

June 1, 2011

State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-2000



RE: Comment Letter – CVSC BI TMDL

Dear Sir:

Thank you for an opportunity to comment on the “Proposed Approval of Amendments to the Water Quality Control Plan for the Colorado River Basin Region to Establish a Total Maximum Daily Load and Implementation Plan for Bacterial Indicators in the Coachella Valley Storm Water Channel” dated June 17, 2010. To the Twenty-Nine Palms Band of Mission Indians, the Coachella Valley Storm Water Channel is the Whitewater River. The river has served as a valuable water source for the Chemehuevi and Desert Cahuilla Indians that resided in the area for well over a century. To this day, the Whitewater River is a culturally significant water source that has invaluable beneficial uses for the Tribe. The Tribe has identified many natural resources within the Whitewater River basin that have been utilized for traditional purposes long before any other users. There is clear scientific support provided by archaeological and biological studies for traditional uses. These resources were used to support hunting, constructing shelters, serving as food sources and enabling tool production that provided a manageable way of life.

Presently, discharges from the Valley Sanitary District Wastewater Treatment Plant (VSDWTP) in Indio provide the main source of water for the river. The discharged water flows about a quarter mile downstream before reaching the western border of the 29 Palms Reservation (*Figure 1*). After entering the Reservation, the river runs through the heart of the Reservation before leaving under the Dillon Road bridge at the eastern border. Even though the Tribal section of the Whitewater River is less than one mile, the Twenty-nine Palms Band of Mission Indians received EPA approval for treatment in the same manner as a state (TAS) to administer water quality standards and certification programs under §303 and §401 of the Clean Water Act (CWA).

For over a decade, the river has been listed on the 305b list of impaired waters mainly due to impairment by pathogens of unknown sources. Potential sources of bacterial contamination include fecal material from humans via a local sewage treatment plant just upstream from the Reservation, birds from a bird sanctuary near the Reservation, livestock located adjacent to the Reservation, wild birds and animals, other humans including the homeless living on or near the river, and various non-point sources from nearby parking lots, streets, and freeways. Although the State Water Board (Board) has updated the Colorado River Basin Plan (Basin Plan) in 1993, and adopted amendments in 2006, this section of the Whitewater River has remained on the California 303(d) List of impaired waters. As with other updates, the current amendment proposal does not provide a timeline for removing the river from the 303(d) list.

## **F. Coachella Valley Stormwater Channel Bacterial Indicators Total Maximum Daily Load**

### **1. TMDL ELEMENTS**

#### **Project Definition**

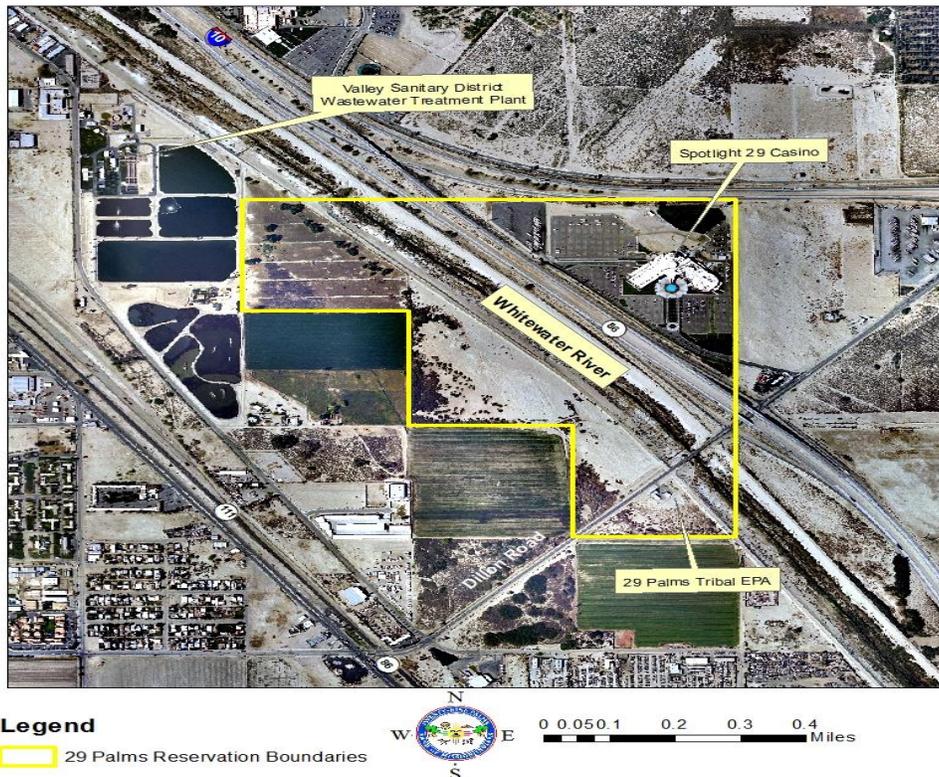
On October 26, 2006, the Twenty-nine Palms Band of Mission Indians received EPA approval for treatment in the same manner as a state (TAS) to administer water quality standards and certification programs under §303 and §401 of the Clean Water Act (CWA). Since that time, the Tribe has been working diligently to set its own water quality standards and establish TMDL along the stretch of the Whitewater River running through the Reservation. Although it is anticipated that the Tribe would adopt beneficial uses similar to those designated by the Board, additional beneficial uses might also be included to preserve and protect Tribal natural and cultural resources that are important for supporting traditional Tribal lifeway and practices.

#### **Watershed Description**

The “headwater” for this section of the Whitewater River is the single wastewater discharge pipe located at the Valley Sanitary District Wastewater Treatment Plant (VSDWTP) in Indio. Other potential sources of water may flow from shallow aquifers and infrequent stormwater arising from upstream and surrounding drainage. The western border of the 29 Palms Reservation is near a concrete culvert, which forms a waterfall a quarter mile downstream from the VSDWTP discharge pipe (*Figure 1*).

**Figure 1**

#### **Twenty-Nine Palms Band of Mission Indian Reservation**



The Whitewater River then bisects the Reservation before exiting under the Dillon Road bridge at the eastern Reservation border. The Whitewater River and channel not only provides flood control, but also provides habitat for many types of wildlife including migratory songbirds, waterfowl, coyotes, raccoons, and rodents. Trespassers are also known to recreate in and around the river running through Tribal land. Recent Tribal assessments revealed flora and fauna that warrant preservation and protection by the Tribe.

