Yucaipa Valley Water District

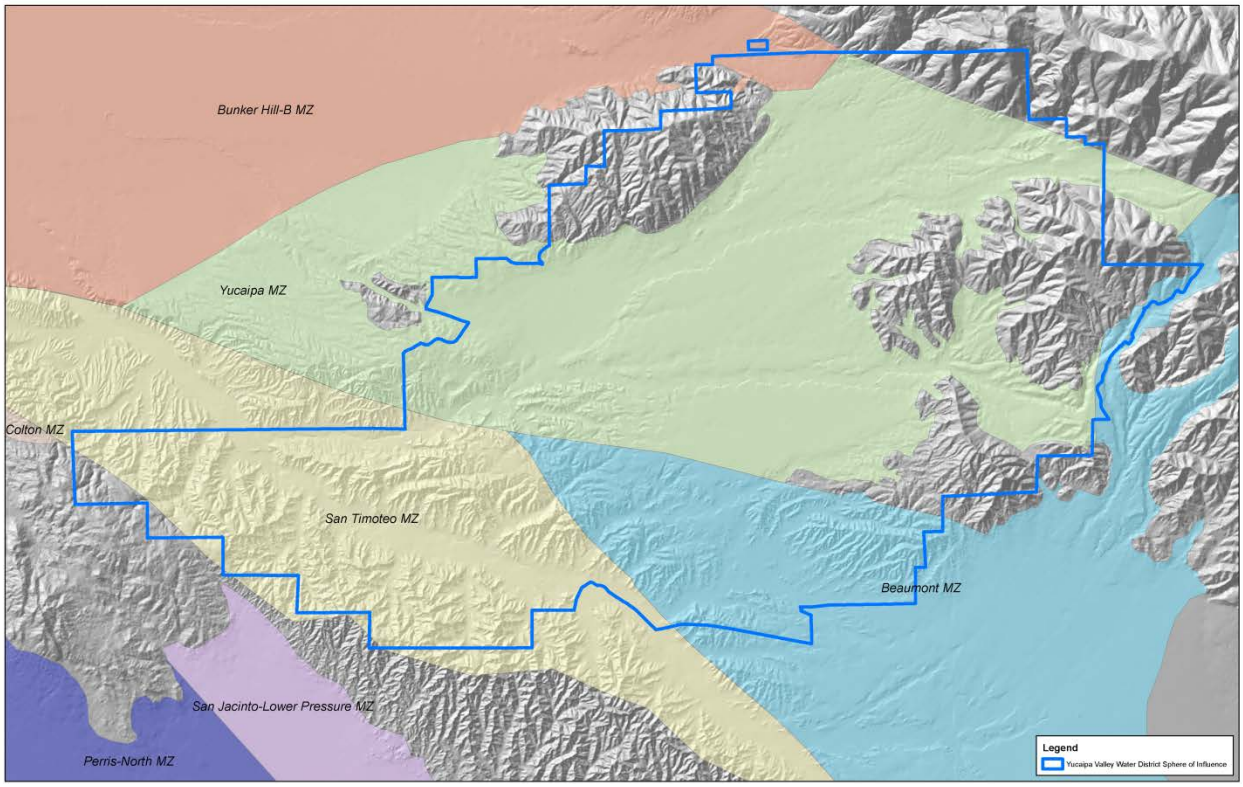
Workshop Memorandum 12-069

Date: **March 27, 2012**

Subject: **Review of Draft Resolution Related to the Implementation of Maximum Benefit Commitments for the Beaumont Management Zone**

On September 15, 2010, the Board of Directors approved a contract with DDB Engineering to assist the District staff with preparing the waste discharge application for the Wochholz Regional Water Recycling Facility. Our current recycled water waste discharge permit (RWQCB Order No. R8-2007-0012) is being updated following its recent expiration of the permit on February 2, 2012.

One of the delays in receiving an updated discharge permit has been related to the issues pertaining to the Beaumont Management Zone. On September 13, 2010, the Regional Water Quality Control Board sent a letter requiring a technical report be produced to support the Salt Management Plan for the Santa Ana Region (see page 3 of 57). After reviewing this correspondence from the Regional Board, it was clear that long-term water management in the region would be significantly enhanced if all agencies actively participated in dialogue and associated studies to ensure each future water supply plan was evaluated for potential water quality impacts.



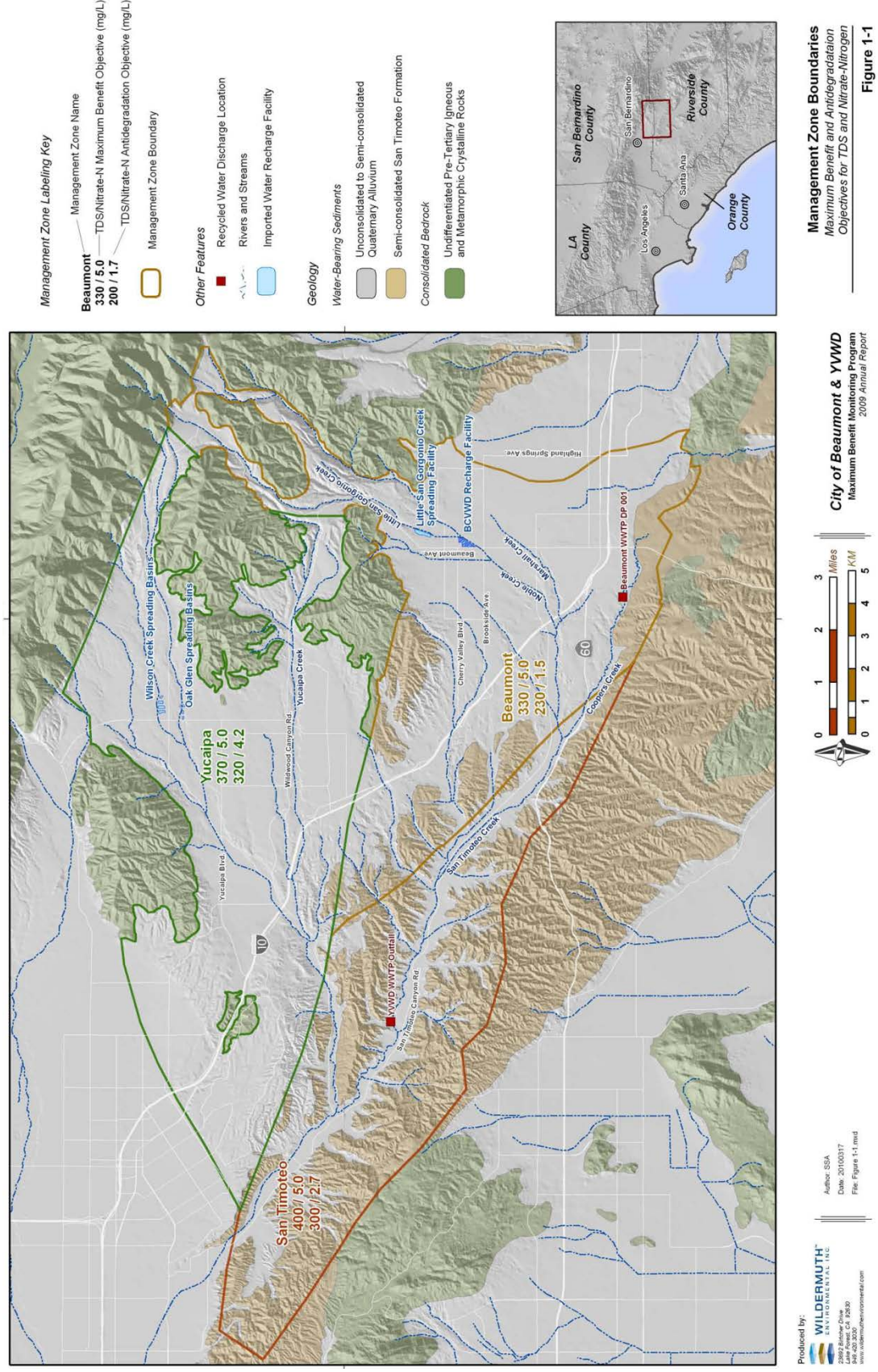
On October 6, 2010, the Board of Directors approved a proposal from Wildermuth Environmental that was designed to satisfy the requirements imposed by the Regional Water Quality Control Board [Director Memorandum 10-077].

On January 25, 2012, the District received confirmation from the Regional Water Quality Control Board accepting the multi-party implementation plan for protecting the maximum benefit commitments for the Beaumont Management Zone.

While maintaining the maximum benefit commitments are a costly endeavor, the benefit to our customers/ratepayers is significant compared to the restrictions, limitations and additional treatment required for the more restrictive antidegradation limitations of the Yucaipa, San Timoteo and Beaumont Management Zones. For example, the maximum benefit objectives for total dissolved solids for the Yucaipa, San Timoteo, and Beaumont Management Zones are 370 mg/l, 400 mg/l, and 330 mg/l respectively. The more restrictive antidegradation objectives would be 320 mg/l, 300 mg/l and 230 mg/l, as shown in the table below and the illustration on the following page.

	Beaumont Management Zone	San Timoteo Management Zone	Yucaipa Management Zone
Objectives for Total Dissolved Solids (mg/l)			
Maximum Benefit Objective	**330**	**400**	**370**
Antidegradation Objective	**230**	**300**	**320**
Objectives for Total Dissolved Solids (mg/l)			
Maximum Benefit Objective	**5.0**	**5.0**	**5.0**
Antidegradation Objective	**1.5**	**2.7**	**4.2**

The purpose of this workshop item is to discuss a draft resolution confirming the commitments made by the Yucaipa Valley Water District for maintaining the maximum benefit objectives in the Beaumont Management Zone.



Management Zone Boundaries
Maximum Benefit and Antidegradatoin Objectives for TDS and Nitrate-Nitrogen

Figure 1-1

California Regional Water Quality Control Board
Santa Ana Region

Linda S. Adams
Secretary for Environmental Protection

3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288 • TDD (951) 782-3221
www.waterboards.ca.gov/santaana

Arnold Schwarzenegger
Governor

September 13, 2010

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Beaumont Cherry Valley Water District
Attention: Anthony Lara
Interim General Manager
560 Magnolia Avenue
Beaumont, CA 92223

City of Beaumont
Attention: David Dillon
Director of Economic Development
550 East 6th Street
Beaumont, CA 92223

Yucaipa Valley Water District
Attention: Joe Zoba
General Manager
12770 Second Street
Yucaipa, CA 92399

ORDER PURSUANT TO WATER CODE SECTION 13267 FOR TECHNICAL REPORTS FOR A TECHNICAL REPORT TO SUPPORT THE IMPLEMENTATION OF THE MAXIMUM BENEFIT OBJECTIVES FOR TOTAL DISSOLVED SOLIDS AND NITRATE NITROGEN IN THE BEAUMONT MANAGEMENT ZONE

Gentlemen:

This Order, issued pursuant to California Water Code section 13267, requires that you submit certain plans and schedules (collectively, reports) to evaluate the impact of discharges of total dissolved solids (TDS) and nitrogen on the Beaumont Groundwater Management Zone (Beaumont MZ). This requirement is consistent with the Salt Management Plan for the Santa Ana Region, and in particular the maximum benefit implementation plan for the Beaumont MZ, adopted by the California Regional Water Quality Control Board, Santa Ana Region (Regional Water Board) in 2004 (Resolution No. R8-2004-0001) and approved by the State Water Resources Control Board and the Office of Administrative Law in 2005.

Background of the Maximum Benefit Implementation Plan for the Beaumont MZ

On June 26, 2002, the San Timoteo Watershed Management Authority (STWMA[1]) submitted a proposal to establish maximum benefit objectives for TDS and nitrate-nitrogen for the Beaumont MZ to accommodate water resource management projects, including the recharge of stormwater,

[1] The San Timoteo Watershed Management Authority (STWMA) was formed in January 2001 by the Beaumont-Cherry Valley Water District (BCVWD), the City of Beaumont (Beaumont), the South Mesa Water Company and the Yucaipa Valley Water District (YVWD). The 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. In July 2010, STWMA disbanded.

imported State Project Water (SPW), and recycled water. The maximum benefit objectives and commitments for Beaumont MZ were based on detailed model projections and analyses conducted by Wildermuth Environmental, Inc (WEI). The modeling analysis utilized a Constantly Stirred Reactor Model (CSRM), and simulated TDS groundwater quality through 2100 resulting from the implementation of several planned scenarios, including a no project alternative and the preferred maximum benefit alternative. The preferred maximum benefit alternative assumes that 10,000 acre-ft of replenishment water will be recharged into the Beaumont MZ with a 50/50 mix of recycled water and SPW. The preferred option also assumed that 5,100 acre-ft of non-potable supply of a 50 /50 mix of SPW and recycled water would be used within the Beaumont MZ. The TDS quality of recycled water, to be provided by the City of Beaumont Wastewater Treatment Plant (WWTP), was assumed to have an average TDS concentration of 550 mg/L, and the imported water was assumed to have a TDS concentration of 290 mg/L.

