TO: Regional Water Board Members

FROM: Jose L. Angel, P.E.
Executive Officer

DATE: July 18, 2017

SUBJECT: UPCOMING JULY 25, 2017 BOARD WORKSHOP

Dear Board Members,

In preparation for the upcoming Board workshop, this memorandum provides you with a report on the status of the water quality priorities you established at the February 20, 2016, Public Workshop, and an overview of the office accomplishments[1] since you appointed me as your Executive Officer. At the February 2016 Workshop, you established the following policy priorities:

1. Legal mandates—staff must ensure the Regional Water Board timely meets its legal mandates (e.g., Triennial Review).

2. Salton Sea—staff should be pro-active by participating in the discussions regarding the Sea's restoration process so that the Regional Water Board can help shape and implement water quality policy to facilitate restoration efforts.

3. New River Pollution—staff should continue to address New River pollution from Mexico, but also should emphasize pollutant load reduction in the Imperial Valley to benefit the Salton Sea more directly.

4. Coachella Valley Salt and Nutrient Management Plan (SNMP)—staff should continue to work with stakeholders to ensure the SNMP is completed for groundwater protection and sustainability in the Coachella Valley.

5. Water Quality Threat from Septic Systems—staff should actively address the threat that septic systems in certain areas in the region pose to water quality, including high-density septic systems in Twentynine Palms, Joshua Tree, Cathedral City, La Quinta, Bermuda Dunes, the I-10 corridor between Palm Springs and Desert Hot Springs, and the eastern Coachella Valley; and should develop and use a common set of California Environmental Quality Act responses, if appropriate for the particular projects proposed, to ensure agencies proposing to approve additional development that would be serviced with septic systems are aware of and address the Board's concerns.

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On a related matter, we intend to provide you with a separate, but complementary report on our Performance Measures and Targets for SFY2016-2017 at the September 2017 Board meeting in Yucca Valley.

STATUS OF BOARD PRIORITIES

Legal Mandates

In a general sense, we have the following federal and state legal obligations:

Subject	Description/Applicable Laws and regulations	Status
National Pollutant Discharge Elimination System (NPDES) Permits	Section 402 of the Clean Water Act requires the discharge of pollutants to a navigable water from a point source to be regulated through the NPDES Permitting Program.[2] NPDES Permits have a 5-year expiration date, at which time the Board may renew or administratively extend the Permit.	**Meeting obligations** —all of our NPDES permits are current. In 2016, the Board renewed the NPDES Permits for: • IID's Grass Crap Hatchery • City of Holtville • Heber PUD • Navy Air Station in El Centro • Kent Seatech Fish Farm It also amended the Permit for the City of Brawley. In May 2017, the Board renewed the NPDES permit for Coachella Valley Water District WRP No. 4. The Board is also on schedule for renewing another 4 NPDES Permits for SFY 17-18. [*Kai Dunn, Senior WRCE, PhD, P.E.*]
Water Quality Certification (WQC) Orders	Section 401(a) of the Clean Water Act states requires any applicant for a Federal license or permit[3] that may result in any discharge to navigable waters to obtain certification from the State that the discharge complies with applicable water quality standards.[4] WQC Orders	**Meeting obligations**—in 2016, the EO issued 8 WQC Orders—there is no backlog for applications submitted in 2016. This year and to date, the EO has issued 10 WQC Orders. Regional Water Board staff is reviewing 5 other applications that were submitted within the last 2 months[5]. [*Kai Dunn, Senior WRCE, PhD, P.E.*]

[2] If the discharge is from a nonpoint source or into a nonfederal Waters of the State, the Regional Water Board may issue WDRs instead of an NPDES permit.

[3] E.g., U.S. Army Corps Dredge and Fill Permits, Federal Energy Regulatory Commission Permits, Nuclear Regulatory Commission Licenses.

[4] If the waters are not waters of the US, the Regional Water Board may issue WDRs instead of WQC.

[5] This web link provides details on the applications and Orders issued:
http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/401_certification/

Subject	Description/Applicable Laws and regulations	Status
	are typically issued by the EO acting under his delegated authority.	
Total Maximum Daily Loads (TMDLs) for Impaired Surface Waters	CWA Section 303(d) requires the State to develop and implement TMDLs for impaired waters.	**Partially meeting obligations**—For SFY 16-17, Regional Water Board staff committed to: • Develop and implement TMDL requirements for DDT and Toxaphene for the Palo Verde Outfall Drain during SFY 16-17. Because the primary source of these constituents is agricultural runoff in areas with high residual concentrations of these pesticides in the soil, staff has proposed a TMDL Alternative[6] be incorporated into the new General WDRs for Palo Verde Irrigation District and farmers in the Palo Verde Valley and Palo Verde Mesa, who discharge agricultural runoff into the Palo Verde Outfall Drain. In sum, **staff have made substantial progress to complete the commitment, but are 6 months behind schedule**. • Develop Water Quality Report Cards that Assess TMDL Implementation. Staff completed 2 report cards (DDT and Toxaphene in Palo Verde Outfall Drain and Lagoon) and submitted them to State Water Board for review and posting—**in sum staff met this commitment.** • Review and assess Wiest Lake for DDT, Dieldrin, and PCBs. **Staff completed the review and assessment** and prepared a report with recommendations on how to address the impairments. [*Nadim-Shukry Zeywar, Senior ES, PhD*]