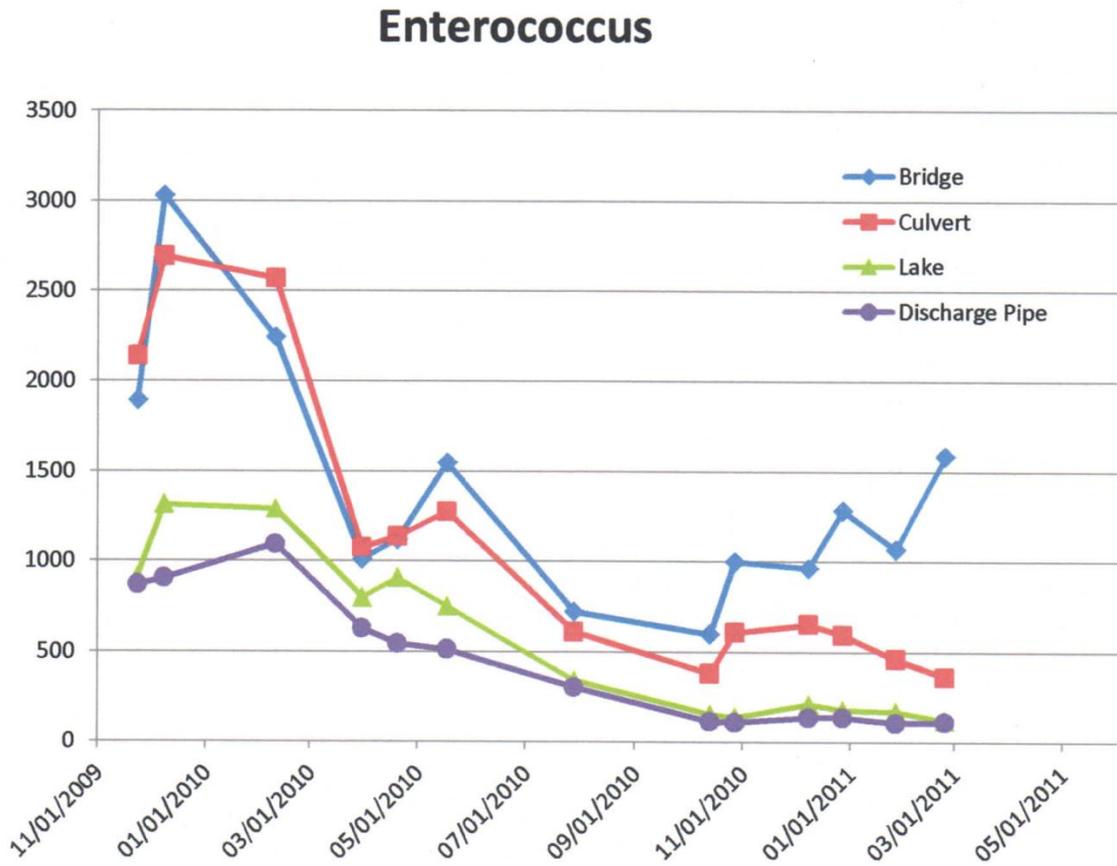
**Data Analysis**

With support from the U.S. EPA and BIA, the 29 Palms Tribal EPA collected water quality samples monthly at five sites (Figure 2) from November 2009 to March 2011 to evaluate fecal bacteria concentration and loading. *Enterococcus* analysis was performed using IDEXX Enterolert with quantitray. Geometric mean (GEOMEAN) (5-point) were above 33 MPN/100 mL (Figure 3) and instantaneous maximum (IMAX) exceeded 100 MPN/100 mL (data not shown) at all sampling sites and at all sampling dates. Also note that as the water flowed downstream away from the discharge pipe towards the culvert and under the Dillon bridge, *Enterococcus* concentration increased to even higher levels.

