
Chino South @	X	X	X	X															801.21	801.25, 801.26
Cucamonga	X	X	X	X															801.24	801.21
Lytle	X	X	X	X															801.59	801.42
Rialto	X	X	X	X															801.44	801.21, 801.43

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exceeded from MUN (see text)

++ Chino North "maximum benefit" management zone applies unless Regional Board determines that lowering of water quality is not of maximum benefit to the people of the state; in that case, the Chino 1, 2, and 3 "antidegradation" management zones would apply (see also discussion in Chapter 5).
 @ Chino East and South are the designations in the Chino Basin Watermaster "maximum benefit" proposal (see Chapter 5) for the management zones identified by Wildermuth Environmental, Inc. (July 2000) as Chino 4 and 5, respectively

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
San Timoteo	X	X	X	X															801.62	801.61
Yucaipa	X	X	X	X															801.61	801.55, 801.63, 801.67
MIDDLE SANTA ANA RIVER BASIN																				
Arlington	X	X	X	X															801.26	
Bedford	X	X	X	X															801.32	481.31
Coldwater	X	X	X	X															801.31	
Elsinore	X	X		X															802.31	
Lee Lake	X	X	X	X															801.34	
Riverside - A	X	X	X	X															801.27	801.44
Riverside - B	X	X	X	X															801.27	801.44
Riverside - C	X	X	X	X															801.27	
Riverside - D	X	X	X	X															801.27	801.26
Riverside - E	X	X	X	X															801.27	
Riverside - F	X	X	X	X															801.27	
Temescal	X	X	X	X															801.25	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Exempted from MUN (see text)

Table 3-1 BENEFICIAL USES - Continued

GROUNDWATER MANAGEMENT ZONES	BENEFICIAL USE																	Hydrologic Unit		
	MUN	AGR	IND	PROC	GWR	NAV	POW	REC1	REC2	COMM	WARM	LWRM	COLD	BIOL	WILD	RARE	SPWN	EST	Primary	Secondary
SAN JACINTO RIVER BASIN																				
Garner Valley	X	X																	802.22	
Idyllwild Area	X		X																802.22	802.21
Canyon	X	X	X	X															802.21	
Hemet - South	X	X	X	X															802.15	802.13, 802.21
Lakeview – Hemet North	X	X	X	X															802.14	802.15
Meniffee	X	X		X															802.13	
Perris North	X	X	X	X															802.11	
Perris South	X	X																	802.11	802.12, 802.13
San Jacinto - Lower	X	X	X																802.21	802.11
San Jacinto - Upper	X	X	X	X															802.27	802.23
LOWER SANTA ANA RIVER BASIN																				
La Habra	X	X																	845.62	
Santiago	X	X	X																801.12	801.11
Orange	X	X	X	X															801.11	801.13, 801.14 845.61, 845.63
Irvine	X	X	X	X															801.11	

X Existing or Potential Beneficial Use
 I Intermittent Beneficial Use
 + Excepted from MUN (see text)

Table 3-2 Summary of Approved Use Attainability Analyses (UAAs) to Re-designate Recreational Beneficial Uses in some Inland Waterbodies

Waterbody	Segment/ Reach	Reach Description	REC1	REC2	Agency Approval Dates ¹
Greenville-Banning Channel	Tidal Prism	Santa Ana River Confluence to Inflatable Diversion Dam (0.23 mile downstream of Fairview Channel Confluence) (City of Costa Mesa)	no	X	RWQCB-6/15/12 SWRCB-1/21/14 USEPA-4/8/15
	Reach 1	Inflatable Diversion Dam to California Street. (City of Costa Mesa)	no	no	RWQCB-6/15/12 SWRCB-1/21/14 USEPA-4/8/15
Santa Ana Delhi Channel	Tidal Prism	Bicycle Bridge at University Dr. at Upper Newport Bay to 1036 ft. upstream (City of Newport Beach)	no	X	RWQCB-6/15/12 SWRCB-1/21/14 USEPA-4/8/15
	Reach 1	Upper Boundary of Tidal Prism to immediately upstream of intersection of Sunflower Ave. and Flower Street (City of Santa Ana)	no	X	RWQCB-6/15/12 SWRCB-1/21/14; USEPA Disapproval of RWQCB/SWRCB approved REC2 De-designation 4/8/15
	Reach 2	Immediately upstream of intersection of Sunflower Ave. and Flower St. to Warner Ave (City of Santa Ana)	no	X	RWQCB-6/15/12 SWRCB-1/21/14 USEPA 4/8/15

Table 3-2 Summary of Approved Use Attainability Analyses (UAAs) to Re-designate Recreational Beneficial Uses in some Inland Waterbodies (continued)					
Temescal Creek	Reach 1a	Lincoln Avenue to Arlington Channel Confluence (City of Corona)	no	X	RWQCB-6/15/12 SWRCB-1/21/14 USEPA 4/8/15
	Reach 1b	Arlington Channel Confluence to 1400 ft. upstream of Magnolia Avenue (City of Corona)	no	X	RWQCB-6/15/12 SWRCB-1/21/14; USEPA Disapproval of RWQCB/SWRCB approved REC2 De-designation 4/8/15
Cucamonga Creek	Reach 1	Confluence with Mill Creek in Prado area to near 23 rd Street (City of Upland)	no	X	RWQCB-6/15/12 SWRCB-1/21/14; USEPA Disapproval of RWQCB/SWRCB approved REC2 De-designation 4/8/15

X Existing or Potential Beneficial Use

¹ The Regional Board (RWQCB) approved the UAAs under Resolution No. R8-2012-0001 on June 15, 2012. The UAAs were approved by the State Water Resources Control Board (SWRCB) under Resolution No. R8-2014-0005 on January 21, 2014. On April 8, 2015, the United States Environmental Protection Agency, Region IX (USEPA) disapproved the RWQCB/SWRCB approved de-designation of REC2 for the Santa-Ana Delhi Channel, Reach1, Temescal Creek, Reach 1b and Cucamonga Creek, Reach 1.