[6] "TMDL Alternative" is a general term used to describe an implementation plan to achieve water quality standards that implements many elements of a TMDL but is not incorporated into the Basin Plan. EPA has recognized that TMDL Alternatives may be more immediately beneficial or practicable to achieving water quality standards than a traditional TMDL approach where initial review of the cause of the impairment shows that a particular point source or nonpoint source is responsible for the impairment and there are clear mechanisms to address all sources.

Subject	Description/Applicable Laws and regulations	Status
Water Quality Assessment Report for Surface Waters in the Region	CWA Sec 303(d) requires the State to prepare and submit to USEPA approval a list of impaired surface waters every two years (a.k.a. Section 303(d) List). Additionally, CWA Section 305(b) requires the State to submit to USEPA for approval a report assessing statewide surface water quality. The updated 303(d) List when combined with the 305(b) surface water quality assessment report is referred to as an "Integrated Report"	**Meeting obligations**— On July 30, 2015, USEPA approved the 2012 Integrated Report. For the 2014 and 2016 listing cycle, the State announced its intent submit its 303(d) list on a rotating basis (3 regions per listing cycle). The 2018 Integrated Report will consist of data from Regions 7, 6, and 1. • On November 3, 2016, the State Water Board started a Public data solicitation period to put together its Integrated Report for the 2018 cycle. The solicitation period ended in May 2017. The data obtained through solicitation for Region 7 and data available to Region 7 (e.g., SWAMP data) are being evaluated by Region 7 staff. • Review and Assess Colorado River and Salton Sea 303(d) Listed Impairments. Regional Water Board could not complete this commitment because there were no new data to review and assess. This will be completed as part of the 2018 Integrated Report process. • Staff completed review and assessment of Alamo River, Coachella Valley Stormwater Channel, Imperial Valley Drains, New River, Palo Verde Outfall Drain and Lagoon 303(d) Listed Impairments other than Pesticides and PCBs. [*Nadim-Shukry Zeywar, Senior ES, PhD*]
Triennial Review of the Water Quality Control Plan for the Colorado River Basin (Basin Plan)	Section 303(c) of the Clean Water Act And Section 13240 of the California Water Code (Division 7: Porter-Cologne Water Quality Control Act) requires the State to review the	**Meeting obligations**—the Regional Water Board completed its 2014 Triennial Review of its Basin Plan. Staff provided an update to the Board on the status of the 2014 Triennial Review issues at the April 17, 2017 Public Workshop. This Workshop also kicked off the 2017 Triennial Review in April

Subject	Description/Applicable Laws and regulations	Status
	Basin Plan at least once every 3 years.	2017. Staff expects to conclude it at the September 2017 regularly scheduled Board meeting. [*Jeff Geraci, Senior ES*]
Mandatory Minimum Penalties for certain violations of NPDES Permits	Section 13385 of the California Water Code, requires the Regional Water Board assess a MMP of $3000 for each violation of an NPDES permit that meets the criteria in Section 13385 et seq.	**Substantially Meeting Obligations:** • In 2016, the Board assessed $111,000 in MMPs against the Imperial Irrigation District for violating its NPDES Permit for its Grass Carp Hatchery. • In March 2017, the Regional Water Board adopted Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order R7-2017-0007 against the Niland Sanitary District. This Order settled the District's historic MMPs and other violations of Board Orders. MMPs against the IID and and 3 other Discharger may still be outstanding. [*Jose L. Angel, EO, P.E.; Frank Gonzalez, AEO, P.E.*]
Conditional Waiver of WDRs for Agricultural Runoff from Palo Verde Valley and Palo Verde Mesa (Order R7-2012-0047)	Section 13269 of the California Water Code authorizes the Regional Water Board to waive WDRs provided the waiver is consistent with the Basin Plan and is in the best interest of the State. Waivers expire in 5 years from the date of adoption. Order R7-2012-0025 expires on September 20, 2017.	• **Behind Schedule**—Staff has drafted General WDRs for agricultural runoff from Palo Verde Valley and Palo Verde Mesa. If the proposed WDRs are adopted by the Regional Water Board, they will supersede the current Waiver. The proposed WDRs are under legal review. Staff expects to bring the proposed WDRs for Board consideration of adoption at the September 2017 Board meeting. [*Nadim-Shukry Zeywar, Senior ES, PhD*]

