



Clarifying TMDL Implementation Obligations re: Watershed Controls & Offset Programs

1) Important Legal Context re: Existing Watershed BMP Programs

- A) TMDLs are not self-implementing. Compliance obligations must be imposed through other regulatory mechanisms (e.g. NPDES permits, conditional waivers, discharge prohibitions, investigative orders, etc.)
- B) The 2004 TMDL remains in full force and effect until the revised TMDL is fully approved by the Regional Board, State Board, OAL and EPA.
- C) The current NPDES permits (POTW, MS4, CAFO, CalTrans, etc.) remain in full force and effect until revised by formal vote of the Reg. Board following public notice, comment and hearing.
- D) The current Comprehensive Nutrient Reduction Plan (CNRP), submitted by the MS4 permittees in January of 2013, became water quality-based effluent limitations when it was approved by the Regional Board in July of 2013. These effluent limits remain in full force and effect until revised by formal vote of the Regional Board following public notice, comment and hearing.
 - (i) The approved CNRP describes the specific watershed-based BMPs that the permittees are implementing or intend to implement in order to achieve compliance with the 2004 TMDL's Urban Waste Load Allocation by December 31, 2020.
 - (ii) MS4 permittees have submitted annual reports to the Regional Board that document their progress implementing the watershed-based BMPs described in the CNRP.
 - (iii) MS4 permittees must continue to implement and maintain their program of watershed-based BMPs, consistent with the requirements of the approved CNRP, until the Regional Board formally revises those requirements.
- E) The current Conditional Waiver of Agricultural Discharge (CWAD) remains in full force and effect until revised by formal vote of the Reg. Bd. following public notice, comment and hearing.
 - (i) CWAD enrollees must develop an Agricultural Nutrient Management Plan (AgNMP) describing the specific watershed-based BMPs that are being implemented, or will be implemented, in order to achieve compliance with the applicable Load Allocation.
 - (ii) CWAD enrollees must continue to implement and maintain their program of watershed-based BMPs until the Regional Board formally revises the 2004 TMDL and/or the related CWAD requirements.
- F) Dischargers retain the discretion to decommission any given BMP measure or project and replace it with a more cost-effective alternative provided that the overall nutrient control performance is functionally-equivalent to or better than the specific BMP being replaced.
- G) 2018 TMDL Technical Report correctly presumes that existing watershed-based BMP programs will be maintained until the Regional Board authorizes otherwise. This is a requirement of the existing permits not the revised TMDL.
- H) Regulated dischargers must update the CNRP and the AgNMP, and resubmit those documents for Regional Board review and approval no later than 2 years following the date that the revised TMDL becomes effective (i.e. upon final approval by EPA).

2) The Proper Role of Nutrient Offset Projects as Part of the TMDL Implementation Program

- A) Source control is the preferred, but not the only, approach for achieving compliance with waste load allocations for point sources and load allocations for non-point sources.
- (i) "...pollution prevention should be the first step in a hierarchy for reducing pollution and managing wastes and to achieve environmental stewardship for society." (CWC§13263.3[a]) emphasis *added*.
 - (ii) "Permits for discharges from MS4s... shall require controls to reduce the discharge of pollutant to the maximum extent practicable..." (CWA, §402[p][3][B][iii])
 - (iii) "The use of offsets, pollutant trading, or other market-based mechanisms to supplement water quality regulation is clearly appropriate when implemented in the context of a TMDL, in which case, substantial flexibility exists to achieve water quality standards."¹
 - (iv) The Basin Plan affirms the utility and legality of offset programs under certain conditions.²
- B) Dischargers may rely on approved offset programs to demonstrate TMDL compliance when:
- (i) There is no feasible, practicable or reasonable means of achieving compliance by preventing discharge at the source or treating the discharge before it enters the impaired waterbody, or...
 - (ii) The offset program is intended to provide interim, temporary compliance while permanent source control BMPs are being selected, designed and constructed, or...³
 - (iii) Implementing the approved offset program will produce significantly better receiving water quality than is expected to result by requiring strict compliance with traditional waste discharge requirements (may require offset ratio >1:1), or...
 - (iv) Implementing source reduction BMPs, that restrict or divert stormwater runoff away from the impaired waterbody, will achieve technical compliance with the mass-based limits established by the WLA or LA but, results in a significantly greater risk to one or more downstream uses.
- C) Mandatory conditions for an approved offset program
- (i) Must be consistent with any applicable WLA/LA (40 CFR 122.44[d][vii][B]).
 - (ii) Dischargers must continue to reduce pollutant loads to the maximum practicable extent by implementing cost-effect and reasonable best management practices (40 CFR 131.10[d]). This on-going effort can occur concurrently with the offset program.⁴
 - (iii) Participants must implement rigorous monitoring and accounting programs to quantify load reductions, residual loads discharged, offset credits generated, offset credits allocated, and net improvements in receiving water quality.
 - (vi) Dischargers must periodically reassess source control and treatment technologies to determine if a feasible, practicable and reasonable means of achieving compliance with the WLA has become available. The findings and conclusions from this review should be summarized in an appendix to each ROWD submitted to the Regional Board.

