

Regional Water Board Perspective on Receiving Water Limitations and Alternatives

– Thomas Mumley, San Francisco Bay Region

Our preference for addressing concerns with municipal stormwater permit receiving water limitations is a hybrid of Alternative 2 and Alternative 4. Enforceable water quality based requirements would provide a safe harbor from direct enforcement of receiving water limitations.

Permits should provide clarity and specificity for starting and maintaining the iterative process leading as quickly as possible to development of water quality based effluent limitations (WQBELs) with appropriate compliance schedules. WQBELs would be enforceable water quality based permit requirements and could be numerical or narrative. Compliance with enforceable water quality based permit requirements (i.e., WQBELs) would provide a safe harbor. This approach would be similar to the wastewater permitting approach that requires WQBELs for pollutants that have the reasonable potential to cause violations of water quality standards.

Implementation provisions of approved TMDLs should be translated into water quality based permit requirements with compliance schedules. By definition, such WQBELs would result in compliance with receiving water limitations, but through enforceable tasks and schedules rather than an open ended iterative process. Obviously, this approach will require some adaptability and defined and managed flexibility to account for uncertainties, challenges, and constraints associated with controlling pollutants in stormwater to the extent necessary to attain water quality standards.

Water quality based permit requirements (i.e., WQBELs) could and should also be established for pollutants that are known or have the reasonable potential to cause violations of water quality standards, but there is no approved TMDL. The WQBELs with compliance schedules would frame and define appropriate application of the iterative process leading to attainment of the water quality standard. This approach will also require some adaptability and defined and managed flexibility to account for uncertainties, challenges, and constraints associated with controlling pollutants in stormwater to the extent necessary to attain water quality standards.

These concepts are not new. We have included narrative and enforceable water quality based requirements (without calling them WQBELs) in Region 2 permits. Our Municipal Regional Permit has TMDL-based “WQBELs” for mercury, PCBs, and pesticides, and non-TMDL “WQBELs” for copper and trash. It also has requirements that specify the first steps of the iterative process for other pollutants.

Other regions have also included water quality based requirements in permits. Most recently, the Los Angeles permit has many TMDL-based requirements, as does the forthcoming San Diego permit.

The following is my initial shot at answering the workshop questions.

1. What changes need to be made to the iterative process to promote measurable water quality improvements? Consider this question in light of the parameters for the iterative process specified in Alternative 2 of the Issue Paper.
 - Permits should have clear, explicit requirements that define the iterative process on a permit-term basis within the confines of an appropriately defined long-term compliance schedule. Such requirements should be established for pollutants that are known or have reasonable potential to cause or contribute to violations of water quality standards. The process should include measureable outputs and outcomes that lead to or result in measurable water quality improvements.
 - The current unbounded, open-ended iterative process calls for evaluation of existing BMPs and identification and implementation of additional BMPs needed to control (or prevent) violations of water quality standards. At a minimum, each permit-reissuance application should include a report that provides an updated assessment of existing and needed BMPs and a proposed short and long term schedule of implementation with measurable outputs or outcomes with supporting rationale. Short-term is the ensuing permit term, and long-term is the projected attainment of water quality standards via subsequent permit terms.
 - Explicit pollutant-specific permit requirements including measurable outputs and/or outcomes would be established based on the permit application report and other factors generated or provided in the permit development and review process. The outputs or outcomes could be numeric limits, but they also could be action-levels that trigger reevaluation and additional implementation.
 - To guide and facilitate this process, we should establish technical guidance and policy direction on what constitutes an adequate evaluation and schedule of implementation of needed BMPs for specific pollutants or categories of pollutants. The guidance should account for expected implementation scenarios based on community and watershed characteristics.
 - This better defined iterative process would apply to pollutants for which a TMDL has been established, applicable 303(d) listed pollutants without a TMDL, and pollutants for which there is a reasonable potential for the discharge to cause or contribute to violations of water quality standards.
 - This better defined iterative process would also serve to improve how stormwater discharge are accounted for in TMDLs. Future TMDL implementation plans should provide clear direction on expected BMPs, levels of effort, and implementation schedules in subsequent permits consistent with a better defined iterative process.
 - Monitoring requirements should inform implementation of the iterative process. Permit monitoring requirements should account for measureable outputs and outcomes designed and adapted through the interactive process that lead to or result in measurable water quality improvements.
2. Should the receiving water limitations requirements be different for:
 1. Storm water v. non-storm water discharges?
 - The receiving water limitations should be the same = discharges shall not cause or contribute to violations of water quality standards. However, the implementation requirements should be different. Non-stormwater discharges

