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Santa Ana Regional Water Quality Control Board

**UPDATE TO THE  
AGENDA ANNOUNCEMENT**

**January 31, 2014**

**Public Workshop**  
(Prepared: 1-24-14)

**The following agenda item has been changed as follows:**

11. The January 31, 2014 **Public Hearing**, to consider approval of amendments to the Basin Plan, has been re-scheduled as a **Public Workshop**. The purpose of the Workshop is to review the proposed amendments and to solicit comments. No formal action will occur at the January 31, 2014 Workshop. Regional Board consideration of adoption of a proposed Basin Plan amendment will occur at a subsequent duly noticed public hearing.

**California Regional Water Quality Control Board  
Santa Ana Region**

**January 31, 2014**

**ITEM: 11**

**SUBJECT: Basin Plan Amendment to Incorporate Revisions to the Salt Management  
Plan for the Santa Ana Region, Resolution No. R8-2014-0005**

## EXECUTIVE SUMMARY

Federal law requires states to establish water quality standards (beneficial uses, water quality criteria, and an antidegradation policy) for all water bodies within the state's jurisdiction, and to review those standards at least once every three years. The Porter - Cologne Water Quality Control Act (Division 7, "Water Quality", of the California Water Code) establishes similar requirements in state law. For the Santa Ana Region, these standards were established in the 1975, 1984 and 1995 Water Quality Control Plans, Santa Ana River Basin (Basin Plans).

On January 22, 2004, Santa Ana Regional Water Quality Control Board adopted Resolution R8-2004-0001 to amend the Basin Plan for the Santa Ana River Basin. The amendment included revised groundwater subbasin boundaries (also known as groundwater management zones), revised total dissolved solids (TDS) and nitrate-nitrogen objectives, revised TDS and nitrogen wasteload allocations for discharge of recycled water to the Santa Ana River and its tributaries, and revised reach designations for certain waterbodies. To accommodate reclamation projects in the Region, alternative, less stringent water quality objectives, so-called "Maximum Benefit" objectives, were established for some groundwater management zones, including the San Timoteo and Beaumont Management Zones. The application of these objectives is contingent on the implementation of specific commitments to implement basin-wide water supply and water quality management programs, including salt removal projects, monitoring programs and conjunctive use programs – all developed to ensure that the beneficial uses of the groundwater management zone are protected. The Basin Plan amendment also specified an implementation plan known as the Salt Management Plan for Santa Ana Region. The State Water Resources Control Board (State Water Board) and Office of Administrative Law (OAL) approved the Amendment on September 30, 2004 and December 23, 2004, respectively. The surface water standards provisions of the Amendment were approved by the U.S. Environmental Protection Agency on January 20, 2007.

The Salt Management Plan contains a watershed-wide monitoring program to determine compliance with water quality objectives, as specified in Section 13242 of the California Water Code. The Regional Board relies on data from the surface and groundwater monitoring program to assess whether applicable water quality standards are being attained, to determine if any assimilative capacity exists in each groundwater management zone, and to revise the wasteload allocation as necessary to protect designated beneficial uses. Water and wastewater agencies throughout the Region in the Santa Ana River Basin formed a Basin Monitoring Program Task Force (BMP Task Force) to provide the water quality data specified in the Salt Management Plan and have submitted regular and timely reports to the Regional Board.

Review of new water quality monitoring data indicates that the current ambient concentration of TDS and/or nitrate-nitrogen has changed in several groundwater management zones and, as a result, the available assimilative capacity has also changed. New information has become available that warrants revisions to the boundary for the Beaumont groundwater management zone, and changes to the "maximum benefit" programs for both the Beaumont and San Timoteo Management Zones are necessary. Changes in statewide policy relevant to nitrogen management in groundwater and the protection of groundwater management zone beneficial uses have also occurred and should be reflected in the Basin Plan.

Federal and state law require the Regional Board to review and update the Basin Plan periodically, including implementation requirements, to take into consideration the best available data and any new scientific information. The above-referenced changes necessitate a

Basin Plan Amendment. This staff report describes the technical basis for the proposed Basin Plan Amendment. It covers the following topics:

1. Update of the Basin Plan Onsite Wastewater Treatment Systems provisions in the Basin Plan, including incorporation of the Statewide Onsite Wastewater Treatment Systems Policy into the Basin Plan (Chapter 2) and update of the Minimum Lot Size Criteria (Chapter 5);
2. Revise Figure 3-3. Management Zone Boundary – San Bernardino Valley and Yucaipa/Beaumont Plains (Chapter 3) to show both the legal boundary of the Beaumont groundwater Management Zone and the hydrogeological boundary (the entire Beaumont hydrogeologic Storage Unit as defined by the USGS) (Chapter 3);
3. Update the ambient TDS and nitrate-nitrogen concentrations and the assimilative capacity for each groundwater Management Zone (Chapter 5);
4. Update the N loss coefficient for the San Jacinto area groundwater management zones (Chapter 5);
5. Deletion of the TDS and total inorganic nitrogen wasteload allocation for Yucaipa Valley Water District and the City of Beaumont (Chapter 5)
6. Update the Wastewater Reclamation section (Chapter 5);
7. Update the Yucaipa, San Timoteo and Beaumont Management Zone Maximum Benefit Programs (Chapter 5)

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## **1.0 Introduction**

Federal law and implementing regulations<sup>1</sup> require states to establish water quality standards for all water bodies within the state's jurisdiction. A water quality standard is composed of three parts: 1) the beneficial uses that apply to the waterbody; 2) the water quality criteria (or "objectives", in California terminology) needed to protect those uses; and 3) an antidegradation policy to protect water quality. The Porter-Cologne Water Quality Control Act (Division 7, "Water Quality", of the California Water Code, the "Porter- Cologne Act") establishes similar requirements in state law.

In California, Regional Water Quality Control Boards enact water quality standards through a formal basin planning process. Each Regional Board publishes a Water Quality Control Plan, or Basin Plan, that identifies individual water bodies within its jurisdiction, designates the beneficial uses that apply to each waterbody and specifies the water quality objectives for those water bodies. Although the federal Clean Water Act applies only to surface waters, the Porter-Cologne Act applies to both the ground and surface waters of California.

### **1.1 Basin Plan - Chapter 2 Plans and Policies**

In addition to the Santa Ana Region Basin Plan, a number of water quality control plans and policies adopted by the State Water Resources Control Board (State Water Board) direct the Regional Board's actions. Chapter 2 of the Basin Plan contains a description of these statewide Plans and Policies that are applicable in the region and that are incorporated by reference. The 1994 update of the Basin Plan was the last time that these Plans and Policies descriptions were updated. Since 1994, additional Plans and Policies have been adopted and/or revised by the State Water Board.

### **1.2 Salt Management in the Santa Ana Region**

Historically, as discussed in the 1975, 1983 and 1994 Basin Plans for the Santa Ana Region, the most serious problem in the Santa Ana basin was the buildup of dissolved minerals, or salts, in the ground and surface waters. Sampling and computer modeling of groundwaters showed that the levels of dissolved minerals, generally expressed as total dissolved solids (TDS) or total filterable residue (TFR), were exceeding water quality objectives, or would do so in the future, unless appropriate controls were implemented. Nitrogen levels in the Santa Ana River, largely in the form of nitrate, were likewise projected to exceed water quality objectives. High levels of TDS and nitrate adversely affect the beneficial uses of ground and surface waters. The mineralization of the Region's waters, and its impact on beneficial uses, remains a significant problem.

Each use of water adds an increment of dissolved minerals. Significant increments of salts are added by municipal and industrial use, and the reuse and recycling of wastewater as it moves from the hydrologically higher areas of the Region to the ocean. Wastewater and recycled water percolated into groundwater management zones are typically pumped and reused a number of times before reaching the ocean, resulting in increased salt concentrations. The concentration of dissolved minerals can also be increased by evaporation or evapotranspiration. One of the principal causes of the mineralization problem in the Region is historic irrigated agriculture, particularly citrus, which, in the past, required large applications of water to land,

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<sup>1</sup> 40 Code of Federal Regulations (CFR) 131 Water Quality Standards Regulation

causing large losses by evaporation and evapotranspiration. TDS and nitrate concentrations are increased both by this reduction in the total volume of return water and by the direct application of these salts in fertilizers. Dairy operations, which began in the Region in the 1950's and continue today, also contribute significant amounts of salts to the basin.

In the mid-1990s, a Santa Ana Region-wide effort was initiated to perform certain investigations on the groundwater basin boundaries and the TDS and nitrate-nitrogen water quality objectives for the groundwater subbasins in the Santa Ana River Watershed. A TIN/TDS Task Force was formed to conduct the necessary studies that led to the establishment of revised groundwater subbasin boundaries and TDS and nitrate-nitrogen objectives for the revised groundwater subbasins (now termed "management zones"). Water Board staff, water supply, water-recycling and wastewater agencies, as well as other agencies including the US Geological Survey, participated in the Task Force. This effort resulted in significant changes to the salt management plan in the Basin Plan in 2004 (Resolution No. R8-2004-0001).

Based on the technical investigations and recommendations from the TIN/TDS Task Force, the Basin Plan for the Santa Ana Region was revised in 2004 (Resolution No. R8-2004-0001) to establish new groundwater management zones and TDS and nitrate-nitrogen water quality objectives to protect designated beneficial uses in the management zones. The revised objectives were based on a statistical analysis of well water quality data for the period of 1954 to 1973, with the resulting well statistics volumetrically averaged to yield a new statistic for each groundwater management zone (defined as the "historical ambient" water quality). This approach was consistent with the State's antidegradation policy, State Water Board Resolution No. 68-16. Because these objectives represent historical ambient quality consistent with the antidegradation policy, they are termed "antidegradation" objectives.

In addition to the antidegradation objectives established in the 2004 Basin Plan Amendment, an alternative set of "maximum benefit" TDS and nitrate-nitrogen objectives was established for specific groundwater management zones. These "maximum benefit objectives", which are less stringent than the applicable antidegradation objectives, were developed and approved to accommodate water resource management plans formulated by specific agencies and parties. These plans incorporated, in part, the expanded use and recharge of recycled water. Adoption of these less stringent objectives required the demonstration of conformance with the antidegradation policy, *i.e.*, that the beneficial uses of the affected waters would continue to be protected, that waste discharges would be required to achieve best practicable treatment or control, and that water quality consistent with maximum benefit to the people of the state would be maintained. The proponents of the "maximum benefit" objectives made these demonstrations. The "maximum benefit" demonstrations were based on commitments by the proponents of the objectives to implement specific programs and projects, which were then incorporated in the Basin Plan as well. The Basin Plan specifies that if these programs and projects are not implemented to the Regional Board's satisfaction, then the alternative "antidegradation" objectives apply to the affected waters for regulatory purposes. Further, in this situation, the Basin Plan requires mitigation for discharges in excess of those allowed pursuant to the antidegradation objectives.

The 2004 Basin Plan Amendment also included updated wasteload allocations for regulating discharges of TDS and total inorganic nitrogen (TIN) to the Santa Ana River and its tributaries, and thence to groundwater management zones recharged by these surface waters. The Santa Ana River and tributaries are a significant source of recharge to underlying groundwater management zones in the Upper Santa Ana River Basin and, below Prado Dam, to the Orange

County groundwater basin. The quality of the river and its tributaries thus has a significant effect on the quality of the Region's groundwater, which is used by more than 5 million people. Control of surface water quality is appropriately one of the Regional Board's highest priorities. The wasteload allocations distribute a share of the total TDS and TIN wasteloads to each of the discharges to the river or its tributaries. The allocations are implemented principally through TDS and nitrogen limits in waste discharge requirements issued to municipal wastewater treatment facilities (Publicly Owned Treatment Works or POTWs) that discharge to the Santa Ana River, either directly or indirectly.<sup>2</sup>

Lastly, the 2004 Basin Plan Amendment contained provisions that required dischargers to develop and implement long-term groundwater and surface water monitoring and reporting programs. The purpose of these programs is to collect real-time data to assess the status and trends of nitrogen and TDS concentrations throughout the watershed. These data serve as a basis for review and/or update of the Salt Management Plan. Annual reporting of the surface water quality data and triennial reporting of ambient groundwater quality are required.

### **Basin Monitoring Program Task Force (BMPTF)**

To implement requirements specified in the 2004 Salt Management Plan, in 2005 local stakeholders formed the Basin Monitoring Program Task Force (BMPTF), administered by the Santa Ana Watershed Project Authority (SAWPA). Like its predecessor, the TIN/TDS Task Force, the BMPTF is comprised of approximately 22 water supply and wastewater agencies in the region. Working closely with Water Board staff, the BMPTF has utilized consultants to recalculate the ambient concentration of TDS and nitrate-nitrogen in each groundwater management zone and also to perform the update to the TDS and nitrogen wasteload allocations. The BMPTF has also been instrumental in reviewing provisions of the existing Salt Management Plan to ensure that the Basin Plan reflects current knowledge and science. These BMPTF studies and recommendations are the principal basis for the proposed amendments to the Salt Management Plan.

### **1.3 Proposed Amendments to the Basin Plan**

The proposed amendments to the Basin Plan are shown in the Attachment to Resolution No. R8-2014-0005 and include the following:

- Update of the Plans and Policy Chapter of the Basin Plan to incorporate the Onsite Wastewater Treatment Policy (OWTS)<sup>3</sup>;
- Update of the map delineating the Beaumont Management Zone Basin Boundary, and the addition of explanatory narrative;
- Update of groundwater management zone ambient water quality and assimilative capacity findings and incorporation of language pertaining to future updates of these findings;

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<sup>2</sup> Work to update these wasteload allocations is being conducted and a separate Basin Plan amendment will be prepared.

<sup>3</sup> While the OWTS Policy was not specifically part of the BMPTF efforts related to the revisions of the Salt Management Plan, it is being incorporated into this Basin Plan amendment (see Section 2.0).

- Update of the Yucaipa, San Timoteo and Beaumont Management Zone Maximum Benefit Programs.

## 2.0 On-site Wastewater Treatment Systems

As part of the 1994 updates of the Basin Plan, all of the applicable statewide Plans and Policies were incorporated by reference into the Basin Plan. Since that time, a number of Plans and Policies, including, but not limited to, the Recycled Water Policy, the Water Quality Enforcement Policy, the Low Threat Underground Storage Tank Closure Policy, and the On-site Wastewater Treatment System Policy (OWTS), have been adopted by the State Water Board. While new statewide plans and policies are typically incorporated in Regional Board basin plans by reference, with brief explanatory paragraphs, the Regional Boards are explicitly required to incorporate the requirements established in the OWTS Policy in their respective Basin Plans. The Regional Boards may consider whether to retain or adopt any more protective OWTS standards.

### 2.1 Incorporation of the On-site Wastewater Treatment Systems Statewide Policy into the Basin Plan

On June 19, 2012, the State Water Board approved a water quality control policy for siting, design, operation, and maintenance of onsite wastewater treatment systems (OWTS policy). This Policy authorizes only subsurface disposal of domestic strength, and in limited instances high strength, wastewater and establishes minimum requirements for the permitting, monitoring, and operation of OWTS for protecting beneficial uses of waters. OWTS systems are referred to as on-site septic tank-subsurface disposal systems in the Santa Ana Region Basin Plan (see Chapter 5). The OWTS Policy conditionally waives the requirements for owners of OWTS to apply for and receive Waste Discharge Requirements in order to operate their systems, provided that they meet the conditions established in the Policy. The OWTS Policy does not supersede or require modification of Total Maximum Daily Loads or Basin Plan prohibitions of discharges from OWTS.

It is the intent of the OWTS Policy to utilize efficiently and improve upon where necessary existing local programs through coordination between the State and local agencies. To accomplish this purpose, the Policy establishes a statewide, risk-based, tier approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from OWTS.

#### Tiers

The new OWTS Policy implements levels (tiers) of requirements based upon the potential threat to water quality that may be caused by the onsite system. The tiers are as follows:

**Tier 0 - Existing OWTS:** provides a conditional waiver of waste discharge requirements for existing, properly functioning systems that are not failing or in need of corrective action (Tier 4) and are not determined to be contributing to an impairment of surface water (Tier 3). Tier 0 conditions for existing OWTS are specified in section 6 of the OWTS Policy.

**Tier 1- Low-Risk New or Replacement OWTS:** provides a conditional waiver of waste discharge requirements for new or replacement systems that comply with specific low risk

siting and design criteria intended to be protective of water quality and where there is not an approved Local Agency Management Program (LAMP) (see Tier 2, below). The criteria are intentionally conservative to ensure that use of such systems, without specific monitoring, will not result in water quality impairment. Tier 1 criteria for low-risk OWTS are specified in sections 7 and 8 of the OWTS Policy.

**Tier 2 – Local Agency Management Program (LAMP) for New or Replacement**

**OWTS:** To address the broad range of geological and climatic conditions in California that may affect OWTS siting, design and operation, local agencies may submit management programs for approval by the appropriate Regional Board (see below) and upon approval, then manage the installation of new and replacement OWTS under that LAMP. Once the LAMP is approved, new and replacement OWTS that are included within the LAMP may be approved by the local agency. LAMPs approved under Tier 2 provide an alternate method from Tier 1 programs to achieve the same water quality and public health protection goals. At its discretion, the local agency may include Tier 1 standards within its Tier 2 LAMP. Tier 2 requirements for LAMPs are described in section 9 of the OWTS Policy.

**Tier 3 – Impaired Areas:** provides special conditions for existing, new and replacement OWTS located near impaired waters listed in Attachment 2 of the OWTS Policy. These OWTS may be addressed by a TMDL and its implementation program, or by special provisions contained in a LAMP. If there is no TMDL or special provisions, new or replacement systems within 600 feet of the impaired waters listed in Attachment 2 to the Policy must meet advanced protection requirements specified in the Policy. The Tier 3 advanced treatment requirements are in section 10 of the OWTS Policy.

**Tier 4 – OWTS Requiring Corrective Action** specifies corrective actions for failing onsite systems. After completion of corrective action and repair, the onsite system would then return to Tier 1, Tier 2, or Tier 3 (whichever is appropriate in the specific circumstances). Tier 4 criteria for OWTS requiring corrective action are specified in section 11 of the OWTS Policy.

**Local Agency Management Plans**

A key component of the OWTS Policy is onsite management programs developed and implemented by local agencies. The Policy recognizes that responsible local agencies can provide the most effective means to manage OWTS on a routine basis. The OWTS Policy specifies that the Santa Ana Region will review and, if appropriate, approve new Local Agency Management Plans (LAMPS) for new and replacement OWTS in all of Orange County. The Colorado Desert and the Lahontan Regional Water Quality Control Boards will review and approve LAMPs for the area of the Santa Ana Region located in Riverside and San Bernardino Counties, respectively.

The OWTS Policy is available at the following link:

[http://www.waterboards.ca.gov/water\\_issues/programs/owts/docs/owts\\_policy.pdf](http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf)

**2.2 Proposed Modifications to the Basin Plan Minimum Lot Size Criteria for New/Replacement OWTS**

In addition to incorporation of the OWTS Policy, changes to Chapter 5 (Implementation Plan) “Minimum Lot Size Requirements and Exemption Criteria for New Developments

Using On-site Septic Tank-Subsurface Leaching/Percolations Systems”, are also proposed. Studies conducted during the 1980’s indicated that high density developments utilizing septic tanks for wastewater disposal were adversely affecting the quality of underlying groundwaters within the Santa Ana Region. In response, on October 13, 1989, the Regional Board amended the Basin Plan to add a regionwide one-half acre minimum lot size requirement for new developments using on-site septic tank-subsurface disposal systems. Criteria pertaining to replacement systems were also specified, together with criteria for exemptions from the minimum lot size requirements. The Regional Board continues to restrict new developments proposing to use septic tanks to an average of one single-family residence per half-acre.

As discussed above, to address new and replacement systems, the OWTS Policy relies primarily on local agencies (e.g., counties, cities and independent districts) to develop and implement local agency management programs (LAMPs), approved by the Regional Boards. The Policy provides the local agencies three years to develop their LAMP and submit it to the Regional Board for approval. If a LAMP has not been approved and implemented within five years of the effective date of the Policy (May 13, 2018), the very restrictive Tier 1 criteria will apply for new or replacement OWTS. In the interim, except for proposed systems located near impaired waterbodies, local agencies are permitted to continue to implement their current OWTS permitting programs, provided they are in conformance with the Basin Plan.

Board staff regularly coordinates with local agencies to address the permitting of OWTS. Riverside and San Bernardino Counties have incorporated the Regional Board’s minimum lot size requirements into their respective guidelines for the proposed use of OWTS (see Section 2.1). Large scale projects (e.g., 30 dwellings or more, discharges of 5,000-gallons per day, etc.) are referred to Regional Board staff for approval. Project proponents are required to submit copies of County approved soils percolation report(s), site plan(s) and CEQA documentation for Board staff review. All projects proposing the use of septic systems that do not meet the Minimum Lot Size Criteria (e.g., small lots, high groundwater, soil conditions, etc.) are also referred to the Regional Board for review/consideration. The Counties also have the discretion of referring any project they believe may not be protective of water quality and/or public health to the Regional Board for review.

Although the criteria for new or replacement OWTS located near impaired surface waterbodies are effective immediately, the Policy’s criteria for new/replacement systems elsewhere do not become effective until a LAMP is approved, or May 13, 2018, whichever occurs first. Therefore, it is necessary for the Regional Board to continue to implement its minimum lot size criteria until the Policy’s criteria become effective.

It is assumed that any approved LAMP will contain criteria at least as protective as the minimum lot size criteria in the Basin Plan and the Tier 1 criteria in the OWTS Policy. As noted above, Tier 1 criteria will become effective on May 13, 2018, for all areas not addressed by an approved LAMP. Those criteria would apply a 2.5 acre minimum lot size requirement for the majority of this Region. Under either of these scenarios, the Basin Plan one half –acre minimum lot size criteria will be superseded.

Therefore, this proposed Basin Plan amendment to incorporate the OWTS Policy into the Basin Plan will also sunset the *Minimum Lot Size Requirements and Exemption Criteria for New Developments Using On-Site Septic Tank-Subsurface Leaching/Percolation Systems*

specified in the Basin Plan for areas covered under an approved LAMP, or May 13, 2018, whichever occurs first.

### **2.3 Inclusion of Web-link to the State Water Board' Plans and Policies Page**

Given that the State Water Board periodically adopts new or amends existing statewide Plans and Policies, Regional Water Board staff recommends adding to the Basin Plan a link to the State Water Board's Plans and Policies web-page for reference.

***The recommended addition of a brief description of the On-site Wastewater Treatment System Policy to the Basin Plan is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 2.***

***The proposed addition of a link to the State Water Board's Plans and Policies web-page is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 2.***

***Proposed changes to the Minimum Lot Size Criteria are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation.***

### **3.0 Proposed Changes Related to the Beaumont Groundwater Management Zone Boundary**

As discussed in Section 1, as part of the 2004 amendments to the Basin Plan, all groundwater Management Zone boundaries were reviewed. As described in the Basin Plan, groundwater management zones are intended to be distinct groundwater units from a groundwater flow and water quality perspective. In general, the established groundwater management zone boundaries are consistent with groundwater flow regimes and include well-defined areas of recharge and discharge. However, in the case of the Beaumont Management Zone (see Figure 1), the eastern-most boundary was 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. As a result, the Beaumont groundwater basin is not being regulated as a single hydrologic unit<sup>4</sup>.

Staff recommends that Figure 3-3 in the Basin Plan (Management Zone Boundaries – San Bernardino Valley and Yucaipa/Beaumont Plains) be amended to show both the boundary of the Santa Ana Region overlying the Beaumont Management Zone, as now delineated in the Basin Plan, and the boundary of this zone from a hydrogeological perspective, consistent with the methodology used to define other groundwater management zone boundaries in the Santa

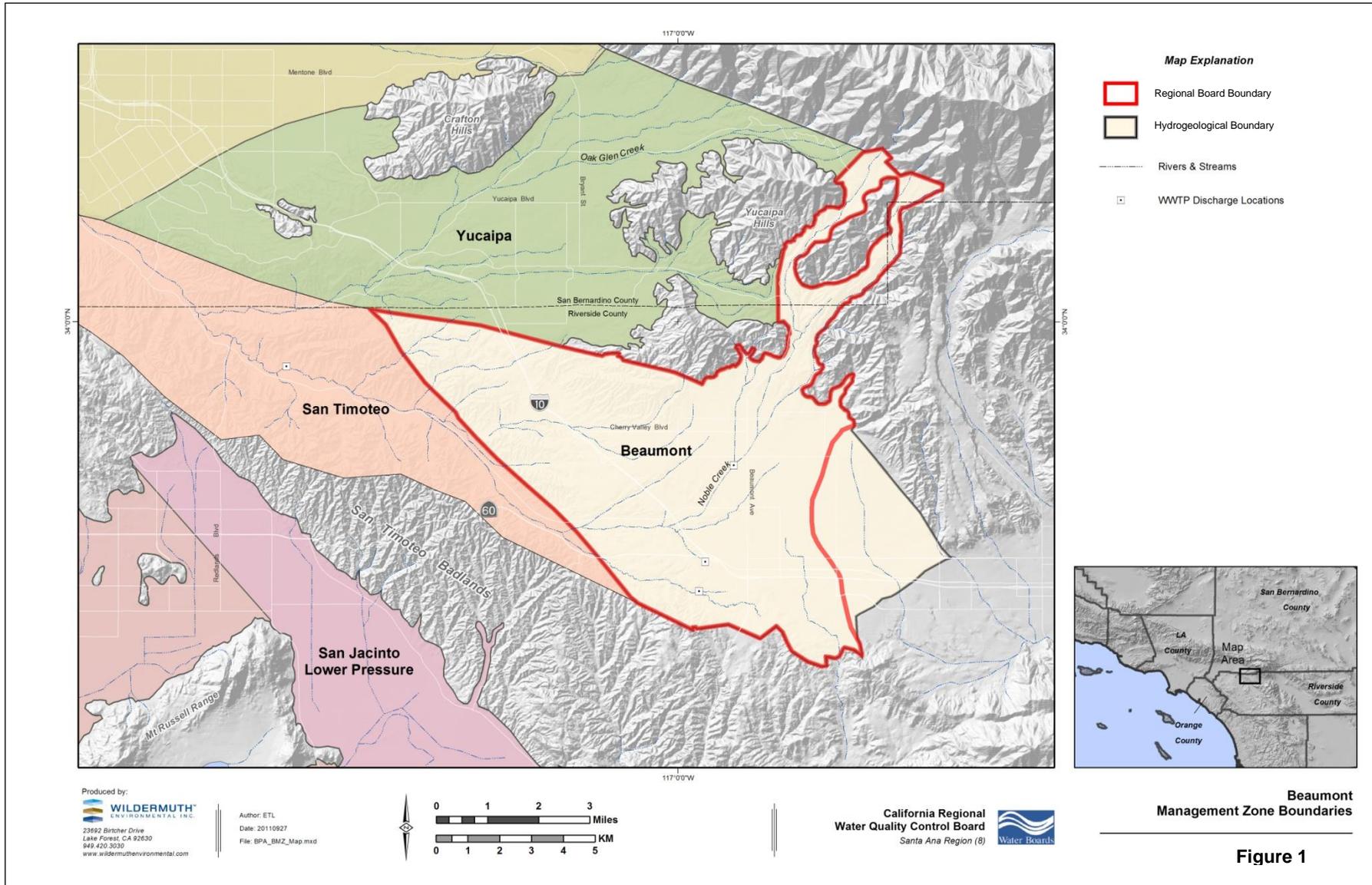
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<sup>4</sup> The term "groundwater management zone" is employed solely in the Basin Plan for the Santa Ana Region. The Basin Plan for the Colorado River Region uses the term "hydrologic unit".

Ana Region. These management zone boundaries are shown in Figure 1. A narrative discussion would also be added to the Basin Plan to explain the boundary differences and their significance from a regulatory perspective. The narrative would include a brief explanation of the coordinated regulatory approach that would be used by the Santa Ana and Colorado Water Boards to assure that waste discharges, the use of recycled water, recharge projects and the like would be considered in the context of potential impacts to the Beaumont Management Zone as a whole. This approach would facilitate the protection of water quality and beneficial uses in the management zone, as well as the efficient and effective management of water/wastewater resources. The proposed narrative is shown in the Attachment to the Resolution 2014-0005, Chapter 3 – Beneficial Uses.

***A revised map (Figure 3-3) delineating both the legal and hydrogeological boundaries of the Beaumont Management Zone and the narrative proposed to be added to the Basin Plan are included in the draft Basin Plan amendment (Attachment to Resolution No. R8-2014-0005, Chapter 3, Beneficial Uses).***

**Figure 1. Beaumont Management Zone – Proposed Revised Map Delineating Legal and Hydrogeological Boundaries**



#### 4.0 Assimilative Capacity Findings

Some groundwater management zones in the Region have assimilative capacity for TDS and/or nitrogen; that is, current quality is better than established water quality objectives. The amount of assimilative capacity varies widely, depending on the individual characteristics of the groundwater management zone in question. As specified in the Basin Plan, current ambient quality for all management zones must be determined every three years (Chapter 5 – Implementation, V.B.1). This enables the Regional Board and dischargers to determine: 1) whether water quality objectives are being met; 2) whether findings of assimilative capacity need to be revised; and, 3) whether some change in the nitrogen and/or TDS management strategy is necessary to protect and/or improve water quality.

Working closely with stakeholders throughout the Region, the Regional Board adopted a standard method for calculating the average ambient concentration of nitrate-nitrogen and TDS in each groundwater management zone. The methods are described in Basin Plan amendment attached to Regional Board Resolution No. R8-2004-0001, the related staff report and technical appendices, including the Phase 2A Final Technical Memorandum for the TIN/TDS Study prepared by Wildermuth Environmental, Inc., July 2000. A brief description of the mathematical procedures applied in the standard methods, including the specific algebraic equations used, is also available in the report entitled: "Final Technical Memorandum – Recomputation of Ambient Water Quality in the Santa Ana Watershed for the Period 1990 to 2009" prepared on behalf of the BMPTF by Wildermuth Environmental, Inc. (WEI, 2011). It is important to note that no substantive computational changes have been made to the assimilative capacity calculation procedure since the methods were approved for use by the Regional Board in 2004. In all cases, the current ambient concentration of nitrate-nitrogen and TDS is calculated as a volume-weighted average. All available groundwater data for the most recent 20-year monitoring period are used to ensure that the computed ambient water quality concentrations account for both temporal and spatial variability, as recommended in state guidance concerning the implementation of the state's antidegradation policy.<sup>5</sup>

Since adoption of the 2004 Basin Plan amendment, assimilative capacity findings have been updated four times (on a three-year schedule). The first re-assessment covered the 20-year period from 1978 to 1997 (WEI, 2000); the second update covered the period from 1984 to 2003 (WEI, 2005); the third update covered the period from 1987 to 2006 (WEI, 2008); and the most recent update covers the period from 1990 to 2009 (WEI, 2011). Currently, the BMPTF is in the process of completing the ambient water quality determination for the period 1993-2013; this is expected to be completed by June 2014.

To determine whether TDS and nitrate-nitrogen assimilative capacity exists in each management zone, the TDS and nitrate-nitrogen ambient water quality concentrations were generally compared to the antidegradation objectives, which were based on historical water quality. (Where "maximum benefit" objectives have been established and apply (i.e., where the 'maximum benefit' programs are being implemented to the Regional Board's satisfaction), current ambient quality is compared to those objectives.) If the current ambient water quality of a management zone is the same as or poorer than the applicable objectives, then that management zone does not have assimilative capacity. If the current ambient water quality of a management zone is better than the applicable objectives, then that management zone has

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<sup>5</sup> State Water Resources Control Board. Administrative Procedures Update 90-004."Antidegradation Policy Implementation for NPDES Permitting".

assimilative capacity. The difference between the objectives and current ambient quality is the amount of assimilative capacity available.

Tables 1 and 2 show the established water quality objectives and the current ambient quality for TDS and nitrate-nitrogen for each management zone. These tables also list the TDS and nitrate-nitrogen assimilative capacity of the management zones, if any. Of the thirty-seven (37) management zones, twenty-one (21) lack assimilative capacity for TDS, and twenty-four (24) lack assimilative capacity for nitrate-nitrogen<sup>6</sup>. There are six (6) management zones for which there were insufficient data to calculate TDS and nitrate-nitrogen objectives and/or current assimilative capacity. These 6 management zones are assumed to have no TDS or nitrate-nitrogen assimilative capacity. Additional data will be needed if and when new projects using recycled water are proposed for those groundwater management zones where assimilative capacity has not been evaluated.

It is important to note that changes to the assimilative capacity findings may indicate a true trend in groundwater quality or may simply reflect fluctuations that occur naturally in response to variations in the amount of qualified data available. For example, as the watershed slowly urbanizes, old agricultural wells are abandoned and new municipal wells are installed. As a result, the dataset used to estimate groundwater quality is always changing. Two examples help illustrate this point. The first is the Chino-South Management Zone, where the average ambient TDS concentration appeared to increase by 150 mg/L between 2003 and 2006. Such a large change over such a short period of time is considered extremely unusual. Further analysis revealed that a significant number of wells that could not be used to calculate the 1997 or 2003 estimates due to lack of sufficient data did qualify for the 2006 update. Because of the improved dataset, the observed change in water quality represents a better and more accurate estimate of TDS concentrations for this management zone.

A similar phenomenon occurred in the Orange County Management Zone, where the average ambient TDS concentration appeared to increase by 30 mg/L in just three years (2003-2006). Once again, more detailed investigation of the underlying data showed that a number of additional wells became qualified for inclusion in the 2006 update. In this case, the added wells were situated on the far west side of the aquifer where sea water intrusion tends to increase salinity concentrations. When the new data were averaged together with all of the other water quality information from elsewhere in the management zone, TDS concentrations appeared to increase by about 30 mg/L.

Since similar situations are expected to occur in the future, the BMPTF has taken the initial steps to develop new "interpretive tools" that can be used to help distinguish true trends in water quality from the normal fluctuations caused by using a non-static dataset. As discussed in the WEI, 2011 Final Technical Memorandum, this analysis includes using "key wells" with a long period of water quality data collection to evaluate trends to cross-validate and corroborate such water quality trends. This analysis will be used in the future to aid in the understanding of assimilative capacity findings.

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<sup>6</sup> These assimilative capacity findings assume that the maximum benefit TDS and nitrate-nitrogen objectives for Chino North, Cucamonga, Yucaipa, San Timoteo, Beaumont and the San Jacinto Upper Pressure Management Zones are in effect. If maximum benefit objectives are not in effect and the antidegradation objectives apply instead, twenty-nine (29) Management Zones lack assimilative capacity for TDS and thirty-two (32) Management Zones lack assimilative capacity for nitrate nitrogen (see Tables 1 and 2).