¹ SWRCB Office of Chief Counsel. Legal Authority for Offsets, Pollutant Trading and Market Programs to Supplement Water Quality Regulation in California's Impaired Waters. October 16, 2001; pg. 11.

² Water Quality Control Plan - Santa Ana River Basin (8); see discussion on pg. 5-19. See also Res. No R8-2017-0014; Attachment A2; pgs. 27-30 (revising the selenium TMDL for the Newport Bay watershed in Chapter 5 of the Basin Plan)

³ A permit compliance schedule may be required if full BMP-based compliance cannot be assured by the TMDL deadline.

⁴ Individual dischargers are not required to demonstrate that all other dischargers to the same waterbody have met this obligation in order to become eligible or otherwise qualify to rely on offsets to assure compliance for their own jurisdiction.

3) More Stringent Restrictions on the Use of Offsets are not Merited for the Revised TMDL

- A) Technology-based control requirements, unrelated to the TMDL, continue to apply
 - (i) The MS4 permit requires retention of all runoff up to the 85th percentile storm event for all new construction and re-development.
 - (ii) The CAFO permit requires retention of all runoff up to the 24-hour, 25-year storm event.
 - (iii) Technology-based effluent limits are not eligible for offset programs⁵
- B) At present, there is no feasible, practicable or reasonable means to assure compliance with the applicable WLA or LA for the nutrient loads associated with runoff during storm events larger than those to which the technology-based limits apply.
- C) Both the 2004 TMDL and the revised TMDL proposed in 2019 acknowledged that in-lake sediments are the source for the vast majority of nutrient loadings (especially in Lake Elsinore).
 - (i) Re-attainment of water quality standards cannot be achieved by focusing exclusively, or even primarily, on external source controls.
 - (ii) Re-attainment of water quality standards requires significant nutrient load reductions from in-lake sediment sources.
 - (iii) The TMDL has not designated any party as responsible for reducing sediment-based nutrient loads.
 - (iv) It would be extremely difficult to assign such responsibility with the requisite scientific certainty needed to establish legal culpability. Moreover, the process would require a considerable amount of time and staff resources to complete.
 - (v) Offset programs avoid the cost and controversy associated with imposing obligations on designated responsible parties and, instead, incentivize stakeholders to reduce sediment loads voluntarily.
- D) Prior experience in the San Jacinto watershed demonstrates that offset programs produce significant net improvements in receiving water quality without compromising discharger's good faith efforts to minimize pollutant loads at the source.
- E) Dischargers subject to the 2004 TMDL have established a solid track record for implementing cost-effective and reasonable BMP programs while simultaneously relying on in-lake offset programs to address excess nutrient loads that cannot be adequately addressed by additional watershed controls.
- F) Imposing new restrictions that limit dischargers' ability to rely on offset programs to demonstrate compliance with the current or revised TMDL will greatly reduce the incentive to participate in these programs. This will, in turn, significantly delay any action to address the largest single source of nutrients to both lakes and greatly increase the time required to achieve compliance with applicable water quality standards in these waterbodies.
- G) The Regional Board retains sufficient oversight authority and regulatory discretion to revise or terminate any offset program that is no longer necessary or does not generate the expected water quality benefits. Similarly, the Regional Board may restrict access to any offset program for dischargers that fail to make "best efforts" at implementing cost-effective and reasonable Best Management Practices designed to reduce pollutant loads to the maximum extent practicable. At a minimum, such reviews must be undertaken with each permit renewal and detailed compliance audits may be initiated at any time the Regional Board deems appropriate.

