



## Clarifying TMDL Implementation Obligations Related to Recycled Water

**1) How much recycled water is EVMWD allowed/required to discharge to Lake Elsinore under its current NPDES permit?**

EVMWD is allowed, but not required, to discharge up to 8 mgd of tertiary treated wastewater to Lake Elsinore at Discharge Point 002. EVMWD is also allowed, but not required, to discharge up to 8 mgd of tertiary treated wastewater to Temescal Creek at Discharge Point 001.<sup>1</sup>

*"EVMWD committed to supply 0.5 mgd to the Gunerson Pond and the constructed wetlands, just north (downstream) of the plant. The pond and constructed wetlands are mitigation for the building of the levee across Lake Elsinore and the reclaimed water provided by EVMWD is needed to maintain beneficial uses of these constructed wetlands. EVMWD meets its commitment to supply water to Gunerson Pond by discharging at least 0.5 mgd of treated wastewater to Temescal Creek which is then diverted from the Creek shortly downstream of Discharge Point 001 into the Pond. Under normal conditions and non-rain/flood conditions, EVMWD plans to discharge up to 7.5 mgd of tertiary treated wastewater to Lake Elsinore to maintain lake levels. This Order allows EVMWD to discharge up to 8 mgd to Temescal Creek and/or Lake Elsinore."<sup>2</sup>*

In order to discharge reclaimed water to any location other than those already identified in its current NPDES permit, EVWMD must first submit a Change Petition to the State Board in accordance with §1211 of the California Water Code and the State Board would have to review and approve that petition as described in §1212 of the Code.

**2) How much recycled water does EVMWD currently discharge to Lake Elsinore?**

Year	Daily Average	Total Annual Total
2015	4.80 mgd	5,379 ac.-ft.
2016	4.53 mgd	5,075 ac.-ft.
2017	5.07 mgd	5,677 ac.-ft.
2018	4.87 mgd	5,456 ac.-ft.
Average	4.82 mgd	5,397 ac.-ft.

<sup>1</sup> NPDES No. CA8000027 adopted by Order No. R8-2013-0017 (Sept. 13, 2013); see Table 2 @ pg. 2 of 39. This permit was set to expire on Sept. 30, 2018 but was administratively extended by the Regional Board.

<sup>2</sup> NPDES No. CA8000027, see §II-B-1 of Attachment F: Fact Sheet (pg. F-5 of F-28).

**3) How much recycled water is EVMWD required to discharge to Lake Elsinore in order to comply with the terms of its Settlement Agreement with the City of Lake Elsinore?**

The Settlement Agreement does not impose any specific minimum numeric discharge obligation on EVMWD. Instead, the Agreement states that:

*"Subject to any permitted limits imposed by the California Regional Water Quality Control Board, Santa Ana Region and the State Water Resources Control Board and the State Water Resources Control Board, whenever the elevation of Lake Elsinore is below 1,240 feet the District shall reserve all Reclaimed Water produced by the District's Regional Water Reclamation Plant, or any remodeling, rebuilding or replacement of such facility (the "Regional Plant"), for replenishment of the Lake. In any given Water Year, the District shall not be required to reserve Reclaimed Water produced by the Regional Plant (i) that is required to be reserved for other environmental purposes; or (ii) exceeds the quantity that can be paid for from money in the Lake Maintenance Fund or from other sources."<sup>3</sup>*

The Settlement Agreement requires the City and the District to each contribute \$650,000/year to the Lake Maintenance Fund. That annual contribution amount is adjusted, every five years, based on what the District pays for Imported Water.<sup>4</sup> The Settlement Agreement states that the District's costs for delivering reclaimed water to Lake Elsinore in 2002-03 was \$97 per acre-foot and EVMWD is required to update that cost estimate by July 1<sup>st</sup> of each year.<sup>5</sup> The Settlement Agreement also describes the City and the District's commitment to share costs when the fund is depleted:

*"It is the expectation of the Parties that the Fund should, in most cases, be sufficient to cover the costs required to achieve the objective of maintaining the Lake at a minimum elevation of 1,240 feet. However, this Agreement mandates certain actions as necessary to replenish the Lake regardless of whether the Fund is depleted, and the Parties agree to share those costs. Specifically, if the Fund is depleted, each party commits to a mandatory obligation to pay one-half the Pumping Costs to replenish Lake Elsinore with Well Water as required in Section 3.3 and to pay one-half of the cost of Reclaimed Water delivered into the Lake as part of the Pilot Project, or any extension thereof, as required by Section 3.4.. In no event shall one party be required to pay the entire cost of such activity should the other party refuse to pay one-half the cost."<sup>6</sup>*

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<sup>3</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article III, §3.5(B); pg. 11.