The Regional Board adopted the maximum benefit proposals in 2004 (Resolution No. R8-2004-0001), assigning STWMA and the City of Beaumont the responsibility for implementing the maximum benefit commitments in the Beaumont MZ. The commitments include building desalting facilities when either of the following occurs:

- When the five-year average TDS concentration in recycled water produced by the Beaumont WWTP is 10 mg/L less than its current TDS limit (490 mg/L), or
- When the volume-weighted TDS concentration in the Beaumont MZ rises to within 10 mg/L of the maximum benefit TDS objective of 330 mg/L.

Resolution No. R8-2004-0001 also specifies similar maximum benefit implementation programs for the Yucaipa and San Timoteo MZs. Yucaipa Valley Water District (YVWD) is responsible for implementation of the maximum benefit commitments for the Yucaipa MZ, and is jointly responsible for implementing the maximum benefit commitments for the San Timoteo MZ along with the City of Beaumont and STWMA.

Permitting Issues

Since 2009, the Beaumont Cherry Valley Water District (BCVWD) has been working with Regional Board staff to obtain a recycled water permit to utilize various sources of water for non-potable use and for recharge in the Beaumont MZ. BCVWD is proposing to use recycled water from both the Yucaipa Valley Water District (YVWD) and the City of Beaumont, local groundwater, and imported SWP water. The ranges of anticipated flow and water quality for the YVWD recycled water and local groundwater for the near term (2015) and long term (2035), are described in a June 2, 2010 letter report submitted by BCVWD, which is attached as Exhibit A. These "new" sources of water – the YVWD recycled water and local groundwater – were not considered in the original model projections and analyses conducted by WEI in 2002. Therefore, the water quality impact of these "new" sources on the Beaumont MZ is unknown.

The City of Beaumont is also working with Regional Board staff to renew and update their Waste Discharge Requirements (WDRs) to increase the discharge from 4 MGD (approximately 4,484 acre-ft/year) to 8 MGD (8,968 acre-ft/year). Concurrently, YVWD has requested revisions to their WDRs to correct an error in the TDS limit for recycled water used for irrigation, and to include a provision allowing for the recharge of recycled water into the Beaumont MZ. YVWD's proposed irrigation use and recharge of recycled water in the Beaumont MZ was not considered in the original analysis by WEI, and the impact of these discharges needs to be evaluated.

Basin Plan Amendment Issues

As previously indicated, the Basin Plan specifies that STWMA and the City of Beaumont are responsible for implementing the maximum benefit commitments related to the Beaumont MZ. However, with the dissolution of STWMA, the responsibilities for carrying out the maximum benefit commitments in the Beaumont MZ need to be re-assessed. Some STWMA members, including BCVWD, the City of Beaumont and YVWD, continue to have and/or have expressed new interest in water management activities, including the use/increased use of recycled water, in the Beaumont MZ. Given this, it is necessary to reconsider the assigned responsibilities for implementing maximum benefit commitments for the Beaumont MZ. One STWMA member, South Mesa Water Company, has no interest in the Beaumont MZ, and should not be included in the maximum benefit program. In sum, the Basin Plan needs to be revised to incorporate changes in water resource and salt management, and maximum benefit implementation in the Beaumont MZ. To do so, an updated modeling analysis is necessary. It should be noted that this analysis is necessary in any case to support current permitting requests, described above. The analysis must include an assessment of salt liabilities by these agencies under the different management scenarios so that the responsibilities for maximum benefit implementation can be properly assigned.

Required Submittals

Consistent with the Salt Management Plan, you are hereby required to submit an updated analysis for the Beaumont MZ to the Regional Water Board as soon as possible, but **no later than November 30, 2010**. The analysis must include the following:

1) Updated planning information for the use of all sources of water by each agency in the Beaumont MZ. This updated information shall include flow, quality, and recharge or use location;

2) An update of the CSRM model to create 30-year TDS and nitrogen projections for the Beaumont MZ based on the full range of recycled water planning scenarios that are being considered; and

3) An assessment of the individual and cumulative water quality impact as a result of each agency's water management activities and calculation of the salt liability of all recycled water users in Beaumont MZ

The model analysis that is conducted must be consistent with the model analysis that was performed as part of the 2002 maximum benefit proposal.

We recommend that BCVWD, YVWD and the City of Beaumont conduct a single joint analysis. However, if each agency chooses to submit a separate analysis, it must include an assessment of all planned water uses by all agencies and include all the elements identified above.

Need for Technical Report

The Regional Water Board is charged with the protection of water quality in this Region. Unless properly managed, the discharge of salt or nitrogen as a result of water management activities in Beaumont MZ has the potential to contribute to the degradation of water quality and adversely affect beneficial uses. The technical report required by this Order is needed to determine the contribution of

salt and nitrogen from water use and water resource management activities. The data and information will assist efforts to carry out implementation of the maximum benefit program, as set forth in the Basin Plan, in the Beaumont MZ.

Evidence Supporting the Need for the Technical Reports

Monitoring and modeling conducted to develop the maximum benefit programs demonstrated that water management activities (e.g., irrigation use and recharge of recycled water) discharge salt and nitrogen to the Beaumont MZ. The evidence demonstrating that water management activities are sources of salt and nitrogen discharges is contained in letter report from STWMA "Revised San Timoteo Watershed Management Authority proposal for new total dissolved solids (TDS) and total inorganic nitrogen (TIN) water quality objectives for the Beaumont, San Timoteo, and Yucaipa management zones based on maximum beneficial use", and Exhibit A - TDS Budget Table, June 2002, and a letter report from BCVWD "Estimated Recycled Water and Imported Water Needs to Support Groundwater Quality Evaluation", June 2010. Based on these analyses, the three agencies have discharged, or are planning discharges that do and could potentially contribute salt and nitrogen loads in Beaumont MZ.

Burden and Cost of Technical Reports

The estimated cost of a single joint analysis is $36,000 (as reflected in the proposal to BCVWD and the City of Beaumont by WEI dated August 12, 2010). The three agencies can choose to share the cost of a single analysis and report, or prepare separate analyses and reports on their own. Logically, the cost of three separate analyses and reports will be higher. Since the analysis requires data and information from all three agencies, if the analysis is conducted separately for each agency, Regional Board staff estimates the total cost could potentially be $36,000 per agency for a total of $108,000.

Regardless of whether a single or combined analytical approach is selected, the costs of the technical reports required by this Order are justified. Without this information, we will not be able issue WDRs in a timely fashion. The preparation of the above report is also necessary to provide for continued implementation of the maximum benefit objectives for the Beaumont Management Zone.

Penalties

Though we are confident you will make every effort to comply with this Order in a timely manner, please be advised that pursuant to section 13268 of the California Water Code, failure to submit the required information by the specified compliance date, or falsifying any information provided therein, is a misdemeanor and may result in civil liability. Noncompliance may subject you to administrative civil liability in the amount of up to $1,000 for each day of violation. Compliance with this Order is not a substitute for compliance with other applicable laws and does not preclude action to enforce compliance with such other laws.

Appeal

Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. The State Board's website (http://www.swrcb.ca.gov/wqpetitions/index.html) contains detailed information regarding the petition process. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected

by this Order may request the Regional Water Board to reconsider this Order. To be timely, such a request must be received within 30 days of the date of this Order. Note that even if reconsideration by the Regional Water Board is sought, filing a timely petition with the State Water Board is also necessary to preserve the petitioner's legal rights. If you choose to request reconsideration of this Order or file a petition with the State Water Board, be advised that you must comply with the Order while your request for reconsideration and/or petition is being considered.

If you have any questions regarding the Order, or wish to schedule a meeting to discuss, please contact, Dr. Cindy Li, Engineering Geologist, at (951) 782-4906 or cli@waterboards.ca.gov.

Sincerely,

Joanne E. Schneider
Division Chief

cc: Regional Board
David Rice, Office of Chief Counsel, SWRCB, DavidRice@waterboards.ca.gov

Attachment: Exhibit A - Estimate of Recycled Water and Imported Water Needs in support of Groundwater Quality Evaluation for Cherry Valley Water District Recycled Water Permit

Preliminary Documentation - Subject to Modification

Proposed Regional Implementation of Maximum Benefit Commitments for the Beaumont Management Zone

Preliminary Draft
September 20, 2011

Submitted to the Santa Ana Regional Water Quality Control Board

by

City of Banning
Beaumont Cherry Valley Water District
San Gorgonio Pass Water Agency
Yucaipa Valley Water District

Preliminary Document - Subject to Independent Modification
September 18, 2011

"California highly values its water resources, which are significantly limited in quantity and quality. Recurring periods of drought have demonstrated the magnitude and severity of our water quantity limitations. Improper waste management practices and contaminated sites pose significant threats to the quality of California's useable groundwater and surface water sources."

- Adapted from the State Water Resources Control Board "A Compilation of Water Quality Goals", April 2011

Background

State Water Resources Control Board - Resolution No. 68-16

On October 24, 1968, the State Water Resources Control Board adopted Resolution No. 68-16 setting a policy for maintaining high quality water resources in California. This Resolution acknowledged that the "…California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the water of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State…".

This policy set the stage for protecting the high quality waters in the State of California by resolving that,

> "any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit to the people of the State will be maintained."

Santa Ana Regional Water Quality Control Board - Resolution No. R8-2004-0001

On January 22, 2004, the California Regional Water Quality Control Board, Santa Ana Region adopted Resolution No. R8-2004-0001, amending the Water Quality Control Plan for the Santa Ana River Basin incorporating an updated Total Dissolved Solids (TDS) and Nitrogen Management Plan for the Santa Ana Region, updated groundwater subbasins, revised TDS and nitrogen wasteload allocations.

During the preparation of the updated Basin Plan, stakeholders and the Regional Water Quality Control Board staff recognized that the reuse of recycled water is critical to many agencies' plans to meet the increasing water demands in the region. In some areas of the watershed, there exists assimilative capacity for the addition of TDS and/or nitrogen where wastewaters

with higher TDS/nitrogen concentrations than the receiving waters are diluted by natural rainfall or recharge so the TDS and nitrogen objectives of the receiving waters are met. In an area like the Beaumont Management Zone, assimilative capacity did not exist for the use of recycled water use or recharge until a "maximum benefit" objective was approved. The application of a "maximum benefit" objective is contingent on the implementation of certain projects and programs by specific dischargers as part of their maximum benefit demonstration.

Groundwater Management Zone	"Maximum Benefit" Water Quality Objective	Antidegradation Water Quality Objective
Beaumont Management Zone	330 mg/l	230 mg/l
Yucaipa Management Zone	370 mg/l	320 mg/l
San Timoteo Management Zone	400 mg/l	300 mg/l

Source: California Regional Water Quality Control Board Santa Ana Region, Resolution R8-2004-0001, Table 4-1.

State of California - Recycled Water Policy

On February 3, 2009, the California State Water Resources Control Board (SWRCB) adopted a Recycled Water Policy (the "Policy") formally declaring their mission to "preserve, enhance and restore the quality of California's water resources to the benefit of present and future generations."

To achieve this mission, the SWRCB encourages every region in California to develop a salt/nutrient management plan by 2014 to serve as a foundation to provide California with clean, abundant and sustainable water supplies. This goal is only accomplished by properly implementing a water resource strategy that maximizes the use of recycled water, water conservation, and the use of storm water (including dry-weather urban runoff). These water resources are viewed as drought-proof and reliable, and will generally minimize carbon footprints over the long-term.

The Recycled Water Policy formally sets forth the following goals for the State of California:

- Increase the use of recycled water over 2002 levels by at least one million acre-feet per year by 2020 and by at least two million acre-feet per year by 2030.
- Increase the use of storm water over use in 2007 by at least 500,000 acre-feet per year by 2020 and by at least one million acre-feet per year by 2030.
- Increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020.
- Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.

The SWRCB recognizes that some groundwater basins have salts and nutrients that exceed or threaten to exceed water quality objectives established in the applicable Water Quality Control Plans (Basin Plans). Therefore, it has been determined that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses.

The representatives from the Beaumont Cherry Valley Water District, the City of Banning, the San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District support the principles established in the Recycled Water Policy adopted by the State Water Resources Control Board

and have agreed to jointly implement a salt management strategy to protect the water resources of the Beaumont Management Zone. These participating agencies agree with the State Water Board finding that the appropriate way to address salt management issues is through the development of a regional salt management strategy equally applied amongst all recycled water users and waste discharge permits in the Beaumont Management Zone.

San Timoteo Watershed Management Authority "Maximum Benefit" Commitments

On July 2, 1990, the State Water Resources Control Board issued an administrative procedure for antidegradation policy implementation. This policy requires an antidegradation analysis to be completed to "…support all regulatory actions that, in the Regional Board's judgment, will result in a significant increase in pollutant loadings".

When undertaking an antidegradation analysis, the Regional Board would proceed as follows:

1. Compare receiving water quality to the water quality objectives established to protect designated beneficial uses:

    a. If baseline water quality is equal to or less than the quality as defined by the water quality objective, water quality shall be maintained or improved to a level that achieves the objectives.

    b. If baseline water quality is better than the water quality as defined by the water quality objective, the baseline water quality shall be maintained unless poorer quality is necessary to accommodate important economic or social development and is considered to be of maximum benefit to the people of the State of California.

