Response to Comments[1] on the draft FY2019-2022 Basin Plan Triennial Review Priority List and Work Plan

Received for the June 14, 2019 Public Hearing for Adoption of the Fiscal Years 2019-2022 Triennial Review and Work Plan of the Water Quality Control Plan for the Santa Ana River Basin

1. Jim Colston
Director of Water Quality and Regulatory Compliance
Irvine Ranch Water District (IRWD)
Received May 29, 2019

Comments:
IRWD supports the inclusion of Issue No. 9, *Consider/review TDS objectives for Rattlesnake, Syphon and Sand Canyon reservoirs based on the use for storage of recycled water.* IRWD staff is committed to working with the Regional Water Quality Control Board staff to complete the consideration and revision of the water quality objectives for TDS [total dissolved solids] in the recycled water reservoirs. IRWD staff strive to maximize water recycling while maintaining the highest quality recycled water for our customers. Changing source water conditions due to drought and changing climate conditions as well as water conservation practices can impact the TDS concentrations of the influent sewage treated at IRWD's recycled water plants. IRWD is currently undertaking a Sewage Treatment Master Plan which is examining ways to combine recycled water flows from two plants into a unified recycled water system. Combining recycled water from the two plants could lead to higher TDS levels in the combined system during sometimes of the year.

Response:
Comment noted. Santa Ana Water Board staff appreciate the commitment of IRWD to assist in reviewing TDS objectives and considering revision of the objectives that are currently applied to the reservoirs. We anticipate working with IRWD to review the TDS objectives for Rattlesnake, Syphon, and Sand Canyon reservoirs.

2. Kevin Blakeslee, P.E.
Chief Flood Control Engineer
San Bernardino County Stormwater Program
Received May 29, 2019

Comments:
As a result of all the important regulatory changes that have occurred over the last several years, the TMDL [Total Maximum Daily Loads] Stakeholders concur with the Task Force's recommendation that the Regional Board designate all of the following

[1] Comments have been shortened and or paraphrased. Original written comments are posted on the Santa Ana Water Board's web site at: http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.shtml

initiatives has “High Priorities” for the coming planning period:

1. Revise the water quality objectives for pathogen indicator bacteria in the Santa Ana region’s Basin Plan to be consistent with those recently approved by the State Board as amendments to the Water Quality Control Plan for Inland Surface Waters;

2. Update Table 5 – REC-2 Only Antidegradation targets for freshwater waterbodies; and

3. Update the Middle Santa Ana River Watershed TDML for Bacterial Indicators in Chapter 5 of the Basin Plan.

Response:
All of the above initiatives are addressed as priorities on the Draft FYs 2019-2022 Basin Plan Triennial Review Priority List and Work Plan.

1. Revising our water quality objectives for pathogen indicator bacteria to be consistent with those recently approved by the State Board’s Bacteria Provisions (final approval March 22, 2019) is our number one priority for the Non-TMDL related issues. We will work to incorporate the new Bacteria Provisions into the Basin Plan with an amendment tentatively in FY 2019-2020. However, the Bacteria Provisions have already superseded our Region’s REC1 objectives but as noted we will incorporate them into the Basin Plan.

2. Updating Table 5 – REC2 Only Antidegradation Targets for freshwater waterbodies has not been listed specifically on the Priority List. However, we realize that the MSAR TMDL task force has offered to assist in updating the Table and that this issue could be considered part of TMDL priority Issue 7, Review and Revise the Bacteria Indicator TMDLs for the Middle Santa Ana River Watershed.

3. Comment noted. This Issue is a high priority for our Region and is listed as priority Issue 7.

3. Kevin Blakeslee, P.E.
Chief Flood Control Engineer
San Bernardino County Stormwater Program
Received May 29, 2019

Comments:
The Program (San Bernardino County Stormwater Program) is commenting on each of the Issues listed in Priority List No. 8.

- Revision of the total inorganic nitrogen (TIN) and total phosphorus numeric

water quality objectives for Big Bear Lake;

- Development of objectives for other indicators of impairment;
- Development of bi0ocriteria for Big Bear Lake; and
- Investigation of Sawmill Creek drainage, and possible add to the TMDL.

TIN/Phosphorus – There is no evidence supporting the need to revise the TIN or phosphorus numeric objectives.