<sup>4</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article IV, §4.4 & 4.6; pg. 15.

<sup>5</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article III, §3.5(D); pgs. 11-12.

<sup>6</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article IV, §4-9; pgs. 15-16.

**4) How much recycled water does the revised TMDL allow/require EVMWD to discharge to Lake Elsinore?**

The draft Attachment to the Resolution states that:

*"Modeling analysis, undertaken as part of the revised TMDLs, shows that approximately 7.5 million-gallons-per-day of supplemental water is needed to maintain the lake level above 1240' even during occasional drought conditions."*<sup>7</sup>

However, the proposed TMDL does not impose any new minimum or maximum flow requirements on EVMWD's discharges to Lake Elsinore. The waste load allocations assigned to EVMWD in the revised TMDL were calculated to support the District's "plans to discharge up to 7.5 mgd of tertiary treated wastewater to Lake Elsinore to maintain lake levels."<sup>8</sup>

Regional Board staff has also emphasized that the load allocations, waste load allocation, and reasonable assurance analyses presented in the proposed TMDL were all made based on the assumption that EVMWD was still planning to discharge an average of 7.5 mgd of recycled water to Lake Elsinore. If that supposition is suspect for any reason, then these calculations and demonstrations would have to be revised to more accurately reflect a different expectation regarding EVMWD's discharges.

**6) Why is EVMWD concerned that the TMDL may be construed to impose an obligation requiring them to discharge 7.5 mgd of recycled water to Lake Elsinore?**

Paragraph 19 (pg. 5 of 8) in the draft Tentative Resolution for the proposed Basin Plan amendment states that: *"Attachment A includes an updated Implementation Plan and Schedule for the revised TMDLs. This plan and schedule require that current nutrient controls be continued and expanded..."* Table 6-9t (pg. 30 of 47) in the draft for Attachment A summarizes the TMDL Implementation Activities and responsible entities. Task 4 in that table includes *"Supplemental Reclaimed Water"* as one of the four *"Existing Water Quality Controls"* that must be implemented. The table identifies EVMWD as responsible for the *"assumed continuance of the discharge of supplemental water to Lake Elsinore and additional flows up to 7.5 MGD."*

The 2004 TMDL "assumed" the existence of LEAMS and all of the load allocations and wasteload allocations were based on that assumption. However, it did not identify the dischargers responsible for paying for that facility. The assumed existence of the then un-built LEAMS project, eventually evolved into a NPDES permit obligation for EVMWD to operate that system. The District is concerned that discharge "assumptions" in the new TMDL may also be interpreted as a mandatory obligation at some future date. And that, as before, EVMWD will be the only discharger actually required (by the TMDL) to pay for an offset mitigation project that actually benefits all stakeholders in the watershed.

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<sup>7</sup> Draft Attachment A to the Resolution; April 2, 2019; see §1-D on pg. 15 of 47.

<sup>8</sup> See discussion in the first paragraph of §1-D (pg. 15 of 47) of Draft Attachment A to the Resolution (4/2/19).

**7) Has the Regional Board staff confirmed that the above interpretation is correct?**

No. The Regional Board staff has consistently maintained that neither the current TMDL nor the revised TMDL impose any new obligation on EVMWD to discharge any specific amount of recycled water to Lake Elsinore. However, to date, EVMWD's request to have that finding added to the draft adoption resolution has been rejected (as unnecessary) by the Regional Board staff.

**8) Is EVMWD still planning to discharge up to 7.5 MGD of reclaimed water to Lake Elsinore?**

Yes, in a manner consistent with the Settlement Agreement which states:

*"The City and the District will work together to provide Supplemental Water supplies, when available and within the resources of the community, to maintain the elevation of Lake Elsinore to the extent feasible at a minimum level of 1,240 feet mean sea level..."<sup>9</sup> The Agreement also states that: "the Parties understand that this objective is not obtainable at all times. Nevertheless, the Parties shall use their best efforts to implement the provisions herein for the purchase and delivery of Supplemental Water for Lake Elsinore replenishment when the Lake is below elevation 1,240 feet, and to provide the opportunity for purchasing and delivering Supplemental Water, if appropriate, when the Lake level is higher."<sup>10</sup> (emphasis added)*