**Table 1. Water Quality Objectives, Ambient Water Quality, and Assimilative Capacity for TDS**

Management Zone	Water Quality <sup>1</sup> Objective (mg/L)	1997 <sup>2</sup> Ambient (mg/L)	2003 <sup>3</sup> Ambient (mg/L)	2006 <sup>4</sup> Ambient (mg/L)	2009 <sup>5</sup> Ambient (mg/L)	Assimilative Capacity (mg/L)
<b>UPPER SANTA ANA RIVER BASIN</b>						
Beaumont – “max benefit” <sup>6</sup>	330	290	260	260	280	50
Beaumont – “antideg”	230	290	260	260	280	-50**
Bunker Hill A	310	350	320	330	340	-30**
Bunker Hill B	330	260	280	280	270	60
Colton	410	430	430	450	430	-20**
Chino North – “max benefit” <sup>6</sup>	420	300	320	340	340	80
Chino 1 – “antideg”	280	310	330	340	340	-60**
Chino 2 – “antideg”	250	300	340	360	360	-110**
Chino 3 – “antideg”	260	280	280	310	320	-60**
Chino-South	680	720	790	940	980	-300**
Chino East	730	760	620	650	770	-40**
Cucamonga – “max benefit” <sup>6</sup>	380	260	250	250	250	130
Cucamonga – “anti-deg”	210	260	250	250	250	-40**
Lytle	260	240	230	230	240	20
Rialto	230	230	220	230	230	0**
San Timoteo – “max benefit” <sup>6</sup>	400	300	?	?	420 <sup>7</sup>	-20**
San Timoteo – “anti-deg”	300	300	?	?	420 <sup>7</sup>	-120**
Yucaipa – “max benefit” <sup>6</sup>	370	330	310	310	320	50
Yucaipa – “antideg”	320	330	310	310	320	0**
<b>MIDDLE SANTA ANA RIVER BASIN</b>						
Arlington	980	?	1020	960	1020	-40**
Bedford	?	?	740	?	?	--**

**Table 1. Water Quality Objectives, Ambient Water Quality, and Assimilative Capacity for TDS**

<b>Management Zone</b>	<b>Water Quality<sup>1</sup> Objective (mg/L)</b>	<b>1997<sup>2</sup> Ambient (mg/L)</b>	<b>2003<sup>3</sup> Ambient (mg/L)</b>	<b>2006<sup>4</sup> Ambient (mg/L)</b>	<b>2009<sup>5</sup> Ambient (mg/L)</b>	<b>Assimilative Capacity (mg/L)</b>
Coldwater	380	380	400	420	440	-60**
Elsinore	480	480	460	470	470	10
Lee Lake	?	?	?	?	?	--**
Riverside A	560	440	440	440	430	130
Riverside B	290	320	310	340	340	-50**
Riverside C	680	760	750	740	740	-60**
Riverside D	810	--	?	?	?	--**
Riverside E	720	720	700	710	700	20
Riverside F	660	580	570	570	570	90
Temescal	770	780	700	780	790	-20**
Warm Springs	?	?	?	?	?	--**
<b>SAN JACINTO RIVER BASINS</b>						
Canyon	230	220	420	370	420	-190**
Hemet South	730	1030	850	920	910	-180**
Lakeview – Hemet North	520	830	840	880	870	-370**
Menifee	1020	3360	2220	2140	2050	-1030**
Perris North	570	750	780	730	770	-200**
Perris South	1260	3190	2200	2600	2470	-1210**
San Jacinto Lower	520	730	950	810	800	-280**
San Jacinto Upper – “max benefit” <sup>6</sup>	500	370	370	350	350	250
San Jacinto Upper – “anti-deg”	320	370	370	350	350	-30**

**Table 1. Water Quality Objectives, Ambient Water Quality, and Assimilative Capacity for TDS**

Management Zone	Water Quality <sup>1</sup> Objective (mg/L)	1997 <sup>2</sup> Ambient (mg/L)	2003 <sup>3</sup> Ambient (mg/L)	2006 <sup>4</sup> Ambient (mg/L)	2009 <sup>5</sup> Ambient (mg/L)	Assimilative Capacity (mg/L)
<b>LOWER SANTA ANA RIVER BASINS</b>						
Irvine	910	910	880	920	910	0**
La Habra	?	?	?	?	?	--**
Orange County	580	560	560	590	600	-20**
Santiago	?	?	?	?	?	--**

**Source: WEI, 2011**

\*\* → Indicates Management Zone has no assimilative capacity

? → Not enough data to estimate TDS concentrations; management zone is presumed to have no assimilative capacity. If assimilative capacity is demonstrated by an existing or proposed discharger, that discharge would be regulated accordingly.

<sup>1</sup> Data sampling period was 20 years (1954-1973) for historical ambient water quality computations.

<sup>2</sup> Data sampling period was 20 years (1978-1997) for current ambient water quality computations

<sup>3</sup> Data sampling period was 20 years (1984-2003) for current ambient water quality computations.

<sup>4</sup> Data sampling period was 20 years (1987-2006) for current ambient water quality computations.

<sup>5</sup> Data sampling period was 20 years (1990-2009) for current ambient water quality computations.

<sup>6</sup> Assimilative capacity created by “maximum benefit” objectives is allocated solely to agency(ies) responsible for “maximum benefit” implementation.

<sup>7</sup> For the San Timoteo management zone, the 2009 ambient water quality was estimated using the data from January 1, 1991 to December 31, 2010 to allow for inclusion of data from monitoring wells installed in 2010. This methodology is a deviation from the methodology approved by the BMPTF that has been used to compute the ambient quality for other groundwater management zones. This revised methodology was discussed with the stakeholders in the San Timoteo area and is considered adequate given that there have been insufficient data to conduct computation for the 1987-2006 period.

**Table 2. Water Quality Objectives, Ambient Water Quality, and Assimilative Capacity for Nitrate-nitrogen**

Management Zone	Water Quality <sup>1</sup> Objective (mg/L)	1997 <sup>2</sup> Ambient (mg/L)	2003 <sup>3</sup> Ambient (mg/L)	2006 <sup>4</sup> Ambient (mg/L)	2009 <sup>5</sup> Ambient (mg/L)	Assimilative Capacity (mg/L)
<b>UPPER SANTA ANA RIVER BASINS</b>						
Beaumont – “max benefit” <sup>6</sup>	5.0	2.6	2.0	1.6	2.5	2.5
Beaumont – “antideg”	1.5	2.6	2.0	1.6	2.5	-1.0**
Bunker Hill A	2.7	4.5	4.3	4.0	4.0	-1.3**
Bunker Hill B	7.3	5.5	5.8	5.4	5.4	1.9
Colton	2.7	2.9	2.9	2.9	2.8	-0.1**
Chino North – “max benefit” <sup>6</sup>	5.0	7.4	8.7	9.7	9.5	-4.5**
Chino 1 – “antideg”	5.0	8.4	8.9	9.3	9.1	-4.1**
Chino 2 – “antideg”	2.9	7.2	9.5	10.7	10.3	-7.4**
Chino 3 – “antideg”	3.5	6.3	6.8	8.2	8.4	-4.9**
Chino-South	4.2	8.8	15.3	25.7	26.8	-22.6**
Chino East	10	29.1	9.6	12.7	15.7	-5.7**
Cucamonga – “max benefit” <sup>6</sup>	5.0	4.4	4.3	4.0	4.1	0.9
Cucamonga – “anti-deg”	2.4	4.4	4.3	4.0	4.1	-1.7**
Lytle	1.5	2.8	2.7	2.7	2.6	-1.1**
Rialto	2.0	2.7	2.6	2.9	3.1	-1.1**
San Timoteo – “max benefit” <sup>6</sup>	5.0	2.9	?	?	0.8 <sup>7</sup>	4.2
San Timoteo – “anti-deg”	2.7	2.9	?	?	0.8 <sup>7</sup>	1.9**
Yucaipa – “max benefit” <sup>6</sup>	5.0	5.2	5.4	5.3	6.2	-1.2**
Yucaipa – “antideg”	4.2	5.2	5.8	5.3	6.2	-2.0**
<b>MIDDLE SANTA ANA RIVER BASINS</b>						
Arlington	10.0	--	26.0	20.4	18.1	-8.1**

**Table 2. Water Quality Objectives, Ambient Water Quality, and Assimilative Capacity for Nitrate-nitrogen**

Management Zone	Water Quality <sup>1</sup> Objective (mg/L)	1997 <sup>2</sup> Ambient (mg/L)	2003 <sup>3</sup> Ambient (mg/L)	2006 <sup>4</sup> Ambient (mg/L)	2009 <sup>5</sup> Ambient (mg/L)	Assimilative Capacity (mg/L)
Bedford	--	--	2.8	?	?	--**
Coldwater	1.5	2.6	2.4	2.6	2.8	-1.3**
Elsinore	1.0	2.6	2.4	2.4	2.2	-1.2**
Lee Lake	?	?	?	?	?	--**
Riverside A	6.2	4.4	4.9	4.9	5.2	1.0
Riverside B	7.6	8.0	7.8	8.3	8.4	-0.8**
Riverside C	8.3	15.5	15.5	15.3	14.8	-6.5**
Riverside D	10.0	?	?	?	?	--**
Riverside E	10.0	14.8	15.4	15.3	15.2	-5.2**
Riverside F	9.5	9.5	10.6	10.3	10.6	-1.1**
Temescal	10.0	13.2	12.8	12.6	12.0	-2.0**
Warm Springs	?	?	?	?	?	--**
<b>SAN JACINTO RIVER BASINS</b>						
Canyon	2.5	1.6	2.1	1.9	2.7	-0.2**
Hemet South	4.1	5.2	5.4	5.5	5.2	-1.1**
Lakeview – Hemet North	1.8	2.7	3.4	2.7	2.6	-0.8**
Menifee	2.8	5.4	6.0	4.7	4.4	-1.6**
Perris North	5.2	4.7	6.7	6.5	7.4	-2.2**
Perris South	2.5	4.9	5.9	5.5	5.8	-3.3**
San Jacinto Lower	1.0	1.9	1.8	1.2	1.1	-0.1**
San Jacinto Upper – “max benefit” <sup>6</sup>	5.0	1.9	1.7	1.6	1.5	3.5
San Jacinto Upper – “anti-deg”	1.4	1.9	1.7	1.6	1.5	-0.1**

**Table 2. Water Quality Objectives, Ambient Water Quality, and Assimilative Capacity for Nitrate-nitrogen**

Management Zone	Water Quality <sup>1</sup> Objective (mg/L)	1997 <sup>2</sup> Ambient (mg/L)	2003 <sup>3</sup> Ambient (mg/L)	2006 <sup>4</sup> Ambient (mg/L)	2009 <sup>5</sup> Ambient (mg/L)	Assimilative Capacity (mg/L)
<b>LOWER SANTA ANA RIVER BASINS</b>						
Irvine	5.9	7.4	6.5	6.5	6.7	-0.8**
La Habra	?	?	?	?	?	--**
Orange County <sup>8</sup>	3.4	3.4	3.1	3.0	3.0	0.4
Santiago	?	?	?	?	?	--**

**Source: WEI, 2011**

\*\* → Indicates Management Zone has no assimilative capacity

? → Not enough data to estimate TDS concentrations; management zone is presumed to have no assimilative capacity. If assimilative capacity is demonstrated by an existing or proposed discharger, that discharge would be regulated accordingly.

<sup>1</sup> Data sampling period was 20 years (1954-1973) for historical ambient water quality computations.

<sup>2</sup> Data sampling period was 20 years (1978-1997) for current ambient water quality computations

<sup>3</sup> Data sampling period was 20 years (1984-2003) for current ambient water quality computations.

<sup>4</sup> Data sampling period was 20 years (1987-2006) for current ambient water quality computations.

<sup>5</sup> Data sampling period was 20 years (1990-2009) for current ambient water quality computations.

<sup>6</sup> Assimilative capacity created by “maximum benefit” objectives is allocated solely to agency(ies) responsible for “maximum benefit” implementation.

<sup>7</sup> For the San Timoteo management zone, the 2009 ambient water quality was estimated using the data from January 1, 1991 to December 31, 2010 to allow for inclusion of data from monitoring wells installed in 2010. This methodology is a deviation from the methodology approved by the BMPTF that has been used to compute the ambient quality for other groundwater management zones. This revised methodology was discussed with the stakeholders in the Pass Area and is considered adequate given there have been insufficient data to conduct computation for the 1987-2006 period.

<sup>8</sup> No assimilative capacity is assumed to exist in the Orange County Management Zone.

Assimilative capacity findings have significant regulatory repercussions. Water Code Section 13263 requires that waste discharge requirements must implement the Basin Plan. If there is assimilative capacity in the receiving waters for TDS or nitrate-nitrogen, waste discharge requirements may allow a discharge quality in excess of the current ambient quality and the objectives for those constituents, as long as the discharge does not cause violation of the objectives and is consistent with antidegradation requirements. However, if there is no assimilative capacity in the receiving waters, the discharge limits generally cannot exceed the receiving water objectives or the degradation process would be accelerated. This rule was expressed clearly by the State Water Resources Control Board in a decision regarding the appropriate TDS discharge limitations for the Rancho Caballero Mobile home park, located in the Santa Ana Region (Order No. 73-4, the “Rancho Caballero decision”).

Further, if there is assimilative capacity, the Regional Board also needs to consider whether the allowable discharge would consume some of the available assimilative capacity and if so, whether that lowering of ambient water quality should be allowed. Consistent with the State antidegradation policy (Resolution 68-16)<sup>7</sup>, allowing the lowering of water quality must be supported by the following demonstrations:

- that beneficial uses will continue to be protected;
- there is best practicable treatment or control of waste discharges; and,
- that water quality consistent with maximum benefit to the people of the state will be maintained.

Assimilative capacity findings are taken into account when developing and evaluating appropriate wastewater TDS and TIN discharge limits in any proposed NPDES and/or Waste Discharge Requirements. When considering allocating assimilative capacity, the Regional Board will follow the guidelines in State Board’s Recycled Water Policy (Resolution No.2011-0003) (see Section 5.0), the recent *Asociación de Gente Unida por El Agua v. Central Valley Regional Water Quality Control Board (AGUA)* court decision, and State Water Board antidegradation guidance, where appropriate.

Current ambient quality and assimilative capacity findings for the groundwater management zones in the Region are shown in the Basin Plan in Tables 5-3 (TDS) and 5-4 (Nitrate-Nitrogen). These tables are relied upon by Regional Board staff in preparing tentative waste discharge permit limitations. However, it is recognized that these tables have and can continue to become outdated as the findings are updated, unless a Basin Plan amendment process is used to update them. The Basin Plan amendment process is time and resource intensive and may not be able to be accomplished in a timely manner. Therefore, there is the potential that effluent limitations for TDS and/or nitrate-nitrogen specified in accordance with the assimilative capacity findings in the tables would not be supported by the best available information regarding assimilative capacity. To address this problem, Board staff recommends that Tables 5-3 and 5-4 be replaced by text to make clear that the Regional Board will take formal notice of the updated ambient quality findings at a public meeting, with the opportunity for public comment. Once considered and approved by the Regional Board, these updated findings will be used for regulatory purposes and posted on the Regional Board’s web-site.

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<sup>7</sup> “Statement of Policy with Respect to Maintaining the High Quality of Waters in California”

***The revised Total Dissolved Solids (TDS) and nitrate-nitrogen (NO<sub>3</sub>-N) assimilative capacity findings discussion are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation. Text is proposed to be added to make clear that the assimilative capacity findings will be updated every three years, as required by the Basin Plan. The Regional Board will take formal notice of the updated findings at a public meeting, with the opportunity for public comment. The updated findings will be used for regulatory purposes after they are considered by the Regional Board.***

## **5.0 Deletion of Discussion Related to Wastewater Reclamation**

The Basin Plan, Chapter 5, Section IIIB.5 states the following with respect to Wastewater Reclamation:

“Reclamation of wastewater for reuse (recycled water) is an important feature of wastewater and water management for the Santa Ana Region. The California Legislature has declared the primary interest of the people of California in the development of facilities to recycle wastewater to supplement existing water supplies and to meet future water demands (Water Code Section 13510-13512). State policy (State Board Resolution No. 77-1) affirms this commitment to encourage recycled water use. ....”

In 2009, State Water Resources Control Board (State Water Board) adopted a Recycled Water Policy (Resolution No. 2009-0011). Recognizing the statewide benefits of reusing water, the State Water Board set a goal to increase the use of recycled water by at least one million acre-feet in the next 10 years and two million acre-feet by 2030. That goal is consistent with the 2020 Water Conservation Plan (California Department of Water Resources, 2010), which identified recycled water as a key element of the strategy to reduce statewide per capita urban water use by 20% over the next decade.

The Santa Ana Water Board supports the State Board's call "to increase the use of recycled water in a manner that protects water quality as required by state and federal law." In fact, the Santa Ana Water Board has played a lead role in the development of recycled water regulation, and many of the elements of the Santa Ana Water Board's approach for salt management are reflected in the State Water Board's policy. On March 18, 2010, the Santa Ana Water Board adopted the "Declaration of Conformance with the Recycled Water Policy", which demonstrates that the 2004 Salt Management Plan and subsequent BMPTF actions and activities are consistent with and fulfill requirements of the State Water Recycled Policy (RWQCB, Resolution No. R8-2010-0012).

Table 5-7 in the Basin Plan contains a list of reclamation activities that were planned in the Region as of the early 2000s. This information is both out of date and unnecessary and staff recommends that Table 5-7 and related text concerning planned reclamation activities be deleted. Staff proposes that text be added to indicate that updated information on the quantity and quality of reclaimed (recycled) water that is used or proposed to be used in various areas of the Region is provided with each POTW's report of waste discharge (ROWD). This information is then included in the waste discharge requirements issued by the Regional Board to each facility. This is a more accurate and timely method of updating information concerning recycled water use.

The changes to the Basin Plan text updating the wastewater reclamation section do not result in any change in established regulatory practice. The proposed changes to the text merely delete outdated reclamation information and clarify and update information regarding established regulatory practice and conformance with State Water Board policy.

***The proposed changes to the Wastewater Reclamation discussion are shown in the Attachment to Resolution No. R8-2014-0005, p. 3 and 4, Chapter 5, Implementation, Reclamation discussion, including Table 5-7.***

## **6.0 Incorporation of Nitrogen Loss Coefficient for the San Jacinto Groundwater Management Zones**

The Regional Board's regulatory program has long recognized that some nitrogen<sup>8</sup> transformation and loss can occur when wastewater is discharged to surface waters or reused for landscape irrigation. Despite this, nitrogen was long considered a conservative constituent in the subsurface, not subject to significant transformation or loss, and no such losses were identified or assumed for regulatory purposes. However, based on an evaluation of existing data as part of the 2004 update of the Salt Management Plan, a default 25% nitrogen loss coefficient was incorporated into the Basin Plan. This default value represents a conservative value of expected subsurface nitrogen loss from waste discharges for the entire Region based on the data that were available at that time. The 25% nitrogen loss coefficient provides some relief from costs for additional treatment to meet the proposed groundwater management zone objectives when subsurface nitrogen losses could achieve the requisite reductions. Further, as a region-wide default value, the 25% nitrogen loss coefficient can be used with confidence to develop waste discharge limits for nitrogen discharges throughout the Region that would protect the quality of affected groundwater management zones. The nitrogen loss coefficient applies to discharges that affect groundwater management zones with and without nitrate-nitrogen assimilative capacity. The Basin Plan includes equations for calculating nitrogen limitations for discharges to waters with and without assimilative capacity.

The San Jacinto Basin and groundwater management zones shown in Figure 2 are located in southwestern Riverside County. One of the major features of this Basin is the extensive groundwater resources that serve as a vital source of water supply in the area. Eastern Municipal Water District (EMWD) is the principal agency responsible for managing the groundwater resources in the San Jacinto Basin. EMWD owns and operates four regional water reclamation facilities (RWRFs) and is authorized to discharge from these four RWRFs in the San Jacinto Basin pursuant to Regional Board Order No. R8-2008-0008. EMWD produces tertiary treated wastewater that is discharged to various storage ponds; the stored recycled water is delivered, when needed, to various recycled water users. The use areas and storage ponds overlie the following Management Zones: Perris North, Perris South, San Jacinto Lower Pressure, San Jacinto Upper Pressure, Lakeview & Hemet North, Menifee, and Hemet South. The only other Management Zone in the San Jacinto Basin, the Canyon Management Zone, receives no recycled water.

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<sup>8</sup> Nitrogen refers to nitrate-nitrogen in groundwaters and total inorganic nitrogen in surface waters.

Of the eight management zones in EMWD's service area, only the San Jacinto Upper Pressure has nitrogen assimilative capacity (see Table 2)<sup>9</sup>. As a result, nitrogen limits for EMWD's discharge can be restrictive even with application of the default 25% default nitrogen loss coefficient and can severely restrict the use of recycled water. However, if greater nitrogen losses can be demonstrated through actual site-specific studies, then a higher loss coefficient can be used in calculating effluent limits. The resultant limits are less stringent, which, in turn provides EMWD with greater operational flexibility. EMWD retained Daniel B. Stephens & Associates (DBS&A) to evaluate the subsurface underneath the recycled water storage ponds to determine if a greater nitrogen loss coefficient could be justified (Daniel B. Stephens & Associates. 2007) .

To evaluate nitrogen losses, DBS&A evaluated specific EMWD wastewater storage operations at two of the EMWD facilities: storage ponds at the Moreno Valley Regional Water Reclamation Facility in Moreno Valley, which overlie the Perris North Management Zone, and the Alessandro Ponds in San Jacinto, which overlie the San Jacinto Upper Pressure Management Zone (see Figure 2). As part of this evaluation, DBS&A installed a series of pore water monitoring devices: lysimeters at the Alessandro Ponds and groundwater monitoring wells at the Moreno Valley Regional Water Reclamation Facility. DBS&A also concurrently monitored water quality in each of the pond systems to allow for comparisons with the pore water and groundwater quality results. This allowed for an evaluation of whether the pore water and/or groundwater quality was influenced by recycled water quality stored in the ponds and how much nitrogen in the ponds was removed through transformation.

Based on this evaluation, DBS&A concluded the following:

- Total nitrogen concentrations decreased by approximately 60 – 80% at the two EMWD facilities.
- Hydrogeological conditions at the Moreno Valley Regional Water Reclamation Facilities and the Alessandro Ponds are different, yet nitrogen losses at both facilities in the upper 30 or so feet are similar. Given that similar hydrogeological conditions exist beneath similarly operated ponds at other locations within the EMWD service area, nitrogen losses consistent with those at the two EMWD facilities evaluated are expected.
- An estimated range of total nitrogen reductions would also likely be in the 60 to 80% range at all of the EMWD facilities.

Regional Water Board staff recommend that the Basin Plan be updated to reflect the site-specific nitrogen loss coefficient in the San Jacinto Basin management zones. The 60% nitrogen loss coefficient would be applied to discharges to all of the EMWD storage ponds.

For the management zone with assimilative capacity (currently, the San Jacinto Upper Pressure), the TIN discharge limitation would be calculated as follows:

$$\text{TIN Discharge Limit (mg/L)} = \frac{\text{MZ nitrate-nitrogen current ambient water quality}}{(1-\text{nitrogen loss coefficient})}$$

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<sup>9</sup> The San Jacinto Upper Pressure Management Zone has nitrate-nitrogen assimilative capacity as long as the Maximum Benefit Objectives are in effect.

For the remaining San Jacinto management zones, which have no assimilative capacity, the TIN discharge limitation would be calculated as follows:

$$\text{TIN Discharge Limit (mg/L)} = \frac{\text{MZ nitrate-nitrogen water quality objective}}{(1-\text{nitrogen loss coefficient})}$$

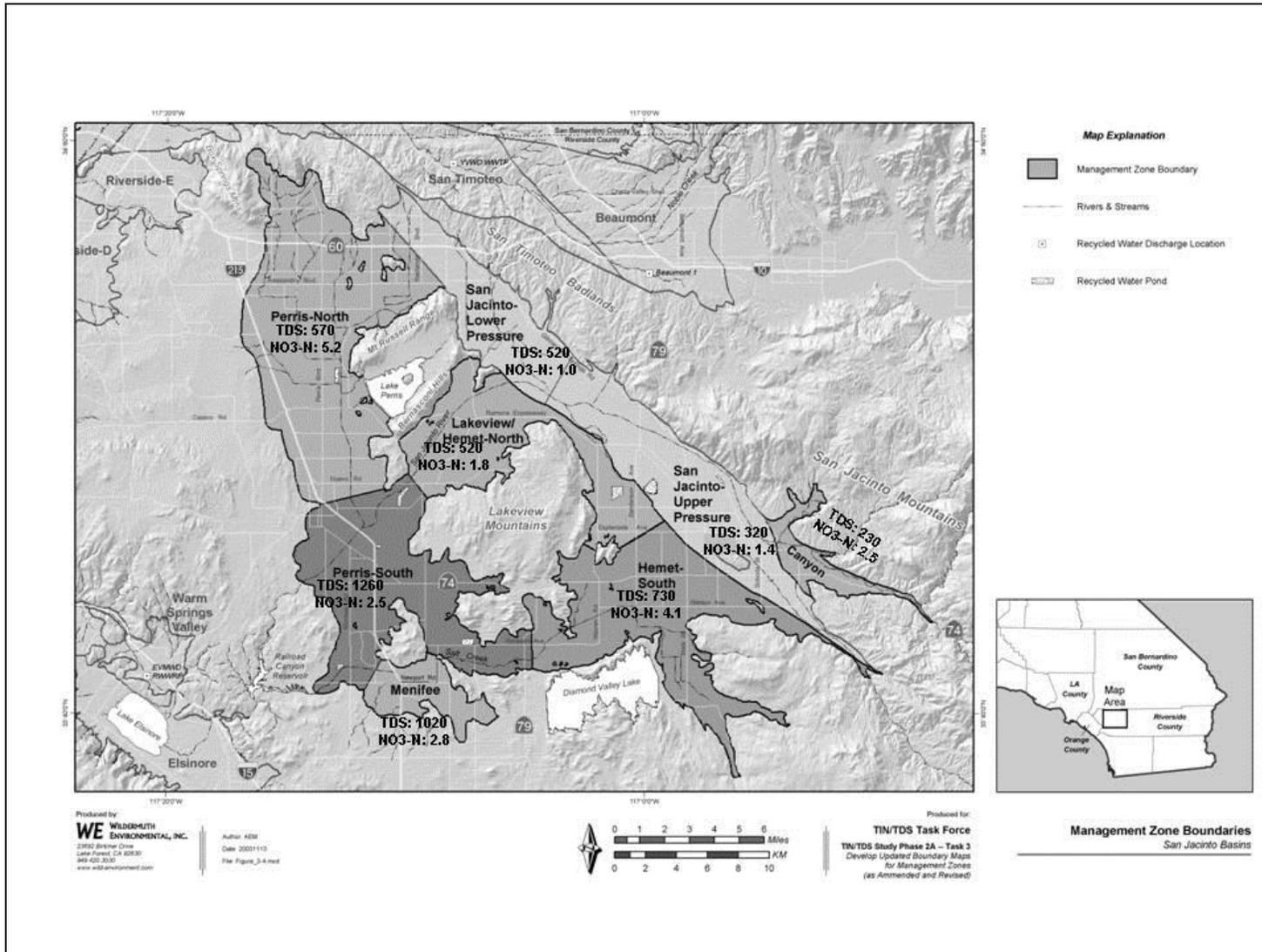
***The proposed addition of the San Jacinto Basin specific nitrogen loss coefficient is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation.***

### **7.0 Update of Salt Management Plan “Other Projects and Programs”**

Incorporated into the Salt Management Plan in 2004 are descriptions of various projects and programs that water supply agencies and wastewater agencies plan and/or continue to implement to address salt. Since 2004, a number of the projects have been discontinued or there are changes to the status. Therefore, based on input from the BMPTF, staff proposes to update the projects/programs descriptions in this section. The recommended changes are descriptive only and have no regulatory implications.

***The proposed changes to the Other Projects and Programs discussion are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Other Projects and Programs***

**Figure 2. San Jacinto Management Zones**



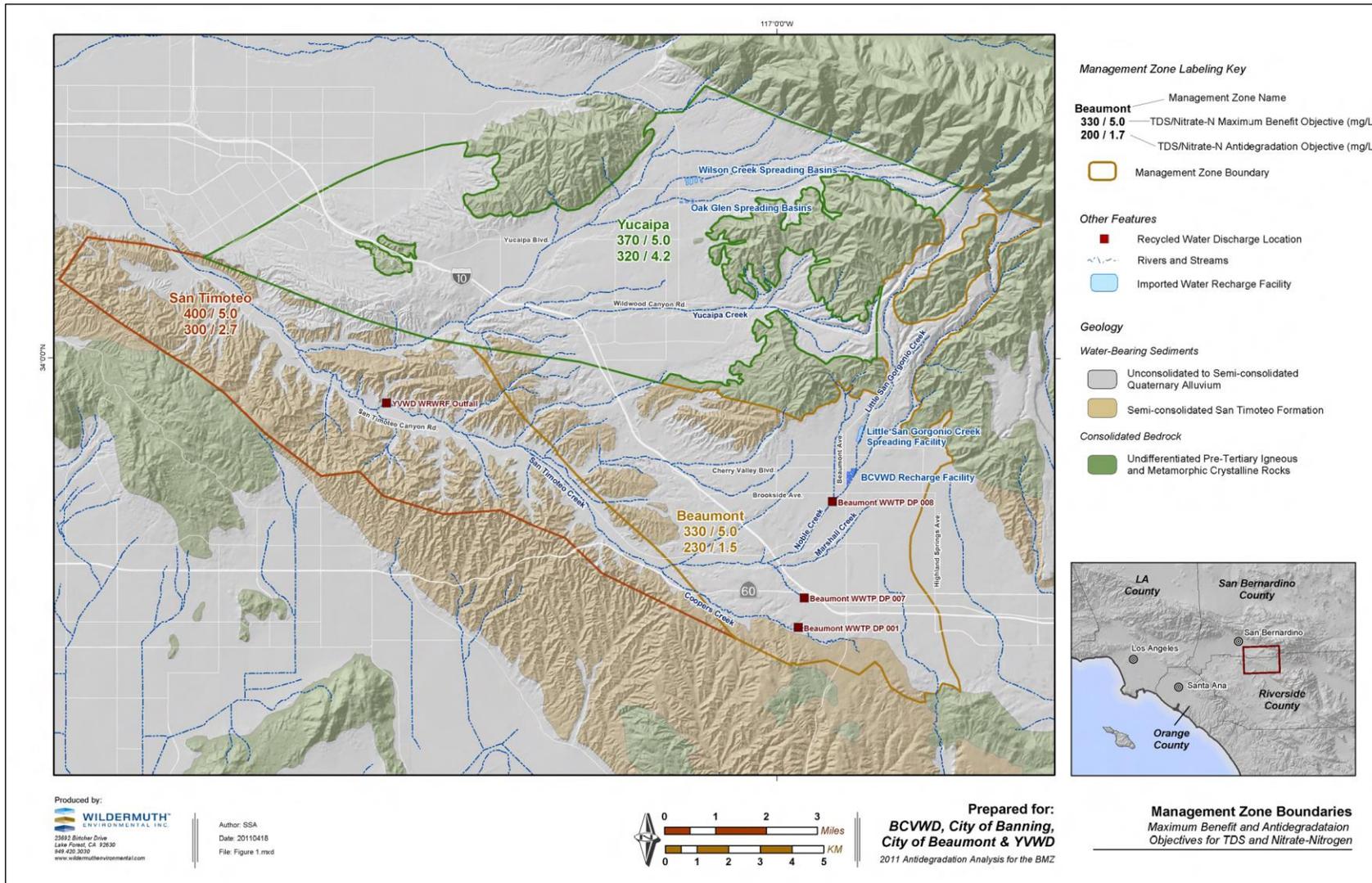
## **8.0 Update of the Beaumont, San Timoteo and Yucaipa Management Zone Maximum Benefit Programs**

### **8.1 Background and Recent Developments in the Beaumont, San Timoteo and Yucaipa Management Zones**

As part of the development of the 2004 Salt Management Plan, several agencies proposed alternative, less stringent TDS and nitrate-nitrogen objectives for specific groundwater management zones. The intent was to accommodate efficient water and wastewater management programs, including the increased use of recycled water. These proposals were based on the requirements of the State's antidegradation policy (State Board Resolution No. 68-16) and on consideration of the factors specified in Water Code Section 13241, including economics, the need to use recycled water, and the need to develop housing in the area. Because the less stringent objectives would allow for a lowering of water quality, the agencies recommending them were required to demonstrate that their proposed objectives would protect beneficial uses and that water quality consistent with the maximum benefit of the people of the state would be maintained. Thus, the objectives were termed "maximum benefit" water quality objectives. Among the agencies that proposed "maximum benefit" objectives for their underlying management zones were the Yucaipa Valley Water District (YVWD), the City of Beaumont, and members of the San Timoteo Watershed Management Authority (STWMA).

San Timoteo Watershed Management Authority (STWMA) was formed in January 2001 by the Beaumont Cherry Valley Water District (BCVWD), the City of Beaumont, the South Mesa Water Company and Yucaipa Valley Water District (YVWD). STWMA formed a stakeholder group to develop a watershed scale water resources management program that would provide a safe and reliable water supply for all water users in the watershed. On June 26, 2002, STWMA submitted a proposal to establish "maximum benefit" objectives for TDS and nitrate-nitrogen for the Beaumont, San Timoteo and Yucaipa groundwater management zones, to accommodate water resource management projects, including the recharge of stormwater, imported State Project Water (SWP) and recycled water. On January 23, 2003, YVWD submitted a separate maximum benefit proposal for the Yucaipa and San Timoteo Management Zones. The Regional Board adopted the maximum benefit proposals in 2004 as part of the larger salt and nutrient management plan update (Resolution R8-2004-0001). This included specific implementation commitments designed to comply with antidegradation policy requirements. The affected management zones are shown in Figure 3.

**Figure 3. San Timoteo Watershed Management Zone Boundaries/ Yucaipa Valley Water District and City of Beaumont Wastewater Discharge Locations**



The 2004 Basin Plan Amendment specified a set of commitments to be implemented by YVWD for the Yucaipa Management Zone and the lower portion of the San Timoteo Management Zone (Basin Plan, Table 5-9a). A separate set of commitments were specified for STWMA and the City of Beaumont to implement in the Beaumont Management Zone and the upper portion of the San Timoteo Management Zone (Basin Plan, Table 5-10a). Since 2004, many developments have occurred in these three management zones and to the agencies responsible for implementing the maximum benefit commitments. The following sections summarize these developments in each of the three management zones.

### **Yucaipa Management Zone**

YVWD has been and remains the sole agency responsible to implement the maximum benefit commitments in the Yucaipa Management Zone. Since the adoption of the maximum benefit management plan for the Yucaipa Management Zone, YVWD has been successfully implementing the maximum benefit commitments specified in Table 5-9a. YVWD has been conducting surface water and groundwater monitoring and reporting on schedule, contributing financially to the Basin Monitoring Program Task Force (BMPTF) to update the wasteload allocation model and the re-computation of the ambient quality of the groundwater management zones, and has upgraded the District's waste water treatment plant for nitrogen removal. YVWD has been proactive in salt management activities within its service area. Specifically, YVWD designed and is in the process of completing a desalter and the associated Yucaipa Valley Brineline project (extension of the SARI line). In 2008, the YVWD Board adopted Resolution No. 11-2008, which identified pollution prevention measures that the District will implement to eliminate pollution sources contributing to salinity in excess of the TDS objectives, such as requirements for new development to connect to sewers, a dry sewer collection system in anticipation of new development, and a sewer septic offset program.

### **San Timoteo Management Zone**

Per the Basin Plan, YVWD and the City of Beaumont/STWMA have been jointly responsible for implementing the maximum benefit commitments in the San Timoteo Management Zone. In 2008, Regional Board staff informed YVWD and the City of Beaumont/STWMA that they had fulfilled most maximum benefit commitments except the commitments to compute the ambient water quality for the San Timoteo Management Zone, and to reduce/remove wastewater discharges to the unlined portion of San Timoteo Creek (Tasks #6 and #9 in Tables 5-9a and 5-10a of the Basin Plan).

As shown in Tables 1 and 2, due to a lack of data, the ambient TDS and nitrate-nitrogen quality in the San Timoteo Management Zone could not be calculated for the 2003, 2006 and 2009 assessment periods (see Section 4 - Assimilative Capacity Findings, above). YVWD and the City of Beaumont's treatment plant effluents are both discharged directly to the San Timoteo Management Zone. Since the 1997 ambient water quality determination, there have been insufficient data to regularly update and evaluate the ambient water quality and the impact of the wastewater discharges on the San Timoteo Management Zone. To address this, YVWD and the City of Beaumont/STWMA contracted with Wildermuth Environmental, Inc. to prepare a joint proposed workplan to install additional monitoring wells in the San Timoteo Management Zone (WEI 2008). The Regional Board approved the Workplan on April 24, 2009 (Resolution No. R8-2009-0034 for YVWD and Resolution No. R8-2009-0035 for the City of Beaumont/STWMA). On July 27, 2010, Regional Board staff

approved a revised schedule for monitoring well installation and directed YVWD and the City of Beaumont to perform a preliminary assessment of ambient water quality and assimilative capacity in the San Timoteo Management Zone. The assessment was characterized as preliminary for the 2009 recomputation because it was recognized that the assessment data would not meet the data criteria for the computation of ambient water quality per the BMPTF agreed upon methodology<sup>10</sup>. The data collected are expected to be used for the 2012 ambient quality determination period that will be completed in 2014. YVWD and the City of Beaumont completed the well installation and water sampling and analysis in August 31, 2010<sup>11</sup>.