Salton Sea

During the last 2 years, staff has put significant effort in addressing the Salton Sea water quality problems and in assisting the California Natural Resources Agency (CNRA) develop and implement its Salton Sea Management Program (SSMP):

1. In 2016, Regional Water Board staff prioritized the Region's core regulatory Programs, not just to protect and/or address water quality of surface waters, but also of groundwater, to ensure the Programs focus on the Salton Sea Transboundary Watershed;

2. On March 6, 2016, the Regional Water Board held an informational Public Workshop, which in relevant part included an update on Salton Sea restoration efforts. Mr. Bruce Wilcox, Natural Resources Agency Assistant Secretary for Salton Sea, provided the Board with an overview of the Salton Sea's problems and his Agency's latest Management Program efforts to address those problems. Other speakers at the Workshop included representatives from the Imperial Irrigation District, who informed the Board about a petition the IID filed with the State Water Board and the IID-Imperial County Salton Sea Renewable Energy Initiative;

3. The Management Team designated Jeff Geraci and Doug Wylie as Salton Sea Coordinators in our office to ensure internal and external coordination of our regulatory activities;

4. The EO meets periodically with Bruce Wilcox and Phil Rosentrater (Salton Sea Authority Executive Director) to discuss water quality control policy and Salton Sea management and restoration efforts;

5. Regional Water Board staff are also members and play an active role on the following SSMP Committees:
   a. Maria Davydova (Environmental Scientist) of our staff Co-chairs the Outreach and Education Committee. In this capacity, she has provided substantial assistance to the CNRA to organize community and stakeholder workshops and public meetings regarding the State's SSMP. She has also participated in many of them;
   b. Jeff Geraci (Senior Environmental Scientist) is a member of the Long Range Planning Committee. In this capacity, in consultation with the Board's Management Team, he represents the Board's interests and provides water quality regulatory guidance in support of the SSMP and restoration efforts; and
   c. Jeon-Hee Lim (WRCE, PhD, P.E.) is a member of the SSMP Science Committee. In this capacity, Ms. Lim evaluates the scientific basis and merits of SSMP and restoration projects; and provides her evaluation to the CNRA and other stakeholders.

   The current focus of the Committees' efforts are shovel-ready projects and Phase 1 of the SNMP (a.k.a. The 10-Year Plan[7]), including the short-term goal of creating 9,000-12,000 acres of habitat and dust suppression projects for the Sea.

6. As part of our 2014 Basin Plan Triennial Review, staff are updating the Basin Plan to ensure it reflects the current state of the Sea, the SSMP, and related restoration efforts. Maria Davydova is in charge of this assignment and expects to complete it by early 2018;

7. Besides discharges of wastes from Mexico into the New River, discharges of pollutants from agricultural activities in the Imperial and Coachella Valleys pose the greatest threat to water quality to the Salton Sea and its tributaries. Therefore, our regulatory efforts have focused on addressing and controlling agricultural runoff, not just to address the Sea's problems but also to compliment the SSMP and the water quality impairments of the in the tributaries themselves. With this goal in mind, staff continue to implement the Imperial Valley and

[7] A copy of The 10-Year Plan is available at: http://resources.ca.gov/docs/salton_sea/ssmp-10-year-plan/SSMP-Phase-I-10-YR-Plan-with-appendices.pdf

Coachella Valley Conditional Waivers of WDRs for agricultural runoff and the Imperial and Coachella Valleys TMDLs[8].

Rosalyn Fleming (WRCE) handles the Coachella Valley Waiver, and Logan Raub (ES) takes care of the Imperial Valley Waiver. The main tasks in implementing the Waivers are:

- Review monthly, quarterly, and annual monitoring reports submitted by the Coalitions;
- Review Coalition information and water account information; identify water account holders that potentially need coverage under a waiver, and/or need to pay state fees;
- Review waiver due dates; begin enforcement process for non-compliance with the Waiver;
- Meet with coalition representatives to discuss waiver implementation, and address coalition concerns;
- Respond to public and stakeholder inquires about the Waivers;
- Investigate and respond to Coalition invoicing questions;
- Prepare Irrigated Lands Regulatory Program (ILRP) bi-monthly reports for the State Water Board; and
- Attend statewide ILRP roundtables and meetings.