**9) If EVMWD is still planning to discharge up to 7.5 MGD of reclaimed water to Lake Elsinore, why is the District reluctant to see that commitment reflects as an Existing Water Quality Control that must be continued within the proposed Implementation Plan for the revised TMDL?**

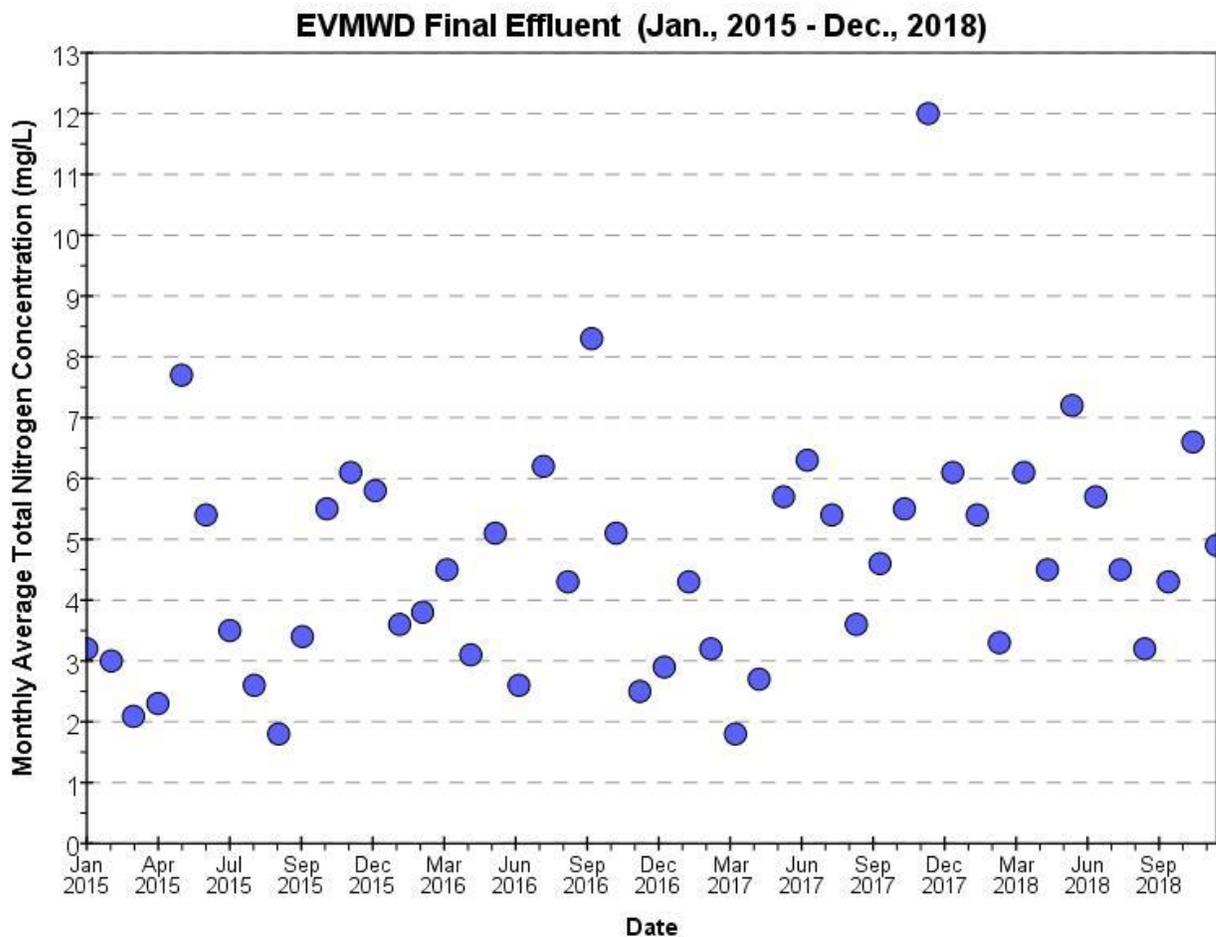
- (a) EVMWD's commitment includes several key assumptions and conditions that are described in the Settlement Agreement but not included in the TMDL Implementation Plan, including: cost-sharing, community resource limitations, Flood Control regulations, availability of alternate groundwater supplies, expected treatment costs, etc.
- (b) EVMWD's existing NPDES permit includes a mass-based effluent limitation for total nitrogen discharged to Lake Elsinore. That limit was calculated based on an average flow of about 5.4 MGD not 7.5 MGD. The permit limits must be revised to allow the additional mass that will be discharged with higher flows. Averaging periods must also be revised to be consistent with the new wasteload allocation.