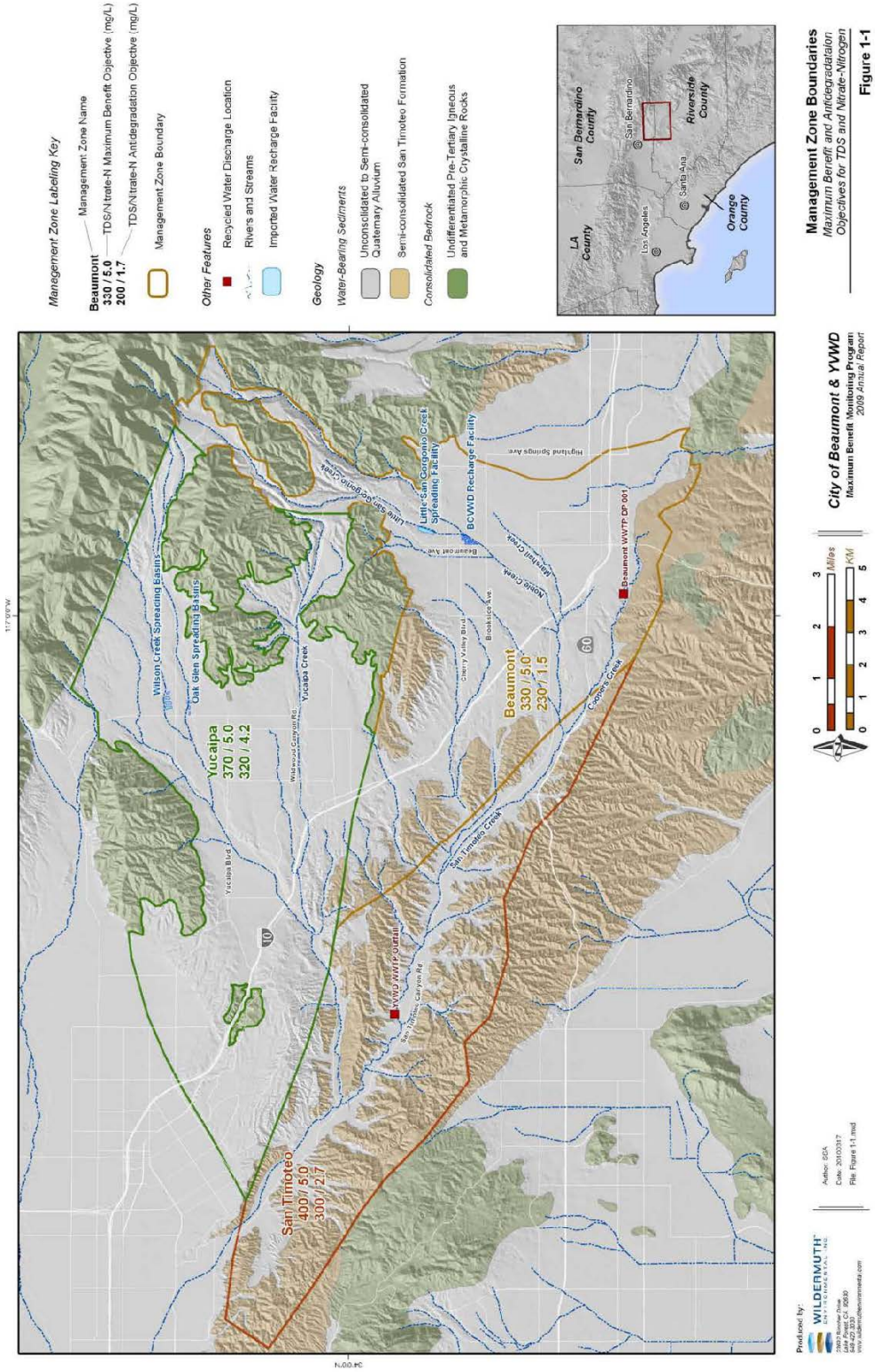
As part of the 2004 Basin Plan adopted by the Santa Ana Regional Water Quality Control Board, a number of the agencies participating in the preparation of this Salt Management Strategy were members of the San Timoteo Watershed Management Authority ("STWMA"). The STWMA identified to the Regional Water Quality Control Board in documentation dated October 30, 2002, that California Water Code section 13241 provides for a change of water quality objectives based on the following:

> "Each regional board shall establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance; however, it is recognized that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. Factors to be considered by a regional board in establishing water quality objectives shall include, but not necessarily be limited to, all of the following:
> a) Past, present, and probable future beneficial uses of water;
> b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available hereto;
> c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;
> d) Economic considerations;
> e) The need for developing housing within the region;
> f) The need to develop and use recycled water."

Based on this criterion, the STWMA member agencies and the Santa Ana Regional Water Quality Control Board agreed to establish maximum benefit water quality objectives for the Beaumont Management Zone as long as the irrevocable commitments made by the member agencies are fulfilled. These irrevocable commitments are specifically identified in Resolution No. R8-2004-0001 (pages 72-78).

The parties recognize that failure to fully implement the commitments will required mitigation of the adverse water quality effects, both on the immediate and downstream waters that resulted from the recycled water discharges. Furthermore, the "mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load"

Preliminary Document - Subject to Independent Modification
September 18, 2011



Preliminary Document - Subject to Independent Modification
September 18, 2011

Regional Salt Management Strategy

On September 13, 2010 the managers of the Beaumont Cherry Valley Water District, City of Beaumont and Yucaipa Valley Water District received an *Order Pursuant to Water Code Section 13267 for Technical Reports for a Technical Report to Support the Implementation of the Maximum Benefit Objectives for Total Dissolved Solids and Nitrate Nitrogen in the Beaumont Management Zone*. The Order required the preparation of a technical report that included the following elements:

1. Updated planning information for the use of all sources of water by each agency in the Beaumont Management Zone. This updated information needed to include flow, quality, and recharge or use location;

2. An update of the CSRM model to create 30-year TDS and nitrogen projections for the Beaumont Management Zone based on the full range of recycled water planning scenarios that are being considered; and

3A. An assessment of the individual and cumulative water quality impact as a result of each agency's water management activities; and

3B. A calculation of the salt liability of all recycled water users in the Beaumont Management Zone.

The required elements identified above as 1., 2., and 3A. have been previously provided to the Santa Ana Regional Water Quality Control Board. This draft document has been prepared in compliance with the required element 3B. above.

Over the past several months, the agencies involved in the preparation of this document have strongly embraced the importance of maintaining high quality water resources in the Beaumont Management Zone. Since the Beaumont Management Zone does not have a large volumes of natural runoff like the Bunker Hill B Management Zone, it is important to protect the local water quality in a manner consistent with the policies of the State of California and the Basin Plan as approved by the Santa Ana Regional Water Quality Control Board.

For illustration purposes, the following graph represents the water quality objectives and 2009 current ambient water quality as water resources proceed downstream from the Beaumont Management Zone to the Orange County Management Zone.

Total Dissolved Solids (mg/l)			
Management Zone	Water Quality Objective	Maximum Benefit Objective	2009 Current Ambient Water Quality
Beaumont	230	330	280
San Timoteo	300	400	420
Bunker Hill B	310	- -	270
Colton	410	- -	430
Riverside A	560	- -	430
Chino - South	680	- -	980
Orange County	580	- -	600

Preliminary Document - Subject to Independent Modification
September 18, 2011

To maintain the high quality water resources of the Beaumont Management Zone, the undersigned agencies recognize the importance of fully implementing the commitments made by the San Timoteo Watershed Management Authority in order to maintain the maximum benefit objectives applied in the Beaumont Management Zone.

City of Banning:

Print Name	Signature	Date

Beaumont Cherry Valley Water District:

Print Name	Signature	Date

San Gorgonio Pass Water Agency:

Print Name	Signature	Date

Yucaipa Valley Water District:

Print Name	Signature	Date

1. **Surface Water Monitoring, Groundwater Monitoring and Ambient Groundwater Quality Determination.** (See Santa Ana Regional Water Quality Control Board Basin Plan, Table 5-10a, page 5-73 and 5-74, Items 1, 2, and 6)

   The Beaumont Cherry Valley Water District, the City of Banning, the San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District are committed to continue our active role in surface water monitoring, groundwater monitoring and the preparation of the ambient groundwater quality determinations.

   To fully satisfy the maximum benefit commitment associated with surface water monitoring, groundwater monitoring and ambient groundwater quality determination, the Parties propose to jointly collect water quality samples and participate in the cost of data compilation and report preparation as provided in Exhibit C. The proposed water quality monitoring locations and tests performed will be reviewed and potential changes to the water quality protocol will be forwarded to the Regional Water Quality Control Board for review and approval every three years as part of the ambient water quality determination.

2. **Desalter and Brineline Facilities.** (See Santa Ana Regional Water Quality Control Board Basin Plan, Table 5-10a, page 5-73, Item 3)

The Yucaipa Valley Water District is in the process of completing an extension of the Santa Ana Regional Interceptor from the San Bernardino Wastewater Treatment Plant to the Wochholz Regional Water Recycling Facility. This brineline extension (the "Yucaipa Valley Regional Brineline") and associated reverse osmosis equipment is scheduled to be completed and operational by the second quarter of 2014.

With the completion of the brineline and reverse osmosis, the "maximum benefit" objectives necessary to protect the water resources of the Beaumont Management Zone is achieved for the Yucaipa Valley Water District and users of the recycled water produced by the Wochholz Regional Water Recycling Facility.

As provided in greater detail below, compliance with this commitment will be demonstrated as follows:

A. Recycled Water for Irrigation Purposes - Upon completion and operation of the Yucaipa Valley Regional Brineline and associated equipment, the Yucaipa Valley Water District will reduce the salinity of recycled water supplies to comply with a 10-year running average total dissolved solids ("TDS") concentration of 330 mg/l in the Beaumont Management Zone.

Compliance of this water quality objective will be measured in the recycled water system as a weighted average of recycled water within the management zone and will be achieved by blending imported water sources or desalting the recycled water supply. The ten-year compliance calculation would begin when recycled water from the Wochholz Regional Water Recycling Facility is first introduced into the recycled water system.

B. Recycled Water Recharge - Recycled water recharge, whether it is direct or incidental, shall comply with the maximum benefit objectives of the Beaumont Management Zone. Upon completion and operation of the Yucaipa Valley Regional Brineline and associated equipment, the Yucaipa Valley Water District will reduce the salinity of our recycled water to comply with a 10-year running average total dissolved solids ("TDS") concentration of 330 mg/l in the Beaumont Management Zone.

Compliance of this water quality objective will be measured at the point of discharge and will be achieved by desalting the recycled water supply and/or blending the recycled water supply with other imported water resources.

3. **Recycled (Non-Potable) Water Supply.** (See Santa Ana Regional Water Quality Control Board Basin Plan, Table 5-10a, page 5-73, Item 4)

The Beaumont Cherry Valley Water District, the City of Banning, the San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District will maintain a 10-year running average total dissolved solids concentration of 330 mg/l in the recycled (non-potable) water supplies used in the Beaumont Management Zone.

Compliance of this water quality objective will be measured in the recycled water system as a weighted annual average concentration of all recycled water sources added to the recycled water system within the management zone. It is anticipated that an agency can comply with this "maximum benefit" commitment by blending the recycled water supply with water resources imported into the Beaumont Management Zone, imported water from the State Water Project, storm water added to the recycled water supply system, or by directly desalting the recycled water source.

4. **Recycled Water Recharge.** (See Santa Ana Regional Water Quality Control Board Basin Plan, Table 5-10a, page 5-73, Item 5)

The Beaumont Cherry Valley Water District, the City of Banning, the San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District recognize the importance of maintaining the pure water resources in the Beaumont Management Zone. Therefore, the Parties will recharge recycled water, whether direct or incidental; in compliance with a 10-year running average of 330 mg/l total dissolved solids for the recharge of waters within the boundary of the Beaumont Management Zone.

Compliance of this water quality objective will be measured at the point of discharge to calculate the representative water quality and quantity recharged within the definitive recharge facility property/parcel boundary. The "maximum benefit" water quality objective at the recharge property/parcel is expected to be achieved by desalting the recycled water supply and/or blending recycled water with water resources added to the recharge facility such as imported water from outside the Beaumont Management Zone, imported water from the State Water Project, or storm water captured at the recharge facility. In all cases the quantity and quality of the water supplies recharged will be monitored and reported.

In cases whereby multiple Parties propose to recharge recycled water in the same recharge facility property/parcel boundary, each individual agency will separately demonstrate independent compliance with the maximum benefit objective. A comprehensive annual report will be compiled by the participating agencies demonstrating compliance with the maximum objective within the recharge facility property/parcel boundary by each agency.

The preparation of this document is based on a concept of consistent implementation of water quality objectives throughout the watershed. The Parties request permit language that provides an opportunity to ensure a consistent and uniform approach is applied to the implementation of waste discharge requirements in the region.