The following are the TMDLs for tributaries to the Salton Sea:

Surface Water	TMDL
New River[9]	Silt
	Pathogens
	Dissolved Oxygen
	Trash
	Chlorpyrifos and Diazinon[10]
Alamo River[5]	Silt
	Chlorpyrifos and Diazinon
Imperial Valley Drains[5]	Silt
Coachella Valley Storm Water Channel	Pathogen-indicator bacteria

The main tasks involved in implementing the TMDLs include:

- Conduct monitoring to assess compliance with the TMDLs;
- Review monthly, quarterly, and annual monitoring reports submitted by responsible parties (e.g., Coalition Lead);
- Review TMDL due dates; begin enforcement process for non-compliance;
- Meet with responsible party representatives to discuss TMDL implementation, and address responsible party concerns;
- Respond to public and other stakeholders inquires about the TMDLs;
- Prepare TMDL implementation reports for State Water Board and USEPA; and
- Attend statewide TMDL roundtables and meetings.

[8] The Coachella and Imperial Valleys Waivers are set to expire in 2018 and 2019, respectively. Staff intends to recommend that these two Waivers be also superseded by General WDRs Orders.

[9] The Regional Water Board adopted the Silt TMDLs for these surface waters primarily to address the impacts that insoluble legacy pesticides (DDT and Toxaphene) have on the Beneficial Uses of these surface waters.

[10] With concurrence and approval from USEPA, the Regional Water Board adopted TMDL Alternative Controls for these pollutants.

8. In 2016, Regional Water Board completed and published *Water Quality in the Colorado River Basin Region, Assessment of Surface Water Quality Data Collected From Fall 2009 through fall 2013 by the Surface Water Ambient Monitoring Program.* I relevant part, this report evaluates water quality data for the Alamo and New Rivers, the Salton Sea, and the Coachella Valley Storm Water Channel in relationship to the Beneficial Uses of and applicable water quality objectives for these surface waters. The report makes the following recommendations:
   - Continue with the SWAMP at the strategic sites including data analysis and reporting;
   - Monitor selenium including speciation more frequently particularly for the New and Alamo River drainages. Update the Basin Plan to reflect selenium speciation and concentrations that are protective of beneficial uses;
   - Prepare Toxicity Identification Studies for locations that had toxicity on a consistent basis, including sediments and water in the Alamo and New River outlets, Coachella Storm Water Channel, and the Salton Sea.
   - Develop criteria for certain constituents that are above the reporting limit but have no established criteria to evaluate their impact to water quality.

   A copy of the report can be downloaded from:

   http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reglrpts/r7_sw_assessment.pdf

9. In May 2016, UC Riverside and Regional Water Board staff put together a proposal for grant funding to characterize crust-like sediments in the Salton Sea. The proposal is uinder consideration for funding by the Coachella Valley Mountain Conservancy. [*Jeff Geraci, Senior ES*]

10. In 2016, Regional Water Board completed and published *Water Quality in the Colorado River Basin Region, Assessment of Surface Water Quality Data Collected From Fall 2009 through fall 2013*

New River Pollution

Staff continues to participate in the Binational Technical Committee (BTC) for the New River/Mexicali Sanitation Program. The primary function of the BTC is to address New River pollution from Mexico. Staff has put significant effort in addressing New River water quality in the Imperial Valley and assisting the California-Mexico Border Relations Council[11] implement the recommendations contained in New River Improvement Project (NRIP) Strategic Plan for the New River in the Calexico area[12].

[11] CalEPA Chairs the Council.

[12] The Regional Water Board is also implementing all of the Plan's regulatory recommendations under the jurisdiction of the Board. For details on this, please see:
http://aesm.assembly.ca.gov/sites/aesm.assembly.ca.gov/files/Summary%20of%20Recommended%20Actions%20for%20the%20CAL%20EPA%20BDOs.pdf ; and
http://aesm.assembly.ca.gov/sites/aesm.assembly.ca.gov/files/Jose_Angel_CESTM_3202015_Testimony.pdf

New River in Mexicali—Since February 2016, staff participated in all 9 BTC meetings and Observation Tours of the New River in Mexicali that took place during this period. The Regional Water Board hosted the December 2016 BTC meeting. During the BTC meetings and Observation Tours, staff has focused on ensuring Mexico addresses the bypasses of raw sewage into the New River and helping secure funds to address significant sewage infrastructure problems (see Attachment A for details on the problems). It is estimated that correcting these problems will cost approximately $80 M. The Regional Water Board brought this problem to the attention of USEPA and US IBWC in 2014. Lack of effective action from USEPA and US IBWC to ensure Mexico eliminates the bypasses of raw sewage turned the infrastructure problem into an emergency. Consequently:

- In February 2017, Chair Wright requested in writing a policy meeting of the US members of the BTC to discuss this issue and ways to ensure Mexico prevents the bypasses through the acquisition and deployment of portable pumping equipment.
- On April 19, 2017, Chair Wright, the AEO, and the EO attended a meeting with representatives from the USEPA, US IBWC, State Department, NADBank/BECC, and CalEPA in San Francisco to discuss Mexico's bypasses of raw sewage into the New River and request that the federal government take action to eliminate the bypasses. USEPA Acting Regional Administrator Ms. Alexis Strauss directed her staff to assist Mexico to secure the pumping equipment to eliminate the bypasses of raw sewage into the New River. Similarly, Chair Wright directed staff to work closely with the NADBank/BECC and federal and state representatives and coordinate with Mexico to assist Mexico in putting together a proposal for binational funding to acquire equipment to eliminate the bypasses.
- On May 19, 2017, the Regional Water Board adopted Resolution R7-2017-0022, which urges the USEPA and USIBWC to take immediate and decisive action to ensure Mexico eliminates the bypasses of raw sewage from Mexicali into the New River.
- On May 25, 2017, Chair Wright and the EO also met with representatives of the NADBank/BECC and CESPM to the matter and binational funding for projects to fix the dilapidated sewage infrastructure in Mexicali.
- On June 30, 2017, the EO also briefed Assemblyman Eduardo Garcia, Senator Ben Hueso, and other local elected officials about this problem, during a tour of the New River in the Calexico area. During the tour, Senator Hueso stated that he intends to introduce legislation to ensure there is effective action to address Border problems.
- On July 18, 2017, USEPA staff reported to the EO that USEPA and NADBank/BECC are working with Mexico to let Mexico use approximately $320,000 of unencumbered but appropriated funds to buy key portable pumping equipment to prevent bypasses of raw sewage into the New River. [*Jose L. Angel, EO, P.E.*]

New River in Calexico—The NRIP Strategic Plan recommends the following infrastructure to address New River water quality and protect public health in Calexico: (1) a trash screen for the New River immediately downstream from the Border with Mexico; (2) a conveyance system to pipe the New River underground from the Border with Mexico to a point immediately downstream from where the New River crosses the All-American Canal syphon; and (3) a booster pumping station and associated piping (hereafter "booster pump-back system") to pump treated wastewater from the City of Calexico Wastewater Treatment Plant back to the New River immediately downstream from the Border. This infrastructure project has two phases: Phase 1 consists of the completion of design (i.e., engineering plans and specifications) and CEQA documentation to build the infrastructure. Phase 2 consists of the construction of the infrastructure.

- Staff worked closely with state legislators, CalEPA, State Water Board, and other stakeholders on a provision of the SFY 16-17 Budget Trailer Bill to secure $1.4M for Phase 1 of the project.
- Governor Brown singed the Bill in September 2016.
- On October 16, 2016, Regional Water Board Chair Wright, the Executive Officer, and Assistant Executive Officer participated in a Community Meeting hosted by Assemblyman Eduardo Garcia (D-Coachella) in Calexico. Assemblyman Garcia started the meeting with welcoming remarks and background on the New River Improvement Project. The purpose of the meeting was to update stakeholders regarding the recent appropriation of $1.4-million from the State Water Board's Waste Permit Discharge Fund penalty account to implement Phase 1.
- State Water Board staff attempted to have DWR take on Phase 1. However, DWR could not take on it due to other priority work. This caused a 6-month delay with Phase 1. Consequently, in June 2016, staff drafted the scope of work for to contract out the design and preparation of the environmental documentation for Phase 1.State Water Board is in charge of the contract and expects to issue requests for proposals for Phase 1 presently.
- Phase 1 should take approximately 1 year to complete. Construction of the project should take another 18 months thereafter, contingent on funding.
- On May 18, 2017, the Regional Board met with representatives of CalEPA, the City of Calexico, IID, and Imperial County on the development of a MOU that would memorialize the administrative and fiscal responsibilities for the NRIP. [*Frank Gonzalez, AEO, P.E.*]

Coachella Valley SNMP

The State Water Board Recycled Water Policy (Resolution No. 2013-0003) requires local stakeholders to develop salt and nutrient management plans (SNMPs) for every groundwater basin in California. The Coachella Valley SNMP has been under development since early 2014. Coachella Valley Water District (CVWD), Desert Water Agency (DWA), and Indio Water Authority (IWA) are the lead proponents for the Coachella Valley SNMP. Throughout development of the proposed SNMP, staff attended and provided its perspective at multiple stakeholder meetings sponsored by the proponents of the SNMP. Specifically, staff expressed concerns on multiple different occasions at meetings and in writing about the technical approach used to develop the SNMP, including compliance with the State Anti-degradation Policy (State Water Board Resolution 68-16):