The 2010 preliminary estimate of ambient TDS and nitrate-nitrogen quality and assimilative capacity findings for the San Timoteo Management Zone completed by Wildermuth Environmental Inc. on behalf of YVWD and the City of Beaumont (WEI, 2010), utilized a modified methodology: the computation period was shifted to the 20-year period of January 1, 1991 to December 31, 2010 to allow for inclusion of results from the monitoring wells constructed in 2010 (The 20-year period for the 2009 re-computation of ambient groundwater quality was January 1, 1990 to December 31, 2009 for the rest of Management Zones in the Santa Ana Region). The results of this assessment are shown below in Table 3.

**Table 3. San Timoteo Management Zone - Preliminary Ambient Water Quality Determination**

	“Antidegradation” WQO (mg/L)	“Maximum Benefit” WQO (mg/l)	2010 Preliminary Current Ambient Quality (mg/L)	2010 Preliminary Assimilative Capacity (mg/L)
TDS	300	400	420	-20**
NO <sub>3</sub> -N	2.7	5	0.8	4.2

**Source: WEI, 2010**

\*\* → Indicates Management Zone has no assimilative capacity in comparison to the “maximum benefit objectives”

As shown in Table 3 above, the preliminary results indicate that, in comparison to the maximum benefit objectives, there is no assimilative capacity for TDS in the San Timoteo Management Zone. Consequently, YVWD and the City of Beaumont effluent discharges are required to meet the maximum benefit objective for TDS. Pursuant to the July 27, 2010, Regional Board staff letter, if no assimilative capacity was found, by December 31, 2010,

<sup>10</sup> The methodology to re-compute the ambient water quality requires a minimum of 3 annual TDS and nitrate-nitrogen measurements at each well. This methodology is a deviation from the methodology approved by the BMPTF that has been used to compute the ambient quality for other groundwater management zones. The revised methodology was discussed with the stakeholders in the Pass Area and the Water Board staff and was considered necessary because there had been insufficient data for the ambient quality computation for the 1990-2009 and prior computation periods.

<sup>11</sup> By July 2010, STWMA had dissolved and was no longer a responsible party for implementation of maximum benefit program commitments in the San Timoteo Management Zone (see also the discussion on the Beaumont Management Zone).

YVWD and the City of Beaumont were required to develop and submit a compliance plan and schedule to comply with the maximum benefit objectives. YVWD and the City of Beaumont submitted a draft compliance plan by the deadline, and requested that the schedule for submittal of the final compliance plan be extended pending the completion of the modeling analysis and development of a revised implementation plan for the maximum benefit commitments for the Beaumont Management Zone (see below). Considering that YVWD and the City of Beaumont have water management activities in both the Beaumont and San Timoteo Management Zones, and that it is important to have a consistent approach in implementing the maximum benefit commitments in both these management zones, Regional Board staff approved the time extension (Regional Board, 2011)<sup>12</sup>. Both YVWD and the City of Beaumont wastewater discharges to the San Timoteo Management Zone will be held at the TDS “maximum benefit” objective of 400 mg/L. In 2012, YVWD’s effluent quality ranged from 395 to 460 mg/L with an annual average of 434 mg/L. For the City of Beaumont, the 2012 TDS quality ranged from 360-480 mg/L and the annual average was 400 mg/L.

### **Beaumont Management Zone**

Water resource management activities and plans in the Beaumont Management Zone, and the parties responsible for them, have changed from the maximum benefit program specified in the 2004 Basin Plan. In 2009, both YVWD and BCVWD withdrew from STWMA; in July 2010, STWMA withdrew from the BMPTF, which effectively dissolved STWMA. By virtue of the dissolution of STWMA, the South Mesa Water Company also was no longer a STWMA member. The City of Beaumont continued the surface water and groundwater monitoring and reporting programs for the Beaumont Management Zone and the upper portion of the San Timoteo Management Zone, and continued to contribute to the BPMTF for update of the wasteload allocation (WLA) model and the recomputation of ambient groundwater quality. In addition, the partnership between BCVWD and the City of Beaumont to complete the non-potable water supply system and to provide recycled water for non-potable uses broke down (Task 4, Table 5-10a in the Basin Plan).

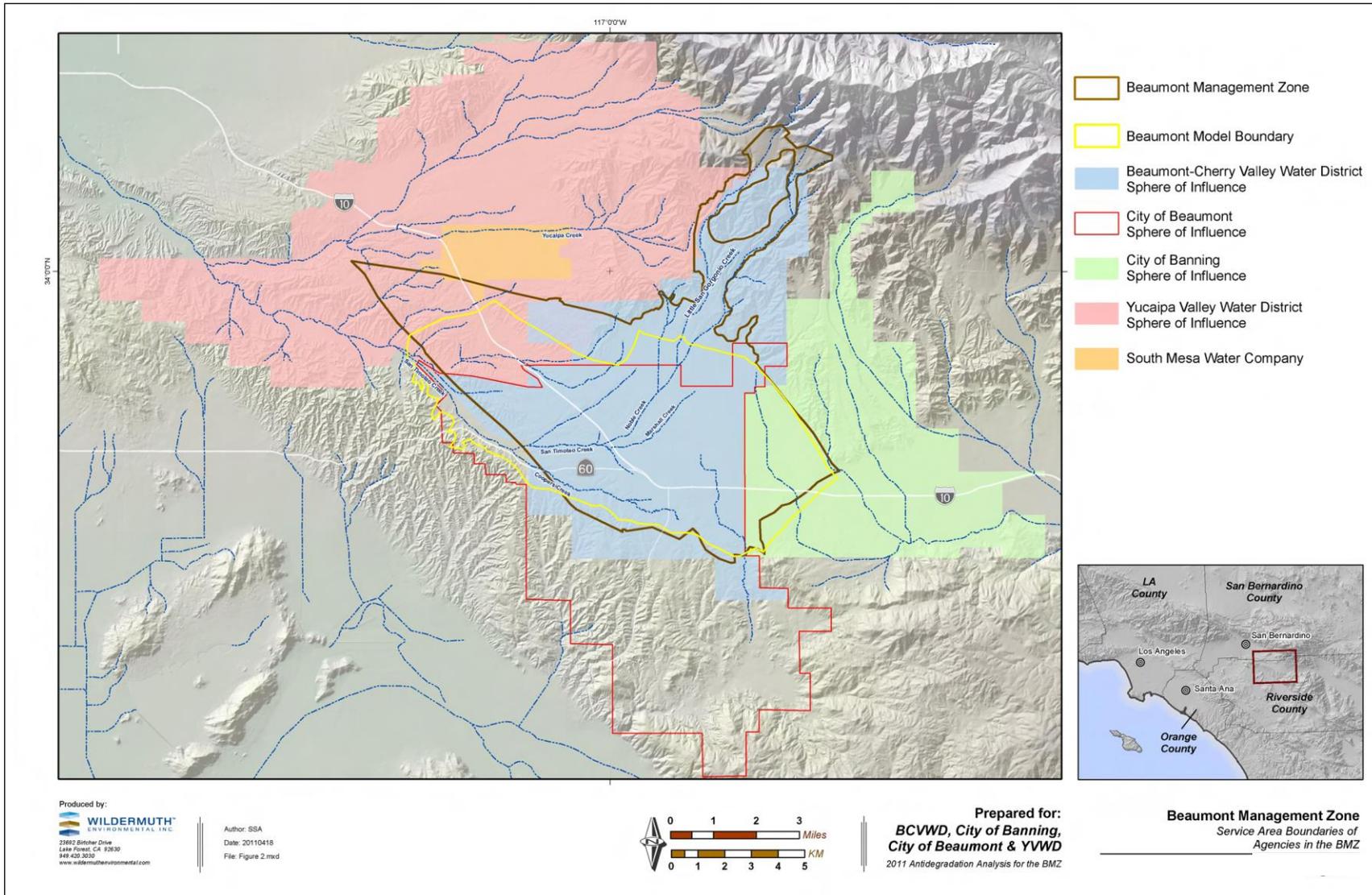
After losing the anticipated recycled water from the City of Beaumont and in order to meet water supply demands, BCVWD began to work with YVWD and the City of Banning to import recycled water for recharge and direct reuse for irrigation. Since 2009, BCVWD has worked with Water Board staff to develop a permit for the recharge and reuse of the recycled water. The overall approach, consistent with the established maximum benefit program, is to blend recycled water with stormwater and imported State Project Water (SWP) in the Beaumont Management Zone (see Task 5, Table 5-10a).

Meanwhile, in 2009, YVWD also requested revision of its NPDES permit to include the use of recycled water for irrigation in its service area in the Beaumont Management Zone. At the same time, it was brought to Regional Board staff’s attention that the City of Banning is considering the use of recycled water in a newly planned community and an existing community that are located within the Beaumont Management Zone. Figure 4 depicts the overlying service area boundaries for all of these agencies.

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<sup>12</sup> Note: the February 2, 2011 letter to the City of Beaumont was a disapproval of the City’s proposed mitigation plan for the San Timoteo Management Zone. The letter did approve a time extension for the submittal of the final mitigation plan.

**Figure 4. Beaumont Management Zone Agency Service Area Boundaries**



In 2009, the City of Beaumont requested and the Regional Board approved the addition of two new discharge points in the Beaumont Management Zone, DP#007 and DP#008 (Order No. R8-2009-0002), in addition to the existing discharge location at Cooper's Creek (DP#001). The City of Beaumont reduced the discharge of recycled water to Cooper's Creek, a tributary to San Timoteo Creek and the San Timoteo Management Zone, in order to meet commitment #9 in Table 5-10a. This provision requires the City of Beaumont to remove/reduce its discharge of effluent from the unlined portion of San Timoteo Creek. However, the additional surface discharge of Beaumont WWTP effluent to the Beaumont Management Zone at DP#007 and DP#008 was not considered in the original maximum benefit proposal.

To address the change of stakeholders and to evaluate the impacts of the newly proposed recharge and reuse projects on the water quality of the Beaumont Management Zone, on September 13, 2010, Water Board staff issued a Water Code Section 13267 Order requesting that YVWD, the City of Beaumont and BCVWD conduct an analysis to provide a 30-year projection of TDS and nitrate-nitrogen quality in the Beaumont management zone under several foreseeable water management scenarios. The parties were also ordered to submit a proposed new maximum benefit implementation plan that would specify the implementation responsibilities of each of the agencies that wanted to participate in the maximum benefit program and thereby avail themselves of the application of the maximum benefit objectives. The agencies contracted with Wildermuth Environmental, Inc. (WEI) to conduct the model projections. Two other agencies that also have water resource and water management responsibilities in the area overlying the Beaumont Management Zone, the San Gorgonio Pass Water Agency (Pass Agency) and the City of Banning, joined the study effort. In addition, Board staff were active participants in the effort.

The model analysis was completed in May 2011. On September 20, 2011, YVWD, BCVWD, the City of Banning and the Pass Agency submitted a draft proposed regional implementation strategy for the maximum benefit commitments (Regional Strategy) for the Beaumont Management Zone [City of Banning, BCVWD, Pass Agency, YVWD, 2011]. The Regional Strategy initially addressed the Maximum Benefit program in the Beaumont Groundwater Management Zone; however, in order to have a consistent approach throughout the San Timoteo Watershed, the Regional Strategy approach was expanded to the San Timoteo and Yucaipa Groundwater Management Zones.

The following is a summary of the proposed Regional Strategy:

The proposed Regional Strategy to implement the maximum benefit program consists of a regional approach with multi-agency participation. Specifically, the Yucaipa Valley Water District (YVWD) is in the process of completing an extension of the Santa Ana Regional Interceptor brineline from the City of San Bernardino Wastewater Treatment Plant to YVWD's Wochholz Regional Water Recycling Facility. This brineline extension (the "Yucaipa Valley Regional Brineline") and associated reverse osmosis facilities are scheduled to be completed and operational by the second quarter of 2014. With the completion of the brineline and reverse osmosis facilities, the "maximum benefit" objectives necessary to protect the water resources of the Beaumont, Yucaipa and San Timoteo Management Zones will be achieved for YVWD and users of the recycled water produced by YVWD's Wochholz Regional Water Recycling Facility.

Compliance with the commitment to meet the underlying management zone TDS maximum benefit water quality objectives will be demonstrated by ensuring that the 10-year running average TDS quality of recycled water, used for irrigation, surface water discharge or recharge (planned or incidental), will be better than or at the maximum benefit objectives of the particular management zone where the recycled water is used or applied, *i.e.*,

- 370 mg/L for Yucaipa MZ,
- 400 mg/L for San Timoteo MZ, and
- 330 mg/L for Beaumont MZ.

The proposal proponents expect to achieve compliance by blending or desalting the recycled water supply<sup>13</sup>. The strategy does not recommend TDS or TIN wasteload allocations for the surface discharge from the YVWD WWTP and the City of Beaumont WWTP, as was the case in the 2004 Basin Plan amendment. The proposed strategy recommends that compliance be measured in the recycled water system for irrigation use and at the point of discharge for surface water discharge and recharge activities.

Agencies that have signed proposed strategy include YVWD, the City of Banning, Beaumont Cherry Valley Water District, San Gorgonio Pass Water Agency and Yucaipa Valley Water District. The City of Beaumont submitted a separate proposal to implement the maximum benefit commitments for the Beaumont Management Zone on November 23, 2011 (City of Beaumont, 2011).

On January 23, 2012, Water Board staff tentatively approved the Regional Strategy and encouraged the City of Beaumont to join with the other water resources management agencies to implement the Regional Strategy (Regional Board, 2012). The Board staff letter also clarified that the effluent limits based on the wasteload allocation for Santa Ana River discharges (Basin Plan, Table 5-5) are not appropriate for discharges that overlie the Beaumont or San Timoteo Management Zones because surface discharge of the recycled water mainly recharges the underlying management zones, and does not impact the Santa Ana River. The letter further states that effluent limits for surface discharges in the Beaumont Management Zone would be revised to implement the "maximum benefit" objectives, if the maximum benefit commitments are met to the satisfaction of the Water Board, or the antidegradation objectives, if the maximum benefit commitments are not met. On May 1, 2012, the City of Beaumont City Council adopted Resolution No. 2012-18 to support the Regional Strategy and thereby participate in the maximum benefit program. The agencies have also agreed to continue implementing the commitments made by the now dissolved San Timoteo Watershed Management Authority in order to maintain the maximum benefit objectives in the Beaumont and San Timoteo management zones. The commitments include surface and groundwater monitoring and reporting, building a desalter and brine line facility, providing recycled water for non-potable water supply, recharging recycled water and determining ambient groundwater quality.

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<sup>13</sup> The Regional Strategy proposes that all recycled reuse be evaluated on a 10-year compliance schedule. Board staff believe that this is appropriate for recycled water reuse through the non-potable system and for groundwater recharge. For surface water discharge, Board staff recommends an annual compliance schedule that is consistent with NPDES permit terms.

## 8.2 Current Ambient Quality and Assimilative Capacity Findings for Beaumont, Yucaipa and San Timoteo Groundwater Management Zones

As shown in Table 4, the Basin Plan specifies “Antidegradation” and alternative, “Maximum Benefit” objectives for TDS and nitrate-nitrogen for the Beaumont, Yucaipa, and San Timoteo management zones. Table 4 shows the current ambient TDS and nitrate-nitrogen quality for these management zones. Current ambient quality is generally computed using the data from the 1990-2009 sampling period. However, the ambient quality for the San Timoteo Management Zone was estimated using data from January 1, 1991 to December 31, 2010 to allow for inclusion of results from monitoring wells constructed and sampled in 2010 (see preceding discussion).

**Table 4. “Antidegradation” and “Maximum Benefit” Objectives for the Beaumont, Yucaipa, and San Timoteo Groundwater Management Zones**

Management Zone	“Antidegradation” WQO		“Maximum Benefit” WQO		Current (2009) Ambient Quality	
	TDS mg/L	NO <sub>3</sub> -N mg/L	TDS mg/L	NO <sub>3</sub> -N mg/L	TDS mg/L	NO <sub>3</sub> -N mg/L
Beaumont	230	1.5	330	5.0	280	2.5
Yucaipa	320	4.2	370	5.0	320	6.2
San Timoteo	300	2.7	400	5.0	420 <sup>1</sup>	0.8 <sup>1</sup>

<sup>1</sup> Preliminary assessment; see discussion. The ambient water quality for San Timoteo groundwater management zone was estimated using the data from January 1, 1991 to December 31, 2010 to allow for inclusion of data from monitoring wells installed in 2010.

### **Proposed Modification of the Yucaipa, San Timoteo and Beaumont Management Zones, Maximum Benefit Programs**

Per the current Basin Plan, the application of the “maximum benefit” objectives is contingent upon the implementation of a series of projects and programs in Yucaipa and the lower portion of the San Timoteo Management Zones by YVWD, and by the City of Beaumont and STWMA in the Beaumont and the upper portion of the San Timoteo management zones. These programs are summarized in Tables 5-9a and 5-10a in the Basin Plan. As discussed above, STWMA has been dissolved, and the parties have developed and agreed to a Regional Strategy necessitating the changes to the Basin Plan recommended herein. These projects and programs are designed to ensure and demonstrate that (i) beneficial uses are being protected and (ii) water quality consistent with the maximum benefit to the people of the state is being maintained.

In order to reflect these changes to the maximum benefit programs, Board staff proposes that for each of the San Timoteo Watershed groundwater management zones (Yucaipa, San

Timoteo and Beaumont Management Zones), the appropriate agencies be identified and the specific commitments relative to that management zone be identified. As such, revisions to the existing Basin Plan Maximum benefit tables for the Yucaipa/San Timoteo Management Zones (Table 5-9a) and the Beaumont/San Timoteo Management Zones (Table 5-10a) are discussed below with reference to the existing Basin Plan commitments.

### **8.3 Modification of the Yucaipa Management Zone Maximum Benefit Programs**

The 2004 Basin Plan specified a maximum benefit program for the Yucaipa Management Zone with responsibility assigned to YVWD. The current status of the implementation of the YVWD maximum benefit program incorporated into the Basin Plan in 2004 is discussed below (section 8.3.1). YVWD, whose jurisdiction overlies Yucaipa Management Zone (as well as portions of the San Timoteo and Beaumont Management Zones), is solely responsible for implementing the maximum benefit program in the Yucaipa Management Zone. Based on the activities by YVWD, several modifications to the existing program are proposed as discussed below in Section 8.3.2.

#### **8.3.1 Compliance Status of the Yucaipa Valley Water District's Maximum Benefit Commitments in Yucaipa and Lower Portion of the San Timoteo Management Zones**

Table 5-9a of the Basin Plan identifies the projects and requirements (the "maximum benefit commitments") that must be implemented by YVWD to demonstrate that water quality consistent with the maximum benefit to the people of the state will be maintained. Table 5 below provides a summary of each commitment specified in the Basin Plan and the status of compliance with those requirements by YVWD.

Per the current Basin Plan, it is assumed that maximum benefit is demonstrated and that the "maximum benefit" objectives apply to the Yucaipa and San Timoteo Management Zones as long as the schedule specified in Table 5-9a is being met and the commitments are satisfied. (For the San Timoteo Management Zone, the application of the "maximum benefit" objectives is also contingent on satisfactory implementation of specific commitments by the City of Beaumont and STWMA. These commitments are shown in Table 5-10a). If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-9a (and, for San Timoteo, Table 5-10-a), then maximum benefit is not demonstrated, and the antidegradation objectives for TDS and nitrate-nitrogen for the Yucaipa and San Timoteo Management Zones apply. In this case, the Basin Plan requires that any TDS and nitrate-nitrogen discharges to these management zones in excess of the antidegradation water quality objectives would need to be mitigated. The finding that the "maximum benefit" commitments are not being met and that mitigation is subsequently required is subject to Regional Water Board approval at a public meeting.

As can be seen in Table 5, YVWD has demonstrated that it has met all of the maximum benefit commitments for Yucaipa and the lower portion of the San Timoteo Management Zones as of November 2010 (please see also the discussion in Section 8.5 for the San Timoteo Management Zone).

**Table 5. Yucaipa Valley Water District Maximum Benefit Program in Yucaipa and San Timoteo Management Zones - Summary of 2004 Basin Plan Maximum Benefit Commitments, Deliverable Dates and Status of Compliance**

Description of Commitment	Compliance Date – as soon as possible, but no later than	Status of Compliance
<p>1. Surface Water Monitoring Program</p> <p>a. Submit Draft Monitoring program to Regional Board</p> <p>b. Implement Monitoring Program</p> <p>c. Quarterly data report submittal</p> <p>d. Annual data report submittal</p>	<p>a. January 23, 2005</p> <p>b. Within 30 days from the date of Regional Board approval of the monitoring plan</p> <p>c. April 15, July 15, October 15, and January 15</p> <p>d. February 15<sup>th</sup></p>	<p>a. Draft Monitoring Program submitted to Regional Board on January 23, 2005.</p> <p>b. Monitoring Plan initiated in October 2005.</p> <p>c. All data reports have been submitted on time.</p> <p>d. All annual reports submitted by April 15 of each year. (Prior to the submittal of the first annual report in 2006, Water Board staff agreed to extend the annual report due date to April 15 to allow more time for laboratory analysis of December samples and the subsequent analysis/documentation of results).</p>
<p>2. Groundwater Monitoring Program</p> <p>a. Submit Draft Monitoring program to Regional Board</p> <p>b. Implement Monitoring Program</p> <p>c. Annual data report submittal</p>	<p>a. January 23, 2005</p> <p>b. Within 30 days from the date of Regional Board approval of the monitoring plan</p> <p>c. February 15<sup>th</sup></p>	<p>a. Draft Monitoring Program submitted to Regional Board on January 23, 2005.</p> <p>b. Monitoring Plan initiated prior to Regional Board approval.</p> <p>c. All annual reports submitted by April 15 of each year. (Prior to the submittal of the first annual report in 2006, Water Board staff agreed to extend the annual report due date to April 15 to allow more time for laboratory analysis of December samples and the subsequent analysis/documentation of results).</p>
<p>3. Desalter(s) and Brine Disposal Facilities</p> <p>a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to be operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule.</p> <p>b. Implement the plan and schedule</p>	<p>a. Within 6 months of the either of the following:</p> <p>i. When YVWD's effluent 5-year running average TDS exceeds 530 mg/L; and/or</p> <p>ii. When volume weighted average concentration in the Yucaipa MZ of TDS exceeds 360 mg/L</p>	<p>YVWD has designed and partially completed construction of the Yucaipa Valley Brineline to extend the existing SARI line from San Bernardino to Yucaipa. YVWD has initiated the construction of reverse osmosis facilities to reduce the salinity of recycled water delivered to the Yucaipa, Beaumont and San Timoteo Management Zones. The brineline extension and the reverse osmosis facilities will be fully operational by the end of 2014.</p>

**Table 5. Yucaipa Valley Water District Maximum Benefit Program in Yucaipa and San Timoteo Management Zones - Summary of 2004 Basin Plan Maximum Benefit Commitments, Deliverable Dates and Status of Compliance (cont.)**

Description of Commitment	Compliance Date – as soon as possible, but no later than	Status of Compliance
<p>4. Non-potable water supply Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 415 mg/L or less</p>	<p>December 23, 2014</p>	<p>On May 12, 2012, the YVWD Board of Directors approved Resolution No. 2012-07 authorizing the implementation of the Regional Strategy to meet Maximum Benefit Commitments. Implementation of the Regional Strategy requires a 10-year running average for TDS for direct delivery of recycled (non-potable) water less than the Maximum Benefit Objective of 330 mg/L in the Beaumont Management Zone, 370 mg/L in the Yucaipa Management Zone and 400 mg/L in the San Timoteo Management Zone. With the completion of the Yucaipa Valley Brineline and desalinization facilities by the end of 2014, YVWD will be capable of reducing salinity within the three management zones.</p>
<p>5. Recycled water recharge The recharge of recycled water in the Yucaipa or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the “maximum benefit” objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s). a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge. b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD enhanced recharge facilities/programs</p>	<p>Compliance must be achieved by end of 5th year after initiation of recycled water use/recharge operations.  a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge. b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.</p>	<p>Discharge of recycled water has not yet occurred.</p>
<p>6. Ambient groundwater quality determination</p>	<p>July 1, 2005 and every 3 years thereafter</p>	<p>YVWD has participated in the regional ambient water quality determination by providing its share of funding support and by providing groundwater data.</p>

**Table 5. Yucaipa Valley Water District Maximum Benefit Program in Yucaipa and San Timoteo Management Zones - Summary of 2004 Basin Plan Maximum Benefit Commitments, Deliverable Dates and Status of Compliance (cont.)**

Description of Commitment	Compliance Date – as soon as possible, but no later than	Status of Compliance
7. Replace denitrification facilities (necessary to comply with TIN wasteload allocation specified in Table 5-5)	New facilities shall be operational no later than December 23, 2007	YVWD has completed the construction of denitrification facilities in 2008
8. YVWD recycled water quality improvement plan and schedule a. Submit plan and schedule  b. Implement plan and schedule	a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 530 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place)  b. Upon approval by Regional Board	Conditions requiring action have not been triggered.
9. Remove/reduce the discharge of YVWD effluent from the unlined portion of San Timoteo Creek  a. Submit proposed plan/schedule  b. Implement plan/schedule	a. June 23, 2005  b. Upon Regional Board approval	YVWD submitted a plan on May 2, 2011 to ensure that the effluent discharged to San Timoteo Creek will meet the 400 mg/L TDS objective for San Timoteo Management Zone when the reverse osmosis system and brineline are operational in 2014.
10. Construct the Western Regional Interceptor for Dunlap Acres a. Submit proposed construction plan and schedule. The schedule shall assure the completion of construction as soon as possible but no later than January 1, 2010. b. Implement plan and schedule	a. June 23, 2005  b. Upon Regional Board approval	In 2008, YVWD completed construction of the Western Regional Interceptor. Several additional sewer collection system mainlines have been installed in the area in an effort to eliminate the use of septic systems. YVWD plans to install an additional 6,300 feet of sewer collection system infrastructure during fiscal year 2012-13.

### **8.3.2 Proposed Changes to the YVWD Maximum Benefit Commitments for the Yucaipa Management Zones**

As YVWD is the only agency responsible for the Yucaipa Management Zone commitments, staff propose to identify YVWD's commitments for the Yucaipa Management Zone as a separate table and discussion in the Basin Plan. Similarly, YVWD's commitments in the San Timoteo Management Zone will be addressed separately.

The fundamental approach to meeting the maximum benefit commitments as reflected in the Regional Strategy is to ensure that underlying groundwater maximum benefit objectives are met through blending or desalting. To assure that water quality consistent with maximum benefit will be maintained in the Yucaipa Management Zone, staff propose to modify the language for YVWD commitments #1, #2, #3, #4, and #8 shown in Table 5-9a of the Basin Plan. Details of the proposed modifications are discussed below. In addition, as reflected in Table 5, Commitments #7 (Replace Denitrification Facilities), #9 (Remove/reduce effluent from San Timoteo Creek and #10 (Construct Western Regional Interceptor for Dunlap Acres) have all been completed and staff propose to delete these requirements.

***The proposed deletion of construction of denitrification facilities requirement, removing/reducing effluent from San Timoteo Creek requirement and construction of the Western Regional Interceptor for Dunlap Acres requirement is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.1. Yucaipa Maximum Benefit Program requirements.***

#### **Commitment #1 – Surface Water Monitoring Program**

As noted above, one of the Maximum Benefit Program commitments made by YVWD and included in the Basin Plan is to implement a surface water monitoring program. The purpose of the surface water monitoring program is to evaluate the water quality effects of implementation of the "maximum benefit" nitrate-nitrogen and TDS objectives on San Timoteo Creek and downstream Santa Ana River water quality and to ensure that poor quality water is not being delivered downstream to the Bunker Hill B Management Zone<sup>14</sup>.

The 2004 Basin Plan Amendment required that a draft surface water monitoring program be submitted by January 23, 2005 and implemented within 30 days of Regional Board approval of the proposal. These requirements have been fulfilled.

To provide direction to the development of the draft program, specific surface water monitoring requirements, including monitoring locations and sampling frequencies, are explicitly identified in the Basin Plan (Table 5-9b). These specific requirements cannot be modified without an additional Basin Plan amendment. Based on experience gained from

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<sup>14</sup> Staff proposes that the discharges from YVWD and the City of Beaumont should no longer be regulated pursuant to the existing Basin Plan WLA. Evidence indicates that these discharges reach the Santa Ana River or the Bunker Hill Management Zone only in periods of extreme rainfall and do not significantly impact the quality of either waterbody. Despite these findings, staff believes that it is appropriate to continue the surface water monitoring program to allow for long-term tracking of surface water quality and quantity.

implementing the approved program, YVWD has determined that modifications to the program would be appropriate and has requested that the Basin Plan be amended to delete Table 5-9b. This change would provide greater flexibility for future appropriate modifications of the surface water monitoring program by the Regional Board without the need for a Basin Plan amendment.

The proposed amendments to the surface water monitoring requirements also explicitly recognize that further modification of the surface water monitoring program may be appropriate in the future. The proposed amendments specify that YVWD must submit a proposed revised monitoring program when directed to do so by the Regional Board's Executive Officer and in accordance with the schedule prescribed by the Executive Officer. Of course, provided that Table 5-9b is removed and that the Basin Plan no longer dictates monitoring specifics, YVWD may independently request review and Regional Board approval of a revised surface water monitoring program as the need arises.

YVWD has also requested modifications to the reporting schedule, including deletion of the quarterly reporting requirements and extension of the deadline for the annual monitoring report from February 15<sup>th</sup> to April 15<sup>th</sup> of each year to allow more time for laboratory analysis and processing of monitoring data collected in December. Regional Water Board staff supports these revisions. (In fact, as indicated in Table 5, Board staff is supportive of the requested change in the annual report due date to April 15<sup>th</sup>, given that the change would allow for more complete data and analyses.)

The proposed changes to the surface water monitoring requirements would not establish new regulations. Rather, the changes would merely improve the efficiency and effectiveness of already-required monitoring programs.

***The proposed changes to the Yucaipa Management Zone Maximum Benefit Program surface water monitoring program are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.1. Yucaipa Maximum Benefit Program requirements, including: requiring the submittal of a revised surface water monitoring program within 30 days of the approval of the Basin Plan amendment and, thereafter, as directed by the Regional Board's Executive Officer; requiring implementation of the revised monitoring program(s) upon Regional Board approval; eliminating the quarterly monitoring reporting requirement; changing the deadline of the annual monitoring report to April 15<sup>th</sup>; update of Table 5-9a; and deletion of Table 5-9b.***

### **Commitment #2 – Groundwater Monitoring Program**

In addition to the surface water monitoring program commitments, the Maximum Benefit Program commitments made by YVWD that are now specified in the Basin Plan also include a groundwater monitoring program component. In conjunction with surface water monitoring, the purpose of the groundwater monitoring program is to evaluate the water quality effects of implementation of the "maximum benefit" nitrate-nitrogen and TDS objectives on underlying and downstream groundwater quality.

The 2004 Basin Plan Amendment required that a draft groundwater monitoring program be submitted by January 23, 2005 and implemented within 30 days of Regional Board approval of the proposal. These requirements have been fulfilled.

The proposed amendments to the groundwater monitoring requirements recognize that modifications of the groundwater monitoring program are likely to be needed in the future. The proposed amendments specify that YVWD must submit a proposed revised groundwater monitoring program in the future when directed by the Executive Officer.

Again, as with the surface water monitoring program revised pursuant to the recommended amendments described above, YVWD could also independently request review and Regional Board approval of a revised groundwater monitoring program as the need arises.

The proposed changes to the groundwater monitoring requirements would not result in new regulations. Rather, the changes would merely improve the efficiency and effectiveness of established monitoring requirements.

***The proposed changes to the Yucaipa Management Zone Maximum Benefit Program groundwater monitoring program are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.1. Yucaipa Maximum Benefit Program requirements, including: requiring the submittal of a revised groundwater monitoring program every three years in conjunction with the ambient quality determination or, as directed by the Regional Board's Executive Officer; requiring implementation of the revised monitoring program(s) upon Regional Board approval; changing the deadline of the annual monitoring report to April 15<sup>th</sup>; and, update of Table 5-9a.***

### **Commitment #3 – Desalter(s) and Brine Disposal Facilities**

YVWD has designed and is in the process of completing construction of the desalter and brineline. Therefore, the first trigger for the submittal of a plan and schedule to construct desalter(s) and brine disposal facilities (Table 5, 3.a.i., above) is no longer needed. The second trigger – when the volume weighted average TDS concentration in the Yucaipa Management Zone exceeds 360 mg/L, is also no longer necessary since YVWD has planned the operation of desalting facilities and/or blending to ensure that recycled water meets objectives.

***The proposed changes to the Yucaipa Management Zone Maximum Benefit Program desalter/brine disposal are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.1. Yucaipa Maximum Benefit Program requirements.***

### **Commitment #4 – Non-potable water supply**

Staff proposes to update the TDS requirements for non-potable water supplies for the Yucaipa Management Zone. YVWD will produce a non-potable supply that may include recycled water, un-treated imported water and/or stormwater. The non-potable supply used in the Yucaipa Management Zone will be required to meet a 10-year running average TDS concentration of 370 mg/L. To meet this requirement, YVWD will blend the recycled water with other sources and/or desalt the recycled water. If YVWD plans on providing recycled water for non-irrigation direct reuse, then the effluent quality must meet a 10-year

running average concentration of 6.7 mg/L (taking into consideration the nitrogen loss coefficient).

***The proposed changes to the Yucaipa Management Zone Maximum Benefit Program non-potable system requirements are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.1. Yucaipa Maximum Benefit Program requirements.***

#### **Commitment # 8 – YVWD Recycled Water Quality Improvement Plan and Schedule**

The existing Basin Plan requires YVWD to develop and submit a Recycled Water Quality Improvement Plan once the 12-month running average TDS effluent quality reaches 530 mg/L for 3 consecutive months. This trigger is currently based upon the WLA now specified in the Basin Plan for YVWD of 540 mg/L. The wasteload allocations for TDS (and TIN discharges) that are specified in the Basin Plan were developed to address the effects of discharges on the Santa Ana River and underlying groundwater. However, as indicated above (see footnote 14), the best available evidence demonstrates that the YVWD discharges do not reach the Santa Ana River, apart from extreme wet weather events, and thus have no appreciable effect on River or underlying groundwater quality. Therefore, applying the wasteload allocation assigned to YVWD is inappropriate. The scientifically defensible approach is to apply TDS limits that assure protection of the groundwater management zones affected by the discharges.<sup>15</sup> Accordingly, the proposed amendments require that YVWD discharges meet the objectives for the Yucaipa Management Zone, a requirement anticipated by the Regional Strategy. As such, there is no longer the need for the recycled water improvement plan envisioned in the 2004 Basin Plan.

***The proposed deletion of the recycled water quality improvement plan requirements is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.1. Yucaipa Maximum Benefit Program requirements.***

#### **8.4 Modification of the Beaumont Management Zone Maximum Benefit Programs**

The 2004 Basin Plan specified a maximum benefit program for the Beaumont Management Zone and assigned responsibility for that program to the City of Beaumont and STWMA. Changes to that program are needed to reflect the dissolution of STWMA and new responsible parties and respective assigned responsibilities. Further, consistent with the proposed changes to the Yucaipa Management Zone, modifications to the maximum benefit program for the Beaumont Management Zone that are impacted by discharges from the cities of Banning and Beaumont need to be updated. The cities of Beaumont and Banning, BCVWD, YVWD and the San Gorgonio Pass Water Agency, whose jurisdictions overlie the Beaumont Management Zone, are the principal agencies responsible for implementing the maximum benefit programs in this area.

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<sup>15</sup> As noted above, work to revise the TDS and TIN wasteload allocations is underway and the revised allocations will be presented for formal approval as an amendment to the Basin Plan.

#### **8.4.1 Compliance Status of the STWMA/City of Beaumont Maximum Benefit Commitments in the Beaumont and Upper Portion of the San Timoteo Management Zones**

The current status of the implementation of the City of Beaumont/STWMA maximum benefit program incorporated into the Basin Plan in 2004 is discussed below. Proposed modifications to this program are discussed in Section 8.4.2.