**Figure 2 – 29 Palms Reservation Surface Water Sampling Sites**



Figure 3



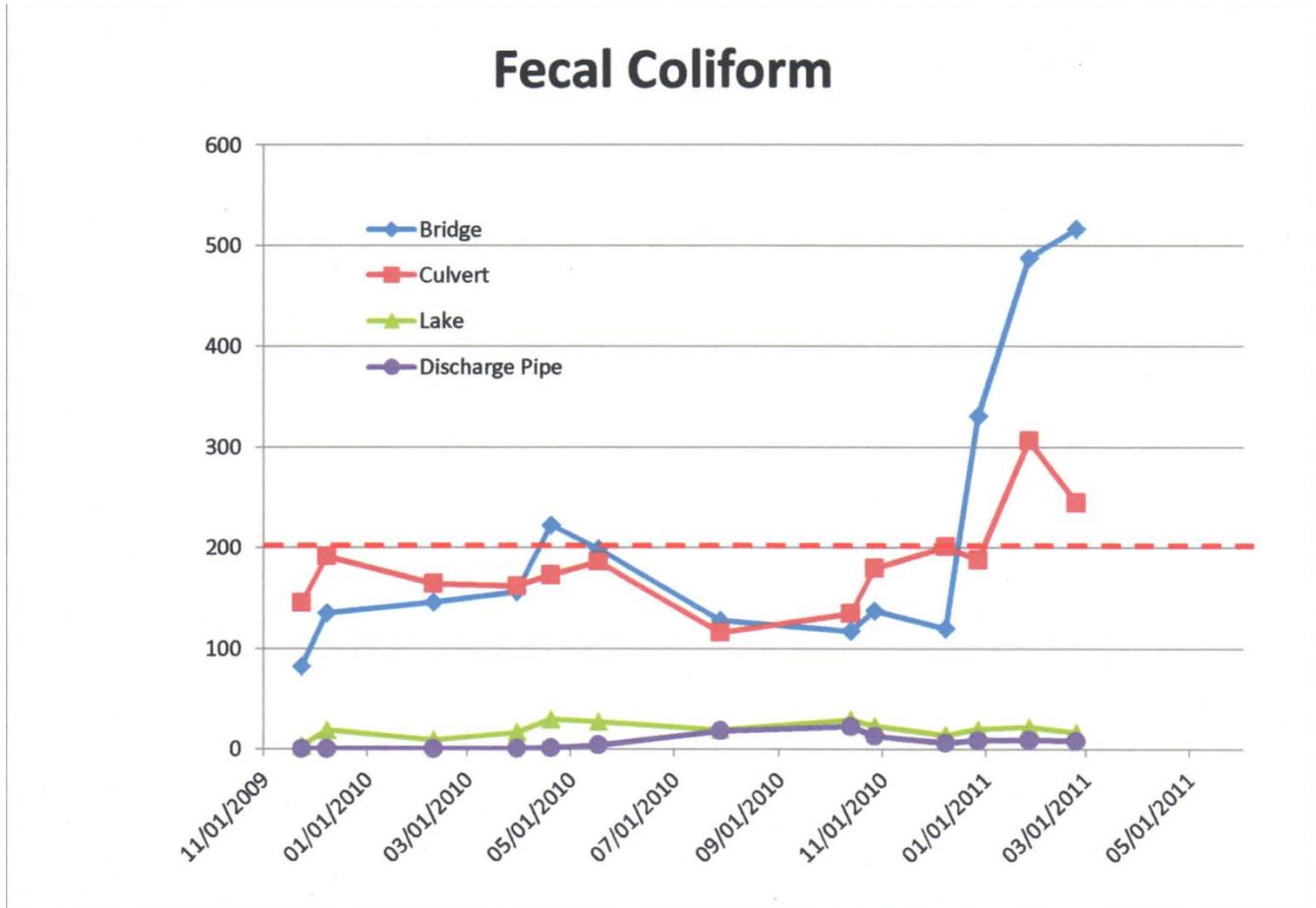
*Fecal Coliform* was analyzed using IDEXX Colisure with quantitray. State WQO of 200 MPN/100 mL (Figure 4) was not exceeded at any time at the VSDWTP discharge pipe and at the Lake that was formed from the discharge at the bottom of the river bank. As with *Enterococcus*, concentrations of *Fecal Coliform* continue to increase as the water flowed downstream away from the discharge pipe. Recent monitoring showed that the GEOMEAN for *Fecal Coliform* exceeded 200 MPN/100 mL at the culvert and under the Dillon Bridge. During the sampling period over the last two years, IMAX of 400 MPN/mL was exceeded 2 times at the culvert and 3 times under the bridge. *Total Coliform* and *Heterotrophic Bacteria* showed similar trends (Data not shown).

### Source Analysis

This section states that because “No significant correlation could be made between the *E. coli* levels measured in the drain collector discharges and the *E. coli* levels measured in the CVSC”, the overall results of CVAS (Coachella Valley Agricultural Stakeholder Water Quality Task Force) monitoring program “...indicate that bacteria entering the CVSC in flows from subsurface drain collectors serving agricultural lands have only a de minimis effect on the bacterial indicator impairment in the CVSC”. Based on this erroneous logic, discharge from VSDWTP would also

have minimum effect on the bacterial indicator impairment in the CVSC because as indicated above, there is also no correlation between FIB levels measured from the discharge pipe and the FIB levels measured in the Whitewater River.

Figure 4



Microbial source tracking (MST) via ribotyping of *E. coli* is outdated, labor intensive, time consuming, not quantitative, and expensive. Furthermore, it is now clear scientifically that this method is not useful for MST. The Board should consider implementing more state-of-the-art methodology for tracking sources of fecal pollution. Recently, qPCR (quantitative polymerase chain reaction) analysis of fecal *Bacteroides* has shown promise for MST for the following reasons:

1. Why *Bacteroides*?
  - a. Found exclusively in feces, rumens, and other cavities of human and other animals
  - b. 1/3 of fecal flora
  - c. Obligate anaerobes
  - d. Not expected to grow in the environment
  - e. Limited survival in the environment

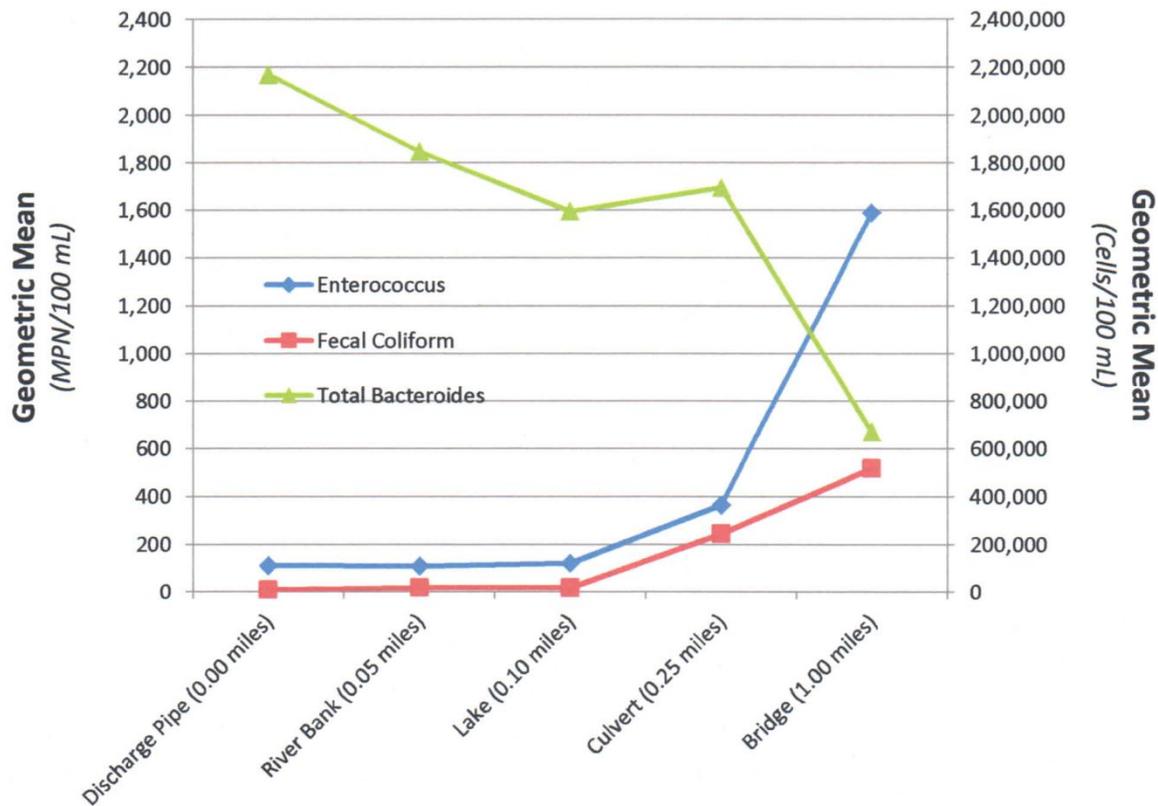
- f. Useful for tracking recent fecal pollution
  - g. Genetic markers associated with *Bacteroides* 16S ribosomal DNA have been shown to be useful in determining host-specific fecal pollution
2. qPCR is simple and does not necessarily require DNA extraction of the sample.
  3. qPCR is rapid. Results could become available within 2 hours after sample collection.
  4. Unlike most MST methods, qPCR is quantitative.
  5. qPCR analysis of fecal *Bacteroides* is sufficiently sensitive due to the large number of the bacteria in feces. Multiple copies of genetic markers for total *Bacteroides* are present in each cell.
  6. qPCR is specific.
    - a. *Bacteroides* is only found in the gut.
    - b. Primers and probes targeting *Bacteroides* do not cross-react with genetic markers from other bacteria.
    - c. Differentiating between human and non-human sources of fecal pollution is possible but is currently not perfect.
  7. qPCR is less labor intensive and is amenable to automation.
  8. qPCR is inexpensive. After initial investment for qPCR instrumentation (less than \$25,000), each analysis costs less than \$2.00.
  9. qPCR can be mobile. Instrumentation is commercially available to perform analyses in the field.