- In November 2014, Regional Water Board staff provided written comments to SNMP proponents regarding technical concerns, including the formation of appropriate management zones, assimilative capacity, lack of sufficient groundwater data, and compliance with the State Antidegradation Policy (State Water Board Resolution 68-16). .
- In February 2015, the Regional Water Board held a Public Workshop on the SNMP. State Water Board staff, Regional Water Board staff, and representatives of the proponents of the SNMP presented at the Workshop. State Water Board staff presented on the challenges of putting together SNMPs and discussed required components of an acceptable SNMP. Regional Water Board staff again expressed its concerns with the proposed SNMP.
- In June 2015, the proponents submitted their final SNMP to the Regional Water Board. Regional Water Board staff reviewed the SNMP and summarized its concerns in a memorandum dated August 7, 2015, which was transmitted to the proponents of the SNMP. Key concerns included:
  - appropriate management zones and monitoring well networks,
  - proper determination of ambient water quality and assimilative capacity,
  - analysis for chemicals of emerging concern,

  - fate and transport of salt and nutrient sources,
  - degaradation of groundwater, and
  - a proposed water quality objective of 1,000 mg/L for total dissolved solids (TDS) throughout the entire Coachella Valley groundwater basin, based on the concentration of imported Colorado River water used to recharge portions of the groundwater basin rather than on the existing TDS concentration of the receiving groundwater basin.
- By letter dated August 7, 2015, staff again provided written comments to the proponents of the SNMP, again focusing on significant technical and regulatory shortcomings of the proposed SNMP.

In an effort to move forward the SNMP, on March 28, 2016, the Regional Water Board held another Public Workshop on the proposed SNMP. During the Workshop, staff again reiterated its concerns about the SNMP. The EO also met with the proponents of the SNMP in April and May 2016 to hear their perspective on the matter and find ways to resolve the impasses between them and the Regional Water Board staff, but these meeting were not successful in resolving the impasses. Consequently, staff briefed three Board members on June 1, 2016, and two Board members on June 9, 2016, about the matter. The briefing focused on: (1) the Regional Water Board staff's fundamental concerns with the proposed SNMP; (2) the impasse between the staff and the proponents of the SNMP about their SNMP[13]; and (3) the regulatory background on Secondary MCLs for TDS. Steve Williams, District Engineer from the State Water Board's Division of Drinking Water, participated in the briefings and provided his perspective on the drinking water standards for TDS. Tom Vandenberg, Board Counsel, also participated in the briefings. During the briefings, and based on the outstanding concerns, the Executive Officer reported that he was directing staff to prepare a work plan to develop site-specific objectives for TDS for the Coachella Valley Groundwater Basin.

During the SFY 16-17, staff's efforts to develop site–specific water quality objectives for TDS included review of:

- Coachella Valley groundwater analytical data;
- California's water quality standards, and available criteria and guidance for evaluation of water quality; and
- Procedures used by other Regional Water Boards to develop site-specific water quality objectives for TDS in groundwater.

Staff generated a Groundwater Assessment Threshold Algorithm table for Coachella Valley to identify acceptable numeric objectives for TDS concentrations in groundwater. The assessment to develop site-specific water quality objectives for TDS is expected to be completed during SFY 17-18. The project will continue into SFY 18-19 for actions that require Basin Plan Amendments, such the actual establishment of TDS Site Specific Objectives for groundwater and potentially establishing wastewater discharge prohibitions into the Basin Plan.

Water Quality Threat from Septic Systems

Coachella Valley—Staff is addressing the threat to groundwater quality from septic systems in the Coachella Valley primarily through: (1) implementation of the State Water Board Resolution No. 2012-0032, which in relevant approved the Water Quality Control Policy for Sitting, Design,

[13] Mr. Angel met with the Managers of CVWD, DWA, and IWA on two different occasions in April and May 2016, respectively, in an effort to find way to resolve the staff's concerns and impasse.

Operation, and Maintenance of Onsite Treatment Systems (a.k.a. OWTS Policy); and (2) Basin Planning activities.

The Regional Water Board worked cooperatively throughout most of 2016 with representatives from Region 8, Region 9, and Riverside County Department of Environmental Health on the County's proposed Local Area Management Program (LAMP) to address individual septic systems in Riverside County. Regional Water Board staff reviewed the proposed LAMP to ensure it complied with the State Water Board Onsite Treatment System Policy. On November 16, 2016, the Regional Water Board approved the County's proposed LAMP. The approved LAMP contains provisions for the County to require that owners of failing systems take corrective action to correct the problem.