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit A

Santa Ana Regional Water Quality Control Board Basin Plan

The 1995 Water Quality Control Plan for the Santa Ana River Basin (Region 8) was updated in February 2008 with minor, nonsubstantive editorial corrections made to Chapter 4 in June 2011. Attached for reference are pages 5-71 to 5-81.

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[7]. 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

[7] 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.

affecting these management zones that took place in excess of limits based on the "antidegradation" objectives.

This space has been intentionally left blank

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit A

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**
1. Surface Water Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005
b. Implement Monitoring Program	b. Within 30 days from Regional Board approval of monitoring plan
c. Quarterly data report submittal	c. April 15, July 15, October 15, January 15
d. Annual data report submittal	d. February 15th
2. Groundwater Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005
b. Implement Monitoring Program	b. Within 30 days from Regional Board approval of monitoring plan
c. Annual data report submittal	c. February 15th
3. Desalter(s) and Brine Disposal Facilities	
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.	a. Within 6 months of either of the following: i. When Beaumont's effluent 5-year running average TDS exceeds 480 mg/L; and/or ii. When volume weighted average concentration in the Yucaipa MZ of TDS exceeds 320 mg/L
b. Implement the plan and schedule	b. Within 30 days from Regional Board approval of monitoring plan
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 330 mg/L or less	December 23, 2014

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit A

Description of Commitment	**Compliance Date – as soon as possible, but no later than**
5. Recycled water recharge 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). 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 City of Beaumont/STWMA enhanced recharge facilities/programs	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 storm/water imported water recharge . b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.
6. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter
7. Replace denitrification facilities (if 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
8. 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 facility/operational changes needed to achieve 6 mg/L TIN are in place) b. Upon approval by Regional Board
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

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

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

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.

(End of Salt Management Plan Section) (End of Resolution R8-2004-0001)

NONPOINT SOURCE PROGRAM

Considerable improvements in water quality have been achieved in the nation through the control of point source discharges such as those from sewage treatment plants or industrial facilities. It is now recognized that in many areas, nonpoint source inputs, such as urban nuisance flows and stormwater runoff, are the principal sources of contaminant inputs to surface and groundwaters.

In contrast to point sources, which discharge wastewater of predictable quantity and quality at a discrete point (usually at the end of a pipe), nonpoint source inputs are diffuse in origin and variable in quality. Management of nonpoint source inputs is in many ways more difficult to achieve, since it requires an array of control techniques customized to local watershed conditions.

Nonpoint Source Management Plan

Section 319 of the 1987 amendments to the Clean Water Act (33 USC 466 *et seq.*), established the framework for nonpoint source activities. Section 319 requires each state to prepare a Nonpoint Source Management Plan and to conduct an assessment of the impact nonpoint sources have on the state's waterbodies. In response to these requirements, the State Board adopted the Nonpoint Source Management Plan (NPSMP) in 1988 and the Water Quality Assessment in 1990 (see Chapter 6 for a discussion of the Water Quality Assessment). The NPSMP establishes a statewide policy for managing nonpoint source inputs to California's waters and is part of this Basin Plan.

The State Board defined six objectives of the Nonpoint Source Management Plan, four of which apply to activities in the Santa Ana Region:

1. Initiate and institutionalize activities for control of nonpoint source pollution (drainage from urban activities, agriculture, silviculture, abandoned mines construction, grazing, hydrologic modification, and individual disposal systems). These activities include outreach, education, public participation, technical assistance, financial assistance, interagency coordination, and demonstration projects.

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit B

Order Pursuant to Water Code Section 13267 for Technical Reports for a Technical Report to Support the Implementation of the Maximum Benefit Objectives for Total Dissolved Solids and Nitrate Nitrogen in the Beaumont Management Zone

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit B

California Regional Water Quality Control Board
Santa Ana Region

Linda S. Adams
Secretary for Environmental Protection

3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288 • TDD (951) 782-3221
www.waterboards.ca.gov/santaana

Arnold Schwarzenegger
Governor

September 13, 2010

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Beaumont Cherry Valley Water District
Attention: Anthony Lara
Interim General Manager
560 Magnolia Avenue
Beaumont, CA 92223

City of Beaumont
Attention: David Dillon
Director of Economic Development
550 East 6th Street
Beaumont, CA 92223

Yucaipa Valley Water District
Attention: Joe Zoba
General Manager
12770 Second Street
Yucaipa, CA 92399

ORDER PURSUANT TO WATER CODE SECTION 13267 FOR TECHNICAL REPORTS FOR A TECHNICAL REPORT TO SUPPORT THE IMPLEMENTATION OF THE MAXIMUM BENEFIT OBJECTIVES FOR TOTAL DISSOLVED SOLIDS AND NITRATE NITROGEN IN THE BEAUMONT MANAGEMENT ZONE

Gentlemen:

This Order, issued pursuant to California Water Code section 13267, requires that you submit certain plans and schedules (collectively, reports) to evaluate the impact of discharges of total dissolved solids (TDS) and nitrogen on the Beaumont Groundwater Management Zone (Beaumont MZ). This requirement is consistent with the Salt Management Plan for the Santa Ana Region, and in particular the maximum benefit implementation plan for the Beaumont MZ, adopted by the California Regional Water Quality Control Board, Santa Ana Region (Regional Water Board) in 2004 (Resolution No. R8-2004-0001) and approved by the State Water Resources Control Board and the Office of Administrative Law in 2005.

Background of the Maximum Benefit Implementation Plan for the Beaumont MZ

On June 26, 2002, the San Timoteo Watershed Management Authority (STWMA[1]) submitted a proposal to establish maximum benefit objectives for TDS and nitrate-nitrogen for the Beaumont MZ to accommodate water resource management projects, including the recharge of stormwater,

[1] The San Timoteo Watershed Management Authority (STWMA) was formed in January 2001 by the Beaumont-Cherry Valley Water District (BCVWD), the City of Beaumont (Beaumont), the South Mesa Water Company and the Yucaipa Valley Water District (YVWD). The 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. In July 2010, STWMA disbanded.

Exhibit B

imported State Project Water (SPW), and recycled water. The maximum benefit objectives and commitments for Beaumont MZ were based on detailed model projections and analyses conducted by Wildermuth Environmental, Inc (WEI). The modeling analysis utilized a Constantly Stirred Reactor Model (CSRM), and simulated TDS groundwater quality through 2100 resulting from the implementation of several planned scenarios, including a no project alternative and the preferred maximum benefit alternative. The preferred maximum benefit alternative assumes that 10,000 acre-ft of replenishment water will be recharged into the Beaumont MZ with a 50/50 mix of recycled water and SPW. The preferred option also assumed that 5,100 acre-ft of non-potable supply of a 50 /50 mix of SPW and recycled water would be used within the Beaumont MZ. The TDS quality of recycled water, to be provided by the City of Beaumont Wastewater Treatment Plant (WWTP), was assumed to have an average TDS concentration of 550 mg/L, and the imported water was assumed to have a TDS concentration of 290 mg/L.

The Regional Board adopted the maximum benefit proposals in 2004 (Resolution No. R8-2004-0001), assigning STWMA and the City of Beaumont the responsibility for implementing the maximum benefit commitments in the Beaumont MZ. The commitments include building desalting facilities when either of the following occurs:

- When the five-year average TDS concentration in recycled water produced by the Beaumont WWTP is 10 mg/L less than its current TDS limit (490 mg/L), or
- When the volume-weighted TDS concentration in the Beaumont MZ rises to within 10 mg/L of the maximum benefit TDS objective of 330 mg/L.

Resolution No. R8-2004-0001 also specifies similar maximum benefit implementation programs for the Yucaipa and San Timoteo MZs. Yucaipa Valley Water District (YVWD) is responsible for implementation of the maximum benefit commitments for the Yucaipa MZ, and is jointly responsible for implementing the maximum benefit commitments for the San Timoteo MZ along with the City of Beaumont and STWMA.

Permitting Issues

Since 2009, the Beaumont Cherry Valley Water District (BCVWD) has been working with Regional Board staff to obtain a recycled water permit to utilize various sources of water for non-potable use and for recharge in the Beaumont MZ. BCVWD is proposing to use recycled water from both the Yucaipa Valley Water District (YVWD) and the City of Beaumont, local groundwater, and imported SWP water. The ranges of anticipated flow and water quality for the YVWD recycled water and local groundwater for the near term (2015) and long term (2035), are described in a June 2, 2010 letter report submitted by BCVWD, which is attached as Exhibit A. These "new" sources of water – the YVWD recycled water and local groundwater – were not considered in the original model projections and analyses conducted by WEI in 2002. Therefore, the water quality impact of these "new" sources on the Beaumont MZ is unknown.

The City of Beaumont is also working with Regional Board staff to renew and update their Waste Discharge Requirements (WDRs) to increase the discharge from 4 MGD (approximately 4,484 acre-ft/year) to 8 MGD (8,968 acre-ft/year). Concurrently, YVWD has requested revisions to their WDRs to correct an error in the TDS limit for recycled water used for irrigation, and to include a provision allowing for the recharge of recycled water into the Beaumont MZ. YVWD's proposed irrigation use and recharge of recycled water in the Beaumont MZ was not considered in the original analysis by WEI, and the impact of these discharges needs to be evaluated.

Basin Plan Amendment Issues

As previously indicated, the Basin Plan specifies that STWMA and the City of Beaumont are responsible for implementing the maximum benefit commitments related to the Beaumont MZ. However, with the dissolution of STWMA, the responsibilities for carrying out the maximum benefit commitments in the Beaumont MZ need to be re-assessed. Some STWMA members, including BCVWD, the City of Beaumont and YVWD, continue to have and/or have expressed new interest in water management activities, including the use/increased use of recycled water, in the Beaumont MZ. Given this, it is necessary to reconsider the assigned responsibilities for implementing maximum benefit commitments for the Beaumont MZ. One STWMA member, South Mesa Water Company, has no interest in the Beaumont MZ, and should not be included in the maximum benefit program. In sum, the Basin Plan needs to be revised to incorporate changes in water resource and salt management, and maximum benefit implementation in the Beaumont MZ. To do so, an updated modeling analysis is necessary. It should be noted that this analysis is necessary in any case to support current permitting requests, described above. The analysis must include an assessment of salt liabilities by these agencies under the different management scenarios so that the responsibilities for maximum benefit implementation can be properly assigned.

Required Submittals

Consistent with the Salt Management Plan, you are hereby required to submit an updated analysis for the Beaumont MZ to the Regional Water Board as soon as possible, but **no later than November 30, 2010**. The analysis must include the following:

1) Updated planning information for the use of all sources of water by each agency in the Beaumont MZ. This updated information shall include flow, quality, and recharge or use location;

2) An update of the CSRM model to create 30-year TDS and nitrogen projections for the Beaumont MZ based on the full range of recycled water planning scenarios that are being considered; and

3) An assessment of the individual and cumulative water quality impact as a result of each agency's water management activities and calculation of the salt liability of all recycled water users in Beaumont MZ

The model analysis that is conducted must be consistent with the model analysis that was performed as part of the 2002 maximum benefit proposal.

We recommend that BCVWD, YVWD and the City of Beaumont conduct a single joint analysis. However, if each agency chooses to submit a separate analysis, it must include an assessment of all planned water uses by all agencies and include all the elements identified above.

Need for Technical Report

The Regional Water Board is charged with the protection of water quality in this Region. Unless properly managed, the discharge of salt or nitrogen as a result of water management activities in Beaumont MZ has the potential to contribute to the degradation of water quality and adversely affect beneficial uses. The technical report required by this Order is needed to determine the contribution of

salt and nitrogen from water use and water resource management activities. The data and information will assist efforts to carry out implementation of the maximum benefit program, as set forth in the Basin Plan, in the Beaumont MZ.

Evidence Supporting the Need for the Technical Reports

Monitoring and modeling conducted to develop the maximum benefit programs demonstrated that water management activities (e.g., irrigation use and recharge of recycled water) discharge salt and nitrogen to the Beaumont MZ. The evidence demonstrating that water management activities are sources of salt and nitrogen discharges is contained in letter report from STWMA "Revised San Timoteo Watershed Management Authority proposal for new total dissolved solids (TDS) and total inorganic nitrogen (TIN) water quality objectives for the Beaumont, San Timoteo, and Yucaipa management zones based on maximum beneficial use", and Exhibit A - TDS Budget Table, June 2002, and a letter report from BCVWD "Estimated Recycled Water and Imported Water Needs to Support Groundwater Quality Evaluation", June 2010. Based on these analyses, the three agencies have discharged, or are planning discharges that do and could potentially contribute salt and nitrogen loads in Beaumont MZ.

Burden and Cost of Technical Reports

The estimated cost of a single joint analysis is $36,000 (as reflected in the proposal to BCVWD and the City of Beaumont by WEI dated August 12, 2010). The three agencies can choose to share the cost of a single analysis and report, or prepare separate analyses and reports on their own. Logically, the cost of three separate analyses and reports will be higher. Since the analysis requires data and information from all three agencies, if the analysis is conducted separately for each agency, Regional Board staff estimates the total cost could potentially be $36,000 per agency for a total of $108,000.