*Figure 5* compares concentrations of fecal *Bacteroides* with other traditional fecal indicator bacteria (*Enterococcus* and *Fecal Coliform*) as VSDWTP wastewater discharge travels downstream on February 23, 2011. At the discharge pipe, the concentration of *Enterococcus* exceeded the State WQO of 32 MPM/100 mL but *Fecal Coliform* did not exceed 200 MPN/mL. After traveling downstream past the culvert (0.25 miles downstream), both *Enterococcus* and *Fecal Coliform* levels exceeded the State WQOs. High concentrations of *Bacteroides* were discharged into the Whitewater River; however, WQO has not been established for *Bacteroides*. In contrast to traditional fecal indicator bacteria, the concentration of *Bacteroides* did not increase as water flowed downstream from the discharge pipe. In fact, bacterial levels steadily decreased, which is compatible with the notion the anaerobic bacteria do not survive or propagate in the environment. These data suggest that *Bacteroides* is a useful indicator of recent fecal pollution in the Whitewater River. The data also suggest that there are no new sources of pollution downstream as was suggested when traditional fecal bacteria indicators were used.

Note that the data presented here focused only on total fecal *Bacteroides* using an ALLBAC qPCR assay. Estimation of human and non-human fecal *Bacteroides* could also be performed using similar qPCR methodology targeting human and non-human genetic markers. 29 Palms SOP for *Bacteroides* analysis are available for viewing and download at [www.tepa29.org](http://www.tepa29.org).

Figure 5

February 23, 2011



### Critical Conditions and Seasonal Variation

Based on the data presented above, the effect of bacterial colonization and regrowth in the Whitewater River is likely and is underestimated by the Board. Fecal indicator bacteria (FIB) monitoring using traditional methods suggested additional sources of pollution downstream from VSDWTP. However, monitoring anaerobic *Bacteroides*, which does not accumulate and grow in the river, suggested that there are no new pollution sources downstream (at least as far as the eastern borders of the 29 Palms Reservation). If there were other recent sources of fecal pollution downstream, *Bacteroides* levels should also increase together with the traditional FIBs.

The Board should consider including an anaerobic FIB in its monitoring program. At the last annual ASM meeting, Hawaii reported the importance of using anaerobic FIB in their warm and tropical climate. They have studied the feasibility of including anaerobic *Clostridium* in their State water quality monitoring programs. In support of this strategy, we have demonstrated that anaerobic *Bacteroides* is a useful year-round FIB in our warm and hot valley and will continue to monitor fecal pollution of the Whitewater River using both traditional and state-of-the-art methodologies.

## Linkage Analysis

As shown from our data presented above, the temporal and spatial trends of bacterial levels in the Whitewater River are not the same for all FIBs.

Along the 29 Palms Tribal section of the Whitewater River, increasing bacterial concentration downstream due to growth and decay dynamics may **not** be offset by dilution from subsurface drainage from irrigated agricultural load and effluent for permitted wastewater treatment plants (VSDWTP).

What is BU? Please define all acronyms.

**Final thought:** The relationship between FIB levels and pathogens are unknown. Because most pathogens do not survive and propagate in the environment, anaerobic FIB may more closely mimic survival dynamics of pathogens.

## TMDL Calculations and Allocations

### Calculations:

Because bacterial loading of the Whitewater River is not only from point and non-point pollution sources, the calculation of loading capacity should also take into account of non-polluting sources. This would be especially important for calculating LAs.

The board should consider **not** establishing TMDL based only on *E. coli*. Not all FIB exhibit the same temporal and spatial trends along the Whitewater River. In the stretch of the river that we have monitored monthly for over 2 years, we have found no correlation between levels fecal coliform, enterococcus, and bacteroides in discharged wastewater and water quality at sites located downstream. Furthermore, our monitoring data suggest that most if not all of the water in the Tribal section of the Whitewater River most likely originated from the VSDWTP point source.

### Allocations:

Tribal Lands: As stated in the beginning of this letter, the Twenty-nine Palms Band of Mission Indians received EPA approval for treatment in the same manner as a state (TAS) to administer water quality standards and certification programs under §303 and §401 of the Clean Water Act (CWA). We are currently working to set Tribal water quality standards on the section of the Whitewater River running through our Reservation.

Please note that consultation on a government to government basis is required for any proposed allocations involving the 29 Palms Band of Mission Indians.

## Monitoring Plan

- Any monitoring plan should include more than *E. coli*.
- Any monitoring plan should include at least one anaerobic indicator of fecal pollution.