As part of the 2014 Basin Plan Triennial Review, the Regional Water Board identified threats to groundwater from discharges of wastewater from septic system as one of five priority issues. Eliminating nitrate sources affecting the Coachella Valley groundwater is paramount to the long-term efforts to protect this valuable resource, given that current polluting activities are likely to affect nitrate levels in groundwater for several decades. Review of groundwater data used for the proposed SNMP for the Coachella Valley indicates high concentrations of nitrate occurring sporadically throughout, but primarily in the central portion of Coachella Valley. In support of the Regional Water Board's effort to eliminate wastewater discharges from septic systems in the Region to the extent feasible and reasonable, staff evaluated groundwater data in populated areas of Coachella Valley that are without a community sewer system to determine if a nexus exists between septic systems and nitrate impacts to groundwater. During the 2016-2017 fiscal year staff obtained sewer infrastructure plans from wastewater and water districts and reviewed groundwater analytical data from GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) Program, United States Geologic Survey, and Department of Water Resources. Staff evaluated the geologic and hydrologic characteristics and recognized hydrologically sensitive areas of the Coachella Valley. This effort compliments the ongoing development of SSOs for TDS for the Coachella Valley groundwater basin. Further, staff has identified:

- Areas with elevated concentrations of nitrate in groundwater;
- Areas with pollution-indicator chemicals (e.g., pesticides and pharmaceutical residues) in groundwater;
- Areas densely populated that lack a centralized sewage collection and treatment system; and
- Land uses (e.g., golf courses) that may be a significant contributor to groundwater degradation with nitrates.

Activities planned to complete the project in the 2017-2018 fiscal year include obtaining and reviewing information regarding existing septic system design, construction, maintenance, and failure rates; determining if a Basin Plan Amendment is necessary; and generating a Staff Report with findings and recommendations for the Board's consideration.

Twentynine Palms—Most of the City is on septic systems, which pose a serious threat to groundwater. Because of this and since late 2007, Regional Water Board staff has made it clear to City representatives that it will not support the proliferation of septic systems in the City. During the last 18 months, the Executive Officer worked closely with the City Manager and its staff to prevent proliferation of septic systems in the City and ensure the City developed a draft Sewer Master Plan. On November 15, 2016, the City Council unanimously adopted a Sewer Master Plan. The Plan identifies City areas that should be serviced by a centralized sewage collection and treatment system. The City is applying for Prop 1 grant funding to implement its Plan. The

City is also pursuing building a centralized system for the City in partnership with the US Marine Base in Twentynine Palms.

On a related matter, staff is working with the Twentynine Palms Water District (TPWD) and the City on the SNMP for this area[14]. TPWD is lead for the SNMP, and it submitted its draft SNMP for review and approval to the Regional Water Board in June 2015. Staff reviewed the draft SNMP and found that it lacked essential technical information and informed the TPWD in writing about it on October 12, 2015. The TPWD's consultant (Kennedy/Jenks) responded in December 2016 to the staff's concerns and requested a meeting to discuss the matter. On April 13, 2017, Regional Water Board staff met with the TPWD Manager and its consultant to discuss the SNMP, staff's concerns about it, future work, and the timeline for completion of the SNMP. During the meeting, Regional Water Board staff expressed the following concerns about the proposed SNMP:

- The SNMP needs to be finalized and reviewed/updated on a regular basis (every three to five years). Additional groundwater data are needed to further assess, analyze, monitor and evaluate current groundwater conditions. Staff also recommended the TPWD collaborates with the Marine Base to fund a USGS groundwater study for the area;
- The SNMP lacks an adequate strategy to control identified sources of salt and nutrient loading (mainly septic system effluents), and lacks a schedule to implement groundwater monitoring activities; and
- The need to phase out wastewater discharges from septic systems in Twentynine Palms.

Staff supported and encouraged TPWD to collaborate with the City and the Marine Base to expand/upgrade the Marine Base WWTF to accommodate the City's domestic wastewater. The TPWD has agreed to address staff's concerns, including development of a detailed schedule for completion and implementation. Staff intends to hold regular meetings with TPWD to facilitate/expedite the development of the final SNMP.

Yucca Valley—On March 10, ~~2017~~2016, the Regional Water Board adopted a Basin Plan amendment to modify the Septic Tank Discharge Prohibition for the Town of Yucca Valley. In relevant part, the amendment established new deadlines for phasing out discharges from septic systems. Extension of the deadlines was necessary because it took more time than anticipated for the Hi-Desert Water District, after the Town failed to do it, to get voter approval and funding to build a centralized sewage collection and treatment system for the Town[15]. It was also necessary to address technical and economic constraints associated with the centralized system, and realign the Regional Water Board Prohibition boundaries, with the boundaries of the Assessment District approved by Town property owners affected by the Prohibition. To mitigate the potential additional impacts caused by the extension, the Regional Water Board: (1) prescribed in the revised Prohibition a time schedule for the new system to be built at the earliest practicable date; and (2) is working with the Town of Yucca Valley and the District to ensure that in the interim unregulated

[14] Because essentially most of the City is on septic systems, the septic systems are the main source of Salts and Nutrients (i.e., nitrogen) to groundwater. Therefore, the SNMP must focus on addressing their threat to groundwater also.