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<sup>9</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article I, §1.1; pg. 2.

<sup>10</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article III, §3.1; pg. 8.

- (c) The updated lake model used in the 2018 TMDL Technical Report demonstrated that lake levels can be maintained above 1,240' if an average of 7.5 MGD of reclaimed water is discharged when the lake elevation is below 1,247' msl. However, prior agreements with the U.S. Army Corps of Engineers and the Riverside County Flood Control District preclude discharging recycled water anytime the lake elevation is above 1,240' msl.<sup>11</sup> Meeting the discharge assumptions in the revised TMDL depends on revising these prior agreements.
- (d) Footnote "d" in Table 6-9q2 of the draft Attachment A to the Resolution states that EVMWD will be required to meet a BAT-based performance limit of 3 mg/L for Total Nitrogen in its treated wastewater and offsets may make up the difference between that value and the 0.92 mg/L concentration used to establish the waste load allocation for discharges to Lake Elsinore. The proposed performance-based limit does not accurately reflect the average TN concentration in EVMWD's treated wastewater (see chart below). At its rated capacity of 8 MGD, EVMWD's treatment plant is designed to achieve an average TN concentration of 6 mg/L not 3 mg/L.



<sup>11</sup> Lake Elsinore Comprehensive Water Management Agreement. March 1, 2003; Article III, §3.2; pg. 8.

- (e) Achieving consistent compliance with both the current and proposed TMDL's requires EVMWD to rely on offsets generated by LEAMS. Historically, LEAMS has produced far more offset credits than EVMWD needed to comply with the effluent limits in its NPDES permit. However, the overall effectiveness of LEAMS was recently called into question and there is presently some uncertainty about the number of offsets being generated - especially when water elevations in Lake Elsinore are unusually low (as they were in 2017). Studies are presently underway to revalidate LEAMS effectiveness but will not be done before the Regional Board is planning to consider adoption of the revised TMDL. EVMWD will be unable to meet its goal of putting 7.5 MGD of reclaimed water in the lake if there are insufficient LEAMS credits available to assure consistent compliance with offset requirements in its NPDES permit.
- (f) By law, any recycled water discharged to Lake Elsinore must meet all applicable water quality standards. EVMWD's commitment is based the assumption that it can meet all existing requirements with its current advanced waste treatment plant. However, the District may not be able to assure compliance with new regulatory requirements are imposed on future discharges. The existing treatment plant is not designed to remove many Chemicals of Emerging Concern (e.g. pharmaceuticals, household pesticides, PFOA compounds, etc.). The state's proposed Toxicity Policy, which requires a new statistical approach for evaluating test data and demonstrating permit compliance, may make force the District to cease or curtail discharges to Lake Elsinore due to ionic interference issues with *Ceriodaphnia dubia* reproduction despite the fact that TDS concentrations in the effluent are well below that of the lake. In addition, it may not be possible to meet more stringent limits on total phosphorus if the California Toxics Rule is revised to reflect EPA's new 304(a) criteria for aluminum in the same way that it was for selenium.
- (g) Paragraph 19 in the draft Tentative Resolution states that the revised TMDL's implementation "plan and schedule require that current nutrient controls be continued and expanded and that additional nutrient reduction plans and projects be completed with a compliance deadline of 10 years after the effective date of the revised TMDL." As noted earlier, supplemental reclaimed water is one of the "Existing Water Quality Controls" described in Table 6-9t summarizing the required TMDL Implementation Activities (pg. 30 of 47 in Attachment A). Therefore, the revised TMDL could be interpreted to require that the volume of recycled water currently being discharged to Lake Elsinore be "expanded" to 7.5 MGD with about 10 years. That is likely if the present rate of development continues but EVMWD has no way to guarantee that will occur. Another recession, similar to that experienced from 2009-2014, could severely curtail those growth projections and make it impossible for EVMWD to discharge 7.5 MGD to Lake Elsinore.
- (h) Other statewide mandates, such as the recently revised Recycled Water Policy, the Sustainable Groundwater Management Act, the legislature's Human Right to Water declaration (and related State Board policy), or the Governor's recent Executive Order regarding Water Resiliency, may require EVMWD to re-prioritize the use of recycled water toward supplementing drinking water supplies. Since Lake Elsinore is not designated MUN, it may be considered a lesser priority for reclaimed water. The Settlement Agreement includes specific provisions to account for such possibilities but the draft revised TMDL does not.