⁵ SWRCB Office of Chief Counsel. Legal Authority for Offsets, Pollutant Trading and Market Programs to Supplement Water Quality Regulation in California's Impaired Waters. October 16, 2001; pg. 2.

4) Recommended Revisions

On March 15th, the draft Basin Plan amendment was posted for public comment. On April 2nd, a revised draft was posted on the Regional Board's website. The following new sentence was added to Section 1(B) on page 3 of Attachment A to the latter version:

"All dischargers shall demonstrate that all feasible best management practices have been implemented to reduce nutrient discharges, before proposing to use in-lake treatment options for meeting the load allocations for these TMDLs."

First, while acknowledging that offset programs do not relieve stakeholders of their responsibility to reduce the discharge of pollutants to the maximum extent practicable, this new clause may create several unintended problems during the implementation process. The proposed wording may be misconstrued to require each and every discharger must implement all feasible BMPs before any individual discharger can participate in an offset program. Presumably, the sentence is intended to be read as requiring that each discharger must implement a BMP program in its own jurisdiction in order to be eligible to participate in an offset program.

Second, there are some internal inconsistencies within the proposed Basin Plan amendment that make it difficult to interpret. For example, Finding #19 on page 5 of 8 in the draft Tentative Adoption Resolution states that: "Attachment A includes an updated Implementation Plan and Schedule for the revised TMDLs. This plan and schedule require that nutrient controls be continued..." The three existing offset projects (Alum, LEAMS & fishery management) are included under Task 4 in Table 6-9t showing the "Existing Water Quality Controls" that must be continued. However, as noted earlier, the new sentence added to the first paragraph in Section 1-B of Attachment A (pg. 3 of 47) indicates that dischargers are not allowed to rely on offset programs until after all feasible BMPs have first been implemented.

Therefore, as written, the draft Adoption Resolution and related Attachment would require dischargers to continue funding the existing offset programs with no certainty as to if or when those offset credit could be counted toward compliance. This is inconsistent with several key justifications supporting the use of offsets (see Section 2-B, above). Offsets are intended to provide a temporary bridge to compliance during the interim period that dischargers are in the process of selecting, designing and installing BMPs in the tributary watershed. In many cases, the most effective BMPs will be installed as part of the normal urban development process as is required by the on-site retention provisions in the MS4 permit. Build-out of the watershed is expected to take several decades to complete.

Third, during the annual budgeting process, stakeholders were repeatedly told that participation in any offset program was a completely voluntary decision. Each discharger could choose whether they wanted to sponsor one or more offset projects, and the funding contribution they needed to make, in order to demonstrate their own compliance with the TMDL. The draft wording of the proposed Basin Plan amendment eliminates that discretion and mandates that specific Existing Water Quality Controls be continued without regard to each individual discharger's current need (or lack thereof) for additional offset credits to demonstrate compliance.

Fourth, the draft wording does not distinguish between the existing offset programs (e.g. Alum, LEAMS and Fisher Management), and new offset programs that may be proposed at some later date. All of the existing offset programs were previously reviewed and approved by the Regional Board.⁶ Therefore, in the adoption resolution for the revised TMDL, the Regional Board should explicitly state that continued participation in the existing offset programs remains a valid means of demonstrating compliance with both the MS4 permit and the CWAD until such time as the Regional Board revises or terminates the CNRP and/or the AgNMP. At the same time, it is also reasonable to require that the MS4 permittees and the CWAD enrollees re-justify the continuing need for the existing offset projects each time the CNRP and AgNMP are updated. The revised TMDL requires such updates to be completed no later than 2 years after the effective date.

Fifth, the Lake Elsinore Aeration and Mixing System Offset Project was hard-wired into the existing TMDL when it was adopted in 2004. Regional Board staff assumed that LEAMS would reduce the internal sediment load by 35% in order to demonstrate attainment of the phosphorus target.⁷ Without that assumption the effective waste load allocations for point sources and load allocations for non-point sources would have been set to zero.⁸ Since then, Elsinore Valley Municipal Water District (EVMWD) has been required to operate the system, and to demonstrate the nutrient removal effectiveness, as a condition of the approved offset plan in their NPDES permit.⁹

EVMWD, along with its funding partners (Riverside County and the City of Lake Elsinore) have invested considerable resources to meet this obligation and have enlisted other agencies to help fund the LEAMS project by licensing excess offset credits to these co-sponsors. Stakeholders should not be required to re-justify the need for, or offset credit derived from, the LEAMS project that was required by the 2004 TMDL.

