



March 8, 2019

submitted via E-mail

David Woelfel  
Santa Ana Regional Water Quality Control Board  
3737 Market St., Ste. 500  
Riverside, CA 92501

**RE: Basin Monitoring Program Task Force Comments on the 2019 Triennial Review**

*Dear Mr. Woelfel:*

Thank you for the opportunity to provide comments regarding the 2019 Triennial Review. The following comments are submitted on behalf of the Basin Monitoring Program Task Force administered by the Santa Ana Watershed Project Authority (SAWPA).<sup>1</sup>

The Task Force is responsible for preparing and submitting the annual report of Santa Ana River water quality and the triennial Ambient Water Quality Update for all groundwater basins in the region. The Task Force also undertakes periodic revisions to the Waste Load Allocation Model (WLAM) used for deriving TIN and TDS effluent limits in the watershed.

The Task Force recommends that the Regional Board designate the following projects as "High Priority" for implementation during the coming three-year planning period:

- 1) Amend the Basin Plan to adopt the revised WLAM now nearing completion;
- 2) Revise the Basin Plan to clarify proper application of certain water quality objectives;
- 3) Adopt a regional policy governing effluent limits for TDS during drought conditions;
- 4) Review and approve the revised estimates of assimilative capacity in groundwaters.

Below is a brief description of all four projects and an explanation as to why each should be considered a high priority when allocating the Regional Board's Basin Planning resources for the next three years.

---

<sup>1</sup><http://www.sawpa.org/task-forces/basin-monitoring-task-force/>

## 1) Amending the Basin Plan to adopt a revised Waste Load Allocation Model (WLAM)

The current WLAM was developed in 2002 and approved by the Regional Board in 2004.<sup>2</sup> It was always the intent of both the Regional Board and the Task Force that the WLAM be updated every ten years or so. The Task Force began work to revise the WLAM in 2008 and submitted a proposed update to the Regional Board for approval in 2012. A significant court case that same year altered our previous understanding regarding proper implementation of the statewide Antidegradation Policy (Res. No. 68-16)<sup>3</sup> and caused the Task Force to withdraw the proposed update in order to complete additional work needed to conform to that court decision.<sup>4</sup> Although the additional work was completed in 2015, it was determined that so much time had elapsed that the WLAM's 2020 planning horizon was now too short to be useful.

In 2016, the Task Force elected to develop a new WLAM with a much longer planning period (i.e. 2020-2040). In addition, the new WLAM would be constructed using the open-source HSPF software tool endorsed by EPA and USGS.<sup>5</sup> Work on the new WLAM is now nearing completion and is expected to conclude later this summer. When finished, the revised WLAM will be submitted to the Regional Board for review and approval. If accepted, the Basin Plan must be amended in order to implement the new WLAM. This, in turn, requires preparation of an Adoption Resolution, a Staff Report, a Substitute Environmental Document (SED), and an Economic Analysis to support such an amendment. Formal scientific Peer Review of the revised WLAM must also be completed.

This Basin Plan amendment is an urgent priority because all of the NPDES effluent limits for TIN and TDS are derived from the WLAM. Therefore, the Task Force is committed to provide any technical assistance the Regional Board staff may need to complete the scientific Peer Review process and prepare the aforementioned support documents. It is expected that the WLAM will be complete in the summer of 2019 and the Basin Plan amendment process will conclude by mid-2020.<sup>6</sup>

---

<sup>2</sup> Res. No. R8-2004-0001 (January 22, 2004)

<sup>3</sup> State Water Resources Control Board - Office of Chief Counsel. Memorandum from Michael A.M. Lauffer to Tom Howard dated Feb. 22, 2013 re: *Asociación de Gente Unida por el Agua, et al. v. Central Valley Regional Water Quality Control Board* - New Case Interpreting State Water Resources Control Board Resolution 68-16.

<sup>4</sup> *Asociación de Gente Unida por el Agua, et al. v. Central Valley Regional Water Quality Control Board*; 210 Cal.App.4<sup>th</sup> 1255; Superior Court No. 34-2008-00003604CU-WM-GDS; Decision filed: Nov. 6, 2012.

<sup>5</sup> <https://www.epa.gov/ceam/hydrological-simulation-program-fortran-hspf>

<sup>6</sup> It is likely that the Regional Board can complete all of the public review, peer review and formal hearing requirements by mid-2020. Additional review and approval by the State Board and Office of Administrative Law (OAL) is needed, following Regional Board action, in order for the Basin Plan amendment to become effective.

## 2) Revise the Basin Plan to clarify proper application of certain water quality objectives

During the 303(d) water quality assessment that took place in 2017, it became evident that there was some confusion by State Board staff regarding the purpose for several water quality objectives in the Basin Plan. These issues are described in a detailed comment letter previously submitted to the Regional Board by the Task Force.<sup>7</sup> Although the proposed salinity-related listings were ultimately withdrawn in 2017, the Task Force believes it would be helpful to clarify certain provisions in the current Basin Plan in order to avoid similar misunderstandings in the future. Specifically, this includes:

- \* Adding a footnote, where appropriate, to identify water quality objectives that were established as antidegradation targets rather than use protection thresholds.
- \* Adding a footnote, where appropriate, to identify surface water objectives that were established to protect underlying groundwater uses not surface water uses.
- \* Adding a footnote to Table 4-1 of the Basin Plan to clarify that compliance with the baseflow TDS objective for Reach 3 of the Santa Ana River is intended to prevent degradation in the Orange County groundwater management zone and compliance is determined using samples collected immediately below Prado Dam (technically in Reach 2).
- \* Add text to Chapter 5 describing the Regional Board's longstanding policy to implement the state Antidegradation Policy using Total Dissolved Solids (TDS) in lieu of evaluating each of the individual ions (e.g. chloride, sulfate, sodium, etc.) that contribute to salinity.
- \* Add text to Chapter 5 (Implementation) describing the appropriate spatial and temporal averaging procedures to determine compliance with water quality objectives specified in Table 4-1 of the Basin Plan.
- \* Clarify text in Table 4-1 of the Basin Plan regarding when and where filtered samples and Total Nitrogen concentrations should be used to assess compliance with the current TIN objectives when evaluating ambient instream samples.