- All monitoring plans should be made available to the public for review.
- All monitoring plans should contain a State and/or U.S. EPA approved quality assurance project plan (QAPP).

## **2. IMPLEMENTATION ACTIONS FOR ATTAINMENT OF TMDL**

Farmers and the CVWD **should not** be specifically exempted from having to complete Phase I monitoring actions regarding agricultural discharges. In our opinion, the monitoring completed by CVAS in 2008-2009 did not accurately and fully characterize the contribution of irrigated agriculture to the bacterial indicator impairment in the CVSC based on many of the reasons that we presented above.

### **2.1 Phase I Implementation Actions**

The proposed Phase I actions should have been completed by now. This is especially true since the strategy for monitoring FIB has not changed since the very first Basin Plan. No new incite would be gained by continuing to use this outdated strategy.

Phase II implementation actions should be initiated now, not three years from now.

- Monitor CVSC for bacteria loading from city of Coachella, KSCFF, Cal-Trans, federal lands, and **tribal lands**;

**Monitoring data should be shared with Tribes.**

- Identify significant federal and **tribal dischargers** to CVSC and notify them of their role in TMDL implementation;

**Tribes need to be consulted with on a government to government basis.**

- Receive a written report from each **tribal entity**, or from USEPA, describing measures to ensure waste discharges from tribal property do not violate or contribute to a violation of this TMDL;

**1. Tribes need to be consulted with on a government to government basis.**

**2. The board should also require written reports from any discharger.**

**3. Reports submitted to the board should be accessible to Tribes.**

- Prepare an amendment to the Basin Plan that rectifies current limitations of having three bacterial indicator organisms, clarifies which indicators apply to specified surface waters of the Region, and as necessary, determines the need for site-specific objectives.

**One or more anaerobic FIB should be included in the new monitoring strategy.**

- Monitor, track, and survey CVSC to determine if Phase I activities achieve bacteria WQOs.

**It is not clear who will be doing this, but any monitoring, tracking, and survey data should be made available to Tribes upon request.**

### **2.3 Phase II Implementation Actions**

Any BMPs and/or mitigation plans would fail if:

1. the contribution of bacterial regrowth and colonization is not taken into account; and
2. A reliable MST is not developed and implemented.

Thank you again for this opportunity to comment on the amendment of the CVSC Bacterial Indicators TMDL. As you might gathered from our comments, the Whitewater River flowing through the 29 Palms Reservation is more than just a stormwater channel to the Tribe. This river is an important cultural and natural resource for our Tribe. For many years, we have worked hard in partnership with the U.S EPA, BIA, and the Water Board to build the capacity needed for monitoring water quality and protecting habitat along the Tribal section of the Whitewater River. The Tribe hopes that the Board will continue to partner with us on a government to government basis to achieve our mutual water quality goals for the Whitewater River.

Sincerely yours,



Darrell Mike  
Tribal Chairman

Cc: Marshall K. Cheung, Ph.D., Environmental Coordinator, 29 Palms Tribal EPA  
Angeles Pangilinan, Danielle, PPG Project Officer, Region 9, USEPA  
Christopher Churangan, GAP Project Officer, Region 9, USEPA  
Douglas Garcia, Water Rights Specialist, Southern California BIA  
Christina Mokhtarzadeh, Hydrologist, Southern California BIA  
Robert Eben, Superintendent, Southern California Agency, BIA  
Kristin Gullatt, Manager, Tribal Water Quality Division, Region 9, USEPA

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**Public Comment  
COACHELLA VALLEY BI TMDL  
Deadline: 6/22/11 by 12:00 noon**

June 20, 2011

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Clerk to the Board  
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**Re: Comment Letter – Coachella Valley Stormwater Channel Bacteria Indicators TMDL**

Dear Ms. Townsend:

The California Department of Transportation (Caltrans) appreciates the opportunity to comment on the proposed amendment to the Water Quality Control Plan for the Colorado River Basin Region (Basin Plan) to incorporate a Total Maximum Daily Load (TMDL) to reduce indicator bacteria exceedances observed in the impaired water bodies of the Coachella Valley Stormwater Channel Watershed. Caltrans strongly supports the State Water Resources Control Board's (State Board's) efforts to protect human health and achieve the highest standard of water quality possible. Caltrans has reviewed the TMDL and Basin Plan Amendment (BPA) adopted by the Regional Board on June 17, 2010 and the draft agenda item released on May 18, 2011 and has concerns in the following areas:

Caltrans submitted a comment letter to the Colorado River Basin Regional Water Quality Control Board (Colorado Regional Board) on June 3, 2010, that requested several changes to the TMDL. The comments were not addressed by the Colorado Regional Board. The Colorado Regional Board did not release a Response to Comments document with the reasons that the comments were rejected. The notice of the opportunity for comments released on April 20, 2010 by the Regional Board stated that only comments that were related to four proposed revisions to the amendment language at the time would be considered.

***1. Need for Consistent Storm Water Program***

The requirements in this TMDL for Caltrans are not consistent with those of TMDLs for the same pollutant in other regions of the state. For example, the TMDL technical report for Bacterial Indicators in Richardson Bay states that "we [San Francisco Regional Water

Quality Control Board] believe that the source of bacteria in highway runoff is wildlife” and that “the Water Board will not hold discharging entities responsible for uncontrollable coliform discharges originating from wildlife/natural background sources.” Other TMDLs for bacterial indicators where the requirements for Caltrans are different include TMDLs for Bacterial Indicators in San Lorenzo River Watershed (Central Coast Region), Los Angeles River (Los Angeles Region), and the San Diego Beaches and Creeks Project I TMDL.

Caltrans is required to maintain a statewide storm water program approach for transportation throughout the state. Development of a consistent program was the direction from the Environmental Protection Agency’s (EPA’s) Findings of Violation and Order for Compliance (EPA Docket No. CWA-09-2011-0001) Section III.A.1-3 (Administrative Order). Varying requirements for bacteria TMDLs from the same land use type (highway transportation) restricts Caltrans’ ability to use a comprehensive statewide approach.