Regardless of whether a single or combined analytical approach is selected, the costs of the technical reports required by this Order are justified. Without this information, we will not be able issue WDRs in a timely fashion. The preparation of the above report is also necessary to provide for continued implementation of the maximum benefit objectives for the Beaumont Management Zone.

Penalties

Though we are confident you will make every effort to comply with this Order in a timely manner, please be advised that pursuant to section 13268 of the California Water Code, failure to submit the required information by the specified compliance date, or falsifying any information provided therein, is a misdemeanor and may result in civil liability. Noncompliance may subject you to administrative civil liability in the amount of up to $1,000 for each day of violation. Compliance with this Order is not a substitute for compliance with other applicable laws and does not preclude action to enforce compliance with such other laws.

Appeal

Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. The State Board's website (http://www.swrcb.ca.gov/wqpetitions/index.html) contains detailed information regarding the petition process. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected

Exhibit B

by this Order may request the Regional Water Board to reconsider this Order. To be timely, such a request must be received within 30 days of the date of this Order. Note that even if reconsideration by the Regional Water Board is sought, filing a timely petition with the State Water Board is also necessary to preserve the petitioner's legal rights. If you choose to request reconsideration of this Order or file a petition with the State Water Board, be advised that you must comply with the Order while your request for reconsideration and/or petition is being considered.

If you have any questions regarding the Order, or wish to schedule a meeting to discuss, please contact, Dr. Cindy Li, Engineering Geologist, at (951) 782-4906 or cli@waterboards.ca.gov.

Sincerely,

Joanne E. Schneider
Division Chief

cc: Regional Board
David Rice, Office of Chief Counsel, SWRCB, DavidRice@waterboards.ca.gov

Attachment: Exhibit A - Estimate of Recycled Water and Imported Water Needs in support of Groundwater Quality Evaluation for Cherry Valley Water District Recycled Water Permit

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit C

Proposed Regional Groundwater and Surface Water Monitoring Program for the Beaumont Management Zone, the San Timoteo Management Zone and the Yucaipa Management Zone

The attached monitoring plan is currently being reviewed by the participating agencies. The document will be enhanced to include additional monitoring to demonstrate full compliance with the "maximum benefit" objectives based on the results of the meeting conducted on September 13, 2011.

Exhibit C

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Maximum Benefit Surface and Groundwater Monitoring Program for the Yucaipa, Beaumont and San Timoteo Management Zones

On January 22, 2004, the Santa Ana Regional Water Quality Control Board amended the Basin Plan with regard to TDS/Nitrogen Management in the Santa Ana River Watershed. In the Basin Plan amendment the Regional Water Quality Control Board found that appropriate beneficial use protection/maximum benefit demonstrations were made by the Yucaipa Valley Water District and the San Timoteo Watershed Management Authority to justify establishing alternative "maximum benefit" objectives for the Beaumont, San Timoteo and Yucaipa Groundwater Management Zones.

As part of the maximum benefit commitments, the Yucaipa Valley Water District, the members of the San Timoteo Watershed Management Authority, and the City of Beaumont have agreed to administer extensive and ongoing surface and groundwater monitoring programs in the Beaumont, San Timoteo, and Yucaipa Management Zones. With the dissolution of the San Timoteo Watershed Management Authority, it has become necessary to fully reevaluate the groundwater and surface water monitoring program and directly assign monitoring responsibilities to the City of Banning, City of Beaumont, Beaumont Cherry Valley Water District, the San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District.

The following monitoring program has been developed to provide a common sense approach to ongoing water resource monitoring currently performed by each agency.

Beaumont, San Timoteo and Yucaipa Management Zone Surface Water Monitoring and Sampling Program

Surface water in the Yucaipa Management Zone is monitored for ground water recharge. Recharge by Yucaipa Valley Water District consists of State Project Water disbursement into either the Wilson Creek or Oak Glen spreading basins. Total recharge is determined by the amount of Imported State Water purchased and water quality samples are collected monthly for the duration of the discharge. The parameters for water quality are listed in Table 2. Storm water is monitored in a similar manner.

Pre-established surface water monitoring sites in the Beaumont, Yucaipa and San Timoteo Watershed are monitored bi-weekly for total discharge and field measurements (Table 2) consisting of temperature, pH, electrical conductivity, and dissolved oxygen content. Water quality samples are collected and analyzed for total inorganic nitrogen using ammonia, nitrate and nitrite as the dominant nitrogen species. Samples are also analyzed for total dissolved solids and turbidity. Additional alterations to current sites are provided in footnotes to Table 1.

Surface water monitoring in the San Timoteo Management Zone is performed on a bi-weekly schedule. Discharge and field measurements are taken at each location and a water quality sample is collected for analysis of the parameters listed in Table 2.

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit C

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Table 1: Surface Water Monitoring Sites in Beaumont, San Timoteo, and Yucaipa Management Zones

Site ID	Site Name	Discharge Description	Monitoring Agency
San Timoteo Management Zone			
YVWD-A	Above YVWD Recycled Water Discharge	San Timoteo Creek	YVWD
YVWD WWTP	YVWD Wastewater Treatment Facility	Recycled Water Effluent	YVWD
YVWD-B	Above confluence with Yucaipa Creek	San Timoteo Creek	YVWD
YVWD-C	Above levy system and concrete channel	San Timoteo Creek	YVWD
YVWD-D†	Concrete Channel at Barton Road	San Timoteo Creek	YVWD
YVWD-E	11055700 Gage	San Timoteo Creek	YVWD
YVWD-F	Santa Ana River above confluence	Santa Ana River	YVWD
YVWD-G	11059300 Gage, below confluence	Santa Ana River	YVWD
STWMA-2	San Timoteo Canyon Rd's 1st crossing w/ San Timoteo Creek	San Timoteo Creek & Ground water	Beaumont
Beaumont Management Zone			
BWWTP	Beaumont Wastewater TP #1	Recycled Water Effluent	Beaumont
STWMA-1*	Confluence of Noble and Marshal creeks	San Timoteo Creek	BCVWD
STWMA-3	Coopers Creek below BWWTP outfall	Coopers Creek	Beaumont
STWMA-4*	Above confluence w/ Noble Creek	Little San Gorgonio Creek	BCVWD
STWMA-5*	Above confluence w/ Marshal Creek at BCVWD recharge site	Noble Creek	BCVWD
STWMA-6/8	At Devil's Canyon	State Project Water	SGPWA
BMZ-5	Un-named creek behind Lowe's Distribution Center w/ mountain front runoff into BCVWD recharge facility	Un-named creek/stormwater runoff	BCVWD
STWMA-7	Oak Glen Road above entrance to BCVWD recharge facility	Stormwater/recharge	Beaumont
BMZ-6	At SGPWA recharge facility for State Project Water on Noble Creek	Noble Creek	BCVWD
BMZ-1	At Brookside Ave.	Mountain View Channel	BCVWD
BMZ-2	Stormwater detention pond @ Highland Springs & Eighth St	Stormwater/recharge	Beaumont
BMZ-3	Stormwater detention pond on Eighth St E/o Cherry Ave	Stormwater/recharge	Beaumont
BMZ-4	Where Smith Creek crosses Wilson St.	Smith Creek	Banning
Yucaipa Management Zone			
YMZ-1	Wilson and/or Oak Glen spreading basins	State Project Water for Groundwater recharge	YVWD
YMZ-2	Wilson and/or Oak Glen spreading basins	Stormwater runoff for Groundwater recharge	YVWD

*Previously monitored by City of Beaumont- BCVWD will assume responsibility pending approval by the Regional Board.

†Site has proven problematic for monitoring. Currently surface water entrance into concrete channel is covered with sediment. San Bernardino County Flood Control District estimates channel will be cleared by April 2012. Not recommending site for monitoring.

Table 2: Surface Water Monitoring Program Parameters		
Field Measurements	Bi-weekly water quality samples	Groundwater recharge
Temperature	Total Dissolved Solids (TDS)	Total Dissolved Solids (TDS)
Conductivity	Turbidity	Nitrate-Nitrogen
pH	Ammonia-Nitrogen	
Dissolved Oxygen	Nitrate-Nitrogen	
	Nitrite-Nitrogen	
	Total Inorganic Nitrogen (TIN)	

In addition to these surface sites, results from YVWD's Wochholz Regional Water Recycling Facility (WRWRF) and the City of Beaumont's WWTP no. 1 final effluent monitoring for monthly NPDES reporting and daily discharge are reported (Table 3).

Table 3: Wochholz Regional Water Recycling Facility and Beaumont Wastewater Treatment Plant parameters reported for surface water monitoring program			
Monthly WWTP reporting	Quarterly WWTP reporting		
Ammonia-Nitrogen	Arsenic	Barium	Boron
Nitrate-Nitrogen	Cadmium	Calcium	Cobalt
Nitrite-Nitrogen	Copper	Carbonate	Bicarbonate
Total Inorganic Nitrogen (TIN)	Lead	Chloride	Fluoride
12-month Average TIN	Iron	Mercury	Magnesium
Total Dissolved Solids (TDS)	Nickel	Manganese	Selenium
12-month Average TDS	Sodium	Silver	Sulfate
Total Hardness	Aluminum	Total Chromium	
Free Cyanide	Total Organic Carbon, TOC		Zinc
Total Suspended Solids (TSS)	Benzene	Dibromochloromethane	
Bis(2-ethylhexyl)phthalate	Bromodichloromethane		Chloroform

Exhibit C

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Groundwater Monitoring and Sampling in the Beaumont, San Timoteo and Yucaipa Management Zones

Ground water level measurements are taken monthly for all monitored wells in Beaumont, San Timoteo and Yucaipa Management Zones with one exception. It is not possible to measure ground water level at San Timoteo Management Zone GW-3, a privately owned well. Ground water levels are assumed to be similar to Yucaipa Valley Water District owned well, MW-3, located approximately 50 feet from GW-3. Yucaipa Valley Water District gathers data on ground water level and quality for those wells located within YMZ but not under its direct jurisdiction on an annual basis for inclusion in the annual RWQCB report.

Table 4: Groundwater Monitoring Sites in the San Timoteo Management Zone

Well ID	Description	Data type	Monitoring Agency
MW-1 (1221779)	San Timoteo Canyon Rd.	Level only	YVWD
MW-2 (1221780)	Alessandro St.	Level & Quality	YVWD
MW-3 (1221781)	Live Oak/San Timoteo Canyon	Level & Quality	YVWD
MW-4 (1221782)	above WWTP outfall pipe	Level & Quality	YVWD
MW-5A (1222103)	San Timoteo Canyon Rd.	Level & Quality	YVWD
MW-5B (1222104)	San Timoteo Canyon Rd.	Level & Quality	YVWD
MW-5C (1222105)	San Timoteo Canyon Rd.	Level & Quality	YVWD
GW-3 (1222106)	Live Oak/San Timoteo- Private well	Quality Only	YVWD
GL-8 (1201605)	San Timoteo Canyon Rd-orchard	Level only	YVWD
GL-6 (1003044)	O. Hudson property on Live Oak Canyon Rd	Level & Quality	YVWD
BH-9 (1220051)	1.25" pvc pipe-Live Oak Canyon	Level & Quality	YVWD
Heartland well (1208660)	Owned by City of Beaumont	Level & Quality	Beaumont
San Tim-1 (1222061)	Owned by City of Beaumont	Level & Quality	Beaumont
San Tim-2B/1 (1222079)	Owned by City of Beaumont	Level & Quality	Beaumont
San Tim-2B/2 (1222080)	Owned by City of Beaumont	Level & Quality	Beaumont
1207756	East Valley Golf Club: 335645117024201	Level only	Beaumont
Well 2 (1201582)	Fisherman's Retreat	Level & Quality	Beaumont
Well 1 (1003079)	Fisherman's Retreat	Quality Only	Beaumont
ONE (1003049)	El Casco Lake Ranch	Level & Quality	Beaumont
1003049 (1003048)	Chester Hildebrand property	Level only	Beaumont
BH-19 (1220052)	Metropolitan Water District well	Level & Quality	Beaumont
Well 1 (1201539)	MCM poultry	Level & Quality	Beaumont