Other Indicators – The TMDL stakeholders request a discussion outlining why additional objectives would be required. It is our understanding that neither the municipal stakeholders nor the Big Bear Municipal Water District have been contacted concerning other impairments.

Response:
The Basin Plan contains a total phosphorus objective as well as a total inorganic nitrogen (TIN) objective for Big Bear Lake. Both objectives are set at 0.15 mg/L. States are required to review applicable water quality standards (WQS) at least once every three years and, if appropriate, revise or adopt new WQS (Clean Water Act [CWA] section 303(c)(1) and 40 CFR 131.20).

California's Porter-Cologne Act defines water quality objectives as "…the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area" (§13050 (h)). The Act also lists factors to be considered by a regional board in establishing water quality objectives (§13241), including the water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area, economic considerations, and the need to develop and use recycled water.

The Big Bear Lake Nutrient TMDL numeric targets and allocations support the attainment of water quality standards, which includes antidegradation (40 CFR 130.7(c)(1)). However, the numeric targets are not water quality objectives but the waterbody-specific targets that are necessary to attain water quality standards including, for example, the narrative objective related to algae- "Waste discharges shall not contribute to excessive algal growth in inland surface receiving waters" (Basin Plan 2016). Big Bear Lake was added to the CWA Section 303(d) list of impaired water bodies due to excessive algae, invasive aquatic weeds, and low dissolved oxygen; conditions caused by elevated nutrient concentrations in the lake.

As summarized in the Big Bear Lake Nutrient TMDL 2018 Annual Water Quality Monitoring Report, "algae levels remained low for many years and Big Bear Lake was meeting the 2020 TMDL Target for chlorophyll-a in 2009, 2010, 2011, 2012. Chlorophyll-a concentrations began to rise again in 2013 and 2014." In mid-2015, alum was applied to the lake to mitigate the effects of an increase in chlorophyll a

concentration. Notably also is that “Big Bear Lake can generally comply with the TMDL target for chlorophyll-a when the lake elevation does not fall more than 10’ below the full pool mark” (2019 SBCFCD). However, when the average concentration of total phosphorus exceeds 45 ug/L, Big Bear Lake can no longer meet the TMDL target for chlorophyll-a (2019 SBCFCD). Thus, there is evidence that if the lake levels are maintained within 10 feet below full pool, the numeric target for chlorophyll a can be met, but the total phosphorus target generally cannot be met. As chlorophyll-a concentrations rise above the 14 ug/L numeric target, total phosphorus levels rise and decreased water quality is observed. According to the 2018 Big Bear Lake Annual Report, lake wide averages of total phosphorus ranged from 34.1 to 99.5 ug/L from 2009 to 2018, much lower than the 150 ug/L objective for total phosphorus that is currently in the Basin Plan.

The TMDL was developed when Big Bear Lake’s level was at the “100-year lows previously recorded in Fall 2004” (2019 SBCFCD). Based on available data at the time, the TMDL was limited to dry hydrologic conditions, and no targets or TMDLs were established for Total Nitrogen as the proposed nitrogen target could not be achieved. Refer to the Supplemental Staff Report (April 21, 2006) for additional information pertaining to the TN target, WLA and LA as well as the development of TMDLs for other hydrological conditions. Thus, it was always the intent to develop allocations for all hydrologic conditions and establish a Total Nitrogen target as the data set increased.

Comment:
Bio-criteria - The Program understands that bio-criteria will be mandated throughout California and requests the integral involvement of the Big Bear Lake management team in future bio-criteria decision making. There are stakeholder members with strong biological understanding and knowledge of the Lake's processes; their involvement are imperative to the future management of the Lake.

Response:
Comment noted**.** Santa Ana Water Board staff would welcome stakeholder involvement in reviewing possible biocriteria for Big Bear Lake.

Comment:
Sawmill Creek - There is no evidence presented that Sawmill Creek is a source for pollutants into Big Bear Lake. Sawmill Creek does not discharge to the Lake; it terminates at Big Bear Airport. It is highly probable that the terminus of this creek flows toward Baldwin Lake, not Big Bear Lake.

Response:
Sawmill Creek was not evaluated during TMDL development to determine any pollutant load. It has been reported to us that flows from Sawmill Creek flow towards Big Bear Lake. The purpose of this activity is to determine if grading or other activities at the airport result in any flow from Sawmill Creek being directed toward Big Bear Lake. If not, then it will not be included in the TMDL revision. If so, it must be included in the TMDL revision.