All of the above recommendations are solely intended to better document the Regional Board's existing implementation practices. These editorial clarifications make no substantive changes to current water quality standards. Therefore, the Task Force believes that appropriate revisions can be made as part of the same Basin Plan amendment process used to adopt the new WLAM. It is important these clarifications be completed before the next 303(d) assessment for the Santa Ana region is scheduled to occur in 2022.

---

<sup>7</sup> Basin Monitoring Program Task Force. Comments on 303(d) Listing Decisions Related to Salinity. Letter from Mark Norton (SAWPA) to Heather Boyd (Regional Board) dated March 6, 2017.

### 3) Adopt a regional policy governing effluent limits for TDS during drought conditions

During prolonged droughts less high quality local water and State Water Project (SPW) water is available. When this occurs, water agencies are forced to rely on alternate sources (e.g. poorer quality groundwater or Colorado River Water) in the interim. The higher TDS concentrations in these alternate sources make it more difficult for municipal wastewater treatment agencies to comply with some effluent limits in their NPDES permits during these drought periods. Even the SPW water this is available can be as much as 100 mg/L higher in TDS during droughts than the long-term average. To address this situation, the Task Force previously recommended that a regional Drought Policy be developed. The Regional Board agreed with this recommendation and ranked the proposed project as a "High Priority during the 2015 Triennia Review Process."<sup>8</sup>

Shortly thereafter the Task Force joined with the Southern California Salinity Coalition (SCSC) to undertake a detailed study of the relationship between drought conditions and municipal water supply sources and the effect these factors have on TDS concentration in treated wastewater. The study also evaluated how voluntary and mandatory conservation programs influence TDS trends in recycled water. It also investigated the impact of self-regenerating water softeners on these trends. The study was completed last year and the final report is available from the SCSC website ([link](#)).<sup>9</sup>

Based on results from the study, the Task Force believes it is appropriate for the Regional Board to provide additional guidance to NPDES permit writers regarding the range of discretion available when specifying effluent limits for TDS. Specifically, the guidance should clarify:

- \* When and how Increment-of-Use limits should be applied
- \* The use of longer-term averaging periods in some situations
- \* The option to demonstrate compliance through an offset program
- \* The requirements for authorizing a temporary, conditional variance

The first three elements in the above list merely describe how the Regional Board intends to use its existing legal discretion to develop appropriate effluent limits in NPDES permits. The Basin Plan need not be amended to implement such guidance. However, because the Regional Board has not previously considered or approved any variances, the last element is likely to be considered a significant substantive change to existing Basin Plan policies. It is urgent to undertake this work now because nearly all of the major NPDES permits will come up for renewal in the next three years. It would also be best to complete the effort before the next drought cycle begins in order to maximize the use of recycled water in the region.

---

<sup>8</sup> Res. No. R8-2015-0085 (July 24, 2015) See issue #5C.

<sup>9</sup> D.B. Stephens & Associates, Inc. Study to Evaluate Long-Term Trends and Variations in the Average Total Dissolved Solids Concentration in Wastewater and Recycled Water. March 30, 2019.

#### 4) Review and approve the revised estimates of assimilative capacity in groundwaters

Every three years the Task Force recomputes the volume-weighted average concentration of TDS and Nitrate for each groundwater basin in the Santa Ana region using methods and procedures previously approved by the Regional Board.<sup>10</sup> The results are compared to the water quality objectives in order to estimate the amount of assimilative capacity available for each parameter. A final report summarizing the conclusions is submitted to the Regional Board for review and approval.<sup>11</sup> The Regional Board relies on the report to evaluate the overall effectiveness of its current Salt and Nitrate Management Program and to determine if any modifications should be made to this program.

The next Triennial Ambient Water Quality Update report must be submitted to the Regional Board by July 1, 2020. Therefore, the Task Force has already issued an RFP to undertake the project and is now in the process of selecting a qualified contractor. Work will begin in mid-summer and preliminary draft results are expected to be available by the end of calendar 2019. This will be the sixth update prepared by the Task Force and, as before, all work will be coordinated with Regional Board staff throughout the process. The vast majority of this effort occurs during the regularly-scheduled monthly meetings of the Basin Monitoring Program Task Force. Historically, the Regional Board staff has actively participated in those meetings. Continued success depends heavily on the Regional Board maintaining that level of commitment because the Triennial Ambient Water Quality Update affects virtually every waste discharge permit in the watershed.

For the reasons given above the Task Force recommends that these four projects be designated as "High Priorities" in the coming three-year planning period and thanks the Regional Board for its consideration.

*Respectfully submitted,*



**Risk Sciences**

125 New Dawn Rd.  
Rockville, TN 37153

615-274-2745  
tmoore@risk-sciences.com

Timothy F. Moore  
*(on behalf of the Basin Monitoring Program Task Force)*

---

<sup>10</sup> Res. No. R8-2005-0063 (April 14, 2005)

<sup>11</sup> See, for example, Res. No. R8-2018-0027 approved on March 23, 2018