Table 5-10a of the Basin Plan identifies the projects and requirements (the “maximum benefit commitments”) that must be implemented by STWMA and the City of Beaumont to demonstrate that water quality consistent with the maximum benefit to the people of the state will be maintained. Table 6 below provides a summary of each commitment specified in the Basin Plan and the status of compliance with those requirements.

Upon the dissolution of STWMA, the maximum benefit commitments became the responsibility of the City of Beaumont and the remaining individual agencies that had formed STWMA, *i.e.*, – BCVWD and YVWD<sup>16</sup>. As can be seen in Table 6, the City of Beaumont has demonstrated that most of the maximum benefit commitments for the Beaumont Management Zone and the northern portion of the San Timoteo Management Zone have been met. The commitments that have not been met are to develop a workable plan to transfer recycled water to BCVWD for non-potable use, and to develop a revised proposal to mitigate salt loading in exceedance of the TDS objective for the San Timoteo Management Zone<sup>17</sup>.

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<sup>16</sup> South Mesa Water Company, an STWMA original member, was not identified in the Basin Plan as responsible for implementation of the maximum benefit program commitments.

<sup>17</sup> See Section 8.5 for discussion of the proposed amendments to the San Timoteo Management Zone maximum benefit program.

**Table 6. STWMA and the City of Beaumont Maximum Benefit Program in Beaumont and the San Timoteo Management Zones - Summary of 2004 Basin Plan Maximum Benefit Commitments, Deliverable Dates and Status of Compliance**

Description of Commitment	Compliance Date – as soon as possible, but no later than	Status of Compliance
<p>1. Surface Water Monitoring Program</p> <ul style="list-style-type: none"> <li>a. Submit Draft Monitoring program to Regional Board</li> <li>b. Implement Monitoring Program</li> <li>c. Quarterly data report submittal</li> <li>d. Annual data report submittal</li> </ul>	<ul style="list-style-type: none"> <li>a. January 23, 2005</li> <li>b. Within 30 days from the date of Regional Board approval of the monitoring plan</li> <li>c. April 15, July 15, October 15, and January 15</li> <li>d. February 15<sup>th</sup></li> </ul>	<ul style="list-style-type: none"> <li>a. Draft Monitoring Program submitted to Regional Board on January 23, 2005.</li> <li>b. Monitoring Plan initiated in October 2005.</li> <li>c. All data reports have been submitted on time.</li> <li>d. All annual reports submitted by April 15 of each year. (Prior to the submittal of the first annual report in 2006, Water Board staff agreed to extend the annual report due date to April 15 to allow more time for laboratory analysis of December samples and the subsequent analysis/documentation of results).</li> </ul>
<p>2. Groundwater Monitoring Program</p> <ul style="list-style-type: none"> <li>a. Submit Draft Monitoring program to Regional Board</li> <li>b. Implement Monitoring Program</li> <li>c. Annual data report submittal</li> </ul>	<ul style="list-style-type: none"> <li>a. January 23, 2005</li> <li>b. Within 30 days from the date of Regional Board approval of the monitoring plan</li> <li>c. February 15<sup>th</sup></li> </ul>	<ul style="list-style-type: none"> <li>a. Draft Monitoring Program submitted to Regional Board on January 23, 2005</li> <li>b. Monitoring Plan initiated in October 2005.</li> <li>c. All annual reports submitted by April 15 of each year. (Prior to the submittal of the first annual report in 2006, Water Board staff agreed to extend the annual report due date to April 15 to allow more time for laboratory analysis of December samples and the subsequent analysis/documentation of results).</li> </ul>
<p>3. Desalter(s) and Brine Disposal Facilities</p> <ul style="list-style-type: none"> <li>a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to be operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule.</li> <li>b. Implement the plan and schedule</li> </ul>	<ul style="list-style-type: none"> <li>a. Within 6 months of the either of the following: <ul style="list-style-type: none"> <li>i. When Beaumont's effluent 5-year running average TDS exceeds 480 mg/L; and/or</li> <li>ii. When volume weighted average concentration in the Beaumont MZ of TDS exceeds 320 mg/L</li> </ul> </li> </ul>	<p>The conditions for desalting have not been triggered. Beaumont's effluent TDS average for CY 2011 is 408 mg/L. The 2009 ambient TDS quality for Beaumont MZ is 280 mg/L.</p>

**Table 6. STWMA and the City of Beaumont Maximum Benefit Program in Beaumont and San Timoteo Management Zones - Summary of 2004 Basin Plan Maximum Benefit Commitments, Deliverable Dates and Status of Compliance (cont).**

Description of Commitment	Compliance Date – as soon as possible, but no later than	Status of Compliance
<p>4. Non-potable water supply</p> <p>Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 390 mg/L or less</p>	<p>December 23, 2014</p>	<p>Non-potable water supply system and plan are still in development. The City has been working with BCVWD to develop a plan to deliver the City’s recycled water to BCVWD to meet non-potable demands. These discussions have stalled but may be restarting soon. Water Board staff is now trying to facilitate the negotiation process. BCVWD has nearly completed the construction of their non-potable supply system – the major missing portion of the system is the intertie with the City at the City’s wastewater plant.</p>
<p>5. Recycled water recharge</p> <p>The recharge of recycled water in the Beaumont or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the “maximum benefit” objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s).</p> <p>a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge.</p> <p>b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD enhanced recharge facilities/programs</p>	<p>Compliance must be achieved by end of 5th year after initiation of recycled water use/recharge operations.</p> <p>a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge.</p> <p>b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.</p>	<p>a. The City has constructed stormwater recharge basins in conjunction with new residential development within City limits. The Beaumont Basin Watermaster is developing a methodology to compute “baseline” and “new” stormwater recharge. Once the Watermaster has adopted an official policy, the City will prepare an analysis to document baseline stormwater recharge quantities. No water quality data prior to the start of maximum benefit monitoring exists.</p> <p>b. The City is currently reporting on the volume and quality of all recycled water and imported water recharge activities in the BMZ. The City will augment this information with stormwater volume and quality once the Watermaster has adopted an official policy and the City has prepared an analysis to document baseline and “new” stormwater recharge quantities.</p>
<p>6. Ambient groundwater quality determination</p>	<p>July 1, 2005 and every 3 years thereafter</p>	<p>The City has participated in the regional ambient water quality determination by providing its share of funding support and by providing groundwater data.</p>

**Table 6. STWMA and the City of Beaumont Maximum Benefit Program in Beaumont and San Timoteo Management Zones - Summary of 2004 Basin Plan Maximum Benefit Commitments, Deliverable Dates and Status of Compliance (cont.)**

Description of Commitment	Compliance Date – as soon as possible, but no later than	Status of Compliance
7. Replace denitrification facilities (necessary to comply with TIN wasteload allocation specified in Table 5-5)	Compliance with 6 mg/L TIN limitation to be achieved by December 23, 2007	Denitrification facilities were completed by January 2007. The Beaumont Wastewater Treatment Plant is in compliance with the 6 mg/L TIN limitation.
8. the City of Beaumont recycled water quality improvement plan and schedule a. Submit plan and schedule  b. Implement plan and schedule	a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 480 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place) b. Upon approval by Regional Board	Conditions triggering action have not been met.
9. Remove/reduce the discharge of Beaumont effluent from the unlined portion of San Timoteo Creek  a. Submit proposed plan/schedule  b. Implement plan/schedule	a. June 23, 2005  b. Upon Regional Board approval	Per the requirement of the U.S. Fish and Wildlife Service, the City is required to leave a minimum of 1.8 mgd in the unlined portion of San Timoteo Creek (letter dated February 29, 2008).  a. In 2009, the Regional Board approved two new points of discharge for the City's recycled water effluent in the BMZ to help the City reduce flow to the unlined portion of San Timoteo Creek while plans for the non-potable water system were developed. The City began discharging at the first of these two points (DP-007) in March of 2010. The City has also submitted proposals to the Regional Board to mitigate salt loading in exceedance of the STMZ TDS objectives for the 1.8 mgd of discharge. The most recent mitigation plan was not approved by the Regional Board. A revised proposal from the City has not been received  b. Pending approval by the Regional Board.

#### **8.4.2 Proposed Changes to the Maximum Benefit Program for the Beaumont Management Zone**

In order to update the Beaumont Management Zone Maximum Benefit Program to reflect new responsible agencies and specific revisions to the commitments, staff propose modification of the overall description of the Maximum Benefit Program. A new table is proposed to summarize these commitments. Staff also propose to add new commitments (#4 and #5) and to modify the language for existing commitments #1, #2, #3, #4 and #8. Details of the proposed modifications are discussed below.

The recommended revisions reflect agency commitments to implement the Regional Strategy, described above, which specifies an approach for the Beaumont Management Zone that is consistent with the Yucaipa Management Zone maximum benefit program. This Strategy will ensure that the Beaumont maximum benefit objectives are met through blending or desalting while promoting recycled water reuse.

Two key changes affect the overall maximum benefit commitments described below: the change to the responsible parties, and the application of the TDS and nitrogen wasteload allocations to surface water discharges by the City of Beaumont. These key changes are discussed first.

#### **Delete Reference to STWMA in the Basin Plan; add YVWD, BCVWD, the City of Banning and the San Gorgonio Pass Water Agency as responsible agencies for the Maximum Benefit Commitments in the Beaumont Management Zone**

As discussed previously, a number of water resource management changes have taken place that warrant changes to the maximum benefit program specified in the Basin Plan for the Beaumont Management Zone. First, the agencies that made the original maximum benefit commitments have changed and additional agencies have expressed interest in participating in the maximum benefit program in the Beaumont Management Zone. The original maximum benefit commitments were made by the City of Beaumont and STWMA members. STWMA was dissolved in 2010, but the member agencies (YVWD, the City of Beaumont, and BCVWD remain. In addition, the City of Banning has planned recycled water projects in the Beaumont Management Zone. The impacts of these projects on Beaumont Management Zone must be taken into account. Further, the San Gorgonio Pass Agency (Pass Agency) has water management responsibilities in the Beaumont Management Zone and the Pass Agency representatives believe that it would appropriate for the Agency to be a part of the maximum benefit program. Consequently, YVWD, BCVWD, the City of Banning and the Pass Agency jointly submitted and subsequently approved the Regional Strategy which in part includes the continuation of the commitments specified in Table 5-10a; the City of Beaumont also formally approved the Regional Strategy (see discussion in Section 8.1, Beaumont Management Zone). Therefore, staff propose to delete reference to STWMA in the Basin Plan and add YVWD, BCVWD, the City of Banning and the Pass Water Agency to the City of Beaumont as the agencies that are responsible for the maximum benefit commitments in the Beaumont Management Zone.

***The proposed changes to the Beaumont Maximum Benefit Program responsible agencies are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements.***

**Delete the TDS and Nitrogen Waste Load Allocation WLA for the City of Beaumont Wastewater Treatment Plant**

The second recommended change pertains to the applicability of the wasteload allocations for the discharge of effluent from the wastewater treatment facilities operated by the City of Beaumont in the Beaumont Management Zone. Currently Beaumont discharges the recycled water at three discharge points, DP#001, DP#007, and DP#008. Discharges at DP#001 flow into Coopers Creek, which drains into San Timoteo Creek and recharges the San Timoteo Management Zone. The effluent at DP#007 and DP#008 never leaves the Beaumont Management Zone. While the Beaumont recycled water discharge is currently regulated as a surface water discharge pursuant to the Basin Plan wasteload allocations (WLAs) that are shown in Tables 5-5 of the Basin Plan, the best available evidence indicates that the impact of the discharge is on the underlying Beaumont and San Timoteo Management Zones, not the Santa Ana River. Since the surface water WLAs are thus not appropriate for these discharges, the allocations should be deleted from Tables 5-5. (As noted previously, the wasteload allocations for TDS and nitrogen as a whole are under review and a Basin Plan amendment will be proposed in the near future to make appropriate modifications. However, the evidence is now clear that the Beaumont discharges should not be regulated pursuant to the wasteload allocations, and that those allocations should be deleted without further delay.) Rather, the effluent limits for Beaumont should be based on the underlying management zone water quality objectives. Compliance with those effluent limits would be measured at the point of discharge, or in the underlying management zone *i.e.*, the recharge of recycled water shall be limited to the amount that can be blended with other recharge sources to achieve a 10yr running-average equal to or less than the maximum-benefit objectives for TDS and nitrate-nitrogen in the relevant management zones.

***The proposed deletion of the TDS and total inorganic nitrogen wasteload allocation for the City of Beaumont recycled water discharge is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section III.B.4, TDS and Nitrogen Wasteload Allocation***

**Commitment #1 – Surface Water Monitoring Program**

As noted above, one of the Maximum Benefit Program commitments made by the City of Beaumont and STWMA and included in the current Basin Plan is to implement a surface water monitoring program. The purpose of the surface water monitoring program is to evaluate the water quality effects of implementation of the “maximum benefit” nitrate-nitrogen and TDS objectives on Noble and Little San Gorgonio Creeks and underlying Beaumont Management Zone water quality.

The 2004 Basin Plan required that a draft surface water monitoring program be submitted by January 23, 2005 and implemented within 30 days of Regional Board approval of the proposal. These requirements have been fulfilled.

To provide direction to the development of the draft program, specific surface water monitoring requirements, including monitoring locations and sampling frequencies, are explicitly identified in the Basin Plan (Table 5-10b). These specific requirements cannot be modified without an additional Basin Plan amendment. Based on experience gained from implementing the approved program, the City of Beaumont, YVWD, BCVWD, the City of Banning and the Pass Agency have determined that modifications to the program would be appropriate and have requested that the Basin Plan be amended to delete Table 5-10b. This would provide greater flexibility for future modifications of the surface water monitoring program without the need for a Basin Plan amendment. The proposed amendments to the surface water monitoring requirements also recognize that further modification of the surface water monitoring program may be appropriate in the future. The proposed amendments specify that the City of Beaumont, YVWD, BCVWD, the City of Banning and the Pass Agency must submit a proposed revised monitoring program when directed to do so by the Regional Board's Executive Officer and in accordance with the schedule prescribed by the Executive Officer. Of course, provided that Table 5-10b is removed and that the Basin Plan no longer dictates monitoring specifics, the City of Beaumont, YVWD, BCVWD, the City of Banning and the Pass Agency may independently request review and Regional Board approval of a revised surface water monitoring program as the need arises.

The City of Beaumont has also requested modifications to the reporting schedule, including deletion of the quarterly reporting requirements and extension of the deadline for the annual monitoring report from February 15th to April 15th of each year to allow more time for laboratory analysis and processing of monitoring data collected in December. Regional Water Board staff supports these revisions.

The proposed changes to the surface water monitoring requirements would not result in new regulations. Rather, the changes would merely improve the efficiency and effectiveness of established monitoring requirements.

***The proposed changes to the Beaumont Maximum Benefit Program surface water monitoring program are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements, including: requiring the submittal of a revised surface water monitoring program within 30 days of the approval of the Basin Plan amendment and, thereafter, as directed by the Regional Board's Executive Officer; requiring implementation of the revised monitoring program(s) upon Regional Board approval; eliminating the quarterly monitoring reporting requirement; extending the deadline of the annual monitoring report to April 15<sup>th</sup>; update of Table 5-10a; and deletion of Table 5-10b.***

#### **Commitment #2 – Groundwater Monitoring Program**

In addition to the surface water monitoring program commitments, the Maximum Benefit Program commitments made by the City of Beaumont/STWMA and specified in the Basin Plan also include a groundwater monitoring program component. In conjunction with surface water monitoring, the purpose of the groundwater monitoring program is to evaluate the water quality effects of implementation of the "maximum benefit" nitrate-nitrogen and TDS objectives on underlying and downgradient groundwater quality.

The 2004 Basin Plan required that a draft groundwater monitoring program be submitted by January 23, 2005 and implemented within 30 days of Regional Board approval of the proposal. These requirements have been fulfilled.

The proposed amendments to the groundwater monitoring requirements recognize that modifications of the groundwater monitoring program may be needed in the future. The proposed amendments specify that the City of Beaumont, YVWD, BCVWD, the City of Banning and the Pass Agency must submit a proposed revised groundwater monitoring program in the future when directed by the Executive Officer. Once again, the City of Beaumont, YVWD, BCVWD, the City of Banning and San Geronio Pass Water Agency may independently request review and Regional Board approval of a revised groundwater monitoring program as the need arises.

The proposed changes to the groundwater monitoring requirements would not establish new regulations. Rather, the changes would merely improve the efficiency and effectiveness of established monitoring requirements.

***The proposed changes to the Beaumont Management Zone Maximum Benefit Program groundwater monitoring program are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements, including: requiring the submittal of a revised groundwater monitoring program within and every three years in conjunction with the ambient quality determination or, thereafter, as directed by the Regional Board's Executive Officer; requiring implementation of the revised monitoring program(s) upon Regional Board approval; extending the deadline of the annual monitoring report to April 15<sup>th</sup>; and update of Table 5-10a.***

#### **Commitment #3, #4 and #5 – Desalter(s) and Brine Disposal Facilities**

In order to implement the proposed Regional Strategy, which calls for desalter and brine disposal commitments in the Beaumont Management Zone, staff recommends that the desalter/brine disposal requirements now in the Basin Plan be updated. As proposed, the YVWD desalting requirement is updated to reflect the current status of YVWD's desalter construction and operation. Desalting provisions are also added for the City of Beaumont and Banning to require that specific planning for desalter and brine disposal facilities begin as soon as possible after the Basin Plan is amended.

***The proposed changes to the Beaumont Management Zone Maximum Benefit Program desalter/brine disposal requirements are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements.***

#### **Commitment #4 – Non-potable water supply (previously identified as Commitment #4, now identified as Commitment #6)**

Per the proposed Regional Strategy, staff also proposes to update the TDS requirements for non-potable water supplies for the Beaumont Management Zone and the reuse of recycled water by the City of Beaumont, YVWD and/or the City of Banning. These requirements require the TDS of recycled water used in the non-potable system to meet the Beaumont Management Zone 330 mg/L TDS water quality objective as a 10-year

running average. Meeting the Beaumont Management Zone maximum benefit objective can be accomplished via blending, desalting or combination of both.

***The proposed changes to the Beaumont Management Zone Maximum Benefit Program non-potable system requirements are shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements.***

### **Commitment #7 – Replace Denitrification Facilities**

As reflected in Table 6, Commitments #7 (Replace Denitrification Facilities), has been completed and staff propose to delete these requirements.

***The proposed deletion of construction of denitrification facilities requirement is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements.***

### **Commitment #8 – the City of Beaumont recycled water quality improvement plan and schedule**

The 2004 Basin Plan required the City of Beaumont to develop and submit a recycled water quality improvement plan once the TDS 12-month running average effluent quality reaches 480 mg/L for 3 consecutive months or the TIN effluent quality equals or exceeds 6 mg/L in any month after denitrification facilities, if needed, are in place. These triggers are based upon the WLAs specified for the City of Beaumont of 490 mg/L for TDS and 6.0 mg/L for TIN. The wasteload allocations for TDS (and TIN discharges) that are specified in the Basin Plan were developed to address the effects of discharges on the Santa Ana River and underlying groundwater. However, as indicated above, the best available evidence demonstrates that discharges from the City do not reach the Santa Ana River, apart from extreme wet weather events, and thus have no appreciable effect on River or underlying groundwater quality. Therefore, as discussed above, applying the wasteload allocation assigned to the City of Beaumont is inappropriate and deletion of these allocations is recommended as part of these amendments. The scientifically defensible approach is to apply TDS limits that assure protection of the groundwater management zones affected by the discharges. Accordingly, the proposed amendments require that the all wastewater discharges meet the objectives for the Beaumont Management Zone. This requirement is anticipated by the Regional Strategy adopted by YVWD, Beaumont and other parties, as described previously. As such, there is no longer the need for the recycled water improvement plan envisioned in the 2004 Basin Plan

***The proposed deletion of the recycled water quality improvement plan requirements is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.3. Beaumont Maximum Benefit Program requirements.***

## **8.5 Modification of the San Timoteo Management Zone Maximum Benefit Programs**

The 2004 Basin Plan specified a maximum benefit program for the San Timoteo Management Zone that was combined with both the Yucaipa and Beaumont Management Zone maximum benefit programs. As part of the Yucaipa and San Timoteo Management Zone maximum benefit program, YVWD had the responsibility for implementing the commitments in the Yucaipa Management Zone and within their jurisdiction in the lower portion of the San Timoteo Management Zone. As part of the Beaumont and San Timoteo Management Zone maximum benefit program, the City of Beaumont and STWMA – both with jurisdiction in the upper portion of the San Timoteo Management Zone, were responsible for meeting the commitments in both the Beaumont Management Zone and the upper portion of the San Timoteo Management Zone. The current status of the implementation of the YVWD and the City of Beaumont/STWMA maximum benefit program in the San Timoteo Management Zone included 2004 Basin Plan was discussed in Sections 8.3 and 8.4, respectively and summarized in Tables 5 and 6.

In order to clearly identify what maximum benefit programs need to be implemented in the San Timoteo Management Zone and assign appropriate responsibility, staff propose to include separate Basin Plan narrative and summary table. The proposed commitments are summarized below (and for the most part are consistent with the commitments specified for the Yucaipa and Beaumont Management Zones). The fundamental approach to meeting the maximum benefit commitments for the San Timoteo Management Zone is also reflected in the Regional Strategy and will ensure that underlying groundwater maximum benefit objectives are met.

Once again, there are two key changes that affect the maximum benefit program for the San Timoteo Management Zone and the Basin Plan changes required. First, it is necessary to reflect the dissolution of STWMA and the assignment of the maximum benefit commitments to YVWD and the City of Beaumont. As discussed previously, both of these agencies have waste discharges to the San Timoteo Management Zone. Second, the deletion of the TDS and nitrogen wasteload allocations (WLAs) for both YVWD and the City of Beaumont as recommended above, necessitates changes in the certain commitments. These changes are presented and described below.

***The proposed deletion of the TDS and total inorganic nitrogen wasteload allocation for the City of Beaumont and YVWD recycled water discharges is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section III.B.4, TDS and Nitrogen Wasteload Allocation***

### **8.5.1 Proposed San Timoteo Management Zone Commitments**

#### **Commitment #1 – Surface Water Monitoring Program**

Consistent with the Yucaipa and Beaumont Management Zone maximum benefit programs, staff propose that YVWD and the City of Beaumont implement a surface water monitoring program. The purpose of the surface water monitoring program is to evaluate the water quality effects of implementation of the “maximum benefit” nitrate-nitrogen and TDS objectives on San Timoteo Creek and downstream surface and groundwaters.

The proposed addition of the surface water monitoring requirements also explicitly recognize that further modification of the surface water monitoring program may be appropriate in the future. The proposed amendments specify that YVWD and the City of Beaumont must submit a proposed revised monitoring program when directed to do so by the Regional Board's Executive Officer and in accordance with the schedule prescribed by the Executive Officer. These agencies may independently request review and Regional Board approval of a revised surface water monitoring program as the need arises.

The proposed changes to the surface water monitoring requirements would not result in new regulations. Rather, the changes would merely improve the efficiency and effectiveness of established monitoring requirements.

***The proposed San Timoteo monitoring program requirement is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.2. San Timoteo Maximum Benefit Program requirement and includes: requiring the submittal of a surface water monitoring program within 30 days of the approval of the Basin Plan amendment and, thereafter, as directed by the Regional Board's Executive Officer; requiring implementation of the monitoring program(s) upon Regional Board approval and submittal of an annual report.***

#### **Commitment #2 – Groundwater Monitoring Program**

In addition to the surface water monitoring program commitments, staff also propose to add groundwater monitoring program requirements for the San Timoteo Management Zone. In conjunction with surface water monitoring, the purpose of the groundwater monitoring program is to evaluate the water quality effects of implementation of the "maximum benefit" nitrate-nitrogen and TDS objectives on underlying and downstream groundwater quality.

Currently both YVWD and the City of Beaumont are implementing a Regional Board approved groundwater monitoring program pursuant to the 2004 amendments (see Sections 8.3 and 8.4). It is expected that these agencies will continue this monitoring program.

The proposed amendments also recognize that modifications of the groundwater monitoring program may be likely to be needed in the future. The proposed amendments specify that YVWD and the City of Beaumont must submit a proposed revised groundwater monitoring program in the future when directed by the Executive Officer.

Again, as with the surface water monitoring program revised pursuant to the recommended amendments described above, YVWD and the City of Beaumont could also independently request review and Regional Board approval of a revised groundwater monitoring program as the need arises.

The proposed changes to the groundwater monitoring requirements would not result in new regulations. Rather, the changes would merely improve the efficiency and effectiveness of established monitoring requirements.

***The proposed San Timoteo Management Zone Maximum Benefit Program groundwater monitoring program is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.2. San Timoteo Maximum Benefit Program requirements, including: requiring the submittal of a revised groundwater monitoring program every three years in conjunction with the ambient quality determination or as directed by the Regional Board's Executive Officer; requiring implementation of the revised monitoring program(s) upon Regional Board approval and submittal of an annual report.***

**Commitment #3, and #4 – Desalter(s) and Brine Disposal Facilities**

In order to implement the proposed Regional Strategy which calls for desalter and brine disposal commitments to meet San Timoteo Management Zone maximum benefit TDS objectives, staff recommends that specific desalting/brine disposal requirements be included. As proposed, the YVWD desalting requirement (Commitment #3) is added to reflect the current status of their desalter construction and operation. Proposed desalting requirements are also included for the City of Beaumont (Commitment #4) to require specific that planning for desalter and brine disposal facilities begin as soon as possible after the Basin Plan is amended.

***The proposed addition of desalter/brine disposal requirements for the San Timoteo Management Zone Maximum Benefit Program is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.2. San Timoteo Maximum Benefit Program requirements.***

**Commitment #5 – Non-potable water supply**

Staff proposes to add non-potable water supply requirements to be consistent with the approach taken in the Yucaipa and Beaumont Management Zones. The TDS requirements for non-potable water supplies for the San Timoteo Management Zone would require the TDS of recycled water used in the non-potable system to meet the San Timoteo Management Zone TDS water quality objective as a 10-year running averages.. Meeting the San Timoteo Management Zone objective can be accomplished via blending, desalting or a combination of both.

***The proposed non-potable water supply requirement for the San Timoteo Management Zone Maximum Benefit Program is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.2. San Timoteo Maximum Benefit Program requirements.***

**Commitment #6 – Ambient Water Quality Determination**

Staff propose to identify the specific requirement for YVWD and the City of Beaumont to contribute to the stakeholder-led effort to determine ambient TDS and nitrate quality in the San Timoteo Management Zone every three years. As reflected in Sections 8.3 and 8.4, both agencies have been contributing to this effort this since the requirement for ambient quality determination was added to the Basin Plan in 2004 as part of the maximum benefit programs for the Yucaipa/San Timoteo and Beaumont/San Timoteo Management Zones maximum benefit programs. Therefore, this requirement would not establish new

regulations but, rather, reflect the separate applicability to the San Timoteo Management Zone.

***The proposed ambient management zone water quality determination requirement for the San Timoteo Management Zone Maximum Benefit Program is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.2. San Timoteo Maximum Benefit Program requirements.***

**Commitment #7 – Improve Surface Water Discharge Quality to the San Timoteo Management Zone**

YVWD and the City of Beaumont wastewater discharges to the unlined reach of San Timoteo Creek impact the quality of the San Timoteo Management Zone. In order to protect underlying management zone quality, staff propose that YVWD and the City of Beaumont prepare wastewater quality improvement plans respective to their facilities. The plans need to detail how these agencies intend to meet the underlying groundwater quality objectives.

***The proposed wastewater quality improvement plan requirement for the San Timoteo Management Zone Maximum Benefit Program is shown in the Attachment to Resolution No. R8-2014-0005, Chapter 5, Implementation, Section VI.B.2. San Timoteo Maximum Benefit Program requirements.***

## 9.0 Antidegradation Analysis

Pursuant to the State Board's antidegradation policy (Resolution No. 68-16), it is necessary to consider whether the proposed changes to the Basin Plan would result in a lowering of water quality and, if so, whether (i) beneficial uses would continue to be protected; (ii) waste discharges would receive best practicable treatment or control; and, (iii) water quality consistent with maximum benefit to the people of the state would be maintained.

There would be no lowering of water quality as the result of the proposed amendment. Update of the Maximum Benefit Programs in the San Timoteo watershed, descriptive update of the Beaumont Management Zone boundary, incorporation of the Recycled Water Policy and the On-site Wastewater Treatment System Policy and update of the groundwater management zone ambient water quality all ensure continued protection of water quality. Further, there would also be no change to the Regional Water Board's regulatory programs to manage salt in the Santa Ana basin. Therefore, no further antidegradation analysis is required.

## 10.0 California Environmental Quality Act

The Secretary of Resources has certified the Basin Planning process as functionally equivalent to the preparation of an Environmental Impact Report (EIR) or a Negative Declaration pursuant to the California Environmental Quality Act (CEQA). However, in lieu of these documents an environmental analysis is to be presented in a substitute document that includes, at a minimum, a description of the proposed activities and either: 1) alternatives to the activities and mitigation measures to avoid or reduce any significant or potentially significant effects that the proposed project may have on the environment; or, 2) a statement that the proposed project would not have any significant or potentially significant effects on the environment, supported by a checklist or other documentation (California Code of Regulations, Title 14, Chapter 3, Section 15000 *et seq.* (CEQA Guidelines), Section 15252).

This staff report describes the proposed Basin Plan amendments (i.e., the proposed project). The proposed amendments entail the following modifications: update of the Beaumont Management Zone boundary description; update of the provisions regarding groundwater management zone ambient TDS and nitrate-nitrogen water quality and assimilative capacity; update of the reclamation discussion; incorporation of revised maximum benefit programs for the Yucaipa, San Timoteo and Beaumont groundwater management zones; deletion of the TDS and nitrogen wasteload allocations for the Yucaipa Valley Water District and the City of Beaumont; and, inclusion of a nitrogen loss coefficient for the San Jacinto Basin. Updating the Beaumont Management Zone boundary description and updating Basin Plan narrative regarding reclamation have no environmental consequences. Updating findings of ambient quality and assimilative capacity may affect the effluent limitations that must be specified for waste discharges. These effluent limitations may require additional actions by responsible dischargers to achieve compliance. Any such actions would be subject to project-specific environmental review. Similarly, modifications of the maximum benefit program commitments will likely entail the implementation of new/revised projects by the responsible parties. The changes to the maximum benefit programs recommended herein are based on the Regional Strategy already identified and approved by the responsible agencies. Implementation of the projects envisioned by this Strategy will require project-specific environmental review. Deletion of the wasteload allocations would not result directly in impacts on the environment. Compliance with alternative limitations based on the maximum benefit objectives and commitments may

necessitate additional projects by the responsible parties. Once again, such projects would be subject to project-specific environmental review. CEQA analysis of the potential impacts of establishing nitrogen loss coefficients applicable to discharges was conducted as part of the 2004 Basin Plan amendment process and, more specific to the San Jacinto basin, as part of the renewal of the waste discharge requirements for the Eastern Municipal Water District. The proposed Basin Plan amendment includes the incorporation of the statewide Onsite Wastewater Treatment System Policy and relevant, requisite changes to the Basin Plan minimum lot size criteria for onsite disposal system use. CEQA analysis was conducted by the State Water Resources Control Board as part of the adoption of this statewide Policy; therefore, no further analysis needs to be conducted.

The draft Environmental Checklist (Attachment B to this report) concludes that there would be no potentially significant impacts on the environment caused by adoption of this Basin Plan amendment. Therefore, no mitigation measures are required. While an alternatives analysis is also not required, it should be noted that the amendments are the result of extensive evaluation by the Regional Board and watershed stakeholders to identify suitable alternative strategies to protect water quality, optimize the use of water resources, including recycled water, and to assure the long-term reliability and availability of water supplies.

### **11.0 Scientific Peer Review**

Pursuant to Health and Safety Code Section 57004, all proposed rules that have a scientific basis or components must be submitted for external scientific peer review.

The procedures and methods that support the update of the Beaumont Management Zone boundary description, update of the groundwater management zone ambient TDS and nitrate-nitrogen water quality, update of reclamation discussion, update of the maximum benefit programs for the San Timoteo watershed, deletion of the wasteload allocations for YVWD and the City of Beaumont and incorporation of the nitrogen loss coefficient for the San Jacinto basin were scientifically reviewed as part of the 2004 Basin Plan amendment. In addition, peer review was conducted by the State Water Resources Control Board as part of the adoption of the statewide Onsite Wastewater Treatment System Policy.

Based upon these findings, staff has determined that no further scientific peer review need be conducted.

### **12.0 Staff Recommendation**

Board staff recommends the adoption of Resolution No. R8-2014-0005, adopting the amendment to the Basin Plan shown in the attachment to the Resolution to amend Chapters 2 (Plans and Policies), Chapter 3 (Beneficial Uses) and Chapter 5 (Implementation Plan – Salt Management Plan).

#### Attachments:

- |              |  |
|--------------|--|
| Attachment A | Tentative Resolution No. R8-2014-0005, including the proposed Basin Plan Amendment |
| Attachment B | Environmental Checklist  |

### 13.0 References

*Asociacion de Gente Unida por el Agua v. Central Valley Regional Quality Control Board*. No. C066410 (2012 DJDAR 15291) (3<sup>rd</sup> Dist.) (November 6, 2012)

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**ATTACHMENT A**

**Resolution No. R8-2014-0005**

California Regional Water Quality Control Board  
Santa Ana Region

**RESOLUTION NO. R8-2014-0005**

**Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate Updates Related to the Salt Management Plan**

**WHEREAS**, the California Regional Water Quality Control Board - Santa Ana Region (hereinafter Regional Board), finds that:

1. An updated Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Regional Board on March 11, 1994, approved by the State Water Resources Control Board (SWRCB) on July 21, 1994, and approved by the Office of Administrative Law (OAL) on January 24, 1995.
2. The Basin Plan identifies the Region's ground and surface waters, designates beneficial uses for those waters, establishes water quality objectives for the protection of those uses, prescribes implementation plans and establishes monitoring and surveillance programs to assess implementation efforts.
3. Section 303(c) of the federal Clean Water Act requires that water quality standards be reviewed on a triennial basis and revised, if appropriate. California Water Code section 13240 provides that Basin Plans must be periodically reviewed and may be revised. The intent of this review is to ensure consideration of the best available science and new data and information.
4. California Water Code section 13140 provides that the State Water Resources Control Board (State Water Board) shall formulate and adopt state policy for water quality control that has statewide applicability.
5. On June 19, 2012, the State Water Board adopted the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy). The OWTS Policy includes a conditional waiver of the requirements to submit a report of waste discharge, obtain waste discharge requirements, and pay fees for discharges from onsite wastewater systems covered by the OWTS Policy. The OWTS Policy was approved by the Office of Administrative Law on November 13, 2012, and became effective on May 13, 2013. The Policy is applicable statewide.
6. Amendments to the Basin Plan to incorporate a revised Total Dissolved Solids and Nitrogen Management Plan (Salt Management Plan) into the 1995 Basin Plan were approved by the Regional Board on January 22, 2004, by the State Water Resources Control Board on October 1, 2004 and by the Office of Administrative Law on December 23, 2004. The surface water standards provisions of the amendments were approved by the U.S. Environmental Protection Agency on January 20, 2007.
7. The Basin Plan needs to be amended to incorporate the OWTS Policy by reference and to revise the minimum lot size criteria applicable to on-site wastewater treatment systems consistent with the Policy.
8. A Substitute Environmental Document (SED) was prepared by the State Water Board for the OWTS Policy in accordance with the Water Board's certified regulatory program (Cal.

Tentative

Code Regs., tit. 23 §§3777-3781). The State Water Board approved the OWTS Policy and the SED on June 19, 2012. The proposed amendment to the Santa Ana Region Basin Plan removes existing Basin Plan provisions regulating onsite systems and incorporates the OWTS Policy. No substantive changes or modifications to the previously approved OWTS Policy are proposed, no substantial changes with respect to circumstances under which the Policy will be undertaken have occurred and no new information triggers the need for supplemental or subsequent CEQA analysis.