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit C

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Table 5: Ground Water Monitoring Program Sites in the Yucaipa Management Zone			
Site ID	Monitoring Entity	Site ID	Monitoring Entity
Pendleton	YVWD	WHWC 02A	Western Heights WC
Wilson B	YVWD	WHWC 03	Western Heights WC
YVWD 02	YVWD	WHWC 06B	Western Heights WC
YVWD 05	YVWD	WHWC 09	Western Heights WC
YVWD 06	YVWD	WHWC 10	Western Heights WC
YVWD 07	YVWD	WHWC 11	Western Heights WC
YVWD 10	YVWD	WHWC 12	Western Heights WC
YVWD 12	YVWD	WHWC 14	Western Heights WC
YVWD 13	YVWD	5th Ave 1	City of Redlands
YVWD 14	YVWD	CHICKNH4	City of Redlands
YVWD 16	YVWD	HOG CYN 2	City of Redlands
YVWD 18	YVWD	Redlands 10	City of Redlands
YVWD 24	YVWD	Redlands 11	City of Redlands
YVWD 25	YVWD	Redlands 12	City of Redlands
YVWD 26	YVWD	Redlands 13	City of Redlands
YVWD 27	YVWD	Redlands 14	City of Redlands
YVWD 27A	YVWD	Redlands 16	City of Redlands
YVWD 28	YVWD	Redlands 17	City of Redlands
YVWD 37	YVWD	Redlands 36	City of Redlands
YVWD 43	YVWD	Redland Hts	City of Redlands
YVWD 44	YVWD	Yucaipa Well	City of Redlands
YVWD 46	YVWD	Y-02	County of San Bernardino
YVWD 49	YVWD	Y-03	County of San Bernardino
YVWD 50	YVWD	Y-04	County of San Bernardino
YVWD 53	YVWD	Y-05	County of San Bernardino
YVWD 54	YVWD	Y-08	County of San Bernardino
YVWD 55	YVWD	Y-09A	County of San Bernardino
YVWD 56	YVWD	Y-09B	County of San Bernardino
GL-1	YVWD	Y-10A	County of San Bernardino
GL-2	YVWD	Y-10B	County of San Bernardino
GL-3	YVWD	Y-11A	County of San Bernardino
GL-4	YVWD	Y-11B	County of San Bernardino
GL-5	YVWD	Y-12	County of San Bernardino
		Y-13	County of San Bernardino
SMWC 01	South Mesa WC	Y-14	County of San Bernardino
SMWC 03	South Mesa WC	Y-15	County of San Bernardino
SMWC 05	South Mesa WC	Y-16	County of San Bernardino
SMWC 07	South Mesa WC	Y-17	County of San Bernardino
SMWC 09	South Mesa WC	Y-18	County of San Bernardino
SMWC 11	South Mesa WC	Y-19	County of San Bernardino
SMWC 12	South Mesa WC	Y-21	County of San Bernardino
SMWC 16	South Mesa WC	Y-22	County of San Bernardino

Table 6: Beaumont Management Zone Ground Water Monitoring Sites.		
Well ID	Description	Monitoring Entity
1	Beaumont Basin Well	BCVWD
3	Beaumont Basin Well	BCVWD
16	Beaumont Basin Well	BCVWD
21	Beaumont Basin Well	BCVWD
22	Beaumont Basin Well	BCVWD
23	Beaumont Basin Well	BCVWD
24	Beaumont Basin Well	BCVWD
25	Beaumont Basin Well	BCVWD
26	Beaumont Basin Well	BCVWD
29	Beaumont Basin Well	BCVWD
4A	Edgar Canyon Well	BCVWD
5	Edgar Canyon Well	BCVWD
6	Edgar Canyon Well	BCVWD
12	Edgar Canyon Well	BCVWD
19	Edgar Canyon Well	BCVWD
MW-1	BMZ Monitoring Well	BCVWD
MW-2	BMZ Monitoring Well	BCVWD
MW-3 Deep	BMZ Monitoring Well	BCVWD
MW-3 Shallow	BMZ Monitoring Well	BCVWD
MW-4 Deep	BMZ Monitoring Well	BCVWD
MW-4 Shallow	BMZ Monitoring Well	BCVWD
MW-5 Deep	BMZ Monitoring Well	BCVWD
MW-5 Shallow	BMZ Monitoring Well	BCVWD
Well 48	YVWD Production Well	YVWD
C2A	City of Banning Source Well	City of Banning
C3	City of Banning Source Well	City of Banning
M3	City of Banning Source Well	City of Banning

Ground water quality (Table 7) is measured annually in San Timoteo Management Zone and according to Title 22 of the California Code of Regulations cycle sampling schedule for production wells in the Yucaipa Management Zone.

Wells are sampled annually until 3 consecutive years of qualifying data are gathered. At which point water quality samples need only be collected on a triennial basis for participation in the recalculation of ambient ground water quality stipulated by the Santa Ana River Basin Plan (2004).

Recharge to Yucaipa Management Zone is either storm water or State Project water and is monitored for total recharge (volume), nitrate and total dissolved solids.

Table 7: Ground Water Monitoring Parameters in Beaumont, San Timoteo and Yucaipa Management Zones		
Field Measurements	Water Quality Parameters	
Temperature	Total Dissolved Solids (TDS)	Chloride
Conductivity	Nitrate-Nitrogen or Nitrate as nitrate	Fluoride
pH	Total Alkalinity (as $CaCO_3$)	Potassium
	Carbonate and Bicarbonate	Sodium
	Silica (as SiO_3)	Sulfate
	Total Hardness (includes Ca and Mg)	

Reporting Requirements

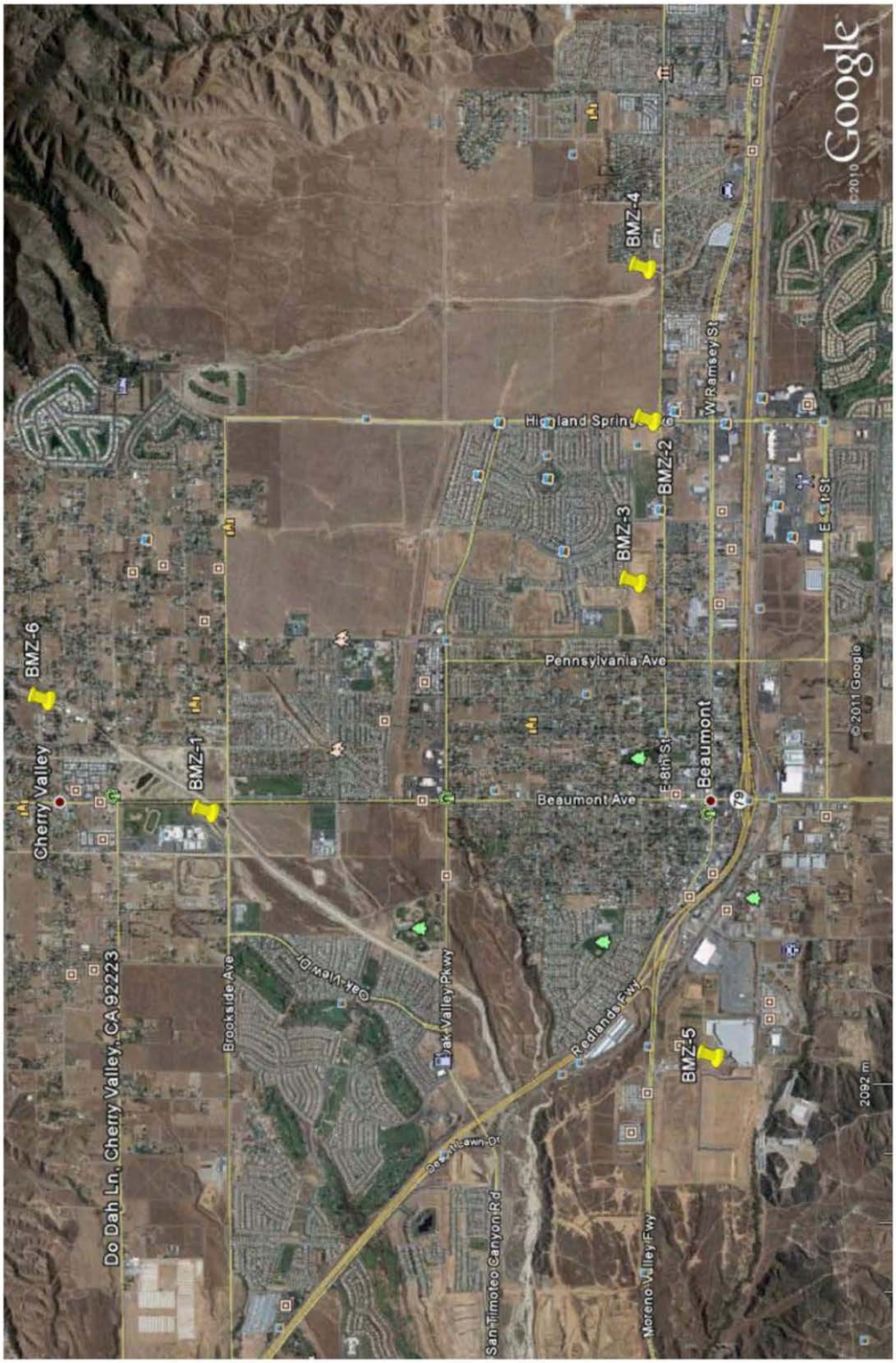
A summary of surface water monitoring activities within the San Timoteo Management Zone is provided to the Santa Ana Regional Water Quality Control Board quarterly. Ground water levels are measured on a monthly basis and reported annually along with ground water quality results.

A complete report of all San Timoteo and Yucaipa Management Zones is combined with the City of Beaumont's similar compilation of their efforts within the Beaumont Management Zone and STMZ; the results are interpreted and presented to RWQCB annually on or before April 15 of each year.

Preliminary Document - Subject to Independent Modification
September 18, 2011

Exhibit C

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION



DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Maximum Benefit Surface and Groundwater Monitoring Program for the Yucaipa, Beaumont and San Timoteo Management Zones

On January 22, 2004, the Santa Ana Regional Water Quality Control Board amended the Basin Plan with regard to TDS/Nitrogen Management in the Santa Ana River Watershed. In the Basin Plan amendment the Regional Water Quality Control Board found that appropriate beneficial use protection/maximum benefit demonstrations were made by the Yucaipa Valley Water District and the San Timoteo Watershed Management Authority to justify establishing alternative "maximum benefit" objectives for the Beaumont, San Timoteo and Yucaipa Groundwater Management Zones.

As part of the maximum benefit commitments, the Yucaipa Valley Water District, the members of the San Timoteo Watershed Management Authority, and the City of Beaumont have agreed to administer extensive and ongoing surface and groundwater monitoring programs in the Beaumont, San Timoteo, and Yucaipa Management Zones. With the dissolution of the San Timoteo Watershed Management Authority, it has become necessary to fully reevaluate the groundwater and surface water monitoring program and directly assign monitoring responsibilities to the City of Banning, City of Beaumont, Beaumont Cherry Valley Water District, the San Gorgonio Pass Water Agency, and the Yucaipa Valley Water District.

The following monitoring program has been developed to provide a common sense approach to ongoing water resource monitoring currently performed by each agency.

Beaumont, San Timoteo and Yucaipa Management Zone Surface Water Monitoring and Sampling Program

Surface water in the Yucaipa Management Zone is monitored for ground water recharge. Recharge by Yucaipa Valley Water District consists of State Project Water disbursement into either the Wilson Creek or Oak Glen spreading basins. Total recharge is determined by the amount of Imported State Water purchased and water quality samples are collected monthly for the duration of the discharge. The parameters for water quality are listed in Table 2. Storm water is monitored in a similar manner.

Pre-established surface water monitoring sites in the Beaumont, Yucaipa and San Timoteo Watershed are monitored bi-weekly for total discharge and field measurements (Table 2) consisting of temperature, pH, electrical conductivity, and dissolved oxygen content. Water quality samples are collected and analyzed for total inorganic nitrogen using ammonia, nitrate and nitrite as the dominant nitrogen species. Samples are also analyzed for total dissolved solids and turbidity. Additional alterations to current sites are provided in footnotes to Table 1.

Surface water monitoring in the San Timoteo Management Zone is performed on a bi-weekly schedule. Discharge and field measurements are taken at each location and a water quality sample is collected for analysis of the parameters listed in Table 2.

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Table 1: Surface Water Monitoring Sites in Beaumont, San Timoteo, and Yucaipa Management Zones			
Site ID	Site Name	Discharge Description	Monitoring Agency
San Timoteo Management Zone			
YVWD-A	Above YVWD Recycled Water Discharge	San Timoteo Creek	YVWD
YVWD WWTP	YVWD Wastewater Treatment Facility	Recycled Water Effluent	YVWD
YVWD-B	Above confluence with Yucaipa Creek	San Timoteo Creek	YVWD
YVWD-C	Above levy system and concrete channel	San Timoteo Creek	YVWD
YVWD-D†	Concrete Channel at Barton Road	San Timoteo Creek	YVWD
YVWD-E	11055700 Gage	San Timoteo Creek	YVWD
YVWD-F	Santa Ana River above confluence	Santa Ana River	YVWD
YVWD-G	11059300 Gage, below confluence	Santa Ana River	YVWD
STWMA-2	San Timoteo Canyon Rd's 1st crossing w/ San Timoteo Creek	San Timoteo Creek & Ground water	Beaumont
Beaumont Management Zone			
BWWTP	Beaumont Wastewater TP #1	Recycled Water Effluent	Beaumont
STWMA-1*	Confluence of Noble and Marshal creeks	San Timoteo Creek	BCVWD
STWMA-3	Coopers Creek below BWWTP outfall	Coopers Creek	Beaumont
STWMA-4*	Above confluence w/ Noble Creek	Little San Gorgonio Creek	BCVWD
STWMA-5*	Above confluence w/ Marshal Creek at BCVWD recharge site	Noble Creek	BCVWD
STWMA-6/8	At Devil's Canyon	State Project Water	SGPWA
BMZ-5	Un-named creek behind Lowe's Distribution Center w/ mountain front runoff into BCVWD recharge facility	Un-named creek/stormwater runoff	BCVWD
STWMA-7	Oak Glen Road above entrance to BCVWD recharge facility	Stormwater/recharge	Beaumont
BMZ-6	At SGPWA recharge facility for State Project Water on Noble Creek	Noble Creek	BCVWD
BMZ-1	At Brookside Ave.	Mountain View Channel	BCVWD
BMZ-2	Stormwater detention pond @ Highland Springs & Eighth St	Stormwater/recharge	Beaumont
BMZ-3	Stormwater detention pond on Eighth St E/o Cherry Ave	Stormwater/recharge	Beaumont
BMZ-4	Where Smith Creek crosses Wilson St.	Smith Creek	Banning
Yucaipa Management Zone			
YMZ-1	Wilson and/or Oak Glen spreading basins	State Project Water for Groundwater recharge	YVWD
YMZ-2	Wilson and/or Oak Glen spreading basins	Stormwater runoff for Groundwater recharge	YVWD

*Previously monitored by City of Beaumont- BCVWD will assume responsibility pending approval by the Regional Board.