**Caltrans requests that the TMDL have consistent requirements for bacterial indicator TMDLs for Caltrans throughout the state. The approach taken by the San Francisco Regional Board should be applied for bacterial indicator TMDLs, as it recognizes that sources of bacterial indicators from Caltrans roadways originate from wildlife/natural background sources.**

## **2. *Extent of Watershed***

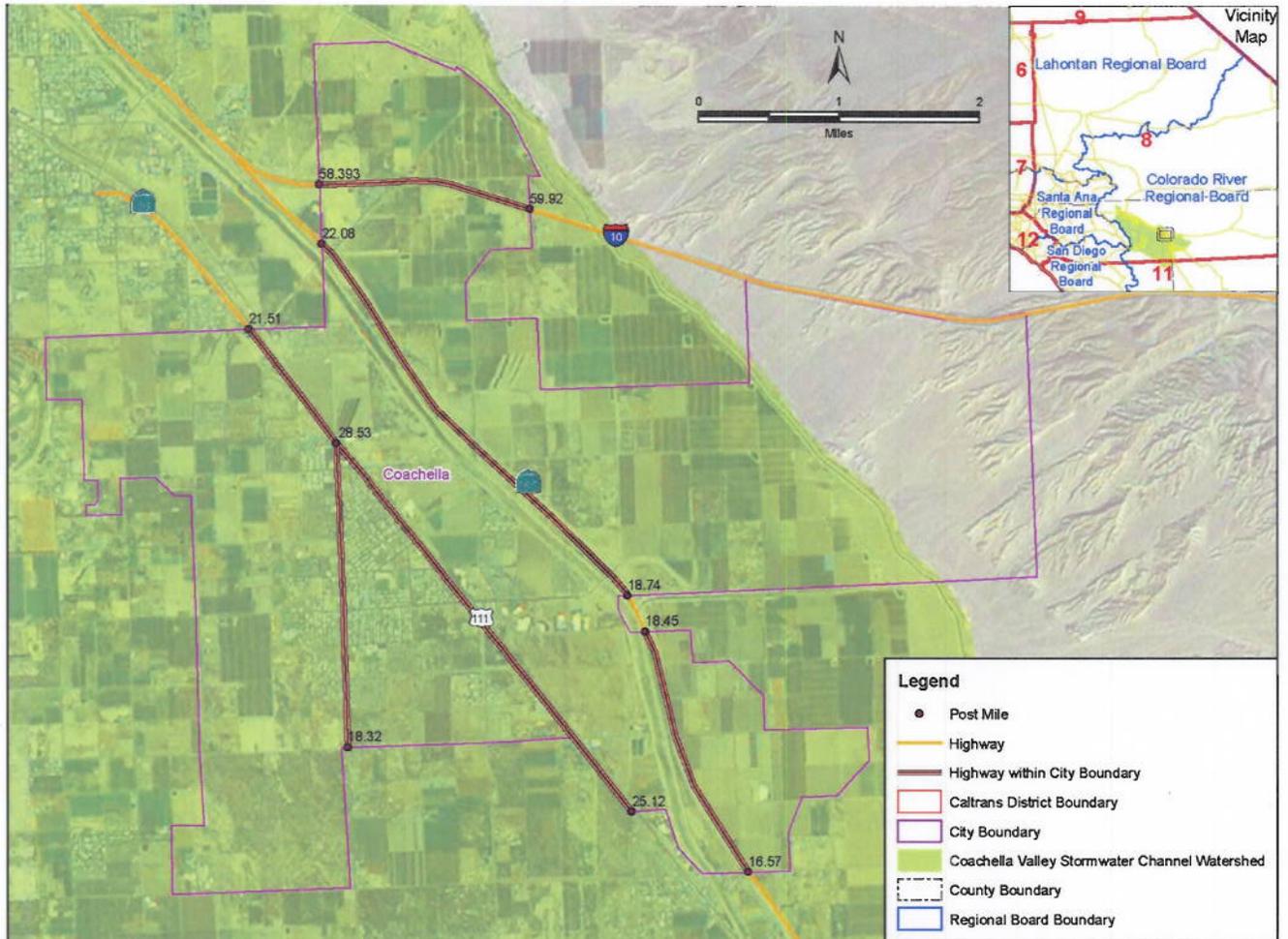
The June 3, 2010 letter submitted by Caltrans included our concern about the extent of the watershed included. The Regional Board did not respond to our concern. The impaired section of the CVSC as defined by the 2006 303(d) List and included in the BPA is the 17-miles of the channel extending south from Indio to the Salton Sea. The BPA assigns waste load allocations to only three point source entities, Caltrans, the City of Coachella, and the Kent Sea Tech Corporation Fish Farm (KSCFF), although there are other municipal separate storm sewer system (MS4) permittees in the greater CVSC watershed. In the CVSC watershed, Caltrans primarily drains to other MS4 facilities or pervious areas, not directly to water bodies.

**It is our understanding that the only Caltrans MS4 facilities included in the TMDL are those located within the boundaries of the City of Coachella. This area is shown in Figure 1. In addition, we understand that Caltrans facilities outside of the City are not covered by this TMDL. Please verify our understanding of the extent of the watershed included in the TMDL.**

## **3. *Complying with Dry Weather Conditions***

The June 3, 2010 letter submitted by Caltrans included our concern that Caltrans already meets dry weather flow waste load allocations and should not be required to implement controls and monitor for dry weather conditions. The Regional Board did not address our concern and left the TMDL requirements unchanged with regard to this subject.

Figure 1: Caltrans Facilities within the City of Coachella



Caltrans facilities typically do not have dry weather discharges. Caltrans conducted weekly field investigations of facilities within the CVSC watershed to document if any dry weather runoff occurred from Caltrans facilities and activities, such as landscape irrigation. Over 130 miles of roadway, a rest area, and a maintenance station were inspected over an eight-week period from August 11 to October 6, 2008. Areas with landscaping were mapped and any instances of dry weather flow were noted. The only dry weather runoff from Caltrans irrigation systems were found at the Whitewater Rest Area. The irrigation schedule was adjusted to eliminate runoff. Other observations of dry weather runoff were identified, primarily from commercial and residential facilities. The local MS4 Permittees were informed of the discharges. A report of the study findings and addendum were submitted to the Regional Board and MS4s on September 9, 2009.