9. This amendment to incorporate the OWTS Policy is completely within the scope of the OWTS Policy as analyzed by the State Water Board in the SED. As such, the recommended actions do not require further environmental review pursuant to the certified regulatory program or CEQA (Pub. Res. Code §21166; Cal. Code Regs. tit. 14, §§15161, 15163).
10. The Salt Management Plan is also amended to recognize the hydrogeological boundary for Yucaipa/Beaumont Plains Management Zones that differs from the legal boundary; to update the Basin Plan language related to the groundwater management zone ambient TDS and nitrate-nitrogen determination; to incorporate a nitrogen loss coefficient for the San Jacinto area groundwater management zones; to update the descriptive language relating to wastewater reclamation; and, to revise the Yucaipa, Beaumont and San Timoteo Management Zones "Maximum Benefit" Programs.
11. Extensive analysis of the Salt Management Plan pursuant to the California Environmental Quality Act (CEQA) was conducted as part of the consideration of that Plan in 2004 and were reviewed for the proposed amendment. An Environmental Checklist was prepared. The proposed changes to this Plan would not modify the findings of the prior CEQA analyses; environmental effects would be less than significant.
12. The proposed amendments do not revise or adopt water quality objectives and, therefore, the Regional Board is not required to consider the factors set forth in Water Code section 13241.
13. The proposed amendments do not contain new scientific elements requiring an independent, external scientific peer review pursuant to Health and Safety Code 57004. Separate scientific review was conducted previously for the OWTS Policy and for the Salt Management Plan provisions.
14. The proposed amendments are consistent with the State's antidegradation policy, State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California". None of the proposed amendments is expected to result in the lowering of water quality. Thus, the proposed amendments conform to the antidegradation policy requirements.
15. The proposed amendments meet the "Necessity" standard of the Administrative Procedure Act, Government Code, Section 11352, subdivision (b). The proposed amendments are required to fulfill the Regional Board's obligation pursuant to the California Water Code to exercise its full power and jurisdiction to protect the quality of waters in the state, including the duties to establish water quality objectives for the reasonable protection of beneficial uses and to identify a program of implementation, including monitoring, needed to achieve those objectives.

16. The Regional Board prepared and distributed a written report (staff report) describing the proposed Basin Plan amendments and the rationale supporting each amendment in accordance with applicable state environmental regulations (Calif. Code of Regulations, Title 23, Section 3775 et seq.,).
17. On January 31, 2014, the Regional Board held a Public Hearing to consider the proposed Basin Plan amendments. Notice of the Public Hearing was sent to all interested persons and published in accordance with Section 13244 of the California Water Code. The Regional Board considered all testimony offered at the hearing and other written comments submitted by the public before taking any final action.
18. The Basin Plan amendments must be submitted for review and approval by the State Water Resources Control Board (SWRCB), and the Office of Administrative Law (OAL). Once approved by the SWRCB, the amendments are submitted to OAL. The Basin Plan amendments will become effective upon approval by OAL. A Notice of Decision will be filed.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. Pursuant to Sections 13240 et seq. of the California Water Code, the Regional Board, after considering the entire record, including all testimony provided at the public hearing, adopts the amendments to the Water Quality Control Plan for the Santa Ana River Basin as set forth in the Attachment to this Resolution.
2. The Executive Officer is directed to forward copies of the Basin Plan amendments to the SWRCB in accordance with the requirements of Section 13245 of the California Water Code.
3. The Regional Board requests that the SWRCB approve the Basin Plan amendments in accordance with the requirements of Sections 13245 and 13246 of the California Water Code and, thereafter, forward the amendments to the OAL for their approval.
4. If during its approval process the SWRCB or OAL determine that minor, non-substantive corrections to the language of the amendments are needed for clarity or consistency, the Executive Officer may make such changes and shall inform the Regional Board forthwith.
5. The Executive Officer is authorized to request a "No Effect Determination" from the California Department of Fish and Wildlife or transmit payment of the applicable fee as may be required by the California Department of Fish and Wildlife.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a resolution adopted by the California Regional Water Quality Control Board – Santa Ana Region on January 31, 2014.

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Kurt V. Berchtold  
Executive Officer

ATTACHMENT TO RESOLUTION NO. R8-2013-0042

(Proposed Basin Plan amendment changes are shown as ~~strikeout~~ for deletions and underline for additions

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Chapter 2, Plans and Policies

Page 2-4, Insert under “State Board Policies”:

- New and/or revised Statewide Plans and Policies are posted on the State Water Resources Control Board’s website at the following link:

[http://www.waterboards.ca.gov/plans\\_policies/](http://www.waterboards.ca.gov/plans_policies/)

- Policy on Onsite Wastewater Treatment Systems (Resolution No. 2012-0032, adopted by the State Water Resources Control Board on June 19, 2012)

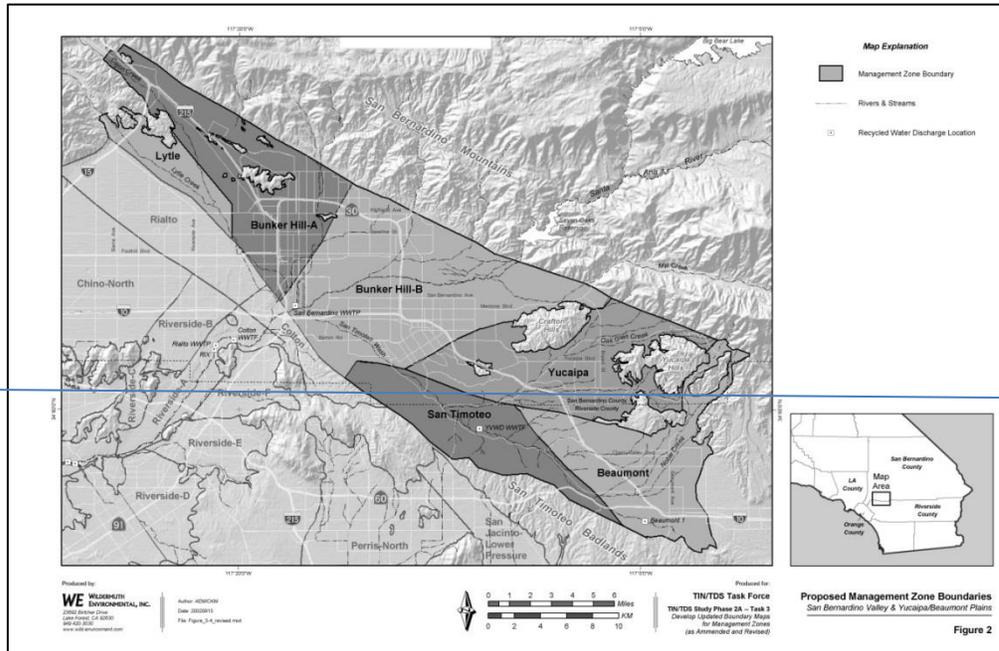
This Policy (OWTS Policy) regulates the siting, design, operation, and maintenance of onsite wastewater treatment systems. The Policy implements the California Water Code, Chapter 4.5, Division 7, § 13290-13291.7 by establishing statewide regulations and standards for permitting onsite wastewater systems. The OWTS Policy specifies criteria for existing, new and replacement onsite systems and establishes a conditional waiver of waste discharge requirements for onsite systems that comply with the Policy.

Tentative

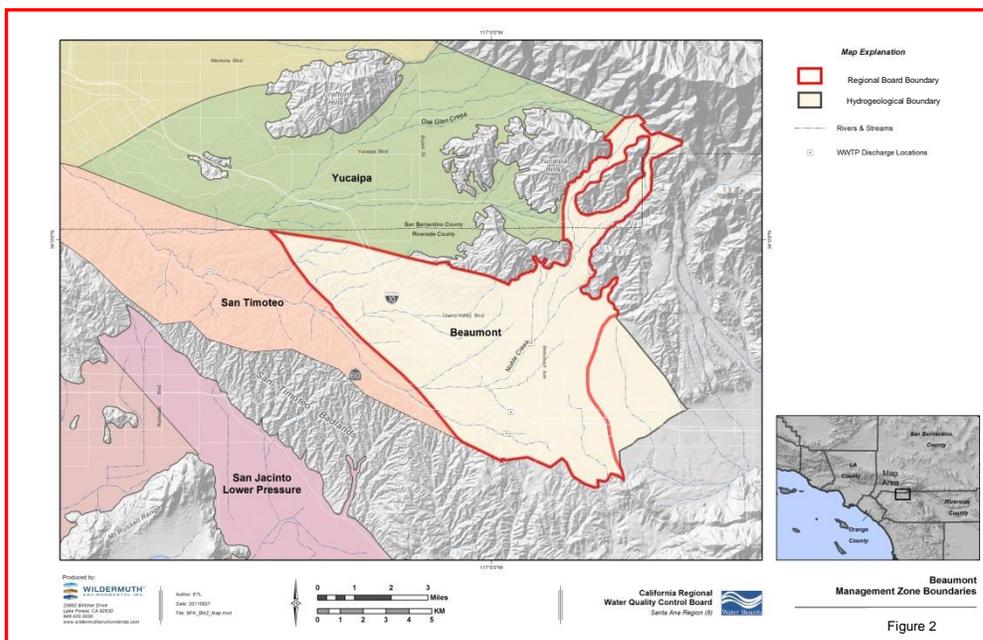
### Chapter 3, "Beneficial Uses"

#### Page 3-12, Figure 3-3; Management Zone Boundaries – San Bernardino Valley and Yucaipa/Beaumont Plains

- Delete existing Basin Plan map



- Insert new map of Management Zone Legal and Hydrogeological Boundaries – San Bernardino Valley and Yucaipa/Beaumont Plains



- Add the following footnote to the map

The eastern-most boundary of the Beaumont 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.

Regional Board Boundary

## Chapter 5, “Implementation”

### Page 5-17ff

#### II.B.1. Salt Assimilative Capacity

Some waters in the Region have assimilative capacity for additions of TDS and/or nitrogen; that is, wastewaters with higher TDS/nitrogen concentrations than the receiving waters are diluted sufficiently by natural processes, including rainfall or recharge, such that the TDS and nitrogen objectives of the receiving waters are met. The amount of assimilative capacity, if any, varies depending on the individual characteristics of the waterbody in question and must be reevaluated over time.

The 2004 adoption of new groundwater management zone boundaries (Chapter 3) and new TDS and nitrate-nitrogen objectives for these management zones (Chapter 4), pursuant to the work of the Nitrogen/TDS Task Force, necessitated the re-evaluation of the assimilative capacity findings initially incorporated in the 1995 Basin Plan. To conduct this assessment, the Nitrogen-TDS study consultant calculated current ambient TDS and nitrate-nitrogen water quality using the same methods and protocols as were used in the calculation of historical ambient quality (see Chapter 4). The analysis focused on representing current water quality as a 20-year average for the period from 1978 through 1997. [Ref. 1]. For each management zone, current TDS and nitrate-nitrogen water quality were compared to water quality objectives (historical water quality)<sup>1</sup>. Assimilative capacity was also assessed relative to the “maximum benefit” objectives established for certain management zones. If the current quality of a management zone is the same as or poorer than the specified water quality objectives, then that management zone does not have assimilative capacity. If the current quality is better than the specified water quality objectives, then that management zone has assimilative capacity. The difference between the objectives and current quality is the amount of assimilative capacity available.

Since adoption of the 2004 Basin Plan amendment and per Basin Plan requirements, ambient quality and assimilative capacity findings have been, and will continue to be, updated every three years. The updated findings of ambient quality and assimilative capacity will be posted on the Regional Board’s web-site and will be used for regulatory purposes.

~~Tables 5-3 and 5-4 show the water quality objectives and ambient quality for TDS and nitrate-nitrogen, respectively, for each management zone. These tables also list the TDS and nitrate-nitrogen assimilative capacity of the management zones, if any. Of the thirty-seven (37) management zones, twenty-seven (27) lack assimilative capacity for TDS, and thirty (30) lack assimilative capacity for nitrate-nitrogen (this assumes the “maximum benefit” objectives are in effect). five (5) management zones for which there were insufficient data to calculate TDS and/or nitrate-nitrogen water quality objectives and, therefore, assimilative capacity. For regulatory purposes, these 5 management zones are assumed to have no assimilative capacity. Dischargers to these management zones may demonstrate that assimilative capacity for TDS and/or nitrate-nitrogen is available. If the Regional Board approves this demonstration, then the discharger would be regulated accordingly.~~

~~As indicated in Table 5-3, it will be assumed for most regulatory purposes that there is no assimilative capacity for TDS in the Orange County groundwater management zone. The 20 mg/L of management zone-wide TDS assimilative capacity calculated for this zone will be~~

<sup>1</sup> As noted in Chapter 4, ammonia-nitrogen and nitrite-nitrogen data were also included in the analysis, where available. This occurred for a very limited number of cases and ammonia-nitrogen and nitrite-nitrogen concentrations were insignificant.

~~allocated to discharges resulting from groundwater remediation and other legacy contaminant removal projects implemented within the Orange County Management Zone.~~

**[section discussion continues with no further revisions]**

**Table 5-3**  
Total Dissolved Solids (TDS) Assimilative Capacity Findings

Management Zone	Water Quality Objective (mg/L)	Current Ambient (mg/L)	Assimilative Capacity (mg/L)
<b>UPPER SANTA ANA RIVER BASIN</b>			
Beaumont —“max benefit” <sup>1</sup>	330	290	40
Beaumont —“antideg” <sup>2</sup>	230	290	None
Bunker Hill A	310	350	None
Bunker Hill B	330	260	70
Colton	410	430	None
Chino North —“max benefit”	420	300	120
Chino 1 —“antideg”	280	310	None
Chino 2 —“antideg”	250	300	None
Chino 3 —“antideg”	260	280	None
Chino South	680	720	None
Chino East	730	760	None
Cucamonga —“max benefit” <sup>1</sup>	380	260	120
Cucamonga —“anti-deg”	210	260	None
Lytte	260	240	20
Rialto	230	230	None
San Timoteo —“max benefit” <sup>1</sup>	400	300	100
San Timoteo —“anti-deg”	300	300	None
Yucaipa —“max benefit” <sup>1</sup>	370	330	40
Yucaipa —“antideg”	320	330	None
<b>MIDDLE SANTA ANA RIVER BASIN</b>			
Arlington	980	-- <sup>+</sup>	None
Bedford	-- <sup>+</sup>	-- <sup>+</sup>	None
Goldwater	380	380	None
Elsinore	480	480	None
Leo Lake	-- <sup>+</sup>	-- <sup>+</sup>	None
Riverside A	560	440	120
Riverside B	290	320	None
Riverside C	680	760	None
Riverside D	810	-- <sup>+</sup>	None
Riverside E	720	720	None
Riverside F	660	580	80
Temescal	770	780	None
Warm Springs	-- <sup>+</sup>	-- <sup>+</sup>	None
<b>SAN JACINTO RIVER BASINS</b>			
Canyon	230	220	10
Hemet South	730	1030	None
Lakeview —Hemet North	520	830	None
Menifee	1020	3360	None
Perris North	570	750	None
Perris South	1260	3190	None
San Jacinto Lower	520	730	None
San Jacinto Upper	320	370	None
<b>LOWER SANTA ANA RIVER BASINS</b>			
Irvine	910	910	None
La Habra	-- <sup>+</sup>	-- <sup>+</sup>	None
Orange County <sup>2</sup>	580	560	None <sup>2</sup>
Santiago	-- <sup>+</sup>	-- <sup>+</sup>	None

<sup>1</sup> Not enough data to estimate TDS concentrations; management zone is presumed to have no assimilative capacity. If assimilative capacity is demonstrated by an existing or proposed discharger, that discharge would be regulated accordingly.

<sup>2</sup> For the purposes of regulating discharges other than those associated with projects implemented within the Orange County Management Zone to facilitate remediation projects and/or to address legacy contamination, no assimilative capacity is assumed to exist

~~3. Assimilative capacity created by "maximum benefit" objectives is allocated solely to agency(ies) responsible for "maximum benefit" implementation (see Section VI.).~~

**Table 5-4**  
Nitrate Nitrogen (NO<sub>3</sub>-N) Assimilative Capacity Findings

Management Zone	Water Quality Objective (mg/L)	Current Ambient (mg/L)	Assimilative Capacity (mg/L)
<b>UPPER SANTA ANA RIVER BASINS</b>			
Beaumont — “max benefit” <sup>3</sup>	5.0	2.6	2.4
Beaumont — “antideg”	1.5	2.6	None
Bunker Hill A	2.7	4.5	None
Bunker Hill B	7.3	5.5	1.8
Colton	2.7	2.9	None
Chino North — “max benefit” <sup>3</sup>	5.0	7.4	None
Chino 1 — “antideg”	5.0	8.4	None
Chino 2 — “antideg”	2.9	7.2	None
Chino 3 — “antideg”	3.5	6.3	None
Chino South	4.2	8.8	None
Chino East	10	29.1	None
Cucamonga — “max benefit” <sup>3</sup>	5.0	4.4	0.6
Cucamonga — “anti-deg”	2.4	4.4	None
Lytle	1.5	2.8	None
Rialto	2.0	2.7	None
San Timoteo — “max benefit” <sup>3</sup>	5.0	2.9	2.1
San Timoteo — “anti-deg”	2.7	2.9	None
Yucaipa — “max benefit” <sup>3</sup>	5.0	5.2	None
Yucaipa — “antideg”	4.2	5.2	None
<b>MIDDLE SANTA ANA RIVER BASINS</b>			
Arlington	10.0	-- <sup>4</sup>	None
Bedford	-- <sup>4</sup>	-- <sup>4</sup>	None
Coldwater	1.5	2.6	None
Elsinore	1.0	2.6	None
Lee Lake	-- <sup>4</sup>	-- <sup>4</sup>	None
Riverside A	6.2	4.4	1.8
Riverside B	7.6	8.0	None
Riverside C	8.3	15.5	None
Riverside D	10.0	-- <sup>4</sup>	None
Riverside E	10.0	14.8	None
Riverside F	9.5	9.5	None
Temescal	10.0	13.2	None
Warm Springs	-- <sup>4</sup>	-- <sup>4</sup>	None
<b>SAN JACINTO RIVER BASINS</b>			
Canyon	2.5	1.6	0.9
Hemet South	4.1	5.2	None
Lakeview — Hemet North	1.8	2.7	None
Menifee	2.8	5.4	None
Perris North	5.2	4.7	0.5
Perris South	2.5	4.9	None
San Jacinto Lower	1.0	1.9	None
San Jacinto Upper	1.4	1.9	None
<b>LOWER SANTA ANA RIVER BASINS</b>			
Irvine	5.9	7.4	None
La Habra	-- <sup>4</sup>	-- <sup>4</sup>	None
Orange County	3.4	3.4	None
Santiago	-- <sup>4</sup>	-- <sup>4</sup>	None

<sup>4</sup> Not enough data to estimate nitrate nitrogen concentrations

<sup>2</sup> Assimilative capacity created by “maximum benefit” objectives is allocated solely to agency(ies) responsible for “maximum benefit” implementation (see Section VI.).

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## 3. Nitrogen Loss Coefficient

The City of Riverside ~~also~~ presented data to the Task Force regarding nitrogen transformation and losses associated with wetlands. These data support a nitrogen loss coefficient of 50%, rather than 25%, for the lower portions of Reach 3 of the Santa Ana River that overlie the Chino South groundwater management zone. [Ref. 9]. In fact, the data indicate that nitrogen losses from wetlands in this part of Reach 3 can be greater than 90%. However, given the limited database, the Task Force again recommended a conservative approach, i.e., 50% in this area, with confirmatory monitoring.

Eastern Municipal Water District also presented data that support a 60% nitrogen loss coefficient in the San Jacinto Basin [Ref 10F]. This 60% nitrogen loss is only applicable to discharges to the following management zones that overlie the San Jacinto Basin: Perris North, Perris South, San Jacinto Lower Pressure, San Jacinto Upper Pressure, Lakeview-Hemet North, Menifee, Canyon and Hemet South.

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## 4. TDS and Nitrogen Wasteload Allocations for the Santa Ana River

Wasteload allocations for regulating discharges of TDS and total inorganic nitrogen (TIN) to the Santa Ana River, and thence to groundwater management zones recharged by the River, are an important component of salt management for the Santa Ana Basin. As described earlier, the Santa Ana River is a significant source of recharge to groundwater management zones underlying the River and, downstream, to the Orange County groundwater basin. The quality of the River thus has a significant effect on the quality of the Region's groundwater, which is used by more than 5 million people. Control of River quality is appropriately one of the Regional Board's highest priorities.

Sampling and modeling analyses conducted in the 1980's and early 1990's indicated that the TDS and total nitrogen water quality objectives for the Santa Ana River were being violated or were in danger of being violated. Under the Clean Water Act (Section 303(d)(1)(c); 33 USC 466 *et seq.*), violations of water quality objectives for surface waters must be addressed by the calculation of the maximum wasteloads that can be discharged to achieve and maintain compliance. Accordingly, TDS and nitrogen wasteload allocations were developed and included in the 1983 Basin Plan. The nitrogen wasteload allocation was updated in 1991; an updated TDS wasteload allocated was included in the 1995 Basin Plan when it was adopted and approved in 1994/1995.

The wasteload allocations distribute a share of the total TDS and TIN wasteloads to each of the discharges to the River or its tributaries. The allocations are implemented principally through TDS and nitrogen limits in waste discharge requirements issued to municipal wastewater treatment facilities (Publicly Owned Treatment Works or POTWs) that discharge to the River, either directly or indirectly<sup>2</sup>. Nonpoint source inputs of TDS and nitrogen to the River are also considered in the development of these wasteload allocations. Controls on these inputs are more difficult to identify and achieve and may be addressed through the areawide stormwater permits issued to the counties by the Regional Board or through other programs. For example, the Orange County Water District has constructed and operates more than 400 acres of wetlands ponds in the Prado Basin Management Zone to remove nitrogen in flows diverted from, and then returned to, the Santa Ana River.

Because of the implementation of these wasteload allocations, the Orange County Water District wetlands and other measures, the TDS and TIN water quality objectives for the Santa Ana River at Prado Dam are no longer being violated, as shown by annual sampling of the River at the Dam by Regional Board staff [Ref. 10A]. However, as part of the Nitrogen/TDS Task Force studies to update the TDS/nitrogen management plan for the Santa Ana Basin, a review of the TDS and TIN wasteload allocations initially contained in this Basin Plan was conducted. In part, this review was necessary in light of the new groundwater management zones and TDS and nitrate-nitrogen objectives for those zones recommended by the N/TDS Task Force (and now incorporated in Chapters 3 and 4). The wasteload allocations were

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<sup>2</sup> With some exceptions that may result from groundwater pumping practices, the ground and surface waters in the upper Santa Ana Basin (upstream of Prado Dam) eventually enter the Santa Ana River and flow through Prado Dam. Discharges to these waters will therefore eventually affect the quality of the River and must be regulated so as to protect both the immediate receiving waters and other affected waters, including the River.

evaluated and revised to ensure that the POTW discharges would assure compliance with established surface water objectives and would not cause or contribute to violation of the groundwater management zone objectives. The Task Force members also recognized that this evaluation was necessary to determine the economic implications of assuring conformance with the new management zone objectives. Economics is one of the factors that must be considered when establishing new objectives (Water Code Section 13241).

WEI performed the wasteload allocation analysis for both TDS and TIN [Ref. 3, 5]. In contrast to previous wasteload allocation work, the QUAL-2e model was not used for this analysis. Further, the Basin Planning Procedure (BPP) was not used to provide relevant groundwater data. Instead, WEI developed a projection tool using a surface water flow/quality model and a continuous-flow stirred-tank reactor (CFSTR) model for TDS and TIN. The surface water Waste Load Allocation Model (WLAM) is organized into two major components – RUNOFF (RU) and ROUTER (RO). RU computes runoff from the land surface and RO routes the runoff estimated with RU through the drainage system in the upper Santa Ana watershed. Both the RU and RO models contain hydrologic, hydraulic and water quality components.

To ensure that all hydrologic regimes were taken into account, hydrologic and land use data from 1950 through 1999 were used in the analysis. The analysis took into account the TDS and nitrogen quality of wastewater discharges, precipitation and overland runoff, instream flows and groundwater. Off-stream and in-stream percolation rates, rising groundwater quantity and quality, and the 25% and 50% nitrogen loss coefficients described in the preceding section were also factored into the analysis. The purpose of the modeling exercise was to estimate discharge, TDS and TIN concentrations in the Santa Ana River and tributaries and in stream bed recharge. These data were then compared to relevant surface and groundwater quality objectives to determine whether changes in TDS and TIN regulation were necessary.

Discharges from POTWs to the Santa Ana River or its tributaries were the focus of the analysis. POTW discharges to percolation ponds were not considered. The wasteload allocation analysis assumed, correctly, that these direct groundwater discharges will be regulated pursuant to the management zone objectives, findings of assimilative capacity and nitrogen loss coefficients identified in Chapter 4 and earlier in this Chapter.

The surface waters evaluated included the Santa Ana River, Reaches 3 and 4, Chino Creek, Cucamonga/Mill Creek and San Timoteo Creek. Management zones that are directly under the influence of these surface waters and that receive wastewater discharges were evaluated. These included the San Timoteo, Riverside A, Chino South, and Orange County Management Zones<sup>3</sup>. In addition, wastewater discharges to the Prado Basin Management Zone were also evaluated.

WEI performed three model evaluations in order to assess wasteload allocation scenarios through the year 2010. These included a “baseline plan” and two alternative plans (“2010-A” and “2010-B”). The baseline plan generally assumed the TDS and TIN limits and design flows for POTWs specified in waste discharge requirements as of 2001. These limits implemented the

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<sup>3</sup> The City of Beaumont discharges to Coopers Creek in a subunit of the Beaumont Management Zone. However, for analytical and regulatory purposes, it is considered a discharge to the San Timoteo Management Zone since it enters that Management Zone essentially immediately. Recharge of wastewater discharges by YVWD and Beaumont in downgradient management zones that may be affected by surface water discharges (e.g., Bunker Hill B, Colton), is not expected to be significant. Therefore, these management zones were not evaluated as part of the wasteload allocation analysis.

wasteload allocations specified in the 1995 Basin Plan when it was approved in 1995. A TDS limit of 550 mg/L was assumed for the Rapid Infiltration and Extraction Facility (RIX) and the analysis assumed a 540 mg/L TDS for the City of Beaumont. The baseline plan also assumed reclamation activities at the level specified in the 1995 Basin Plan, when it was approved. The purpose of the baseline plan assessment was to provide an accurate basis of comparison for the results of evaluation of the two alternative plans. For alternative 2010-A, it was generally assumed that year 2001 discharge effluent limits for TDS and TIN applied to POTW discharges, but projected year 2010 surface water discharge amounts were applied. TDS limits of 550 mg/L and 540 mg/L were again assumed for RIX and the City of Beaumont discharges. The same limited reclamation and reuse included in the baseline plan was assumed (see Table 5-7 in Section III.B.5.). For alternative 2010-B, POTW discharges were also generally limited to the 2001 TDS and TIN effluent limits (RIX was again held to 550 mg/L and Beaumont to 540 mg/L). However, in this case, large increases in wastewater recycling and reuse were assumed (Table 5-7), resulting in the reduced surface water discharges projected for 2010.

Analysis of the model results demonstrated that the TDS and nitrogen objectives of affected surface waters would be met and that water quality consistent with the groundwater management zone objectives would be achieved under both alternatives. It is likely that water supply and wastewater agencies will implement reclamation projects with volumes that are in the range of the two alternatives. The wasteload allocations would be protective throughout the range of surface water discharges identified. The year 2010 flow values are not intended as limits on POTW flows; rather, these flows were derived from population assumptions and agency estimates and are used in the models for quality projections. Surface water discharges significantly different than those projected will necessitate additional model analyses to confirm the propriety of the allocations.

The wasteload allocations for TDS and TIN are specified in Table 5-5. Allocations based on the 2010-A and 2010-B alternatives are shown for both TDS and TIN to reflect the expected differences in surface water discharge flows that would result from variations in the amount of wastewater recycling actually accomplished in the Region. As shown in this Table, irrespective of these differences, the TDS and TIN allocations remain the same.

It is essential to point out that the wasteload allocations in Table 5-5 will be not be used to specify TDS and TIN effluent limitations for wastewater recycling (reuse for irrigation) and recharge by the listed POTWs, but will be applied only to the surface water discharges by these POTWs to the Santa Ana River and its tributaries. TDS and TIN limitations for wastewater recycling and recharge by these POTWs will be based on the water quality objectives for affected groundwater management zones or, where appropriate, surface waters. These limitations are likely to be different than the wasteload allocations specified in Table 5-5.

The wasteload allocations for TDS (and TIN discharges) that are specified in the 2004 Basin Plan were developed to address the effects of discharges on the Santa Ana River and underlying groundwater. For Yucaipa Valley Water District (YVWD) and the City of Beaumont, both with discharge to San Timoteo Creek, the best available evidence demonstrates that these discharges do not reach the Santa Ana River, apart from extreme wet weather events, and thus have no appreciable effect on River. Therefore, the 2014 amendments to the Basin Plan deleted the wasteload allocation assigned to YVWD and the City of Beaumont. For these POTWs, the regulatory approach is to apply TDS limits that assure protection of the groundwater management zones affected by the discharges.

~~For most dischargers, the allocations specified in Table 5-5 are the same as those specified in the prior 1995 Basin Plan TDS and TIN wasteload allocations. However, for certain dischargers, two sets of TDS and TIN wasteload allocations are shown in Table 5-5. One set is based on the assumption that the “maximum benefit” objectives defined in Chapter 4 for the applicable groundwater management zones are in effect. The other set of wasteload allocations applies if maximum benefit is not demonstrated and the antidegradation objectives for these management zones are therefore in effect. Maximum benefit implementation is described in Section VI. of this Chapter.~~

In addition, in contrast to the prior wasteload allocations, a single wasteload allocation for TDS and TIN that would be applied on a flow-weighted average basis to all of the treatment plants operated by the Inland Empire Utilities Agency as a whole is specified. These allocations are based on the water quality objectives for Chino Creek, Reach 1B (550 mg/L TDS and 8 mg/L TIN), to which the IEUA discharges occur, directly or indirectly. As described in Section VI, IEUA proposes to implement a “maximum benefit” program to support the implementation of the “maximum benefit” TDS and nitrate-nitrogen objectives for the Chino North and Cucamonga Management Zones. Separate “maximum benefit” and “antidegradation” wasteload allocations are not necessary for IEUA, ~~as they are for YVWD and Beaumont~~. This is because the IEUA wasteload allocations are based solely on the Chino Creek objectives and are not contingent on “maximum benefit” objectives or implementation. The IEUA surface water discharges do not affect the groundwater management zones for which “maximum benefit” objectives are to be implemented.

Finally, the TDS wasteload allocation for the RIX facility is less stringent (550 mg/L) than the prior wasteload allocation. The new allocation will assure beneficial use protection and will not result in a significant lowering of water quality. As such, it is consistent with antidegradation requirements. Given this, the less stringent effluent limitation can be specified pursuant to the exception to the prohibition against backsliding established in the Clean Water Act, Section 303(d)(4)(a).

In most cases, the surface water discharges identified in Table 5-5 will affect or have the potential to affect groundwater management zones without assimilative capacity for TDS and/or nitrogen. As discussed earlier in this section, the lack of assimilative capacity normally dictates the application of the water quality objectives of the affected receiving waters as the appropriate waste discharge limitations. However, as shown in Table 5-5, the TIN and, in some cases, TDS wasteload allocations for these discharges exceed the objectives for these management zones. This is because the wasteload allocation analysis conducted by WEI demonstrated that POTW discharges at these higher-than-objective levels will not result in violations of the TDS and nitrate-nitrogen objectives of the affected management zones, or surface waters. Accordingly, these wasteload allocations will be used for surface water discharge regulatory purposes, rather than the underlying groundwater management zone objectives. If the extensive monitoring program to be conducted by the dischargers (see Salt Management Plan – Monitoring Program Requirements, below) indicates that this strategy is not effective, then this regulatory approach will be revisited and revised accordingly.

Table 5-5

Alternative Wasteload Allocations through 2010  
based on “Maximum Benefit” or “Antidegradation” Water Quality<sup>1</sup>

Publicly Owned Treatment Works (POTW)	Alternative 2010A – Reclamation in 1995 Basin Plan			Alternative 2010B – Reclamation Plans Advocated by POTWs/others		
	Surface Water Discharge (MGD)	TDS (mg/L)	TIN (mg/L)	Surface Water Discharge (MGD)	TDS (mg/L)	TIN (mg/L)
<del>Beaumont – “max benefit”<sup>2</sup></del>	<del>2.3</del>	<del>490</del>	<del>6.0</del>	4.0	490	6.0
<del>Beaumont – “antideg”<sup>2,3</sup></del>	<del>2.3</del>	<del>320<sup>3</sup></del>	<del>4.1<sup>3</sup></del>	4.0	320 <sup>3</sup>	4.1 <sup>3</sup>
<del>YVWD – Wechholz – “max benefit”</del>	<del>5.7</del>	<del>540</del>	<del>6.0</del>	0.0	540	6.0
<del>YVWD – Wechholz – “antideg”<sup>-3</sup></del>	<del>5.7</del>	<del>320<sup>3</sup></del>	<del>4.1<sup>3</sup></del>	0.0	320 <sup>3</sup>	4.1 <sup>3</sup>
Rialto	12.0	490	10.0	10.0	490	10.0
RIX	49.4	550	10.0	28.2	550	10.0
Riverside Regional WQCP	35.0	650	13.0	26.1	650	13.0
Western Riverside Co. WWTP	4.4	625	10.0	3.3	625	10.0
EMWD <sup>4,2</sup>	43	650	10.0	6.0	650	10.0
EVMWD – Lake Elsinore Regional	7.2	700	13.0	2.0	700	13.0
Lee Lake WRF	1.6	650	13.0	1.6	650	13.0
Corona WWTP # 1	3.6	700	10.0	2.0	700	10.0
Corona WWTP # 2	0.2	700	10.0	0.5	700	10.0
Corona WWTP # 3	2.0	700	10.0	0.5	700	10.0
IEUA Facilities <sup>5,3</sup>	80.0	550	8.0	37.4	550	8.0

1. “Antidegradation” wasteload allocation is the default allocation if the Regional Board determines that “maximum benefit” commitments are not being met.
- ~~2. Beaumont discharges to Coopers Creek, a tributary of San Timoteo Creek, Reach 4, it is a *de facto* discharge to San Timoteo Creek/San Timoteo Management Zone.~~
- ~~3. “Antidegradation” wasteload allocations for City of Beaumont and YVWD based on additional model analysis performed by WEI (WEI, October 2002).~~
2. EMWD discharges are expected to occur only during periods of wet weather.
3. IEUA facilities include the RP#1, Carbon Canyon WRP, RP#4 and RP#5; these facilities are to be regulated as a bubble (see text).

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5. Wastewater Reclamation

Wastewater is presently being reclaimed in the Santa Ana Watershed in a number of different ways:

3. Groundwater Recharge by Percolation

This type of reclamation is common throughout the Region. Most wastewater treatment plants that do not discharge directly to the River discharge their effluent to percolation ponds. All of the treated wastewater in the upper Santa Ana Basin that is not directly reclaimed for commercial agricultural and landscape irrigation purposes, or discharged directly to the Santa Ana River, is returned to local or downstream groundwater management zones by percolation. In Orange County, reclaimed water is used for greenbelt and landscape irrigation, and injected into coastal aquifers to control sea water intrusion.

Significant additional reclamation activities are planned in the Region, as reflected in Table 5-7. The Chino Basin Watermaster, Inland Empire Utilities Agency, Yucaipa Valley Water District, the City of Beaumont and the San Timoteo Watershed Management Authority propose to implement extensive groundwater recharge projects using recycled water. To accommodate these projects and other water and wastewater management strategies, these agencies have made the requisite demonstrations necessary to support the "maximum benefit" TDS and nitrate-nitrogen water quality objectives specified in this Plan for certain groundwater management zones (see Chapter 4). The recharge projects will provide reliable sources of additional water supply needed to support expected development within the agencies' areas of jurisdiction. These agencies' "maximum benefit" programs are described in detail in Section VI. of this Chapter.