Sixth, the proposed wording characterizes offset programs as an "in-lake treatment option." This phrase may be misconstrued to imply that dischargers are using the lakes to "treat" their wastes. That is not the purpose or intent of the existing offset programs in Lake Elsinore or Canyon Lake.

The current offset programs are designed to reduce the nutrient loads that originate from the lake bottom sediments. The TMDL acknowledges that these sediments are, by far, the largest single source of excess nutrients to both lakes. However, the proposed load allocation for non-point sources in the revised TMDL does not require any reduction in these sediment-based loads. 100% of the load reduction needed to meet water quality standards has been assigned, through the proposed waste load allocation, to the external nutrient loads arriving in stormwater runoff to the lakes.

⁶ Res. No. R8-2007-0083 (Nov. 30, 2007) and Res. No. R8-2013-0044 (July 19, 2013) and Res. No. R8-2013-0017 (Sept. 13, 2013).

⁷ Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads. Revised Staff Report; May 21, 2004 (see pg. 61).

⁸ R8-2017-0023 (April 28, 2017). See Attachment A, Finding #73 on pg. 15 of 39.

⁹ R8-2013-0017 (Sept. 13, 2013) adopting NPDES No. CA8000027; see §IV-1-e (pg. 15 of 39).

Offset projects focus on reducing existing nutrient loads from in-lake sediments, where no load reduction was otherwise required by the TMDL and as a partial alternative to reducing nutrient loads in watershed runoff, when it is not possible to achieve compliance solely through the latter alternative. This is in-lake treatment of an in-lake nutrient source not in-lake treatment of new external loads arriving from the watershed. Since the in-lake loads are governed by the "load allocation" and the external loads from urban stormwater are assigned to the "waste load allocation," the existing offset programs are more accurately characterized as a traditional pollutant trading program between point and non-point sources than as an "in-lake treatment option" for anthropogenic discharges. This approach has been accepted in California for nearly 20 years as part of a reasonable TMDL implementation strategy.¹⁰ It is particularly effective in situations where controllable point-source loads are dwarfed by much larger non-point source loads as is the case in Lake Elsinore.

Suggested Alternative Wording:

The new sentence added to Section 1-B in the April 2nd revised draft Basin Plan amendment should be replaced with something more like the following:

"Existing offset programs (i.e. alum, LEAMS and carp removal), previously approved by the Regional Board, remain valid for demonstrating compliance with NPDES effluent limits and other Waste Discharge Requirements or Waiver Conditions until terminated or revised by formal vote of the Board following appropriate public notice, comment and hearing. Notwithstanding this provision, only dischargers who can clearly demonstrate that they are reducing pollutants in their discharge to the maximum extent practicable, by actively implementing a program of Best Management Practices (BMPs), are eligible to participate in an approved offset program. Documentation to this effect must be submitted to the Regional Board as part of each discharger's annual report and summarized in the Triennial Progress Reports required by the TMDL."

If additional detail regarding proper use of offsets to demonstrate compliance is needed, it may be useful to include wording that mirrors the offset justification described in section 2(b) and the mandatory conditions described in section 2(c) on page 2 of this memorandum. In particular, it is appropriate for the proposed Basin Plan amendment to make clear that existing watershed controls (e.g. BMPs) must be maintained and cannot be decommissioned in favor of substituting offset credits to make future TMDL compliance demonstrations. This restriction would not apply to watershed BMPs that have been determined to be ineffective.

Task 4 should be deleted from Table 6-9t because stakeholders are already required to implement these programs pursuant to the existing NPDES permits (and related CNRP) until such time as these effluent limits and waste discharge requirements are revised by the Regional Board. Moreover, all of the existing offset projects must be addressed as part of Task 3 in Table 6-9t which requires that the CNRP and AgNMP be updated two years after the effective date of the revised TMDL.

¹⁰ SWRCB Office of Chief Counsel. Legal Authority for Offsets, Pollutant Trading and Market Programs to Supplement Water Quality Regulation in California's Impaired Waters. October 16, 2001.