Caltrans' existing program meets dry weather flow requirements, and has insignificant dry weather discharge potential, which should exclude Caltrans from being required to implement controls and monitor for this TMDL. The BPA requires dry weather

monitoring. Caltrans' area is less than 1% of the Coachella Valley Stormwater Channel watershed, and the facilities that would have the potential to discharge bacterial indicators are considerably less, making the dry weather impact insignificant. In addition, Caltrans roadways in most cases drain to areas with high infiltration that are often below the elevation of the Stormwater Channel.

Caltrans has a program in place to follow-up on any observances of dry weather runoff from its facilities and submit notice of observances of dry weather runoff to the appropriate MS4 jurisdictions. Caltrans will continue to perform prompt maintenance on all reported dry weather discharges to quickly address and correct any problems. As a result, Caltrans is currently meeting the waste load allocations during dry weather periods and will continue to perform maintenance as needed to eliminate any non-stormwater discharges.

**Caltrans' existing program already meets dry weather flows, and has insignificant dry weather discharge potential. Therefore, we request to be exempted from implementation and monitoring during dry weather conditions.**

#### ***4. Not a Source of Waste Loads to the Coachella Valley Stormwater Channel***

The June 3, 2010 letter submitted by Caltrans included our concern that any bacterial indicator loads from Caltrans roadways located in the Coachella Valley Stormwater Channel watershed are from natural background sources, such as wildlife and birds. The Regional Board did not address our concerns.

The TMDL Staff Report defines controllable sources of pathogens, as "anthropogenic activities (e.g., domestic wastes), domestic pets (e.g. cats and dogs), and livestock (cows, horses, pigs, etc.)." Caltrans does not have any of these sources in its right-of-way. Furthermore, Caltrans completed a study in May 2002<sup>i</sup> on the presence of human pathogens in urban storm drains. The study found that highway facilities, including park and rides and maintenance stations, do not appear to be a significant source of pathogens in urban drainage. The bacterial indicator loads from Caltrans roadways located in the CVSC watershed are from natural background sources. Furthermore, as noted previously, Caltrans roadways in most cases drain to areas with high infiltration that are often below the elevation of the Stormwater Channel.

**Discharges from Caltrans roadways located in the CVSC watershed are from natural background sources. Caltrans requests that the waste load allocations assigned to Caltrans in the TMDL be set equal to existing loads or that Caltrans be removed as a stakeholder in this TMDL.**

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<sup>i</sup> Caltrans (2002) *Management of Pathogens Associated with Storm Drain Discharge - Results of Investigations of the Presence of Human Pathogens in Urban Storm Drains.* (CTSW-RT-02-2005). May 2002

**The U.S. EPA is currently conducting a review of bacterial indicators and will release new recommendations in 2012. The TMDL should include a requirement for the Regional Board to review the bacterial indicators included in this TMDL once the U.S. EPA recommendations are released.**

**5. High Flow Suspension**

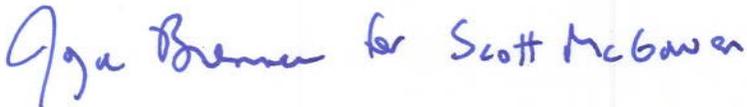
The June 3, 2010 letter submitted by Caltrans included our concern about the potential of integration of a high flow suspension for CVSC. The Regional Board did not address our concern. At the Regional Board Hearing held on September 17, 2008, the agenda (item 8d) included a discussion of the suspension of water contact recreation (REC-1) uses during high flow conditions in the CVSC. During the meeting, Regional Board staff stated that they were reviewing this potential option. In addition, the *California Regional Water Quality Control Board, Colorado River Basin Region, 2007 Triennial Review Final Workplan* includes the impact of critical flow rates in the CVSC and their temporal impact on beneficial uses, as a water quality concern (issue number 4) for investigation and review. However, the current BPA and most recent staff report do not provide any additional information.

The high flow suspension is appropriate since contact recreation activities are not safe during high flow conditions. In addition, recreational uses are prohibited in the CVSC, usage rates of the channel are expected to be low, and activities in the channel are more characteristic of non-contact recreation. As a result, the high flow suspension should be incorporated into the TMDL and BPA.

**Please include a discussion of the status of this issue and how it would be integrated into the TMDL requirements. This issue would have a significant impact on this TMDL and the requirements for compliance, and it should be considered before the TMDL is approved and implementation is required.**

We hope these comments are helpful. If you have any questions or concerns, please contact Keith Jones at (916) 653-4947.

Sincerely,



G. SCOTT MCGOWEN, P.E.  
Chief Environmental Engineer  
Division of Environmental Analysis

c: Joyce Brenner, Keith Jones  
Department of Transportation Headquarters Division of Environmental Analysis

Cathy Jochai  
Department of Transportation, District 8



Established in 1918 as a public agency  
**Coachella Valley Water District**

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Peter Nelson, President - Div. 4  
John P. Powell, Jr., Vice President - Div. 3  
Patricia A. Larson - Div. 2  
Debi Livesay - Div. 5  
Franz W. De Klotz - Div. 1

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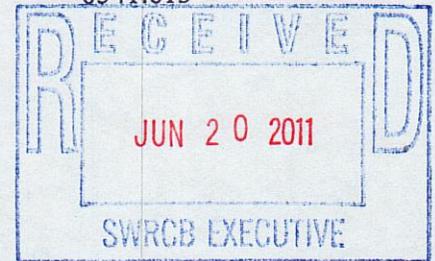
Steven B. Robbins, General Manager-Chief Engineer  
Julia Fernandez, Board Secretary

Redwine and Sherrill, Attorneys

June 20, 2011

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Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-2000



Dear Ms. Townsend:

Subject: Comment Letter - CVSC BI TMDL

The Coachella Valley Water District (CVWD) appreciates the opportunity to provide comments on the proposed approval of amendments to the Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region to establish a Total Maximum Daily Load (TMDL) and implementation plan for Bacterial Indicators (BI) in the Coachella Valley Stormwater Channel (CVSC). CVWD provides domestic water, wastewater, recycled water, irrigation/drainage and regional stormwater protection services to a population of about 300,000 throughout the Coachella Valley. These services include operating and maintaining the Coachella Valley Stormwater Channel (CVSC).