Significant additional reclamation activities are planned in the Region, ~~as reflected in Table 5-7.~~ ~~The~~ Chino Basin Watermaster, Inland Empire Utilities Agency, Yucaipa Valley Water District, the City of Beaumont and the ~~San Timoteo Watershed Management Authority~~ City of Banning propose to implement extensive groundwater recharge projects using recycled water. To accommodate these projects and other water and wastewater management strategies, these agencies have made the requisite demonstrations necessary to support the "maximum benefit" TDS and nitrate-nitrogen water quality objectives specified in this Plan for certain groundwater management zones (see Chapter 4). The recharge projects will provide reliable sources of additional water supply needed to support expected development within the agencies' areas of jurisdiction. These agencies' "maximum benefit" programs are described in detail in Section VI. of this Chapter.

The construction of the Yucaipa Valley Regional Brine line and installation of a reverse osmosis facility at the Water Purification Facility located at the Wochholz Regional Water Recycling Facility will facilitate a groundwater replenishment reuse project in the upper groundwater management zones in the Santa Ana Watershed.

In Orange County, significant reclamation activities include the implementation of the Groundwater Replenishment System, a joint effort of the Orange County Water District and Orange County Sanitation District. Treated wastewater provided by the Sanitation District ~~will~~ receive extensive advanced treatment, including microfiltration, reverse osmosis, and

draft

disinfection using ultraviolet light and hydrogen peroxide. In the first phase of the project, approximately 70, 000 acre-feet per year of highly treated recycled water will be produced and distributed to groundwater recharge facilities and to injection wells used to maintain a seawater intrusion barrier. The System will enhance both the quality and quantity of groundwater resources, the major source of water supply in the area. It will reduce the need for imported water and prevent, or at least delay, the need for an additional ocean outfall for disposal of the wastewater treated by the Sanitation District. Implementation of the GWR System ~~will be phased.~~ Operation of Phase 1 ~~will begin~~ began in 2007~~8~~. Future phases to expand the capacity of the GWR System are possible planned.

**Table 5-7**  
Wastewater Reclamation

Subbasin (Management Zone) Receiving Reclaimed Water	Source	Amount AF/Y 2010-A <sup>1</sup>	Amount AF/Y 2010-B <sup>2</sup>
Beaumont MZ	Beaumont, City of	250	1,500
Yucaipa MZ	Yucaipa Valley Water District	--	6,400
Bunker Hill B MZ	San Bernardino, City of and Colton, City of	117	26,200
Colton MZ	Rialto, City of	200	
Chino North MZ	IEUA RP-1	1,200	48,000
Chino North MZ	IEUA RP-2A	2,470	
Chino North MZ	IEUA RP-4	3,300	
Chino North MZ	California Institute for Men	650	650
Chino North MZ	Upland Golf Course	31	31
Temescal MZ	Corona, City of	1,000	3,100
	<b>TOTAL</b>	<b>9,218</b>	<b>86,000</b>

<sup>1</sup> wastewater reclamation assumed in 2010-A is the same as that assumed in the 1995 Basin Plan when approved in 1994/1995 (also known as Table 5-7)

<sup>2</sup> wastewater reclamation assumed in 2010-B as identified by POTWs (see Ref. 3, 5).

## Salt Management Plan (Chapter 5)

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#### V. Other Projects and Programs

In addition to the regulatory efforts of the Regional Board described in the preceding section, water and wastewater purveyors and other parties in the watershed have implemented, and propose to implement, facilities and programs designed to address salt problems in the groundwater of the Region. These include the construction of brine lines and groundwater desalters, implementation of programs to enhance the recharge of high quality stormwater and imported water, where available, and re-injection of recycled water to maintain salt water intrusion barriers in coastal areas. These projects and programs are motivated by the need to protect and augment water supplies, as well as to facilitate compliance with waste discharge requirements.

##### A. Brine Lines

There are two brine line systems in the Region, the [Inland Empire Brine Line, formerly known as the Santa Ana Regional Interceptor \(SARI\)](#), and the older Chino Basin Non-Reclaimable Line (NRL). These lines are used to transport brine wastes out of the basin for treatment and disposal to the ocean. They are a significant part of industrial waste management and essential for operation of desalters in the upper watersheds.

##### [1. Inland Empire Brine Line](#)

The [SARI Inland Empire Brine Line \(Brine Line\)](#) was constructed and is owned by SAWPA. It is approximately 93 miles of 16 inch to 84 inch pipeline connected to the Orange County Sanitation District treatment facilities. SAWPA owns capacity rights in SARI downstream of Prado Dam. The line extends from the Orange County Line near Prado Dam northeast to the San Bernardino area. The Brine Line has been extended to serve the San Jacinto Watershed. [SARI Brine Line](#) Reach 5 extends up the Temescal Canyon from the City of Corona to the Eastern Municipal Water District (EMWD) brine line terminus in the Lake Elsinore area. EMWD's Menifee Desalter and other high salinity discharges from EMWD and Western Municipal Water District now have access to the brine line.

##### [2. Chino Basin Non-Reclaimable Waste Line](#)

The Chino Basin Non-Reclaimable [Waste Line \(NRWL\)](#) is connected to the Los Angeles County Sanitation District sewer system in the Pomona area. The [NRWL](#), which is owned and operated by Inland Empire Utilities Agency, exports non-reclaimable industrial wastes and brine from the Chino Basin. It extends eastward from the Los Angeles County Line to the City of Fontana. It was originally built to serve industries including the Kaiser Steel Company and Southern California Edison Power Plants.

##### B. Groundwater Desalters

The studies leading to the development of the TDS/Nitrogen management plan included in this Basin Plan when it was approved in 1995 demonstrated that it was not realistic to achieve compliance with all the nitrogen and TDS objectives for the groundwater subbasins then identified within the Region. Long-term historic land use practices, particularly agriculture, have

left an enormous legacy of salts that are now in the unsaturated soils overlying the groundwater subbasins (now, newly defined groundwater management zones). A significant amount of these salts will, over time, degrade groundwater quality. The programs of groundwater extraction, treatment, and replenishment needed to completely address these historic salt loads were shown to far exceed the resources available to implement them.

While the boundaries of the groundwater management zones have been revised and new TDS and nitrate-nitrogen water quality objectives established, the salt legacy problem remains. The construction and operation of groundwater desalters to extract and treat poor quality groundwater continues to be an essential component of salt management in the Region. Such projects will be increasingly important to protect local water supplies and to provide supplemental, reliable sources of potable supplies.

A number of groundwater desalters have already been constructed, and more are planned. These facilities are described below.

#### 1. Upper Santa Ana Basin

In the Upper Santa Ana Basin, the Santa Ana Watershed Project Authority constructed ~~and operates~~ the Arlington desalter, which is now owned and operated by Western Municipal Water District. This desalter, with a capacity of about 7 MGD, treats water extracted from the Arlington Management Zone, which was heavily impacted by historic agricultural activities.

In the Chino Basin, the Chino Desalter Authority operates the Chino 1 desalter, which is planned for expansion from 8 MGD to 13 MGD capacity. Additional desalters and desalter capacity will be constructed as part of a "maximum benefit" proposal by the Chino Basin Watermaster and the Inland Empire Utilities Agency (see Section VI., Maximum Benefit Implementation Plans for Salt Management).

The City of Corona began operation of the Temescal desalter in late 2001 ~~with product water. The desalter has a~~ capacity of 10 MGD. In 2004, t~~The City is currently expanding~~ expanded the desalter plant capacity by adding a fourth train to increase the product water capacity by 5 MGD for a current total of 15 MGD. It is expected to be operational in early 2004. The product water is used to supplement ~~current~~ other municipal supplies as a blending source. The improved TDS quality of these supplies is an important part of the City's efforts to assure compliance with waste discharge requirements.

In the San Timoteo Watershed areas, desalters will be implemented as necessary for the Yucaipa and Beaumont areas, as discussed in detail in Section VI., Maximum Benefit San Timoteo Watershed Salt Management Plan.

#### 2. San Jacinto Watershed

EMWD operates the Menifee desalter, which has a capacity of about 3 MGD. Product water is added to the EMWD municipal supply system, and the waste brine is discharged to a non-reclaimable waste disposal system that is ultimately connected to the SAWPA SARI system. The desalter extracts groundwater from the Perris South and Menifee Management Zones, both of which are adversely affected by historic salt loads contributed largely by agricultural activities.

EMWD plans to construct a desalter with capacity of about 4.5 MGD to treat poor quality water extracted from the Perris South and Lakeview/Hemet North Management Zones. The purpose of this facility is to stop subsurface migration of poor quality groundwater from the Perris South Management Zone into the Lakeview/Hemet North Management Zone.

### 3. Orange County

The Tustin ~~Seventeenth Street Desalter Nitrate Removal project~~, which began operation in 1996 ~~reduces high nitrate and TDS concentrations from groundwater pumped by Tustin's Seventeenth Street wells, adding~~ approximately 3,000 acre-feet of water annually to Tustin's domestic water supply. ~~A second facility, Tustin's Main Street Treatment Plant, began operating in 1989 with a yield of 2,000 acre-feet per year. The plant reduces nitrate levels from groundwater produced by Tustin's Main Street wells, Treatment systems~~ employ~~ing~~ reverse osmosis and ion exchange. ~~are operating at two wells that had been shut down because of excessive nitrate concentrations.~~ The Orange County Water District and Irvine Ranch Water District (IRWD) ~~are moving forward with~~ cooperated to build the Irvine Desalter, a dual-purpose regional groundwater remediation and water supply project located in the City of Irvine and its sphere of influence. The project consists of an extensive seven-well groundwater extraction and collection system, a treatment system, a five-mile brine disposal pipeline, a finished water delivery system, and ancillary facilities. While providing approximately ~~6,700~~ 8,000 acre-feet per year to IRWD for potable and non-potable supply, the desalter ~~will~~ extracts and treats brackish groundwater and captures an overlapping regional plume of TCE-contaminated groundwater demonstrated to have originated from the former U.S. Marine Corps Air Station-El Toro.

### C. Recharge of Stormwater and/or Imported Water

The Orange County Water District, San Bernardino Valley Water Conservation District and other agencies in the Region operate extensive facilities designed to enhance the capture and recharge of high quality stormwater. More such facilities are planned as part of "maximum benefit" proposals by the Chino Basin Watermaster/Inland Empire Utilities Agency, ~~Yucaipa Valley Water District, San Timoteo Watershed Management Authority and the City of Beaumont~~ and agencies implementing the maximum benefit programs in the San Timoteo watershed (Section VI., Maximum Benefit Implementation Plans for Salt Management). These proposals also include efforts to import and recharge high quality State Water Project water, when it is available. These activities increase both the quantity and quality of available groundwater resources.

### D. Sea Water Intrusion Barriers

The Orange County Water District operates advanced facilities designed to provide significantly enhanced tertiary treatment of secondary treated municipal wastewater from the Orange County Sanitation District's (Sanitation District) Fountain Valley Reclamation Plant No. 1. The recycled water is injected into a series of wells located along Ellis Avenue in the City of Fountain Valley to maintain the Talbert Gap Seawater Intrusion Barrier. The treatment facility, ~~currently known as Water Factory 21, will be supplanted by~~ the Groundwater Replenishment System (GWRS) ~~being~~ was constructed jointly by Orange County Water District and the Sanitation District (see preceding section on wastewater reclamation).

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V. Salt Management Plan – Monitoring Program Requirements  
(insert at end of section)

Subsequent to the approval of the Region’s Salt and Nutrient Management Plan in 2004, a new task force, the “Basin Monitoring Program Task Force” (BMPTF) was formed to implement the requisite nitrogen/TDS monitoring and analyses programs described previously. SAWPA serves as the administrator for the BMPTF.

The Task Force includes the following agencies:

- Eastern Municipal Water District
- Inland Empire Utilities Agency
- Orange County Water District
- City of Riverside
- Lee Lake Water District
- Elsinore Valley Municipal Water District
- Irvine Ranch Water District
- Colton/San Bernardino Regional Tertiary Treatment and Wastewater Reclamation Authority
- Chino Basin Watermaster
- Yucaipa Valley Water District
- City of Beaumont
- City of Corona
- City of Redlands
- City of Rialto
- Jurupa Community Services District
- Western Riverside Co Regional Wastewater Authority

The Santa Ana Regional Water Quality Control Board and SAWPA are also signatories to the BMPTF agreement.

As indicated above (Section V.A and V.B), the task force agencies are required to conduct the following investigations:

1. Recomputation of the Ambient Water Quality – every three years
2. Preparation of a Water Quality Report for the Santa Ana River – annually

**Declaration of Conformance**

Another major activity that the BMPTF completed in March 2010 was the development of a “Declaration of Conformance” for approval by the Regional Board and the State Water Resources Control Board. With the Declaration, the Task Force and Regional Board declared conformance with the then-new State Board Recycled Water Policy requirements for the completion of a salt and nutrient management plan for the Santa Ana Region, and other requirements of this Policy. This finding of conformance was based on the work of the Nitrogen/TDS Task Force. That work resulted in the 2004 adoption of a Basin Plan amendment to incorporate a revised salt and nutrient management plan for the Region (Resolution No. R8-2004-0001). Further, the Declaration documented conformance with the emerging constituents monitoring requirements in the Policy through the “Emerging Constituents Sampling and Investigation Program”, submitted to the Regional Board on an annual basis by the Emerging Constituents Program Task Force. The Sampling and Investigation Program will be reviewed annually and revised as necessary and will integrate the State Board’s recommendations when they become available. Finally, the Declaration of

Conformance documents the analyses and procedures that will be used to streamline the permitting process for recycled water projects, as required by the Policy.

The Declaration of Conformance was formally adopted by resolution of the Regional Board on March 18, 2010 (Resolution No. R8-2010-0012) and formally submitted to the State Board on April 12, 2010.

### **Salt Monitoring Cooperative Agreement**

In January, 2008 the Regional Board entered into a Cooperative Agreement with several water and wastewater agencies in the Santa Ana River Watershed to analyze and report the amount of salt and nitrates entering local groundwater aquifers as a consequence of recharging imported water in the region. The "Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Use of Imported Water in the Santa Ana River Basin" is Attachment A to Resolution No. R8-2008-0019.

As with the BMPTF effort underwritten by local stakeholders, the Cooperative Agreement obligates signatories to assess current groundwater quality every three years. In addition, the signatories have agreed to estimate every six years the changes that are likely to occur in groundwater quality as a result of on-going and expected projects that recharge imported water. By emphasizing the use of "real-time" monitoring, rather than complex fate and transport models, the Regional Board is better able to evaluate the effects of these recharge projects.

The parties of the Cooperative Agreement execute the terms of the agreement through a workgroup that meets regularly under the administration of SAWPA. As the informal administrator, SAWPA assists in coordination among the signatories of the necessary basin salinity monitoring and modeling reports, along with final compilation and submittal of the reports to the Regional Board by the deadlines defined in the agreement.

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## VI. Maximum Benefit Implementation Plans for Salt Management

## B. Salt Management—San Timoteo Watershed

## 1. San Timoteo and Yucaipa Management Zone—Yucaipa Valley Water District

Two sets of objectives have been adopted for the San Timoteo and Yucaipa Management Zones; the “maximum benefit” objectives and objectives based on historic ambient quality (“antidegradation” objectives) (see Chapter 4). The application of the “maximum benefit” objectives relies on the implementation by the Yucaipa Valley Water District (YVWD) (and in the case of the San Timoteo Management Zone, by the City of Beaumont/STWMA (see discussion below)) of a specific program of projects and requirements [Ref. 10D]. This program is a part of a watershed scale water resources management plan designed by YVWD and other members of the San Timoteo Watershed Management Authority (STWMA) (the City of Beaumont, the Beaumont-Cherry Valley Water District and the South Mesa Water Company) to assure reliable supplies to meet present and anticipated demands. The projected water demands for the Yucaipa area for the year 2030 require approximately an additional 10,000 AFY of supplemental water, including State Water Project water, water imported from local sources, recharged storm water and recycled water. YVWD is in the process of implementing the water resources management plan, which includes enhanced recharge of stormwater and recycled water, optimizing direct use of recycled and imported water, and conjunctive use.

In addition to its water supply responsibilities, YVWD provides sewage collection and treatment services within its service area. YVWD operates a wastewater treatment facility that currently discharges tertiary treated wastewater to San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo groundwater management zone.

Table 5-9a identifies the projects and requirements that must be implemented by YVWD to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. An implementation schedule is also specified. The Regional Board will revise YVWD’s waste discharge requirements to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the “maximum benefit” water quality TDS and nitrate-nitrogen objectives apply to the Yucaipa and San Timoteo Management Zones, as long as the schedule is being met<sup>4</sup>. If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-9a (and in the case of the San Timoteo Management Zone, the commitments and schedule shown in Table 5-10a (see next section)), then maximum benefit is not demonstrated and the “antidegradation” TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges affecting these management zones that took place in excess of limits based on the “antidegradation” objectives. As for Chino Basin Watermaster and Inland Empire Utilities Agency, discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water, at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

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<sup>4</sup> Application of “maximum benefit” objectives for the San Timoteo Management Zone is also contingent on the timely implementation of the commitments by the City of Beaumont and the San Timoteo Watershed Management Authority which are discussed in the next section.

Table 5-9a

Yucaipa Valley Water District Maximum Benefit Commitments

Description of Commitment	Compliance Date — as soon as possible, but no later than
<p>1. Surface Water Monitoring Program</p> <ul style="list-style-type: none"> <li>-a. Submit Draft Monitoring Program to Regional Board</li> <li>-b. Implement Monitoring Program</li> <li>-c. Quarterly data report submittal</li> <li>-d. Annual data report submittal</li> </ul>	<ul style="list-style-type: none"> <li>a. January 23, 2005</li> <li><b>b. Within 30 days from Regional Board approval of monitoring plan</b></li> <li><b>c. April 15, July 15, October 15, January 15</b></li> <li>d. February 15<sup>th</sup></li> </ul>
<p>2. Groundwater Monitoring Program</p> <ul style="list-style-type: none"> <li>-a. Submit Draft Monitoring Program to Regional Board</li> <li>b. Implement Monitoring Program</li> <li>-c. Annual data report submittal</li> </ul>	<ul style="list-style-type: none"> <li>a. January 23, 2005</li> <li>b. Within 30 days from Regional Board approval of monitoring plan</li> <li>c. February 15<sup>th</sup></li> </ul>
<p>3. Desalter(s) and Brine Disposal Facilities</p> <ul style="list-style-type: none"> <li>a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule.</li> <li>b. Implement the plan and schedule</li> </ul>	<ul style="list-style-type: none"> <li>a. Within 6 months of either of the following:                             <ul style="list-style-type: none"> <li>i. When YVWD's effluent 5-year running average TDS exceeds 530 mg/L; and/or</li> <li>ii. When volume weighted average concentration in the Yucaipa MZ of TDS exceeds 360 mg/L</li> </ul> </li> <li>b. Within 30 days from Regional Board approval of monitoring plan</li> </ul>
<p>4. Non-potable water supply</p> <p>Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 415 mg/L or less</p>	<p>December 23, 2014</p>

Description of Commitment	Compliance Date — as soon as possible, but no later than
<p><del>5. Recycled water recharge</del></p> <p>The recharge of recycled water in the Yucaipa or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the “maximum benefit” objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s).</p> <p>a. <del>Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge.</del></p> <p>b. <del>Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD enhanced recharge facilities/programs</del></p>	<p><del>Compliance must be achieved by end of 5<sup>th</sup> year after initiation of recycled water use/recharge operations.</del></p> <p>a. <del>Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge.</del></p> <p>b. <del>Annually, by January 15<sup>th</sup>, after initiation construction of facilities/implementation of programs to support enhanced recharge.</del></p>
<p><del>6. Ambient groundwater quality determination</del></p>	<p><del>July 1, 2005 and every 3 years thereafter</del></p>
<p><del>7. Replace denitrification facilities (necessary to comply with TIN wasteload allocation specified in Table 5-5)</del></p>	<p><del>New facilities shall be operational no later than December 23, 2007</del></p>
<p><del>8. YVWD recycled water quality improvement — plan and schedule</del></p> <p>a. <del>Submit plan and schedule</del></p> <p>b. <del>Implement plan and schedule</del></p>	<p>a. <del>60 days after the TDS 12-month running average effluent quality equals or exceeds 530 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place)</del></p> <p>b. <del>Upon approval by Regional Board</del></p>
<p><del>9. Remove/reduce the discharge of YVWD effluent — from the unlined portion of San Timoteo</del></p>	

Description of Commitment	Compliance Date — as soon as possible, but no later than
<p><del>—Creek</del></p> <p><del>a. Submit proposed plan/schedule</del></p> <p><del>b. Implement plan/schedule</del></p>	<p><del>a. June 23, 2005</del></p> <p><del>b. Upon Regional Board approval</del></p>
<p><del>10. Construct the Western Regional Interceptor for Dunlap Acres</del></p> <p><del>a. Submit proposed construction plan and schedule. The schedule shall assure the completion of construction as soon as possible but no later than January 1, 2010.</del></p> <p><del>b. Implement plan and schedule</del></p>	<p><del>a. June 23, 2005</del></p> <p><del>b. Upon Regional Board approval</del></p>

~~A. Description of Yucaipa Valley Water District Commitments~~

~~1. Surface Water Monitoring Program (Table 5-9a, # 1)~~

~~The YVWD shall develop and submit for Regional Board approval a surface water monitoring program for San Timoteo Creek and the Santa Ana River Reaches 4 and 5. The monitoring program must be implemented within 30 days of Regional Board approval of the monitoring plan, and six months of data must be generated prior to the implementation of any changes made to the effluent discharge points and before any recycled water is used in the Yucaipa or San Timoteo Management Zones.~~

~~At a minimum, the surface water monitoring program shall include the collection of monthly measurements of TDS and nitrogen components in San Timoteo Creek and Santa Ana River, Reaches 4 and 5 (see Table 5-9b). Data reports shall be submitted to the Regional Board's Executive Officer by April 15, July 15, October 15 and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by February 15<sup>th</sup> of each year.~~

~~2. Groundwater Monitoring Program (Table 5-9a, #2)~~

~~The purpose of the Groundwater Monitoring Program is to identify the effects of the implementation of the San Timoteo and Yucaipa Management Zones maximum benefit water quality objectives on water levels and water quality within the San Timoteo and Yucaipa Management Zones. Prior to discharge of recycled water to the San Timoteo and/or Yucaipa Management Zones, YVWD shall submit to the Regional Board for approval a groundwater monitoring program to determine ambient water quality in the San Timoteo and Yucaipa Management Zones. The groundwater monitoring program must be implemented within 30 days of approval by the Regional Board.~~

~~An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by February 15<sup>th</sup> of each year.~~

~~3. Desalters and Brine Disposal (Table 5-9a, #3)~~

~~YVWD anticipates that demineralization of groundwater or recycled water will be necessary in the future. YVWD is committed to construct and operate desalting and brine disposal facilities when:~~

- ~~1) The 5-year running average TDS concentration in recycled water produced at the YVWD wastewater treatment plant exceeds 530 mg/L; or~~
- ~~2) The volume-weighted TDS concentration in the Yucaipa Management Zone reaches or exceeds 360 mg/L~~

~~The construction of these facilities will be in accordance with a plan and schedule submitted by YVWD and approved by the Regional Board. The schedule shall assure that these facilities are in place within 7 years of Regional Board approval. These facilities shall be designed to stabilize or reverse the degradation trend evidenced by effluent and/or management zone quality.~~

~~4. Non-potable water supply distribution system (Table 5-9a, # 4)~~

~~A key element of the YVWD's water resources management plan is the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water for irrigation uses. The intent of blending these sources is to minimize the impact of recycled water use on the Yucaipa and San Timoteo Management Zones.~~

~~Parts of this system are under design and construction. A higher proportion of State Project water will be used in wet, surplus years, while larger amounts of recycled water will be used in dry, deficit years. YVWD will produce a non-potable supply with a running ten-year average TDS concentration for the Yucaipa Management Zone of 415 mg/L.~~

Table 5—9b

Surface Water Monitoring Sites for Monitoring Water Quality and Quantity  
Yucaipa Valley Water District

Site Name	Discharge	Owner	Type	Discharge Monitoring	Water Quality
Monitoring				Frequency	Period
Period	Analyses			Frequency	Period
11057500, Gage	San Timoteo Creek	USGS	Total Discharge	Bi-weekly	Jan-Dec
Dec TDS, TIN, Physical				Bi-weekly	Jan-Dec
At Barton Rd.	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
At San Timoteo	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Canyon Rd.					
Above confluence	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Yucaipa Creek					
Above YVWD	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Discharge					
11059300 Gage	Santa Ana River	USGS	Total Discharge	Bi-weekly	Jan-Dec
Dec TDS, TIN, Physical				Bi-weekly	Jan-Dec
At Waterman Ave	Santa Ana River	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Recharged to	State Water Project	YVWD	Total Discharge	Monthly	Jan-Dec
Dec TDS, Nitrate-N				Monthly	Jan-Dec
Yucaipa MZ					
Recharged to	Storm water	YVWD	Total Discharge	Monthly	Jan-Dec
Dec TDS, Nitrate-N				Monthly	Jan-Dec
Yucaipa MZ					

5. Recycled Water Use (Table 5-9a, # 5)

The use and recharge of recycled water within the Yucaipa Management Zone is a critical component of the YVWD water management plan and is necessary to maximize the use of the water resources of the Yucaipa area. The demonstration of “maximum benefit” and the continued application of the “maximum benefit” objectives depends on the combined recharge (recycled water, imported water, storm water) to the Yucaipa Management Zone of a 5-year annual average (running average) TDS concentration of 370 mg/L and nitrate-nitrogen concentration of 5 mg/L. If recycled water recharge in the proposed San Timoteo Management Zone is pursued, then the application of the “maximum benefit” objectives will depend on the combined recharge to that Zone of 5-year annual average (running average) concentrations of 400 mg/L or

~~less TDS, and 5 mg/L or less nitrate-nitrogen.~~

~~To meet this requirement, YVWD will establish a fund to purchase imported water from local sources and/or the State Water Project and will recharge water with a TDS concentration less than 300 mg/L (recent long term historical average of water delivered from the State Project). YVWD will also pursue implementation, with the City of Yucaipa and the San Bernardino County Flood Control District, of the *Yucaipa Water Capture and Resource Management Complex* by December 31, 2010.~~

~~Accordingly, the use of recycled water for groundwater recharge in the Yucaipa or San Timoteo Management Zone shall be limited to the amount that can be blended in the management zone on a volume-weighted basis with other sources of recharge to achieve 5-year running average concentrations less than or equal to the "maximum benefit" objectives for the affected groundwater management zone. The 25% nitrogen loss coefficient will be applied in determining the amount of recharge of other water sources that must be achieved to meet the 5-year running average nitrogen concentrations.~~

#### ~~6. Ambient Groundwater Quality Determination (Table 5-9a, # 6)~~

~~By July 1, 2005, and every three years thereafter, YVWD shall submit a determination of ambient TDS and nitrate-nitrogen quality in the San Timoteo and Yucaipa Management Zones. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater management zones within the region. [Ref. 1].~~

#### ~~7. Replacement of Denitrification Facilities (Table 5-9a, #7)~~

~~YVWD shall replace existing denitrification facilities to provide effluent total inorganic nitrogen quality (6 mg/L) needed to assure compliance with the "maximum benefit" nitrate-nitrogen objective of the San Timoteo and Yucaipa Management Zones (see Wasteload Allocation section of this Chapter). A maximum three year schedule for completion of these facilities will be required. This schedule will be specified in a revised NPDES permit for YVWD's discharges to San Timoteo Creek.~~

#### ~~8. YVWD Recycled Water Management (Table 5-9a, #8)~~

~~YVWD expects to limit the TDS concentration in its effluent to less than or equal to 540 mg/L by using a low TDS source water supply for potable uses, selective desalting of either source water and/or recycled waters, and minimizing the TDS waste increment. YVWD is currently constructing a 12-MGD treatment plant to treat and serve State Project Water. The plant will also be able to treat low TDS Mill Creek and Santa Ana River water. When necessary, YVWD will construct desalters to reduce either the TDS concentration in water supplied to customers or the TDS concentration in the effluent. YVWD will also use best efforts to enact ordinances and other requirements to minimize the TDS use increment.~~

~~Within 60 days after the YVWD 12-month running average concentration for TDS equals or exceeds 530 mg/L for 3 consecutive months, or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place), YVWD shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the average agency wastewater effluent quality does not exceed 540 mg/L and 6 mg/L for TDS and TIN, respectively. The plan and schedule are to be implemented upon approval by the Regional Board.~~

#### ~~9. Relocation of San Timoteo Creek Discharge (Table 5-9a, #9)~~

~~YVWD has established the goal of eliminating its discharge to the unlined reach of San Timoteo Creek by 2008. First priority will be given to the direct reuse and limited recharge of this recycled water in the YVWD service area (principally the area overlying the Yucaipa Management Zone). The District may construct a pipeline to convey the recycled water to the San Jacinto watershed for reuse. The District is also planning the construction of a pipeline to convey recycled water downstream to the lined reach of the Creek (Reach 1A) to minimize recycled water effects on the San Timoteo Management Zone. In the long-term, discharges~~

~~to this area of the Creek are likely to be infrequent and limited to the wintertime, when the recycled water cannot be used in the YVWD (or potentially, the San Jacinto) service areas. However, YVWD is obligated to maintain flows in the Creek to support existing riparian habitat (State Board Order No. WW-26) and may need to continue recycled water discharges at some level. Groundwater and imported State Project water may also be used as alternative water sources.~~

~~Whole or partial removal of the discharge from the unlined reach of San Timoteo Creek would improve the quality of groundwater in the San Timoteo Management Zone and supplement recycled water supplies available for reuse elsewhere in the service area.~~

~~By June 23, 2005, YVWD shall submit a proposed plan and schedule to remove/reduce the discharge of recycled water to the unlined reach of San Timoteo Creek. The plan and schedule shall be implemented upon Regional Board approval.~~

#### ~~10.— Construction of Western Regional Interceptor (Table 5-9a, # 10)~~

~~YVWD will construct the Western Regional Interceptor to provide wastewater collection and treatment services to Dunlap Acres in order to mitigate what has been identified as a poor quality groundwater area due to prior agricultural use and existing septic systems. The Dunlap Acres area was inadvertently omitted from the Yucaipa-Calimesa septic tank subsurface disposal system prohibition established by the Regional Board in 1973. The interceptor includes the construction of a major wastewater interceptor pipeline, a force main and pump station. YVWD committed to complete construction of these facilities prior to 2010. Regional Board action may be necessary to require connection of properties to the wastewater collection system, when it is completed.~~

~~By June 23, 2005, YVWD shall submit a plan and schedule for construction of the Interceptor. The Interceptor is to be complete no later than January 1, 2010. YVWD shall implement the plan and schedule upon Regional Board approval.~~

#### ~~B. Implementation by Regional Board~~

##### ~~1. Revision to Yucaipa Valley Water District NPDES Permit~~

~~To implement the “maximum benefit” objectives, the Regional Board will revise the NPDES permit for YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following.~~

~~The discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 540 mg/L TDS and 6 mg/L TIN. These limits are based on the “maximum benefit” wasteload allocations shown in Table 5-5. A schedule not to exceed December 23, 2007 for compliance with this TIN limit shall be included in the permit. This schedule will enable YVWD to replace its existing denitrification facilities. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 5-5. Compliance schedules for these alternative limits will be specified in YVWD’s waste discharge requirements, as necessary.~~

~~YVWD will be required to implement measures to improve effluent quality when the 12-month running average effluent TDS quality equals or exceeds 530 mg/L for 3 consecutive months, and/or when the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place).~~

~~YVWD’s waste discharge requirements will require that recycled water used for recharge shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 5-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the affected management zone (Yucaipa or San Timoteo). Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified for recycled water~~

recharge in these management zones.

The effluent limits for YVWD, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the Yucaipa and/or San Timoteo Management Zones, are a cornerstone of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality. YVWD will be required to initiate the building of a desalter and brine disposal line when the 5-year running average TDS in YVWD's effluent reaches 530 mg/L, or when the volume weighted average TDS concentration in the Yucaipa Management Zone reaches 360 mg/L. YVWD will immediately implement a salt management program to reduce the salts entering the District's wastewater treatment plant. This salt management program will include: 1) provision of incentives for the removal of on-site regenerative water softeners and the use of off-site regenerative systems; and 2) percolation of State Water Project water into the Yucaipa Management Zone when State Water Project water has low TDS. Implementing these measures will assure that the groundwater quality remains at or below the Yucaipa Management Zone objective of 360 mg/L TDS. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that YVWD's wastewater treatment facility is able to meet the effluent TDS limits. Yucaipa Management Zone groundwater is a significant component of the water supplied in YVWD's service area, and its quality thus has an important effect on effluent quality. Poor ambient quality will preclude YVWD from meeting effluent limits without desalting.

YVWD will be required to submit proposed plans and schedules for the removal/reduction of its wastewater discharges from the unlined reach of San Timoteo Creek and for the construction of the Western Regional Interceptor. YVWD's revised permit will also reflect the surface and groundwater monitoring program requirements described above. This includes the determination of ambient quality in the San Timoteo and Yucaipa Management Zones.

## 2. Review of Project Status

No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the YVWD to demonstrate maximum benefit and justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-9a are met. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD commitments are not met and after consideration at a duly noticed Public Hearing, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. By default, the scientifically derived "antidegradation" objectives for the San Timoteo (300 mg/L for TDS, 2.7 mg/L for nitrate-nitrogen) and Yucaipa (320 mg/L for TDS and 4.2 mg/L for nitrate-nitrogen) Management Zones would become effective (see Chapter 4).

Furthermore, in the event that the projects and actions specified in Table 5-9a are not implemented, the Regional Board will require that the YVWD mitigate the adverse water quality effects, both on the immediate and downstream waters, that resulted from the recycled water discharges based on the "maximum benefit" objectives.