- that may cause or contribute to violations of water quality standards should be prohibited or covered by NPDES permits with enforceable water quality based requirements.
- The challenge is there are certain non-stormwater discharges that cause violations of water quality standards that are not prohibitable or covered by NPDES permits, most notably sanitary sewer overflows and potable water system discharges. At a minimum, MS4 permits should clarify responsibility of MS4 dischargers.
 - With 20+years of experience, we should and can establish standard MS4 permit requirements for essentially all types of non-stormwater discharges.
2. Discharges with pollutants subject to a Total Maximum Daily Load (TMDL) Waste Load Allocation and discharges not subject to a TMDL?
- The receiving water limitations requirements framework should be the same, but TMDL-based requirements could be different to the extent the TMDL accounted for specific watershed characteristics, opportunities, and constraints and justified different or more specific requirements.
3. Phase 1 as opposed to Phase 2 permittees?
- Yes and no. The requirements framework should be the same, but the required levels and timing of efforts may differ.
 - Whether general permit requirements or individual permit requirements should be the same is a better question since by definition, general permits have requirements applicable to general categories of discharges, not specific discharges. The general permit requirements should be consistent with the initial phase(s) of receiving water limitations requirements and allow small MS4s to follow the lead of large MS4s and small MS4s covered by individual permits.
 - Many small MS4s are already covered by county-wide or regional individual permits. Other small MS4s and non-traditionals, which are found to be significant contributors to violations of water quality standards, should probably be covered by individual permits.
4. In the iterative process, should there be specified, enforceable time frames between iterations? Should there be an explicit compliance schedule or time limit for ultimate compliance with receiving water limitations?
- Iteration time frames should be permit-term based and enforceable requirements should be established for each permit term.
 - There should be an appropriately defined long-term compliance schedule. Permit-term iterations should be within the confines of an appropriately defined long-term compliance schedule. However, the long-term schedule will require some adaptability and defined and managed flexibility to account for uncertainties, challenges, and constraints associated with controlling pollutants in stormwater to the extent necessary to attain water quality standards.

5. What is the most appropriate alternative? Please discuss in light of the criteria listed below. The proposed alternative may be an alternative in the Issue Paper, a combination of those alternatives, or an alternative not identified in the Issue Paper. Please identify and discuss a second alternative that your organization(s) would regard as a second choice.
- a. Water Quality Protection – Is the requirement protective of water quality?
 - b. Practicability/Cost-effectiveness – Is it practical and cost-effective to implement the requirement?
 - c. Clarity – Are the requirements clear and unambiguous?
 - d. Enforceability – Can the requirement be readily enforced for non-compliance?
 - e. Municipal Resources – What are the impacts of the requirement on municipal staff and financial resources?
 - f. Regulatory Resources – What are the impacts of the requirement on the staff and financial resources of the regulatory agencies?
 - g. Acceptability – To what degree does the requirement provide a path to compliance that is acceptable to all parties?
 - h. Other Criteria – What other criteria are appropriate for consideration?
 - Our preference for addressing concerns with receiving water limitations is a hybrid of Alternative 2 and Alternative 4 that results in enforceable water quality based requirements. Enforceable water quality based requirements would provide a safe harbor from direct enforcement of receiving water limitations.
 - We do not support the full safe harbor alternative without an enforceable iterative process.
 - All of the criteria are relevant.
 - Requirements must be clear and enforceable and lead to water quality protection and improvement.
 - We need to consider municipal resource constraints, but we cannot limit requirements to just actions that municipalities can currently afford. Substantial water quality improvement will require significant financial resources and permit requirements must recurring push the financial envelop.
 - To obtain the needed financial support requirements must be practicable and cost-effective, while being acceptable to all parties.
 - The practicability criterion should be parsed into components that account for technology limitations and legal, land use, and logistical constraints.