†Site has proven problematic for monitoring. Currently surface water entrance into concrete channel is covered with sediment. San Bernardino County Flood Control District estimates channel will be cleared by April 2012. Not recommending site for monitoring.

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Table 2: Surface Water Monitoring Program Parameters		
Field Measurements	Bi-weekly water quality samples	Groundwater recharge
Temperature	Total Dissolved Solids (TDS)	Total Dissolved Solids (TDS)
Conductivity	Turbidity	Nitrate-Nitrogen
pH	Ammonia-Nitrogen	
Dissolved Oxygen	Nitrate-Nitrogen	
	Nitrite-Nitrogen	
	Total Inorganic Nitrogen (TIN)	

In addition to these surface sites, results from YVWD's Wochholz Regional Water Recycling Facility (WRWRF) and the City of Beaumont's WWTP no. 1 final effluent monitoring for monthly NPDES reporting and daily discharge are reported (Table 3).

Table 3: Wochholz Regional Water Recycling Facility and Beaumont Wastewater Treatment Plant parameters reported for surface water monitoring program			
Monthly WWTP reporting	Quarterly WWTP reporting		
Ammonia-Nitrogen	Arsenic	Barium	Boron
Nitrate-Nitrogen	Cadmium	Calcium	Cobalt
Nitrite-Nitrogen	Copper	Carbonate	Bicarbonate
Total Inorganic Nitrogen (TIN)	Lead	Chloride	Fluoride
12-month Average TIN	Iron	Mercury	Magnesium
Total Dissolved Solids (TDS)	Nickel	Manganese	Selenium
12-month Average TDS	Sodium	Silver	Sulfate
Total Hardness	Aluminum	Total Chromium	
Free Cyanide	Total Organic Carbon, TOC		Zinc
Total Suspended Solids (TSS)	Benzene	Dibromochloromethane	
Bis(2-ethylhexyl)phthalate	Bromodichloromethane		Chloroform

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Groundwater Monitoring and Sampling in the Beaumont, San Timoteo and Yucaipa Management Zones

Ground water level measurements are taken monthly for all monitored wells in Beaumont, San Timoteo and Yucaipa Management Zones with one exception. It is not possible to measure ground water level at San Timoteo Management Zone GW-3, a privately owned well. Ground water levels are assumed to be similar to Yucaipa Valley Water District owned well, MW-3, located approximately 50 feet from GW-3. Yucaipa Valley Water District gathers data on ground water level and quality for those wells located within YMZ but not under its direct jurisdiction on an annual basis for inclusion in the annual RWQCB report.

Table 4: Groundwater Monitoring Sites in the San Timoteo Management Zone

Well ID	Description	Data type	Monitoring Agency
MW-1 (1221779)	San Timoteo Canyon Rd.	Level only	YVWD
MW-2 (1221780)	Alessandro St.	Level & Quality	YVWD
MW-3 (1221781)	Live Oak/San Timoteo Canyon	Level & Quality	YVWD
MW-4 (1221782)	above WWTP outfall pipe	Level & Quality	YVWD
MW-5A (1222103)	San Timoteo Canyon Rd.	Level & Quality	YVWD
MW-5B (1222104)	San Timoteo Canyon Rd.	Level & Quality	YVWD
MW-5C (1222105)	San Timoteo Canyon Rd.	Level & Quality	YVWD
GW-3 (1222106)	Live Oak/San Timoteo- Private well	Quality Only	YVWD
GL-8 (1201605)	San Timoteo Canyon Rd-orchard	Level only	YVWD
GL-6 (1003044)	O. Hudson property on Live Oak Canyon Rd	Level & Quality	YVWD
BH-9 (1220051)	1.25" pvc pipe-Live Oak Canyon	Level & Quality	YVWD
Heartland well (1208660)	Owned by City of Beaumont	Level & Quality	Beaumont
San Tim-1 (1222061)	Owned by City of Beaumont	Level & Quality	Beaumont
San Tim-2B/1 (1222079)	Owned by City of Beaumont	Level & Quality	Beaumont
San Tim-2B/2 (1222080)	Owned by City of Beaumont	Level & Quality	Beaumont
1207756	East Valley Golf Club: 335645117024201	Level only	Beaumont
Well 2 (1201582)	Fisherman's Retreat	Level & Quality	Beaumont
Well 1 (1003079)	Fisherman's Retreat	Quality Only	Beaumont
ONE (1003049)	El Casco Lake Ranch	Level & Quality	Beaumont
1003049 (1003048)	Chester Hildebrand property	Level only	Beaumont
BH-19 (1220052)	Metropolitan Water District well	Level & Quality	Beaumont
Well 1 (1201539)	MCM poultry	Level & Quality	Beaumont

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Table 5: Ground Water Monitoring Program Sites in the Yucaipa Management Zone			
Site ID	Monitoring Entity	Site ID	Monitoring Entity
Pendleton	YVWD	WHWC 02A	Western Heights WC
Wilson B	YVWD	WHWC 03	Western Heights WC
YVWD 02	YVWD	WHWC 06B	Western Heights WC
YVWD 05	YVWD	WHWC 09	Western Heights WC
YVWD 06	YVWD	WHWC 10	Western Heights WC
YVWD 07	YVWD	WHWC 11	Western Heights WC
YVWD 10	YVWD	WHWC 12	Western Heights WC
YVWD 12	YVWD	WHWC 14	Western Heights WC
YVWD 13	YVWD	5th Ave 1	City of Redlands
YVWD 14	YVWD	CHICKNH4	City of Redlands
YVWD 16	YVWD	HOG CYN 2	City of Redlands
YVWD 18	YVWD	Redlands 10	City of Redlands
YVWD 24	YVWD	Redlands 11	City of Redlands
YVWD 25	YVWD	Redlands 12	City of Redlands
YVWD 26	YVWD	Redlands 13	City of Redlands
YVWD 27	YVWD	Redlands 14	City of Redlands
YVWD 27A	YVWD	Redlands 16	City of Redlands
YVWD 28	YVWD	Redlands 17	City of Redlands
YVWD 37	YVWD	Redlands 36	City of Redlands
YVWD 43	YVWD	Redland Hts	City of Redlands
YVWD 44	YVWD	Yucaipa Well	City of Redlands
YVWD 46	YVWD	Y-02	County of San Bernardino
YVWD 49	YVWD	Y-03	County of San Bernardino
YVWD 50	YVWD	Y-04	County of San Bernardino
YVWD 53	YVWD	Y-05	County of San Bernardino
YVWD 54	YVWD	Y-08	County of San Bernardino
YVWD 55	YVWD	Y-09A	County of San Bernardino
YVWD 56	YVWD	Y-09B	County of San Bernardino
GL-1	YVWD	Y-10A	County of San Bernardino
GL-2	YVWD	Y-10B	County of San Bernardino
GL-3	YVWD	Y-11A	County of San Bernardino
GL-4	YVWD	Y-11B	County of San Bernardino
GL-5	YVWD	Y-12	County of San Bernardino
		Y-13	County of San Bernardino
SMWC 01	South Mesa WC	Y-14	County of San Bernardino
SMWC 03	South Mesa WC	Y-15	County of San Bernardino
SMWC 05	South Mesa WC	Y-16	County of San Bernardino
SMWC 07	South Mesa WC	Y-17	County of San Bernardino
SMWC 09	South Mesa WC	Y-18	County of San Bernardino
SMWC 11	South Mesa WC	Y-19	County of San Bernardino
SMWC 12	South Mesa WC	Y-21	County of San Bernardino
SMWC 16	South Mesa WC	Y-22	County of San Bernardino

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

Table 6: Beaumont Management Zone Ground Water Monitoring Sites.		
Well ID	Description	Monitoring Entity
1	Beaumont Basin Well	BCVWD
3	Beaumont Basin Well	BCVWD
16	Beaumont Basin Well	BCVWD
21	Beaumont Basin Well	BCVWD
22	Beaumont Basin Well	BCVWD
23	Beaumont Basin Well	BCVWD
24	Beaumont Basin Well	BCVWD
25	Beaumont Basin Well	BCVWD
26	Beaumont Basin Well	BCVWD
29	Beaumont Basin Well	BCVWD
4A	Edgar Canyon Well	BCVWD
5	Edgar Canyon Well	BCVWD
6	Edgar Canyon Well	BCVWD
12	Edgar Canyon Well	BCVWD
19	Edgar Canyon Well	BCVWD
MW-1	BMZ Monitoring Well	BCVWD
MW-2	BMZ Monitoring Well	BCVWD
MW-3 Deep	BMZ Monitoring Well	BCVWD
MW-3 Shallow	BMZ Monitoring Well	BCVWD
MW-4 Deep	BMZ Monitoring Well	BCVWD
MW-4 Shallow	BMZ Monitoring Well	BCVWD
MW-5 Deep	BMZ Monitoring Well	BCVWD
MW-5 Shallow	BMZ Monitoring Well	BCVWD
Well 48	YVWD Production Well	YVWD
C2A	City of Banning Source Well	City of Banning
C3	City of Banning Source Well	City of Banning
M3	City of Banning Source Well	City of Banning

Ground water quality (Table 7) is measured annually in San Timoteo Management Zone and according to Title 22 of the California Code of Regulations cycle sampling schedule for production wells in the Yucaipa Management Zone.

Wells are sampled annually until 3 consecutive years of qualifying data are gathered. At which point water quality samples need only be collected on a triennial basis for participation in the recalculation of ambient ground water quality stipulated by the Santa Ana River Basin Plan (2004).

Recharge to Yucaipa Management Zone is either storm water or State Project water and is monitored for total recharge (volume), nitrate and total dissolved solids.

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION

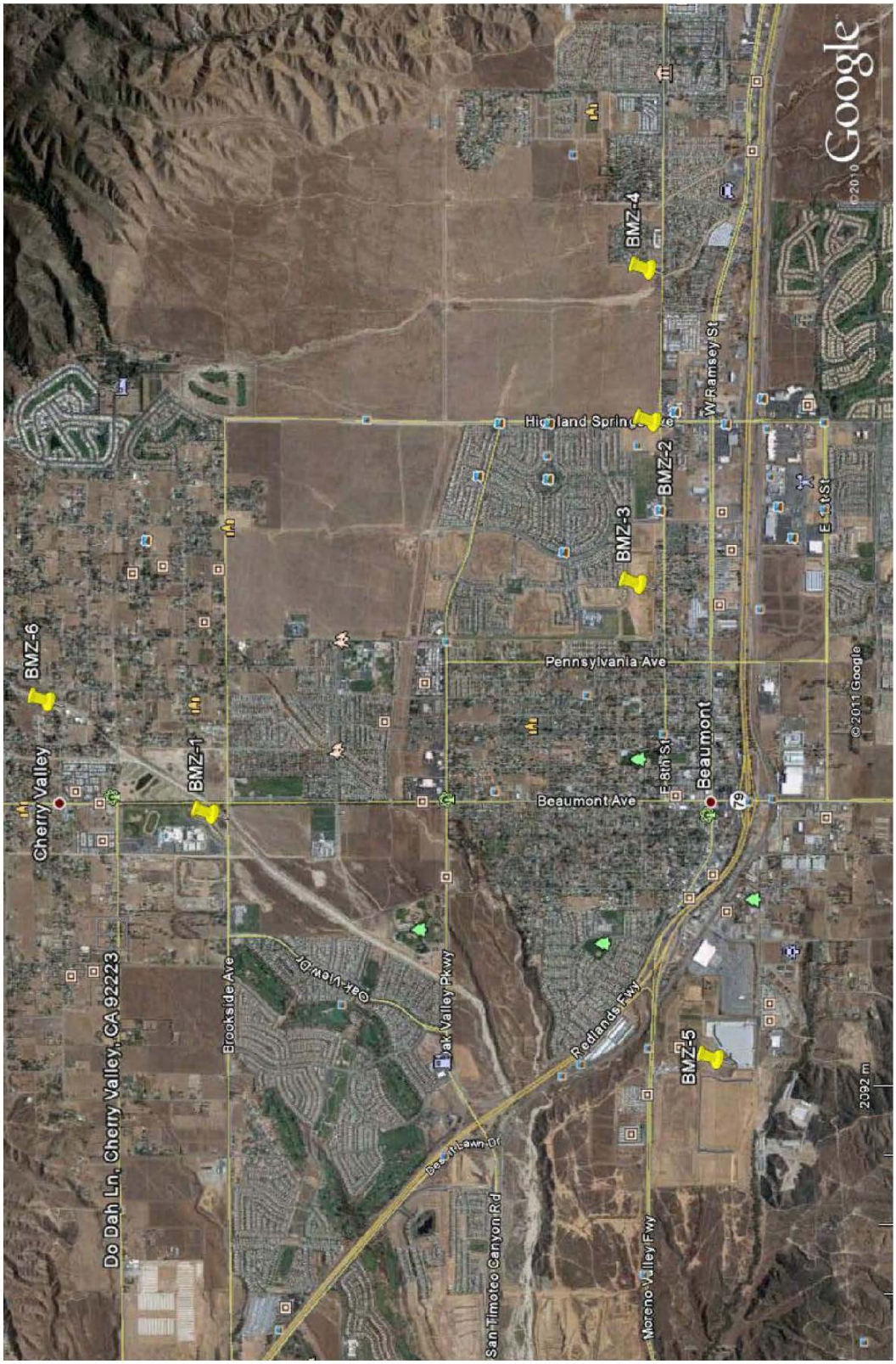
Table 7: Ground Water Monitoring Parameters in Beaumont, San Timoteo and Yucaipa Management Zones		
Field Measurements	Water Quality Parameters	
Temperature	Total Dissolved Solids (TDS)	Chloride
Conductivity	Nitrate-Nitrogen or Nitrate as nitrate	Fluoride
pH	Total Alkalinity (as $CaCO_3$)	Potassium
	Carbonate and Bicarbonate	Sodium
	Silica (as SiO_3)	Sulfate
	Total Hardness (includes Ca and Mg)	