## **~~2. San Timoteo and Beaumont Management Zones – City of Beaumont and San Timoteo Watershed Management Authority (STWMA)~~**

~~As shown in Chapter 4, two sets of TDS and nitrate-nitrogen objectives have been adopted for both the San Timoteo and Beaumont Management Zones: the “maximum benefit” objectives and objectives based on historic ambient quality (the “antidegradation” objectives). The application of the “maximum benefit” objectives for these Management Zones is contingent on the implementation of commitments by the City of Beaumont/STWMA (and, in the case of the San Timoteo Management Zone, by the Yucaipa Valley Water District (YVWD; see preceding discussion)) to implement a specific water and wastewater resources management program [Ref. 10E]. This program is part of a coordinated effort by the member agencies of STWMA to develop and implement projects that will assure reliable water supplies to meet rapidly increasing demands in this area. The San Timoteo Watershed Management Program (STWMP) developed by STWMA entails enhanced recharge of native and recycled water, maximizing the direct use of recycled water, optimizing the direct use of imported water, recharge and conjunctive use.~~

~~Wastewater collection and treatment services in the STWMA service area are provided by the City of Beaumont, as well as YVWD. Beaumont discharges tertiary treated wastewater to Coopers Creek, a tributary of San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo groundwater management zone.~~

~~Table 5-10a identifies the projects and requirements that must be implemented by Beaumont/STWMA to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. STWMA, acting for all its member agencies, has committed to conduct the regional planning and monitoring activities necessary to implement these “maximum benefit” commitments, and the San Timoteo Watershed Management Program as a whole. Table 5-10a also specifies an implementation schedule. The Regional Board will revise the City of Beaumont’s waste discharge requirements and take other actions as necessary to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the “maximum benefit” water quality TDS and nitrate-nitrogen objectives apply to the Beaumont and San Timoteo Management Zones, as long as the schedule is being met<sup>5</sup>. If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-10a (and in the case of the San Timoteo Management Zone, the commitments and schedule shown in Table 5-9a (see preceding section)), then maximum benefit is not demonstrated, and the “antidegradation” TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges affecting these management zones that took place in excess of limits based on the “antidegradation” objectives.~~

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<sup>5</sup> ~~Application of “maximum benefit” objectives for the San Timoteo Management Zone is also contingent on the timely implementation of the commitments by the Yucaipa Valley Water District which are discussed in the preceding section.~~

Table 5-10a

City of Beaumont and San Timoteo Watershed Management Authority  
Maximum Benefit Commitments

Description of Commitment	Compliance Date — as soon as possible, but no later than
<p><del>1. Surface Water Monitoring Program</del></p> <p><del>a. Submit Draft Monitoring Program to Regional Board</del></p> <p><del>b. Implement Monitoring Program</del></p> <p><del>c. Quarterly data report submittal</del></p> <p><del>d. Annual data report submittal</del></p>	<p><del>a. January 23, 2005</del></p> <p><del>b. Within 30 days from Regional Board approval of monitoring plan</del></p> <p><del>c. April 15, July 15, October 15, January 15</del></p> <p><del>d. February 15<sup>th</sup></del></p>
<p><del>2. Groundwater Monitoring Program</del></p> <p><del>a. Submit Draft Monitoring Program to Regional Board</del></p> <p><del>b. Implement Monitoring Program</del></p> <p><del>c. Annual data report submittal</del></p>	<p><del>a. January 23, 2005</del></p> <p><del>b. Within 30 days from Regional Board approval of monitoring plan</del></p> <p><del>c. February 15<sup>th</sup></del></p>
<p><del>3. Desalter(s) and Brine Disposal Facilities</del></p> <p><del>a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to be operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule.</del></p> <p><del>b. Implement the plan and schedule</del></p>	<p><del>a. Within 6 months of either of the following:</del></p> <p><del>i. When Beaumont's effluent 5-year running average TDS exceeds 480 mg/L; and/or</del></p> <p><del>ii. When volume weighted average concentration in the Yucaipa MZ of TDS exceeds 320 mg/L</del></p> <p><del>b. Within 30 days from Regional Board approval of monitoring plan</del></p>

Description of Commitment	Compliance Date — as soon as possible, but no later than
<p><del>4. Non-potable water supply</del></p> <p><del>Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 390 mg/L or less</del></p>	<p><del>December 23, 2014</del></p>
<p><del>5. Recycled water recharge</del></p> <p><del>The recharge of recycled water in the Beaumont or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the “maximum benefit” objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s).</del></p> <p><del>a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge.</del></p> <p><del>b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of City of Beaumont/STWMA enhanced recharge facilities/programs</del></p>	<p><del>Compliance must be achieved by end of 5<sup>th</sup> year after initiation of recycled water use/recharge operations.</del></p> <p><del>a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge.</del></p> <p><del>b. Annually, by January 15<sup>th</sup>, after initiation construction of facilities/implementation of programs to support enhanced recharge.</del></p>
<p><del>6. Ambient groundwater quality determination</del></p>	<p><del>July 1, 2005 and every 3 years thereafter</del></p>
<p><del>7. Replace denitrification facilities (if necessary to comply with TIN wasteload allocation specified in Table 5-5)</del></p>	<p><del>Compliance with 6 mg/L TIN limitation to be achieved by December 23, 2007</del></p>
<p><del>8. City of Beaumont recycled water quality improvement plan and schedule</del></p> <p><del>a. Submit plan and schedule</del></p>	<p><del>a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 480 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once facility/operational changes needed to achieve 6 mg/L TIN are in place)</del></p>

Description of Commitment	Compliance Date — as soon as possible, but no later than
<p>b. <del>Implement plan and schedule</del></p>	<p><del>b. Upon approval by Regional Board</del></p>
<p><del>9. Remove/reduce the discharge of Beaumont's effluent — from the unlined portion of San Timoteo — Creek</del></p> <p><del>a. Submit proposed plan/schedule</del></p> <p><del>b. Implement plan/schedule</del></p>	<p><del>a. June 23, 2005</del></p> <p><del>b. Upon Regional Board approval</del></p>

~~A. Description of City of Beaumont, San Timoteo Watershed Authority Commitments~~

~~1. Surface Water Monitoring Program (Table 5-10a, #1)~~

~~The City of Beaumont and the STWMA shall develop and submit for Regional Board approval a surface water monitoring program for San Timoteo, Little San Gorgonio and Noble Creeks at the locations listed in Table 5-10b. The monitoring program must be implemented within 30 days of Regional Board approval of the monitoring plan, and six months of data must be generated prior to the implementation of any changes to the effluent discharge points and before any recycled water is used in the Beaumont or San Timoteo Management Zones.~~

~~At a minimum, the surface water monitoring program shall include the collection of monthly measurements of TDS and nitrogen components at locations in San Timoteo, Little San Gorgonio and Noble Creeks (see Table 5-10b). Data reports shall be submitted to the Regional Board's Executive Officer by April 15, July 15, October 15 and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted February 15th of each year.~~

~~2. Groundwater Monitoring Program (Table 5-10a, #2)~~

~~The purpose of the groundwater monitoring program is to identify the effects of the implementation of the Beaumont and San Timoteo Management Zone maximum benefit TDS and nitrate-nitrogen water quality objectives on water levels and water quality within the Beaumont and San Timoteo Management Zones. Prior to discharge of recycled water to the Beaumont and/or San Timoteo Management Zone, the City of Beaumont and the STWMA shall submit to Regional Board for approval a groundwater monitoring program to determine ambient water quality in the Beaumont and San Timoteo Management Zones. The groundwater monitoring program must be implemented within 30 days of approval by the Regional Board.~~

~~An annual report, including all raw data and summarizing the results of the approved groundwater~~

~~monitoring program, shall be submitted to the Regional Board by February 15th of each year.~~

~~3. Desalters and Brine Disposal (Table 5-10a. #3)~~

~~The City of Beaumont and the STWMA shall construct and operate desalting facilities and brine disposal facilities when:~~

- ~~a. The 5-year running average TDS concentration in recycled water produced at the City of Beaumont wastewater treatment plant exceeds 480 mg/L, or~~
- ~~b. The volume-weighted TDS concentration in the Beaumont Management Zone equals or exceeds 320 mg/L.~~

~~The construction of these facilities will be in accordance with a plan and schedule submitted by Beaumont/STWMA and approved by the Regional Board. The schedule shall assure that these facilities are in place within 7 years of Regional Board approval. These facilities shall be designed to stabilize or reverse the degradation trend evidenced by effluent and/or management zone quality.~~

Table 5—10b

~~Surface Water Monitoring Sites for Monitoring Water Quality and Quantity  
City of Beaumont & San Timoteo Watershed Management Authority~~

<del>Site Name</del>	<del>Discharge</del>	<del>Owner</del>	<del>Type</del>	<del>Discharge</del>	<del>Monitoring</del>	<del>Water Quality Monitoring</del>
				<del>Frequency</del>	<del>Period</del>	<del>Frequency Period</del>
<del>Analyses</del>						
<del>Above confluence -With Coopers Cr.</del>	<del>San Timoteo Creek</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Bi-weekly Jan-Dec TDS, TIN, Physical</del>
<del>Near Hinda -Sec.35 T2S,R2W</del>	<del>San Timoteo Creek</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Bi-weekly Jan-Dec TDS, TIN, Physical</del>
<del>Above confluence -With San Timoteo -Creek</del>	<del>Coopers Creek</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Bi-weekly Jan-Dec TDS, TIN, Physical</del>
<del>At Freeway 10</del>	<del>Little San Gorgonio Cr.</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Bi-weekly Jan-Dec TDS, TIN, Physical</del>
<del>At Freeway 10</del>	<del>Noble Creek</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Bi-weekly Jan-Dec TDS, TIN, Physical</del>
<del>Recharged to Beaumont MZ</del>	<del>State Water Project</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Monthly Jan-Dec TDS, Nitrate-N</del>
<del>Recharged to Beaumont MZ</del>	<del>Storm water</del>	<del>Beaumont &amp; STWMA</del>	<del>Total Discharge</del>	<del>Bi-weekly</del>	<del>Jan-Dec</del>	<del>Monthly Jan-Dec TDS, Nitrate-N</del>

#### 4. Non-potable water supply distribution system (Table 5-10a, #4)

Like YVWD, the City of Beaumont is constructing a non-potable water system that will convey untreated State Project water and recycled water for irrigation within its service area. The intent of blending these sources is to minimize the impact of recycled water use on groundwater quality in the proposed Beaumont and San Timoteo Management Zones. A higher proportion of State Project water will be used in wet, surplus years, while larger amounts of recycled water will be used in dry, deficit years.

#### 5. Recycled Water Use (Table 5-10a, #5)

The use of recycled water within the Beaumont Management Zone is a critical component of the City of Beaumont and STWMA water management plan and is necessary to maximize the use of the water resources of the Beaumont area.

The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives depends on the combined recharge (recycled water, imported water, storm water) to the Beaumont Management Zone of a 5-year annual average (running average) TDS concentration of 330 mg/L and a nitrate-nitrogen concentration of 5 mg/L. If recycled water recharge in the San Timoteo Management Zone is pursued, then the application of the "maximum benefit" objectives will depend on the combined recharge to that Zone of 5-year annual average (running average) concentrations of 400 mg/L or less TDS, and 5 mg/L or less nitrate-nitrogen.

To comply with this requirement, the STWMA member agencies are developing plans to recharge and store State Project water in the proposed Beaumont Management Zone. The Beaumont-Cherry Valley Water District (BCVWD) is developing a new 80-acre groundwater recharge project that will increase storm water recharge in the Beaumont Basin by 4,100 acre-ft/yr. This facility will also be used to recharge State Water project water. The City of Beaumont is also developing storm water recharge in facilities in newly developing areas, which is expected to result in the recharge of an additional 2,400 acre-ft/yr of stormwater runoff.

Accordingly, the use of recycled water for use or recharge in the Beaumont or San Timoteo Management Zone shall be limited to the amount that can be blended on a volume-weighted basis with other sources of recharge to achieve 5-year running average concentrations less than or equal to the "maximum benefit" objectives for the affected groundwater management zone. The 25% nitrogen loss coefficient will be applied in determining the amount of recharge of other water sources that must be achieved to meet the 5-year running average nitrogen concentrations.

#### 6. Ambient Groundwater Quality Determination (Table 5-10a, #6)

By July 1, 2005, and every three years thereafter, the City of Beaumont and STWMA shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Beaumont and San Timoteo Management Zones. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater management zones within the region [Ref. 1].

#### 7. Replacement/modification of denitrification facilities (Table 5-10a, #7)

The City of Beaumont has committed to produce recycled water with a 12-month average TIN concentration of 6 mg/L or less by 2008. This may be accomplished via operational changes, or may require the installation/modification of facilities. This TIN effluent quality is specified in the TIN wasteload allocation (see Table 5-5) and is necessary to assure compliance with the proposed "maximum benefit" nitrate-nitrogen objective for the Beaumont and San Timoteo Management Zones (5 mg/L). An appropriate schedule, not to exceed December 23, 2007 for compliance with this effluent limit will be specified in a revised NPDES permit for the City.

8. ~~City of Beaumont Wastewater Management (Table 5-10a, #8)~~

~~Beaumont expects to limit the TDS concentration in its effluent to less than or equal to 490 mg/L by using a low TDS source water supply for potable uses, selective desalting of either source water and/or recycled waters, and minimizing the TDS waste increment.~~

~~Within 60 days after the Beaumont 12-month running average concentration for TDS equals or exceeds 480 mg/L for 3 consecutive months, or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once facility/operational changes needed to achieve 6 mg/L TIN are in place), the City of Beaumont shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the average agency wastewater effluent quality does not exceed 490 mg/L and 6 mg/L for TDS and TIN, respectively. The plan and schedule are to be implemented upon approval by the Regional Board.~~

9. ~~Relocation of San Timoteo Creek Discharge (Table 5-10a, #9)~~

~~Like YVWD, Beaumont has established the goal of eliminating its discharge to the unlined reach of San Timoteo Creek by 2008 to minimize the impacts of these discharges on the San Timoteo Management Zone. The STWMP anticipates that Beaumont's recycled water will be almost completely reused within the Beaumont area for landscape irrigation, habitat enhancement, and potentially for groundwater recharge. Like YVWD, Beaumont and STWMA are also considering the export of a portion of Beaumont's surplus recycled water to the San Jacinto basin, where the TDS objectives are higher than those for the Beaumont Management Zone and recycled water demands are greater than supplies. Some limited recycled water discharge to Coopers Creek and thence /San Timoteo Creek may need to be continued to support existing riparian habitat.~~

~~Whole or partial removal of the discharge from the unlined reach of San Timoteo Creek would improve the quality of groundwater in the San Timoteo Management Zone and supplement recycled water supplies available for reuse elsewhere in the service area.~~

~~By June 23, 2005, Beaumont/STWMA shall submit a proposed plan and schedule to remove/reduce the discharge of recycled water to the unlined reach of San Timoteo Creek. The plan and schedule shall be implemented upon Regional Board approval.~~

B. ~~Implementation by Regional Board~~

1. ~~Revision of City of Beaumont NPDES Permit~~

~~To implement the "maximum benefit" objectives, the Regional Board will revise the NPDES permit for the City of Beaumont wastewater discharge to reflect the commitments described above, as appropriate. This includes the following.~~

~~The discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 490 mg/L TDS and 6 mg/L TIN. These limits are based on the wasteload allocation shown in Table 5-5. A schedule not to exceed December 23, 2007 for compliance with this TIN limit shall be included in the permit. This schedule will enable Beaumont to make the necessary facility/operational changes. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 5-5. Compliance schedules for these alternative limits will be specified in Beaumont's waste discharge requirements, as necessary.~~

~~Beaumont will be required to implement measures to improve effluent quality when the 12-month running average effluent TDS quality equals or exceeds 480 mg/L for 3 consecutive months, and/or when the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once the facility/operational changes necessary to assure compliance with the 6 mg/L limit are in place).~~

~~Beaumont's waste discharge requirements will require that recycled water used for recharge shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 5 year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the affected management zone (Beaumont or San Timoteo).~~

~~The effluent limits for the City of Beaumont, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the management zones, are a key part of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality. The City of Beaumont has committed to initiate the building of a groundwater desalter and brine disposal line when the TDS in the City's effluent reaches 480 mg/L. Further, the City will immediately implement a salt management program to reduce the salts entering the City's wastewater treatment plant. This salt management program will include: 1) provision of incentives for the removal of on-site regenerative water softeners and the use of off-site regenerative systems; and 2) percolation of State Water Project water into the Beaumont Management Zone when State Water Project water has low TDS. Implementing these measures will assure that the groundwater quality remains at or below the Beaumont management zone objective of 330 mg/L TDS. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that the City's wastewater treatment facility is able to meet the effluent TDS limits. Beaumont Management Zone groundwater is a component of the water supplied to the City and its quality thus has an important effect on the effluent quality. Poor ambient quality will preclude the City from meeting effluent limits without desalting.~~

~~Beaumont will be required to submit a proposed plan and schedule for the removal/reduction of its wastewater discharges from the unlined reach of San Timoteo Creek. Beaumont's revised permit will also reflect the surface and groundwater monitoring program requirements described above. This includes the determination of ambient quality in the San Timoteo and Beaumont Management Zones.~~

## ~~2. Review of Project Status~~

~~No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the City of Beaumont and STWMA to demonstrate maximum benefit and justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-10a are met. As indicated above, if, as a result of this review, the Regional Board finds that the City of Beaumont and STWMA commitments are not met and after consideration at a duly noticed Public Hearing, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. By default, the scientifically derived "antidegradation" objectives for the Beaumont and San Timoteo Management Zones would become effective (230 mg/L TDS and 1.5 mg/L nitrate-nitrogen for the Beaumont Management Zone; 300 mg/L TDS and 2.7 mg/L nitrate-nitrogen for the San Timoteo Management Zone (see Chapter 4).~~

~~Furthermore, in the event that the projects and actions specified in Table 5-10a are not implemented, the Regional Board will require that the City of Beaumont and STWMA mitigate the adverse water quality effects, both on the immediate and downstream waters, that resulted from the recycled water discharges based on the "maximum benefit" objectives. As for CBW/IEUA and YVWD, discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water, at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.~~

## **B. Salt Management – San Timoteo Watershed**

The 2004 amendments to the Basin Plan established both “antidegradation” and “maximum benefit” nitrogen and TDS objectives for the Yucaipa, San Timoteo and Beaumont Groundwater Management Zones (see Chapter 4). These Groundwater Management Zones are within the San Timoteo Watershed. The agencies that proposed the “maximum benefit” objectives committed to implement specific programs of projects and actions that were also identified in the 2004 Salt Management Plan incorporated in the Basin Plan. These programs were intended to assure that water quality consistent with the maximum benefit to the people of the state would be maintained with the application of the “maximum benefit” objectives. These commitments included the implementation of surface and groundwater monitoring programs, use of recycled water supplies for non-potable uses and construction and operation of desalting facilities to manage recycled water quality.

In 2014 amendments to the Salt Management Plan, changes to these “maximum benefit” commitments and the parties responsible for them were made based on a regional strategy for the San Timoteo Watershed [Ref 10D] developed and proposed by the Yucaipa Valley Water District, the City of Beaumont, the City of Banning, Beaumont-Cherry Valley Water District and the San Gorgonio Pass Agency. The Regional Strategy initially addressed the Maximum Benefit program in the Beaumont Groundwater Management Zone; however, in order to have a consistent approach throughout the San Timoteo Watershed, the Regional Strategy approach was expanded to the San Timoteo and Yucaipa Groundwater Management Zones. The goal of this strategy is to assure reliable water supplies to meet present and anticipated demands. The “maximum benefit” commitments of each responsible agency are described below and shown in Tables 5-9a (Yucaipa Groundwater Management Zone), 5-9b (San Timoteo Groundwater Management Zone) and 5-9c (Beaumont Groundwater Management Zone). These commitments must be implemented by the responsible agencies in accordance with the prescribed schedule in order to assure that water quality consistent with maximum benefit to the people of the state will be maintained.

The Regional Board will revise waste discharge requirements as appropriate to require implementation of these commitments. For each groundwater management zone, it is assumed that maximum benefit is demonstrated, and that the “maximum benefit” water quality TDS and nitrate-nitrogen objectives apply as long as the commitments and schedule applicable to that groundwater management zone are satisfied. If the Regional Board determines that any or all of the maximum benefit programs are not being implemented effectively in accordance with the schedule(s) shown in Tables 5-9a through 5-9c, then maximum benefit is not demonstrated and the “antidegradation” TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges to the affected groundwater management zone that took place in excess of limits based on the “antidegradation” objectives for that Groundwater Management Zone. As specified for Chino Basin Watermaster and Inland Empire Utilities Agency (see Section VI.A, above), discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

### 1. Yucaipa Groundwater Management Zone - Yucaipa Valley Water District

The application of the “maximum benefit” objectives established for the Yucaipa Groundwater Management Zone relies on the implementation by the Yucaipa Valley Water District (YVWD) of the specific program of projects and requirements shown in Table 5-9a. These “maximum benefit” commitments were updated and revised in 2014 based on YVWD’s ongoing activities to implement the 2004 program and the regional strategy YVWD helped to develop. The projected water demands for the Yucaipa area for the year 2030 require approximately an additional 10,000 AF/Y of supplemental water, which may include State Water Project water, water imported from local sources, recharged storm water and recycled water. The goal is to meet these demands through implementation of the “maximum benefit” commitments, which include enhanced recharge of stormwater and recycled water, optimizing direct use of recycled and imported water, desalting of wastewater and/or groundwater and conjunctive use.

In addition to its water supply responsibilities, YVWD provides sewage collection and treatment services within its service area. YVWD operates a wastewater treatment facility that currently discharges tertiary treated wastewater to San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo Groundwater Groundwater Management Zone (see 2. San Timoteo Groundwater Management Zone – Yucaipa Valley Water District and the City of Beaumont). In response to commitments in the 2004 Salt Management Plan, YVWD has taken steps to improve recycled water quality, including the installation of new denitrification facilities and the design and construction of desalting facilities, which may be used to treat recycled water or other sources if needed to comply with effluent limitations based on the “maximum benefit” commitments. The desalting facilities are expected to be complete by June 30, 2015.

Tentative

**Table 5-9a**

**Yucaipa Groundwater Management Zone  
Maximum Benefit Commitments**

**Responsible Agency – Yucaipa Valley Water District**

<b><u>Description of Commitment</u></b>	<b><u>Compliance Date – as soon as possible, but no later than</u></b>
<p><u>1. Surface Water Monitoring Program</u></p> <p><u>a. Submit Draft Revised Monitoring Program to Regional Board</u></p> <p><u>b. Implement Revised Monitoring Program</u></p> <p><u>c. Submit Draft Revised Monitoring Program(s) (subsequent to that required in “a”, above) to Regional Board</u></p> <p><u>d. Implement Revised Monitoring Program (s)</u></p> <p><u>e. Annual data report submittal</u></p>	<p><u>a. (**30 days from Regional Board approval of BPA )</u></p> <p><u>b. Upon Regional Board approval</u></p> <p><u>c. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u></p> <p><u>d. Upon Regional Board approval</u></p> <p><u>e. April 15<sup>th</sup></u></p>
<p><u>2. Groundwater Monitoring Program</u></p> <p><u>a. Submit Draft Revised Monitoring Program(s)</u></p> <p><u>b. Implement revised monitoring plan(s)</u></p> <p><u>c. Annual data report submittal</u></p>	<p><u>a. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u></p> <p><u>b. Upon Regional Board approval</u></p> <p><u>c. April 15<sup>th</sup></u></p>
<p><u>3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u></p> <p><u>Complete construction of Desalter and Brine Disposal Facilities</u></p>	<p><u>June 30, 2015 (or as provided by the Regional Board - see text below)</u></p>
<p><u>4. Non-potable water supply</u></p> <p><u>Implement non-potable water supply system to serve water for irrigation purposes and/or direct non-potable reuse. The non-potable supply used in the Yucaipa Groundwater Management Zone shall comply with a 10-year running average TDS concentration of 370 mg/L or less, and in addition, for any non-irrigation reuse, the nitrate-nitrogen shall be less than or equal to the 5 mg/L nitrate-nitrogen “maximum benefit” objective (taking the nitrogen loss coefficient into consideration).</u></p>	<p><u>June 30, 2015</u></p>

**Table 5-9a**

**Yucaipa Groundwater Management Zone  
Maximum Benefit Commitments**

**Responsible Agency – Yucaipa Valley Water District**

<b><u>Description of Commitment</u></b>	<b><u>Compliance Date – as soon as possible, but no later than</u></b>
<p><b><u>5. Recycled water recharge</u></b></p> <p><u>The recharge of recycled water in the Yucaipa Groundwater Management Zone shall be limited to the amount that can be blended with other recharge sources to achieve a 10-year running average equal to or less than the 370 mg/L “maximum benefit” TDS objective and less than or equal to the 5 mg/L nitrate-nitrogen “maximum benefit” objective (taking the nitrogen loss coefficient into consideration).</u></p> <p><u>c. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge.</u></p> <p><u>d. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD enhanced recharge facilities/programs</u></p>	<p><u>Compliance must be achieved by end of 10<sup>th</sup> year after initiation of recycled water use/recharge operations.</u></p> <p><u>a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge.</u></p> <p><u>b. Annually, by April 15<sup>th</sup>, after construction of facilities/implementation of programs to support enhanced recharge.</u></p>
<p><b><u>6. Ambient groundwater quality determination</u></b></p>	<p><u>July 1, 2014 and every 3 years thereafter</u></p>

**A. Description of Yucaipa Valley Water District Commitments**

**1. Surface Water Monitoring Program (Table 5-9a, # 1)**

A surface water monitoring program was developed, approved and implemented in response to the maximum benefit commitments initially incorporated in the Basin Plan in 2004 (Resolution No. R8-2004-0001). The Regional Board approved the Surface Water Monitoring Program in 2005 (Resolution No. R8-2005-0065). Subsequently, the need to revise the monitoring program was recognized and appropriate amendments were adopted in 2014 (Resolution No. R8-2014-0005). These include the requirement that *by (\*\*30 days from Regional Board approval of the BPA\*\*), YVWD shall submit a revised surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented upon Regional Board approval.*

It is expected that the monitoring program will be reviewed as it is implemented over time, and that further updates may be necessary. YVWD committed to review the surface water monitoring program (and the groundwater monitoring program, see #2, below) as part of the determination of ambient groundwater quality, which occurs every three years pursuant to Basin Plan requirements (see #6, below). Though considered unlikely, it is possible that more frequent review and revision of these monitoring programs may be necessary. Accordingly, the Basin Plan requires review of the surface water monitoring program in coordination with the ambient

quality determination and, further, that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring is to be implemented upon Regional Board approval.

An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by April 15<sup>th</sup> of each year.

## 2. Groundwater Monitoring Program (Table 5-9a, #2)

In response to the maximum benefit program requirements established in 2004 (Resolution No. R8- 2004-0001), in 2005, YVWD submitted a proposed groundwater monitoring program. The Regional Board approved a groundwater monitoring program to determine ambient water quality in the Yucaipa Groundwater Management Zone (Resolution No. R8-2005-0065). The purpose of the groundwater monitoring program is to identify the effects of the implementation of the Yucaipa Groundwater Management Zone maximum benefit water quality objectives on water levels and water quality within the Yucaipa Groundwater Management Zone. The groundwater monitoring program has been implemented since 2005 and must continue to be implemented.

As noted above, the groundwater monitoring program will be reviewed as part of regular ambient groundwater quality determinations and may be revised. Once again, more frequent review and revision may be necessary as the monitoring program is implemented over time. Accordingly, the Basin Plan requires that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Regional Board approval.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by April 15<sup>th</sup> of each year.

## 3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9a, #3)

YVWD anticipated that demineralization of groundwater or recycled water would be necessary in the future to protect the Yucaipa Groundwater Management Zone and has planned and designed desalting and associated brine disposal facilities. YVWD shall ensure that the planned desalter system is operational by June 30, 2015. The Regional Board may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9a.

## 4. Non-potable Water Supply Distribution System (Table 5-9a, # 4)

A key element of YVWD's water resources management plan is the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water and/or storm water for irrigation uses and other direct non-potable reuse. The intent is to minimize the use of potable water for non-potable uses. For use in the Yucaipa Groundwater Management Zone, YVWD will produce a non-potable supply with a running 10-year average TDS concentration of 370 mg/L and, in addition, for any non-irrigation reuse, the 10-year running average nitrate-nitrogen concentration shall comply with 6.7 mg/L (taking the 25% nitrogen loss

coefficient into account to assure that the “maximum benefit” objective of 5 mg/L will be met). To meet this “maximum benefit” objective, YVWD will blend the recycled water with other water sources or desalt the recycled water.

Compliance with the non-potable water supply TDS and/or nitrate-nitrogen objective shall be measured in the non-potable water system as a weighted 10-year average of all water sources added to that system and used within the Yucaipa Groundwater Management Zone.

As part of the Maximum Benefit Annual Report, YVWD shall report on the TDS and nitrogen quality and quantity of all sources of non-potable water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations utilized in the Yucaipa Groundwater Management Zone.

#### 5. Recycled Water Recharge (Table 5-9a, # 5)

The use and recharge of recycled water within the Yucaipa Groundwater Management Zone are necessary to maximize the use of the water resources in the Yucaipa area. The demonstration of “maximum benefit” and the continued application of the “maximum benefit” objectives are contingent on the recharge of recycled water to the Yucaipa Groundwater Management Zone of a 10-year annual average (running average) TDS concentration of 370 mg/L and nitrate-nitrogen concentration of 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the “maximum benefit” objective of 5 mg/L will be met). These concentrations may be achieved by desalting or other treatment of the recycled water, and/or by blending the recycled water with other sources, such as imported water and/or storm water.

Compliance with these concentrations shall be measured at the point of discharge(s) to the recharge facility as a weighted average concentration of the recycled water and other sources, if any, used for blending.

As part of the Maximum Benefit Annual Report, YVWD shall report on the TDS and nitrogen quality and quantity of all sources of recharged water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations recharged to the Yucaipa Groundwater Management Zone.

#### 6. Ambient Groundwater Quality Determination (Table 5-9a, # 6)

By July 1, 2014, and every three years thereafter, YVWD shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Yucaipa Groundwater Management Zone. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen “antidegradation” water quality objectives for groundwater Management Zones within the region. [Ref. 1].

### **B. Implementation by Regional Board**

#### 1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the “maximum benefit” objectives, the Regional Board will revise the waste discharge and producer/user reclamation requirements permit for YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For surface water discharges that affect the Yucaipa Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 370 mg/L TDS and 6.7 mg/L TIN. These limits are based on the “maximum benefit” objectives of the Yucaipa Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in YVWD’s waste discharge requirements, as necessary and appropriate.

YVWD’s waste discharge and producer/user reclamation requirements will require that the recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Yucaipa Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use purposes in the Yucaipa Groundwater Management Zone shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Yucaipa Groundwater Management Zone. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified for recycled water recharge and re-use in the Yucaipa Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

## 2. Review of Project Status

The Regional Board intends to review periodically YVWD’s implementation of the maximum benefit program commitments described above and summarized in Table 5-9a. This review is intended to determine whether the commitments are met, and whether the application of the “maximum benefit” objectives continues to be justified. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD commitments are not met, then the Regional Board may make the finding that the “maximum benefit” objectives are not consistent with the maintenance of water quality that is of maximum benefit to the people of the state, and that the more stringent “antidegradation” objectives for the Yucaipa Management Zone (320 mg/L for TDS and 4.2 mg/L for nitrate-nitrogen; see Chapter 4) must apply instead for regulatory purposes. In the event that the Regional Board makes these determinations, the Regional Board will require that the YVWD mitigate the adverse water quality effects, both on the immediate and downstream waters, which resulted from recycled water discharges based on the “maximum benefit” objectives.

## **2. San Timoteo Groundwater Management Zone – Yucaipa Valley Water District and the City of Beaumont**

The application of the “maximum benefit” objectives established for the San Timoteo Groundwater Management Zone relies on the implementation by both the Yucaipa Valley Water District (YVWD) and the City of Beaumont of the specific program of projects and requirements shown in Table 5-9b [Ref. 10D]. Since the Salt Management Plan was amended in 2004 to incorporate “maximum benefit” commitments applicable to the San Timoteo Management Zone, both YVWD and the City of Beaumont have been engaged in implementing those commitments.

As discussed above, YVWD operates a wastewater treatment facility that discharges a portion of its treated effluent to San Timoteo Creek, Reach 3, which overlies and recharges the San Timoteo Groundwater Management Zone. Similarly, the City of Beaumont provides sewage collection and treatment services within its service area, and a portion of the treated wastewater discharged to Reach 3 of San Timoteo Creek, also recharges the San Timoteo Groundwater Management Zone. Surface water discharges by both YVWD and the City affect groundwater quality in the San Timoteo Groundwater Management Zone. Consistent with the 2004 “maximum benefit” commitments, both the District and the City must identify and implement an acceptable plan to address the adverse water quality impacts of their wastewater discharges.

Table 5-9b

San Timoteo Groundwater Management Zone  
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District and the City of Beaumont

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
<p><u>1. Surface Water Monitoring Program</u></p> <p><u>a. Submit Draft Revised Monitoring Program to Regional Board</u></p> <p><u>b. Implement Revised Monitoring Program</u></p> <p><u>c. Submit Draft Revised Monitoring Program(s) (subsequent to that required in “a”, above) to Regional Board</u></p> <p><u>d. Implement Revised Monitoring Program (s)</u></p> <p><u>e. Annual data report submittal</u></p>	<p><u>a. (**30 days from Regional Board approval of BPA )</u></p> <p><u>b. Upon Regional Board approval</u></p> <p><u>c. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u></p> <p><u>d. Upon Regional Board approval</u></p> <p><u>e. April 15<sup>th</sup></u></p>
<p><u>2. Groundwater Monitoring Program</u></p> <p><u>a. Submit Draft Revised Monitoring Program(s)</u></p> <p><u>b. Implement revised monitoring plan(s)</u></p> <p><u>c. Annual data report submittal</u></p>	<p><u>a. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u></p> <p><u>b. Upon Regional Board approval</u></p> <p><u>c. April 15<sup>th</sup></u></p>
<p><u>3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u></p> <p><u>Complete construction of Desalter and Brine Disposal Facilities</u></p>	<p><u>June 30, 2015 (or as provided by the Regional Board - see text below)</u></p>

**Table 5-9b**

**San Timoteo Groundwater Management Zone  
Maximum Benefit Commitments**

**Responsible Agencies – Yucaipa Valley Water District and the City of Beaumont**

<b><u>Description of Commitment</u></b>	<b><u>Compliance Date – as soon as possible, but no later than</u></b>
<p><u>4. City of Beaumont, Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u></p> <p>a. <u>Submit detailed plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 5 years from date of Regional Board approval of plan/schedule.</u></p> <p>b. <u>Implement the plan and schedule</u></p>	<p>a. <u>(*15 days from approval date by OAL of this Basin Plan amendment*)</u></p> <p>b. <u>Upon Regional Board approval</u></p>
<p><u>5. YVWD, City of Beaumont Non-potable water supply</u></p> <p><u>Implement non-potable water supply system to serve water for irrigation purposes and direct non-potable reuse. The non-potable supply used in the San Timoteo Groundwater Management Zone shall comply with a 10-year running average TDS concentration of 400 mg/L or less, and in addition, for any non-irrigation reuse, the nitrate-nitrogen shall be less than or equal to the 5 mg/L nitrate-nitrogen “maximum benefit” objective (taking the nitrogen loss coefficient into consideration).</u></p>	<p><u>December 31, 2015</u></p>
<p><u>6. Recycled water recharge</u></p> <p><u>The recharge of recycled water in the San Timoteo Groundwater Management Zone shall be limited to the amount that can be blended with other recharge sources to achieve a 10-year running average equal to or less than the 400 mg/L “maximum benefit” TDS objective and less than or equal to the 5 mg/L nitrate-nitrogen “maximum benefit” objective (taking the nitrogen loss coefficient into consideration).</u></p> <p>a. <u>Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge.</u></p> <p>b. <u>Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD and/or City of Beaumont enhanced recharge facilities/programs</u></p>	<p><u>Compliance must be achieved by end of 10<sup>th</sup> year after initiation of recycled water use/recharge operations.</u></p> <p>a. <u>Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge.</u></p> <p>b. <u>Annually, by April 15<sup>th</sup>, after construction of facilities/implementation of programs to support enhanced recharge.</u></p>

Table 5-9bSan Timoteo Groundwater Management Zone  
Maximum Benefit CommitmentsResponsible Agencies – Yucaipa Valley Water District and the City of Beaumont

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
<u>7. Improve quality of surface water discharges to the San Timoteo Groundwater Management Zone</u>  <u>a. Submit plan and schedule to comply with underlying San Timoteo Groundwater Management Zone Maximum Benefit TDS and nitrate-nitrogen water quality objectives</u>  <u>b. Implement upon approval</u>	<u>a. (*30 days from Regional Board approval of BPA*)</u>  <u>b. Upon Regional Board approval</u>
<u>8. Ambient groundwater quality determination</u>	<u>July 1, 2014 and every 3 years thereafter</u>

Description of Yucaipa Valley Water District (YVWD), City of Beaumont Commitments1. Surface Water Monitoring Program (Table 5-9b, # 1)

A surface water monitoring program was developed, approved and implemented in response to the maximum benefit commitments initially incorporated in the Basin Plan in 2004 (Resolution No. R8-2004-0001). The Regional Board approved the Surface Water Monitoring Program in 2005 (Resolutions No. R8-2005-0065 and R8-2005-0066). Subsequently, the need to revise the monitoring program was recognized and appropriate amendments were adopted in 2014 (Resolution No. R8-2014-0005). These include the requirement that by (\*\*30 days from Regional Board approval of the BPA\*\*), YVWD and the City of Beaumont shall submit a revised surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented upon Regional Board approval.

It is expected that the monitoring program will be reviewed as it is implemented over time, and that further updates may be necessary. YVWD and the City of Beaumont committed to review the surface water monitoring program (and the groundwater monitoring program, see #2, below) as part of the determination of ambient groundwater quality, which occurs every three years pursuant to Basin Plan requirements (see #6, below). Though considered unlikely, it is possible that more frequent review and revision of these monitoring programs may be necessary. Accordingly, the Basin Plan requires review of the surface water monitoring program in coordination with the ambient quality determination and, further, that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring is to be implemented upon Regional Board approval.

An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by April 15<sup>th</sup> of each year.