[15] The HDWD had to secure an assessment district to pay for the system. Financial assistance and voter approval for the system did not materialize until early in 2016. This put the project behind schedule; and
2. The design of the collection system identified technical and economic problems that require changes be made to the boundaries of each Phase to maximize the properties to be serviced by the system while managing costs of the project. This included identifying Deferred Parcels and properties that needed to be moved from one Phase to another Phase.

and regulated septic systems are properly operated and maintained, including periodic inspection and pumping of the solids in the septic tanks.

Joshua Tree—Joshua Basin Water District (JBWD) has been pro-active and taken the lead to address the threat from septic system to groundwater quality within its service area. In 2009, it developed a Wastewater Treatment Strategy (WWTS) report, which identifies short- and long-term measures to protect groundwater from discharges of wastewater and evaluates several wastewater treatment technologies to deal with new development. JBWD is relying on its WWTS and groundwater studies prepared by the USGS for the area to require new developers to install centralized sewage collection and wastewater treatment plants in lieu of septic system. During SFY 17-18, staff will continue to work with JBWD to ensure adequate protection of groundwater and will be evaluating the USGS studies to determine whether it is more appropriate for the Board Water Board to consider adopting a septic tank discharge prohibitions for areas that must be serviced by a centralized system.

Other

On a related matter, please visit the following web link, which links you to the State and Regional Water Boards Accomplishment Report for 2016:

https://www.waterboards.ca.gov/publications_forms/publications/general/docs/accomplishments_report2016.pdf

The report lists four major accomplishments for our office, including three accomplishments that are directly related to the priorities you established.

SUMMARY

Dear Board members, staff has been responsive to your policy priorities and directives:

- Staff has ensured the Regional Water Board meets its CWA legal mandates and commitments (e.g., CWA Secs. 303(d), 305(b), and 401); conducts timely Triennial Reviews of its Basin Plan; adjudicates and issues MMPs; and makes substantial progress in addressing its priority Triennial Review issues and assesses MMPs [*Kai Dunn, Senior WRCE, PhD, et al.*];
- Staff is representing the Regional Water Board's interests and playing a key role on Salton Sea management and restoration efforts. Further, staff is updating the Basin Plan to make sure it reflects ongoing management and restoration efforts and related water quality concerns [*Maria Davydova, ES; Jeff Geraci, Senior ES; Doug Wylie, Senior WRCE, P.E.; et al*];
- Staff continues to work cooperatively with Mexico to address New River pollution from Mexico, with emphasis on eliminating discharges of raw sewage into the New River. Staff is also putting significant effort in assisting the California-Mexico Border Relations Council to develop and implement structural projects to improve New River water quality in the Calexico area. In 2016, staff was instrumental in getting $1.4M for the design and environmental documentation for the New River water quality improvement projects in the Calexico area. [*Frank Gonzalez, AEO, P.E.; Jose L. Angel, EO, P.E.*]
- Staff spent significant time and effort on reviewing and commenting on the proposed SNMP for the Coachella Valley. Staff found that it did not adequately protect areal groundwater quality. Staff attempted to resolve its concerns with the proponents of the SNMP, but was not successful. Therefore, staff recommended that the Regional Water Board do not approve the proposed SNMP, and staff is now developing site-specific objectives for TDS to protect the

Coachella Valley Groundwater Basin [*Abdi Haile, Supervising EG, P.G.; Joan Stormo, Senior EG, P.G.; Cathy Samford, EG, P.G.*];

- Staff is using different regulatory strategies to effectively address the threat from septic systems in Coachella Valley, Yucca Valley, Twentynine Palms, and Joshua Tree, including LAMPs, Basin Plan Discharge Prohibitions, SNMPs, and regulatory support and guidance. [*Joan Stormo, Senior EG, P.G., Cathy Samford, EG, P.G.; et al.*]

Needless to say, all this work accomplished by our scientists, engineers, geologists, and technicians cannot not be accomplished without the support of our Administrative staff: Hilda Vasquez, Mary Castaneda, Soni Wells, and Terry Barnes. They process our documents, assist with Board meetings and Agenda materials, and deal with the public, among other critical duties—in short, they ensure management and technical staff have the support and resources they need to get the job done.

In closing, we look forward to presenting a summary of this report at the upcoming Board Workshop next week. In the meantime, please call me if you have questions about it. Thanks.

Attachment A – Memorandum on Sewage Infrastructure Problems in Mexicali

cc: Adriana Nunez, OCC
Frank Gonzalez, AEO