CVWD wishes to identify one error in the staff discussion item for the State Water Resources Control Board's consideration of the resolution approving the subject amendments. The second paragraph of the discussion on Implementation states, "If monitoring and assessment in Phase I indicate that waste discharges to the Coachella Valley Storm Water Channel from anthropogenic activities continue to cause the exceedances of the water quality objectives and that these exceedances [emphasis added] persist despite recommended operation and maintenance procedures and control measures in their existing permits, the implementation actions for attainment of the TMDL requires additional actions to control pathogenic sources in Phase II." The record for this Basin Plan amendment does not support the emphasized text that concludes existing anthropogenic activities are causing the exceedance of BI water quality objectives for the CVSC. The underlined text should be revised to read as follows:

"If monitoring and assessment in Phase I indicate that waste discharges to the Coachella Valley Storm Water Channel from anthropogenic activities violate the TMDL ~~continue to cause the exceedances of the water quality objectives~~ and that violations ~~these exceedances~~ persist despite recommended operation and maintenance procedures and control measures in their existing permits, the Regional Water Board shall require the implementation of additional actions to control anthropogenic sources of bacteria in Phase II."

CVWD's requested revision is consistent with the following statements contained in the Basin Plan (Chapter 4, Section V) amendment adopted under Colorado River Basin Water Board Resolution No. R7-2010-0028:

1. Item G(1), TMDL Elements, Table 1, Source Analysis, Paragraph 1:

“Due to the limited data available, actual contribution from urban and stormwater runoff and contributions from other point and nonpoint sources require further characterization.”

2. Item G(1), TMDL Elements, Table G-1, Source Analysis, Paragraph 3:

“The DNA monitoring and analysis study determined the percentage distribution of fecal sources in the CVSC. The following potential bacterial sources were identified in CVSC from the two hundred samples collected during the study: avian (40%), human (25%), rodents plus other wild mammals (25%), and livestock (<3%). Approximately 6% of the E. coli species originated from unknown sources. This distribution provides an idea of the possible sources of bacteria in CVSC, although it does not reflect the relative loading from those sources. Although scientific studies support the use of ribotype-based MST methods, there are concerns regarding their accuracy due to spatial and temporal vectors, stability of the markers, and sampling design.”

3. Item G(2.3), Phase II Implementation actions:

“Actions taken in Phase I (within three years after USEPA approves the TMDL) will determine whether WQOs have been achieved, sources of bacterial pollution have been identified, and whether additional actions are required in Phase II (within three years after end of Phase I) to meet WQOs. If monitoring and assessment in Phase I indicate that waste discharges to CVSC from anthropogenic activities violate this TMDL, and that violations persist despite recommended operation and maintenance procedures and control measures in their existing permits, the Regional Water Board shall require the implementation of additional actions to control anthropogenic sources of bacteria in Phase II [emphasis added]. The Regional Water Board will require responsible parties to select and implement new/additional management practices (MPs) for Phase II, following characterization of sources and a determination of whether these sources can be controlled. This determination shall take into consideration background conditions and cost factors. The Regional Water Board may revise Municipal Separate Storm Sewer System (MS4) permit water quality based effluent limitations, which may be expressed in terms of narrative management practice (MP) requirements. The Regional Water Board may also consider revising WQOs for CVSC to address natural background sources of bacteria. This revision would be accomplished through the establishment of a Site Specific Objective (SSO) after completing a Use Attainability Analysis (UAA). If an SSO is required, it would be developed by the end of Phase 2 based on available resources.”

Jeanine Townsend  
State Water Resources  
Control Board

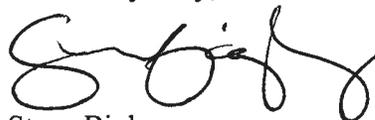
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June 20, 2011

With this minor correction to the discussion item, CVWD supports the approval of the draft State Water Resources Control Board resolution approving amendments to the Basin Plan adopted under Colorado River Basin Water Board Resolution Nos. R7-2007-0039 and R7-2010-0028.

If you have any questions, please call me at extension 2286.

Yours very truly,



Steve Bigley  
Environmental Services Manager

cc: Mr. Robert Perdue  
Executive Officer  
Water Quality Control Board- Colorado River Basin Region  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, CA 92260

SB:ch\eng\wr\11\June\Comment Letter - CVSC BI TMDL

WARREN D. WILLIAMS  
General Manager-Chief Engineer



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RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

P8/138846

June 21, 2011

Public Comment  
COACHELLA VALLEY BI TMDL  
Deadline: 6/22/11 by 12:00 noon

Ms. Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814  
[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)



Dear Ms. Townsend:

Re: Comments on Coachella Valley  
Stormwater Channel Bacterial Indicators  
Total Maximum Daily Load Draft Basin  
Plan Amendment

The Riverside County Flood Control and Water Conservation District (District) serves as the Co-Principal Permittee on the Riverside County Municipal Separate Storm Sewer System (MS4) Permit for the Whitewater River Region. District staff would like to take this opportunity to express its support for the comments submitted by Coachella Valley Water District (CVWD) on the Basin Plan Amendment for the Coachella Valley Stormwater Channel (CVSC) Bacterial Indicators Total Maximum Daily Load (TMDL). As noted in comments provided by CVWD, please revise the second paragraph of the staff report discussion on Implementation to read:

"If monitoring and assessment in Phase I indicate that waste discharges to the Coachella Valley Storm Water Channel from anthropogenic activities violate the TMDL ~~continue to cause the exceedances of the water quality objectives~~ and that violations ~~these exceedances~~ persist despite recommended operation and maintenance procedures and control measures in their existing permits, the Regional Water Board shall require the implementation of additional actions to control anthropogenic sources of bacteria in Phase II."

Other than this minor change of text, the District supports the approval of the draft State Water Resources Control Board Resolution approving amendments to the Basin Plan adopted under the Colorado River Basin Water Board Resolution Nos. R7-2007-0039 and R7-2010-0028.

If you have any questions regarding these comments, please contact Claudio Padres (951.955.1273, [cmpadres@rcflood.org](mailto:cmpadres@rcflood.org)) or Ann Iaali (951.955.1248, [asiaali@rcflood.org](mailto:asiaali@rcflood.org)) of the District's NPDES Division.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Jason E. Uhley".

for JASON E. UHLEY

Chief of Watershed Protection

cc: City of Coachella  
County of Riverside  
Coachella Valley Water District  
AI:cw