## 2. Groundwater Monitoring Program (Table 5-9a, #2)

In response to the maximum benefit program requirements established in 2004 (Resolution No. R8- 2004-0001), in 2005, YVWD and the City of Beaumont submitted a proposed groundwater monitoring program. The Regional Board approved a groundwater monitoring program to determine ambient water quality in the Yucaipa and San Timoteo Groundwater Management Zones (Resolutions No. R8-2005-0065 and R8-2005-0066). The purpose of the groundwater monitoring program is to identify the effects of the implementation of the San Timoteo Groundwater Management Zone "maximum benefit" water quality objectives on water levels and water quality within the San Timoteo Groundwater Management Zone. The groundwater monitoring program has been implemented since 2005. YVWD and the City of Beaumont have since installed additional wells as part of revised groundwater monitoring workplans to ensure adequate data are collected for ambient quality determination. The workplans were approved in 2009 (Resolution No. R8-2009-0034 for YVWD and R8-2009-0035 for the City of Beaumont).

As noted above, the groundwater monitoring program will be reviewed as part of regular ambient groundwater quality determinations and may be revised. Once again, more frequent review and revision may be necessary as the monitoring program is implemented over time. Accordingly, the Basin Plan requires that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Regional Board approval.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by April 15<sup>th</sup> of each year.

## 3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9b, #3)

YVWD anticipated that demineralization of groundwater or recycled water would be necessary in the future to protect the San Timoteo Groundwater Management Zone and has planned and designed desalting and associated brine disposal facilities. YVWD shall ensure that the planned desalter system is operational by June 30, 2015. The Regional Board may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9a and b.

## 4. City of Beaumont Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9b, #4)

The City of Beaumont shall construct and operate desalting facilities and brine disposal facilities to improve recycled water quality and/or other sources of non-potable supply. A detailed desalter/brine line plan and schedule shall be submitted (\*15 days from approval date by OAL of the Basin Plan amendment). The schedule shall assure that these facilities are in place within 5 years of Regional Board approval.

## 5. YVWD/City of Beaumont Non-potable Water Supply Distribution System (Table 5-9b, # 5)

Both YVWD and the City of Beaumont are planning for the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water and/or storm water for

irrigation uses and direct non-potable reuse. The intent is to minimize the use of potable water for non-potable uses. Both YVWD and/or the City of Beaumont will produce a non-potable supply for use within the San Timoteo Groundwater Management Zone with a running ten-year average TDS concentration of 400 mg/L. and, in addition, for any non-irrigation reuse, the 10-year running average nitrate-nitrogen concentration shall comply with 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). To meet this "maximum benefit" objective, YVWD/City of Beaumont will blend the recycled water with other water sources or desalt the recycled water.

Compliance with the non-potable water supply TDS and/or nitrate-nitrogen objective shall be measured in the non-potable water system as a weighted 10-year average of all water sources added to that system and used within the San Timoteo Groundwater Management Zone.

As part of the Maximum Benefit Annual Report, YVWD and the City of Beaumont shall report on the TDS and nitrogen quality and quantity of all sources of non-potable water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations utilized in the San Timoteo Groundwater Management Zone.

#### 6. Recycled Water Recharge (Table 5-9b, #6)

The use and recharge of recycled water within the San Timoteo Groundwater Management Zone and the demonstration of "maximum benefit" are contingent on the recharge of recycled water to the San Timoteo Groundwater Management Zone of a 10-year annual average (running average) TDS concentration of 400 mg/L and nitrate-nitrogen concentration of 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). These concentrations may be achieved by desalting or other treatment of the recycled water, and/or by blending the recycled water with other sources, such as imported water and/or storm water.

Compliance with these concentrations shall be measured at the point of discharge(s) to the recharge facility as a weighted average concentration of the recycled water and other sources, if any, used for blending.

As part of the Maximum Benefit Annual Report, YVWD and/or the City of Beaumont shall report on the TDS and nitrogen quality and quantity of all sources of recharged water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations recharged to the San Timoteo Groundwater Management Zone.

#### 7. Improve Surface Water Discharge Quality to the San Timoteo Groundwater Management Zone (Table 5-9b, #7)

YVWD and the City of Beaumont wastewater discharges to the unlined reach of San Timoteo Creek impact the quality of the San Timoteo Groundwater Management Zone. In order to protect underlying groundwater Management Zone quality, by (*\*30 days from Regional Board approval of this Basin Plan amendment*), the City of Beaumont and YVWD shall submit a proposed plan and schedule to improve the quality of wastewater discharged to the portion of San Timoteo Creek overlying the San Timoteo Groundwater Management Zone in order to assure compliance with the Groundwater Management Zone "maximum benefit" objectives. A contingency plan and schedule to meet the "antidegradation" objectives for the Groundwater Management Zone shall also be identified and implemented upon a finding by the Regional

Board that “maximum benefit” is not demonstrated and that the “antidegradation” objectives apply. The plan must be implemented upon Regional Board approval.

#### 8. Ambient Groundwater Quality Determination (Table 5-9b, # 8)

By July 1, 2014, and every three years thereafter, YVWD and the City of Beaumont shall submit a determination of ambient TDS and nitrate-nitrogen quality in the San Timoteo Groundwater Management Zone. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen “antidegradation” water quality objectives for groundwater Management Zones within the region. [Ref. 1].

### **B. Implementation by Regional Board**

#### 1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the “maximum benefit” objectives, the Regional Board will revise the waste discharge requirements and producer/user reclamation requirements for the YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For surface water discharges that affect the San Timoteo Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 400 mg/L TDS and 6.7 mg/L TIN. These limits are based on the “maximum benefit” objectives of the San Timoteo Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the YVWD’s waste discharge requirements, as necessary and appropriate.

YVWD’s waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified for recycled water recharge and re-use in the San Timoteo Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

#### 2. Revision to the City of Beaumont NPDES Permit

To implement the “maximum benefit” objectives, the Regional Board will revise the waste discharge requirements for the City of Beaumont’s wastewater discharges to reflect the

commitments described above, as appropriate. This includes the following:

For discharges to the San Timoteo Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 400 mg/L TDS and 6.7 mg/L TIN. These limits are based on the “maximum benefit” objectives of the San Timoteo Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the City’s waste discharge requirements, as necessary.

The City of Beaumont’s waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone. The use of recycled water for irrigation and other direct reuse shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified for recycled water recharge and re-use in the San Timoteo Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

## 2. Review of Project Status

The Regional Board intends to review periodically YVWD’s and the City of Beaumont’s implementation of the maximum benefit program commitments described above and summarized in Table 5-9b. This review is intended to determine whether the commitments are met, and whether the application of the “maximum benefit” objectives continues to be justified. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD and/or the City of Beaumont commitments are not met, then the Regional Board may make the finding that the “maximum benefit” objectives are not consistent with the maintenance of water quality that is of maximum benefit to the people of the state, and that the more stringent “antidegradation” objectives for the San Timoteo Groundwater Management Zone (300 mg/L for TDS and 2.7 mg/L for nitrate-nitrogen; see Chapter 4) must apply instead for regulatory purposes. In the event that the Regional Board makes these determinations, the Regional Board will require that YVWD and/or the City of Beaumont, either individually or collectively, mitigate the adverse water quality effects, both on the immediate and downstream waters, which resulted from recycled water discharges based on the “maximum benefit” objectives.

**3. Beaumont Groundwater Management Zone – Yucaipa Valley Water District, the City of Beaumont, the City of Banning, Beaumont Cherry Valley Water District, San Gorgonio Pass Agency**

The application of the “maximum benefit” objectives established for the Beaumont Groundwater Management Zone is contingent on the implementation of commitments by the YVWD, the City of Beaumont, the City of Banning, Beaumont Cherry Valley Water District (BCVWD), and the San Gorgonio Pass Water Agency (Pass Agency) to implement a specific water and wastewater resources management program identified in the Regional Strategy [Ref. 10D]. This program is part of a coordinated effort by these agencies to develop and implement projects that will assure reliable water supplies to meet rapidly increasing demands in this area. The Regional Strategy entails enhanced recharge of native and recycled water, maximizing the direct use of recycled water, optimizing the direct use of imported water, recharge and conjunctive use. The maximum benefit commitments identified in the Regional Strategy for the Beaumont Groundwater Management Zone will be implemented by the City of Beaumont, BCVWD, YVWD, the Pass Agency and the City of Banning. The Regional Strategy forms the basis for the Beaumont Groundwater Management Zone maximum benefit program discussed below.

Wastewater collection and treatment services are provided by the City of Beaumont, as well as YVWD. The City of Beaumont discharges tertiary treated wastewater to Cooper’s Creek, a tributary of San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges both the Beaumont and San Timoteo Groundwater Management Zones.

Table 5-9c identifies the projects and requirements that must be implemented by the cities of Beaumont and Banning, YVWD, BCVWD, and the Pass Agency to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained with the applications of the “maximum benefit” objectives. Table 5-9c also specifies an implementation schedule. The Regional Board will revise waste discharge requirements for the City of Beaumont and YVWD, and will work with the Colorado River Water Board to ensure discharges from the City of Banning comply with the maximum benefit requirements. The Regional Board will also consider issuance of waste discharge requirements for BCVWD and take other actions as necessary to require that these commitments be met by the responsible parties.

**Table 5-9c**  
**Beaumont Groundwater Management Zone**  
**Maximum Benefit Commitments**

**Responsible Agencies – Yucaipa Valley Water District, City of Beaumont, City of Banning, San Geronio Pass Water Agency, Beaumont Cherry Valley Water District**

<b><u>Description of Commitment</u></b>	<b><u>Compliance Date – as soon as possible, but no later than</u></b>
<p><b><u>1. Surface Water Monitoring Program</u></b></p> <p><b><u>a. Submit Draft Revised Monitoring Program to Regional Board</u></b></p> <p><b><u>b. Implement Revised Monitoring Program</u></b></p> <p><b><u>c. Submit Draft Revised Monitoring Program(s) (subsequent to that required in “a”, above) to Regional Board</u></b></p> <p><b><u>d. Implement Revised Monitoring Program (s)</u></b></p> <p><b><u>e. Annual data report submittal</u></b></p>	<p><b><u>a. (**30 days from Regional Board approval of BPA )</u></b></p> <p><b><u>b. Upon Regional Board approval</u></b></p> <p><b><u>c. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u></b></p> <p><b><u>d. Upon Regional Board approval</u></b></p> <p><b><u>e. April 15<sup>th</sup></u></b></p>
<p><b><u>2. Groundwater Monitoring Program</u></b></p> <p><b><u>a. Submit Draft Revised Monitoring Program(s)</u></b></p> <p><b><u>b. Implement revised monitoring plan(s)</u></b></p> <p><b><u>c. Annual data report submittal</u></b></p>	<p><b><u>a. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u></b></p> <p><b><u>b. Upon Regional Board approval</u></b></p> <p><b><u>c. April 15<sup>th</sup></u></b></p>
<p><b><u>3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u></b></p> <p><b><u>Complete construction of Desalter and Brine Disposal Facilities</u></b></p>	<p><b><u>June 30, 2015 (or as provided by the Regional Board - see text below)</u></b></p>
<p><b><u>4. City of Beaumont, Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u></b></p> <p><b><u>a. Submit detailed plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 5 years from date of Regional Board approval of plan/schedule.</u></b></p> <p><b><u>b. Implement the plan and schedule</u></b></p>	<p><b><u>a. (*15 days from date of OAL approval of this Basin Plan amendment*)</u></b></p> <p><b><u>b. Upon Regional Board approval</u></b></p>

**Table 5-9c**  
**Beaumont Groundwater Management Zone**  
**Maximum Benefit Commitments**

**Responsible Agencies – Yucaipa Valley Water District, City of Beaumont, City of Banning, San Gorgonio Pass Water Agency, Beaumont Cherry Valley Water District**

<b><u>Description of Commitment</u></b>	<b><u>Compliance Date – as soon as possible, but no later than</u></b>
<p><u>5. City of Banning, Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u></p> <p>a. <u>Submit detailed plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 5 years from date of Regional Board approval of plan/schedule.</u></p> <p>b. <u>Implement the plan and schedule</u></p>	<p>a. <u>(*15 days from date of OAL approval of this Basin Plan amendment*)</u></p> <p>b. <u>Upon Regional Board approval</u></p>
<p><u>6. Non-potable water supply</u></p> <p><u>YVWD, the City of Beaumont, the City of Banning, BCVWD and the Pass Agency shall implement non-potable water supply system to serve water for irrigation purposes and direct non-potable reuse. The non-potable supply used in the Beaumont Groundwater Management Zone shall comply with a 10-year running average TDS concentration of 330 mg/L or less and, in addition, for any non-irrigation reuse, the nitrate-nitrogen shall be less than or equal to the 5 mg/L nitrate-nitrogen “maximum benefit” objective (taking the nitrogen loss coefficient into consideration).</u></p>	<p><u>December 31, 2015</u></p>
<p><u>7. Recycled water recharge</u></p> <p><u>The recharge of recycled water in the Beaumont Groundwater Management Zone shall be limited to the amount that can be blended with other recharge sources to achieve a 10-year running average equal to or less than the 330 mg/L “maximum benefit” TDS objective and less than or equal to the 5 mg/L nitrate-nitrogen “maximum benefit” objective (taking the nitrogen loss coefficient into consideration).</u></p> <p>a. <u>Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge.</u></p> <p>b. <u>Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of enhanced recharge facilities/programs</u></p>	<p><u>Compliance must be achieved by end of 10<sup>th</sup> year after initiation of recycled water use/recharge operations.</u></p> <p>a. <u>Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge.</u></p> <p>b. <u>Annually, by April 15<sup>th</sup>, after initiation construction of facilities/implementation of programs to support enhanced recharge.</u></p>
<p><u>8. Ambient groundwater quality determination</u></p>	<p><u>July 1, 2014 and every 3 years thereafter</u></p>

**A. Description of Yucaipa Valley Water District (YVWD), City of Beaumont, Beaumont Cherry Valley Water District (BCVWD), City of Banning, San Geronio Pass Water Agency (Pass Agency) Commitments**

**1. Surface Water Monitoring Program (Table 5-9c, # 1)**

A surface water monitoring program was developed, approved and implemented in response to the maximum benefit commitments initially incorporated in the Basin Plan in 2004 (Resolution No. R8-2004-0001). The Regional Board approved the Surface Water Monitoring Program in 2005 (Resolution No. R8-2005-0066). Subsequently, the need to revise the monitoring program was recognized and appropriate amendments were adopted in 2014 (Resolution No. R8-2014-0005). These include the requirement that by (\*\*30 days from Regional Board approval of the BPA\*\*), YVWD BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall submit a revised surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented upon Regional Board approval.

It is expected that the monitoring program will be reviewed as it is implemented over time, and that further updates may be necessary. YVWD, the City of Beaumont, the City of Banning, the Pass Agency and BCVWD committed to review the surface water monitoring program (and the groundwater monitoring program, see #2, below) as part of the determination of ambient groundwater quality, which occurs every three years pursuant to Basin Plan requirements (see #6, below). Though considered unlikely, it is possible that more frequent review and revision of these monitoring programs may be necessary. Accordingly, the Basin Plan requires review of the surface water monitoring program in coordination with the ambient quality determination and, further, that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Regional Board approval.

An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by April 15<sup>th</sup> of each year.

**2. Groundwater Monitoring Program (Table 5-9c, #2)**

In response to the maximum benefit program requirements established in 2004 (Resolution No. R8- 2004-0001), a proposed groundwater monitoring program was submitted in 2005. The Regional Board approved a groundwater monitoring program to determine ambient water quality in the Beaumont Groundwater Management Zone (Resolution No. R8-2005-0066). The purpose of the Groundwater Monitoring Program is to identify the effects of the implementation of the Beaumont Groundwater Management Zone maximum benefit water quality objectives on water levels and water quality within the Beaumont Groundwater Management Zone. The groundwater monitoring program has been implemented since 2005 and YVWD, the City of Beaumont, the City of Banning, the Pass Agency and BCVWD must continue to implement that program.

As noted above, the groundwater monitoring program will be reviewed as part of regular ambient groundwater quality determinations and may be revised. Once again, more frequent review and revision may be necessary as the monitoring program is implemented over time. Accordingly, the Basin Plan requires that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the

submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Regional Board approval.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by April 15<sup>th</sup> of each year.

3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9c, #3)

YVWD anticipated that demineralization of groundwater or recycled water would be necessary in the future to protect the Yucaipa Groundwater Management Zone and has planned and designed desalting and associated brine disposal facilities. YVWD shall ensure that the planned desalter system is operational by June 30, 2015. The Regional Board may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9a.

4. City of Beaumont Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9c, #4)

The City of Beaumont shall construct and operate desalting facilities and brine disposal facilities to improve recycled water quality and/or other sources of non-potable supply. A detailed desalter/brine line plan and schedule shall be submitted (\*15 days from approval date by OAL of the Basin Plan amendment). The schedule shall assure that these facilities are in place within 5 years of Regional Board approval.

5. City of Banning Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9c, #5)

The City of Banning shall construct and operate desalting facilities and brine disposal facilities to improve recycled water quality and/or other sources of non-potable supply. A detailed desalter/brine line plan and schedule shall be submitted (\*15 days from approval date by OAL of the Basin Plan amendment). The schedule shall assure that these facilities are in place within 5 years of Regional Board approval.

6. Non-potable Water Supply Distribution System (Table 5-9c, # 6)

A key element of resources management plan in areas overlying the Beaumont Groundwater Management Zone is the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water and/or storm water for irrigation uses and direct non-potable reuse. The intent is to minimize the use of potable water for non-potable uses. YVWD, the City of Beaumont and the City of Banning will produce a non-potable supply with a running ten-year average TDS concentration for the Beaumont Groundwater Management Zone of 330 mg/L and, in addition, for any non-irrigation reuse, the 10-yr running average nitrate-nitrogen concentration shall comply with 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). To meet this "maximum benefit" objective, YVWD, the City of Beaumont and the City of Banning, BCVWD and San Gorgonio Pass Agency will blend the recycled water with other water sources or desalt the recycled water as needed.

Compliance with the non-potable water supply TDS and nitrate-nitrogen objective shall be measured in the non-potable water system as a weighted 10-year average of all water sources added to that system and used within the Beaumont Groundwater Management Zone.

As part of the Maximum Benefit Annual Report, YVWD, BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall report on the TDS and nitrogen quality and quantity of all sources of non-potable water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations utilized in the Beaumont Groundwater Management Zone.

#### 7. Recycled Water Recharge (Table 5-9c, # 7)

The use and recharge of recycled water within the Beaumont Groundwater Management Zone are necessary to maximize the use of the water resources of the Beaumont area. The demonstration of “maximum benefit” and the continued application of the “maximum benefit” objectives are contingent on the recharge of recycled water to the Beaumont Groundwater Management Zone of a 10-year annual average (running average) TDS concentration of 330 mg/L and nitrate-nitrogen concentration of 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the “maximum benefit” objective of 5 mg/L will be met). These concentrations may be achieved by desalting or other treatment of the recycled water, and/or by blending the recycled water with other sources, such as imported water and/or storm water.

Compliance with these concentrations shall be measured at the point of discharge(s) to the recharge facility as a weighted average concentration of the recycled water and other sources, if any, used for blending.

As part of the Maximum Benefit Annual Report, YVWD, BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall report on the TDS and nitrogen quality and quantity of all sources of recharged water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations recharged to the Beaumont Groundwater Management Zone.

#### 8. Ambient Groundwater Quality Determination (Table 5-9c, # 8)

By July 1, 2014, and every three years thereafter, YVWD BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Beaumont Groundwater Management Zone. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen “antidegradation” water quality objectives for groundwater Management Zones within the region. [Ref. 1].

### **B. Implementation by Regional Board**

#### 1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the “maximum benefit” objectives, the Regional Board will revise the waste discharge requirements and producer/user reclamation requirements for the YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For any surface water discharges that affect the Beaumont Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to

exceed 330 mg/L TDS and 6.7 mg/L TIN. These limits are based on the “maximum benefit” objectives of the Beaumont Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the YVWD’s waste discharge requirements, as necessary and appropriate.

YVWD’s waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified for recycled water recharge and re-use in the Beaumont Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

## 2. Revision to the City of Beaumont NPDES Permit

To implement the “maximum benefit” objectives, the Regional Board will revise the waste discharge requirements and producer/user reclamation requirements for the City of Beaumont wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For surface water discharges that affect the Beaumont Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 330 mg/L TDS and 6.7 mg/L TIN. These limits are based on the “maximum benefit” objectives of the Beaumont Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the City of Beaumont’s waste discharge requirements, as necessary and appropriate.

The City of Beaumont’s waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will

also be specified for recycled water recharge and re-use in the Beaumont Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

### 3. Revision of City of Banning NPDES Permit

Discharges from the City of Banning are currently regulated by the Colorado River Water Board. To implement the “maximum benefit” objectives, the Santa Ana Water Board will work with the Colorado River Water Board to revise the NPDES permit for the City of Banning’s wastewater discharge to reflect the commitments described below, as appropriate.

For any surface water discharges that affect the Beaumont Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 330 mg/L TDS and 6.7 mg/L TIN. These limits are based on the “maximum benefit” objectives of the Beaumont Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the City of Banning’s waste discharge requirements, as necessary and appropriate.

The City of Banning waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 10-year running average concentrations equal to or less than the “maximum benefit” TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the “antidegradation” objectives will also be specified for recycled water recharge and re-use in the Beaumont Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

### 4. Review of Project Status

The Regional Board intends to review periodically YVWD, the City of Beaumont, the City of Banning, BCVWD and the Pass Agency’s implementation of the maximum benefit program commitments described above and summarized in Table 5-9c. This review is intended to determine whether the commitments are met, and whether the application of the “maximum benefit” objectives continues to be justified. As indicated above, if, as a result of this review, the Regional Board finds that the commitments are not met, then the Regional Board may make the finding that the “maximum benefit” objectives are not consistent with the maintenance of water quality that is of maximum benefit to the people of the state, and that the more stringent “antidegradation” objectives for the Beaumont Groundwater Management Zone (230 mg/L for TDS and 1.5 mg/L for nitrate-nitrogen; see Chapter 4) must apply instead for regulatory purposes. In the event that the Regional Board makes these determinations, the Regional Board will require that YVWD, the City of Beaumont, the City of Banning, BCVWD and the Pass Agency, either individually or collectively, mitigate the adverse water quality effects, both on the

immediate and downstream waters, which resulted from recycled water discharges based on the "maximum benefit" objectives.

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Insert the following language

**Minimum Lot Size Requirements and Exemption Criteria for New Developments Using On-Site Septic Tank-Subsurface Leaching/Percolation Systems**

*[These Requirements shall sunset no later than May 13, 2018. If a Local Agency Management Plan (LAMP) developed pursuant to the State Water Resources Control Board's Onsite Wastewater Treatment System Policy is approved prior to that date, the LAMP shall supersede these requirements as of the date of approval.]*

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**Update the Chapter 5 references as follows:**

**REFERENCES:**

1. Wildermuth Environmental, Inc., TIN/TDS – Phase 2A of the Santa Ana Watershed, Development of Groundwater Management Zones, Estimation of Historic and Current TDS and Nitrogen Concentrations in Groundwater, Final Technical Memorandum,” July 2000.
2. Wildermuth Environmental, Inc., “Santa Ana Watershed Data Collection and Management Program, Final Technical Memorandum,” October 2001.
3. Wildermuth Environmental, Inc., “TIN/TDS Study - Phase 2B of the Santa Ana Watershed, Wasteload Allocation Investigation Memorandum,” October 2002.
4. Wildermuth Environmental, Inc., Memo to TIN/TDS Task Force, “Transmittal of Final Tables, Figures and CD in Support of Basin Plan Amendments – TIN/TDS Study,” October 2002.
5. Wildermuth Environmental, Inc., “June 2003 Addendum TIN/TDS Study – Phase 2B of the Santa Ana Watershed Wasteload Allocation Investigation,” July 2003
6. California Regional Water Quality Control Board – Santa Ana Region, “Guidelines for Sewage Disposal from Land Developments,” January 1979.
7. State Water Resources Control Board, “Order No. 73-4, Rancho Caballero Decision,” April 1972.
8. Department of Water Resources, “Mineral Increases from Municipal Use of Water in the Santa Ana River Basin,” Memorandum Report, June 1982.
9. City of Riverside, Memo from Rod Cruze to TIN/TDS Task Force,” Nitrogen Loss Assumptions for Reach 3 of the Santa Ana River,” April 2002.
- 10A. ~~California Regional Water Quality Control Board—Santa Ana Region, Staff Report, “Santa Ana River at Prado Dam, Results of Annual Water Quality Sampling for 2002”, April 2003.—Santa Ana Watershed Project Authority,~~
- 10B. Chino Basin Watermaster, Letter to Gerard Thibeault, “Chino Basin Watermaster Proposal for New Total Dissolved Solids (TDS) and Nitrogen Water Quality Objectives for the Chino and Cucamonga Basins Based on Maximum Beneficial Use,” December 2002.
- 10C. Chino Basin Watermaster, “Chino Basin Optimum Basin Management Plan,” 1999.
- 10D. ~~Yucaipa Valley Water District, Letter to Gerard Thibeault, “Yucaipa Valley Water District Proposal for New Total Dissolved Solids (TDS) and Total Inorganic Nitrogen Water Quality Objectives for the San Timoteo and Yucaipa Management Zones Based on Maximum Beneficial Use,” January 2002.~~ City of Banning, Beaumont Cherry Valley Water District, San Gorgonio Pass Water Agency, Yucaipa Valley Water District, (2011), Proposed Regional Implementation of Maximum Benefit Commitments for the Beaumont Management Zone. Preliminary Draft

- 10E. San Timoteo Watershed Management Agency, Letter to Gerard Thibeault, "Revised San Timoteo Watershed Management Agency Proposal for New Total Dissolved Solids (TDS) and Total Inorganic Nitrogen Water Quality Objectives for the Beaumont, San Timoteo and Yucaipa Management Zones Based on Maximum Beneficial Use," December 2002 (Revised November 11, 2003).
- 10F. Daniel B. Stephens & Associates. (2007), Quantification of Nitrogen Removal Under Recycled Water Ponds, Prepared for Eastern Municipal Water District.

**ATTACHMENT B**

**Environmental Checklist**

# Environmental Checklist Form

## THE PROJECT

1. Project title:

**Basin Plan Amendment - Update of the Total Dissolved Solids, Nitrogen Management Plan for the Santa Ana River Basin**

2. Lead agency name and address:

**Santa Ana Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, CA 92562**

3. Contact person and phone number:

**Hope Smythe  
951-782-4493  
[Hope.Smythe@waterboards.ca.gov](mailto:Hope.Smythe@waterboards.ca.gov)**

4. Project location:

**Northern Orange County, Western Riverside County and Eastern San Bernardino County – all areas within the Santa Ana Regional Water Quality Control Board’s Jurisdiction**

5. Description of project:

The project consists of amendment of the Water Quality Control Plan (Basin Plan) to update and revise certain provisions of the 2004 Salt Management Plan. These changes include the following: update of the Beaumont Management Zone boundary description; update of the provisions pertaining to groundwater management zone ambient TDS and nitrate-nitrogen water quality and assimilative capacity; update of the reclamation discussion; incorporation of revised maximum benefit programs for the Yucaipa, San Timoteo and Beaumont groundwater management zones; deletion of the TDS and nitrogen wasteload allocations for Yucaipa Valley Water District and the City of Beaumont; and, inclusion of a nitrogen loss coefficient for the San Jacinto Basin. The amendments also include incorporation of the Statewide Onsite Wastewater Treatment Systems Policy and relevant, requisite changes to the current Basin Plan minimum lot size criteria for onsite subsurface disposal system use. The State Water Resources Control Board completed CEQA analysis for this statewide policy and, therefore, the incorporation of this policy and requisite changes to the minimum lot size criteria in the Basin Plan are not a part of this CEQA analysis.

The 2004 amendments to the Basin Plan to incorporate a revised Salt Management Plan included updated findings concerning nitrogen and TDS assimilative capacity, new wasteload allocations for nitrogen and TDS discharges, and nitrogen loss coefficients that are to be applied in setting effluent limitations on waste discharges. These changes/updates affect the effluent limitations specified in waste discharge requirements. In turn, these limitations may necessitate the construction and operation of new or revised treatment or other facilities, such as desalters, and associated infrastructure. The application of the established nitrogen loss coefficient alleviated nitrogen treatment requirements and the need to construct/operate additional facilities. The 2004 amendments also established “maximum benefit” programs for the Yucaipa, San Timoteo and Beaumont groundwater management zones. These programs established specific commitments for actions by identified responsible parties. These included the construction/operation of desalters, denitrification facilities and other facilities necessary to meet the identified commitments. CEQA analysis conducted to evaluate the incorporation of the 2004 Salt Management Plan in the Basin Plan recognized that the implementation of these projects/programs would necessitate project-

specific CEQA review. However, at a programmatic level, the 2004 CEQA analysis identified the potential for less than significant environmental impacts with respect to noise, biological resources, geology and utilities as the result of the implementation of these new/revised facilities. The 2004 CEQA analysis concluded that the 2004 amendments would not have a significant effect on the environment.

The potential environmental impacts of the amendments now proposed are considered in this CEQA analysis in the context of the 2004 Salt Management Plan and the facilities/project requirements incorporated therein. In many cases, the projects expected to be needed to implement the proposed revised Salt Management Plan are the same as those anticipated in the 2004 Plan, and some of those projects are already being implemented. The implementation of these projects would have no new potential environmental impact. Some additional or revised projects may be necessary to implement the revised Salt Management Plan, including compliance with the revised maximum benefit programs and compliance with effluent limitations revised on the basis of revised findings regarding TDS and/or nitrogen assimilative capacity. All individual projects will continue to require site-specific CEQA analysis. However, the potential environmental impacts of the implementation of these additional/revised projects are expected to be less than significant.

The proposed update of the Beaumont Management Zone boundary description and update of Basin Plan narrative regarding reclamation have no environmental consequences since these are descriptive elements only.

#### EVALUATION OF THE ENVIRONMENTAL IMPACTS IN THE CHECKLIST

1. The board must complete an environmental checklist prior to adoption of plans or policies. The checklist becomes a part of the Substitute Environmental Documentation (SED).
2. For each environmental category in the checklist, the Board must determine whether the project will cause any adverse impact. If there are potential impacts that are not included in the sample checklist, those impacts should be added to the checklist.
3. If the board determines that a particular adverse impact may occur as a result of the project, then the checklist boxes must indicate whether the impact is "Potentially Significant", "Less than Significant with Mitigation Incorporated", or "Less than Significant". "Potentially Significant Impact" applies if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries on the checklist, the SED must include an "EIR" level analysis. "Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures will reduce an effect from "Potentially Significant Impact" to a "Less than Significant Impact". The board must either require the specific mitigation measures or be certain of their application by another agency. "Less than Significant" applies if the impact will not be significant, and mitigation is not required. If there will be no impact, check the box under "No impact."
4. The board must provide a brief explanation for the checked boxes on the checklist. The explanations may be included in the written report described in the Water Boards' regulations for implementation of CEQA, 23 CCR §3777(a)(1), or in the checklist itself. The explanation of each issue should identify: (a) the significance criteria or threshold, if any, used to evaluate each question and (b) the specific mitigation measure(s) identified, if any, to reduce the impact to less than significance. The board may determine the significance of the impact by considering factual evidence or agency standards or thresholds. If the "No Impact" box is checked, the board should briefly describe the basis for that determination.
5. The board must include mandatory findings of significance (Checklist XVII) if required under CEQA Guidelines §15065.
6. The board should provide references used to identify potential impacts, including a list of information sources and individuals contacted.

## ISSUES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. BIOLOGICAL RESOURCES -- Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. CULTURAL RESOURCES -- Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
outside of formal cemeteries?				

VI. GEOLOGY AND SOILS -- Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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 which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IX. LAND USE AND PLANNING - Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

X. MINERAL RESOURCES -- Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XI. NOISE -- Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
without the project?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XII. POPULATION AND HOUSING -- Would the project:**

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XIII. PUBLIC SERVICES**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XIV. RECREATION**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XV. TRANSPORTATION/TRAFFIC -- Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
in addition to the provider's existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**XVII. MANDATORY FINDINGS OF SIGNIFICANCE**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## **Explanations of Impact Assessment**

### **IV. Biological Resources (a), (b), (c), (d): Less than significant**

The proposed amendments may affect the effluent limitations specified for waste discharges, which may in turn necessitate the implementation of new/revised treatment facilities and associated infrastructure. The revised “maximum benefit” programs may also entail the construction and operation of new/revised facilities, including treatment facilities, desalters, storm water recharge facilities and water distribution facilities. Construction of these facilities has the potential to result in adverse impacts to wildlife and wildlife habitat, including wetlands. Each of these projects will be subject to CEQA review; any potential impacts will be required to be avoided/minimized and mitigated.

### **VI. Geology and Soils (b): Less than significant**

The proposed amendments may affect the effluent limitations specified for waste discharges, which may in turn necessitate the implementation of new/revised treatment facilities and associated infrastructure. The revised “maximum benefit” programs may also entail the construction and operation of new/revised facilities, including treatment facilities, desalters, storm water recharge facilities and water distribution facilities. Construction of these facilities would result in land disturbance, with the potential for increased soil erosion. Each of these projects will be subject to CEQA review; any potential impacts will be required to be avoided/minimized and mitigated.

### **XI. Noise (c), (d): Less than significant**

The proposed amendments may affect the effluent limitations specified for waste discharges, which may in turn necessitate the implementation of new/revised treatment facilities and associated infrastructure. The revised “maximum benefit” programs may also entail the construction and operation of new/revised facilities, including treatment facilities, desalters, storm water recharge facilities and water distribution facilities. Construction of these facilities would likely result in temporary increases in noise levels; operation of the facilities may result in permanent increases in ambient noise levels. Each of these projects will be subject to CEQA review; any potential impacts will be required to be avoided/minimized and mitigated.

### **XII. Population and Housing (a): Less than significant**

The proposed amendments do not directly result in increased population growth. The amendments refine existing requirements for plans and programs that are intended to optimize the use of water resources to meet water supply demands. By law, the availability of adequate water supplies must now be demonstrated to support new development proposals. In each case, such new developments would be subject to CEQA review. The determination of whether such projects could proceed (taking into account the adequacy of the water supply), and if so, under what mitigation circumstances, would occur through this process.

### **XV. Transportation/Traffic (a): Less than significant**

As described in the discussion of XII. Population and Housing, the proposed amendments refine existing requirements for plans and programs that are intended to optimize the use of water resources. The intent is to protect water quality and assure long-term reliability and availability of water supplies to meet existing and projected demands, if and as population growth occurs in the service areas of the responsible agencies. By law, the availability of adequate water supplies must now be demonstrated to support new development proposals. New development and the increased population associated with it can be expected to result in increased vehicular traffic and alternative transportation needs.

The proposed amendments do not result directly in increased population growth or the traffic/transportation effects potentially associated with it. The proposed amendments do allow responsible water supply agencies to implement programs designed to assure adequate water supplies

and to make the demonstration required by law that such supplies would be available for new developments. In each case, new developments would be subject to CEQA review, including the evaluation of traffic/transportation impacts. The determination of whether such projects could proceed, and if so, under what mitigation circumstances, would occur through this process.

**XVI. Utilities and Service Systems (b), (c): Less than significant**

The proposed amendments may affect the effluent limitations specified for waste discharges, which may in turn necessitate the implementation of new/revised treatment facilities and associated infrastructure. The revised “maximum benefit” programs may also entail the construction and operation of new/revised facilities, including treatment facilities, desalters, storm water recharge facilities and water distribution facilities. Construction of these facilities has the potential to result in impacts to utilities and service systems. Each of these projects will be subject to CEQA review; any potential impacts will be required to be avoided/minimized and mitigated.

**PRELIMINARY STAFF DETERMINATION**

- The proposed project **COULD NOT** have a significant effect on the environment, and, therefore, no alternatives or mitigation measures are proposed.
- The proposed project **MAY** have a significant or potentially significant effect on the environment, and therefore alternatives and mitigation measures have been evaluated.

**Note:** Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151, Public Resources Code; Sundstrom v. County of Mendocino, 202 Cal.App.3d 296 (1988); Leonoff v. Monterey Board of Supervisors, 222 Cal.App.3d 1337 (1990).

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