Reporting Requirements

A summary of surface water monitoring activities within the San Timoteo Management Zone is provided to the Santa Ana Regional Water Quality Control Board quarterly. Ground water levels are measured on a monthly basis and reported annually along with ground water quality results.

A complete report of all San Timoteo and Yucaipa Management Zones is combined with the City of Beaumont's similar compilation of their efforts within the Beaumont Management Zone and STMZ; the results are interpreted and presented to RWQCB annually on or before April 15 of each year.

DRAFT MONITORING PROGRAM - SUBJECT TO MODIFICATION



California Regional Water Quality Control Board
Santa Ana Region

3737 Main Street, Suite 500, Riverside, California92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288
www.waterboards.ca.gov/santaana

Matthew Rodriquez
Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

RECEIVED
JAN 25 2012
YUCAIPA VALLEY WATER DISTRICT

January 23, 2012

Joe Zoba, General Manager
Yucaipa Valley Water District
12770 Second Street
Yucaipa, CA 92399

Eric Fraser, General Manager
Beaumont Cherry Valley Water District
560 Magnolia Avenue
Beaumont, CA 92223

Duane Burk, Director of Public Works
City of Banning
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220-0998

Jeff Davis, General Manager
San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, CA 92223

Allen Kapanicas, City Manager
City of Beaumont
550 East 6th Street
Beaumont, CA 92223

COMMENTS ON THE PROPOSALS TO IMPLEMENT MAXIMUM BENEFIT COMMITMENTS FOR THE BEAUMONT GROUNDWATER MANAGEMENT ZONE

Gentlemen:

We have reviewed the *Proposed Regional Implementation of Maximum Benefit Commitments for the Beaumont Management Zone (Preliminary Draft)* submitted by the City of Banning, Beaumont Cherry Valley Water District, San Gorgonio Pass Water Agency and Yucaipa Valley Water District (hereinafter, the YVWD *et al* proposal) dated September 20, 2011, and the City of Beaumont's comment letter and proposal for a maximum benefit program (hereinafter, the Beaumont proposal) dated November 23, 2011. Both the YVWD *et al* and Beaumont proposals were prepared as a final element in compliance with the California Water Code Section 13267 Order issued in September 2010, to support permit application and revision for new discharge and recharge

projects in the Beaumont groundwater management zone (GMZ), and to address changes in stakeholder responsibilities for carrying out the maximum benefit commitments that were identified in the 2004 Basin Plan Amendment. Both the YVWD *et al* and Beaumont proposals were submitted after the completion of a modeling analysis conducted by Wildermuth Environmental Inc. on behalf of all the agencies named in this letter (May 2011). The model considered the new water planning data provided by the agencies to generate 30-year projections of the ambient total dissolved solids (TDS) and nitrate-nitrogen concentrations for the Beaumont GMZ under 6 scenarios and 8 sub-scenarios. The projections show that the ambient TDS concentration for the Beaumont GMZ will increase over time, with the worst-case scenario (when all agencies use recycled water without compliance with Basin Plan objectives or compliance with the recycled water recharge regulations by the California Department of Public Health) resulting in the TDS concentration exceeding the maximum benefit objective of 330 mg/L in approximately 2027. Under the best case scenario, *i.e.*, when recycled water is desalted to the maximum benefit TDS objective of 330 mg/L beginning in 2020, the ambient TDS concentration of the Beaumont GMZ is projected to exceed the objective in 2032.

We have the following comments on the submitted proposals:

The YVWD *et al* Proposal

The YVWD *et al* proposal consists of a regional approach with multi-agency participation. Specifically, the proposal recommends that the 10-year running average TDS quality of recycled water, used for irrigation, surface discharge or recharge (planned or incidental), be better than or at the maximum benefit objectives of the particular GMZ where the recycled water is used or applied, *i.e.,*

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

This proposal relies on the fact that the reverse osmosis system at the Wochholz Regional Water Recycling Facility will be operational in **January 2014**. Compliance would be measured in the recycled water system for irrigation use and/or at the point of discharge for discharge and recharge activities. The proposal proponents expect to achieve compliance by blending or desalting the recycled water supply.

All agencies that have signed onto the YVWD *et al* proposal (City of Banning, Beaumont Cherry Valley Water District, San Gorgonio Pass Water Agency and Yucaipa Valley Water District) have 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 GMZ. The commitments include surface and groundwater monitoring and reporting, building a desalter and brineline facility, providing recycled water for non-potable water supply, recharging recycled water and determining ambient groundwater quality. These commitments are the same as those

specified in the Basin Plan Table 5-10a; however, the YVWD *et al* proposal does not address the commitments specific to the City of Beaumont's recycled water as specified in Table 5-10a.

We believe the YVWD *et al* proposal is viable and provides reasonable assurance for protection of the water quality and beneficial uses of the Beaumont GMZ for a reasonable time period (*e.g.*, 20 years). We encourage all agencies that have signed on to this proposal to formalize the agreement and to submit a signed agreement to the Regional Board by June 30, 2012, demonstrating how these agencies intend to share the responsibility and financial burden to implement these commitments.

The Beaumont Proposal

As indicated in the Beaumont proposal, the City of Beaumont has complied with some of the maximum benefit commitments, such as surface and groundwater monitoring and reporting, ambient groundwater quality determination, denitrification facilities upgrade, and reducing the discharge of effluent to the unlined portion of San Timoteo Creek. However, the City of Beaumont has not made progress toward compliance with other commitments, such as providing water for non-potable water supply, increasing recycled water recharge and planning for recycled water quality improvement, nor does the Beaumont proposal include these commitments. The Beaumont proposal also includes a plan by the City to address the discharge of recycled water in San Timoteo Creek that impacts the underlying San Timoteo GMZ (which has no assimilative capacity) by pumping water from San Timoteo GMZ and discharging/recharging that water into the Beaumont GMZ without obtaining authorization from the Regional Board and the California Department of Public Health. The pumped water would have a TDS concentration that exceeds the maximum benefit objective of the Beaumont GMZ and the proposal thus relies on Beaumont's use of assimilative capacity in this GMZ based, evidently, on its implementation of maximum benefit commitments to date. However, the Regional Board has not made a decision regarding allocation of the available assimilative capacity in the Beaumont GMZ to this operation, and, as discussed below, Regional Board staff will not recommend it.

Significant opportunities have been provided over the past year for meaningful participation by the City in modeling work and discussions with the other parties regarding the development of a new maximum benefit program for the Beaumont GMZ. Board staff believes that the City has failed to avail itself of these opportunities. For example, the City did not provide meaningful comments on the modeling effort until the model report was finalized. Further, the City's representatives were not authorized to make decisions necessary to forward progress and resolution of this matter. The Beaumont proposal seems mainly to benefit the City of Beaumont, *i.e.*, to accommodate its discharge of effluent from the wastewater treatment plant, without other affirmative actions needed to address GMZ/water supply quality and reliability in the San Gorgonio Pass region. These actions include providing a source of non-potable supply and enhancing stormwater capture, neither of which is incorporated in the Beaumont proposal. (We realize that the proposal incorporates a plan for recycled water use that

relies on past agreements with other parties. However, we understand that the other parties contend that the terms of these agreements have not been satisfied.) On behalf of the City, Mark Wildermuth indicated at one of the multi-agency meetings that the City's discharge of water pumped from the San Timoteo GMZ into the Beaumont GMZ would reduce the City's obligation to import State Water Project water to address over-pumping in the Beaumont GMZ, and that this should be considered to provide maximum benefit to the people of the state. Once again, however, this proposal relies on the use of assimilative capacity which has not been allocated to the City. Furthermore, it ignores the model projections that show that even with recycled water at maximum benefit objective quality, the TDS quality of the GMZ is expected to exceed the objectives. In light of this evidence, we believe that the YVWD *et al* proposal, which employs desalting and blending, is a more prudent approach to the long-term protection of groundwater quality and supply reliability. In contrast, the City's proposal merely authorizes continued wastewater disposal and reduces the City's obligations related to over-pumping, but postpones any meaningful action to improve quality and reliability.

Regional Board staff believes that the Beaumont proposal does not satisfy the goals of a maximum benefit program and, absent substantive improvement, will recommend that the antidegradation objectives be applied to regulation of the City's discharges. In light of the City's participation in implementing some of the maximum benefit commitments to date, Board staff will not recommend that the City be required to mitigate past discharges in excess of limitations based on the antidegradation objectives. We strongly encourage the City of Beaumont to join with the other water resource management agencies to implement a truly regional water and salt management plan that recognizes recent water supply planning activities.

Comments on the Wasteload Allocation in the Beaumont GMZ

Table 5-5 of the Basin Plan specifies the TDS and nitrate-nitrogen wasteload allocation for all POTWs that discharge to the Santa Ana River and its tributaries in order to assure the protection of the municipal supply beneficial use for the Santa Ana River and underlying GMZs and to assure that the water quality objectives for these receiving waterbodies are met. Currently, the City of Beaumont is authorized to discharge to surface waters (Noble Creek (Discharge Point #008), unnamed tributary to Marsh Creek (Discharge Point #007) and Cooper's Creek (Discharge Point #001)) with effluent limits equal to the wasteload allocation (Orders No. R8-2009-0002 and No. R8-2006-0003). Cooper's Creek flows into San Timoteo Creek while the other tributaries are dry, and during most of the year, the effluent flows never reach San Timoteo Creek or leave the Beaumont GMZ. Instead, the recycled water discharged at Discharge Points #007 and #008 recharges the Beaumont GMZ and rarely reaches San Timoteo Creek or the Santa Ana River. Therefore, the available evidence indicates that for the discharges from the City of Beaumont, the TDS and TIN limits associated with the wasteload allocation should not apply, and the effluent limits for Discharge Points #007 and #008 should be revised to be the same as the TDS objective of the Beaumont GMZ. As noted above, because the City of Beaumont has not proposed an acceptable maximum benefit program nor chosen to be an active participant in the YVWD *et* al proposal,

Board staff will recommend to the Regional Board that the City's discharges be regulated pursuant to antidegradation objectives. Further, Regional Board staff is in the process of finalizing the wasteload allocation Basin Plan Amendment. Board staff proposes that Beaumont (as well as YVWD) be removed from the wasteload allocation and that instead, compliance and permit limits be based strictly on the underlying groundwater objectives and assimilative capacity findings.

To summarize, Board staff intends to prepare a Basin Plan amendment to implement the findings of the modeling studies and updated Maximum Benefit proposal as submitted by YVWD and cooperating agencies (the YVWD *et al* proposal). Revised waste discharge requirements for YVWD and the City of Banning will be developed that are consistent with the proposal. The recommended, revised wasteload allocation will also be updated to reflect these findings. Unless and until the City of Beaumont elects to implement or participate in an acceptable maximum benefit program, the proposed Basin Plan amendment will reflect the City's discharge obligations pursuant to antidegradation objectives, and Board staff will recommend waste discharge requirements for the City accordingly.

If you have questions on these comments, please feel free to contact me at (951)782-3286 or you may contact Dr. Cindy Li of my staff at (951) 782-4906.

Sincerely,

Kurt V. Berchtold
Executive Officer

cc: Regional Board
David Rice, Office of Chief Counsel, SWRCB