



A COOPERATIVE STRATEGY FOR RESOURCE MANAGEMENT & PROTECTION

June 26, 2018

Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
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By email to commentletters@waterboards.ca.gov

Subject: Comment Letter - Proposed Amendment to the Recycled Water Policy

Ms. Townsend:

The Stakeholders Implementing TMDLs on the Calleguas Creek Watershed (Stakeholders) appreciate the opportunity to provide comments on the proposed amendment to the Statewide Recycled Water Policy (Proposed Policy). The Stakeholders appreciate most of the modifications to the Proposed Policy and the effort that has put into incorporating meaningful changes based on issues identified during implementation of the existing Policy. In particular, the Stakeholders support the following:

- The clarification of the procedures for meeting antidegradation requirements and the provision of options for development and adoption of the Salt and Nutrient Management Plans (SNMPs).
- Section 7.3.2.2.3 modifications that clarify project-specific monitoring should not be required in most cases for individual recycled water irrigation projects. Monitoring programs should be designed to achieve multiple goals and characterize impacts to

groundwater conditions from multiple inputs. These goals can best be achieved through monitoring networks established through SNMPs or other regional programs after consideration of basin characteristics and development of a conceptual model of the basin. Imposing project by project monitoring requirements can be costly and not warranted in most cases and prevents coordination of resources with other programs, as supported by Section 6.2.4.1.2 of the Proposed Policy.

- The new method for prioritizing basins for development of SNMPs and the acknowledgement that not all basins are threatened due to salts and nutrients. We support the use of the prioritization for other uses than just deciding on the need for a SNMP. For example, the Stakeholders support the discussion on Draft Staff Report on page 52 to use the characterization to “facilitate permitting of recycled water projects. Recycled water projects in basins where salts and nutrients do not represent a threat to groundwater quality objectives would require less evaluation and potentially fewer permit requirements” The Stakeholders appreciate consideration of opportunities to streamline requirements for use of recycled water in areas where salt and nutrients are not a threat to groundwater quality.

General Comment

The Stakeholders have been actively engaged in recycled water use and planning as well as salt and nutrient management since the early 2000s. Additionally, the local groundwater management agency is pursuing development of one of the first Groundwater Sustainability Plans in the State. One of the goals of the Stakeholders in their over 10 years of TMDL implementation has been to effectively integrate the multitude of requirements faced by local agencies and agriculture in the watershed to identify efficient and effective management actions to address these requirements. Because this has been a focus of the group for many years, we have gained insights into some of the challenges posed by trying to align with multiple, sometimes conflicting, mandates from the State. For example:

- Water conservation mandates have resulted in less water and higher salt content water from the treatment plants in the Calleguas Creek Watershed. These observations are supported by the recent *Study to Evaluate Long-Term Trends and Variations in the Average Total Dissolved Solids Concentration in Wastewater and Recycled Water* developed by the Southern California Salinity Coalition. As noted in that report, “A majority of WWTPs in this study exhibited an increase in influent and effluent TDS concentrations over the past few decades. This study found that the two primary contributors to increasing TDS in WWTPs are (1) volume-weighted source water quality and (2) decreased indoor water use.” At times, this results in effluent that exceeds

water quality objectives for salts in the local groundwater basins. The requirements to comply with water conservation mandates without relief for strict salt requirements for recycled water use could result in a net decrease in available water supplies. The Stakeholders have managed this impact by consideration of regional solutions, such as groundwater desalters, and request the policy maintain flexibility to manage salts on a regional basis rather than focus on local, project by project impacts.

- Balancing the needs of various beneficial uses of the water is challenging in effluent-dependent waterbodies. For example, requirements to maintain instream flows need to be balanced with recognition that these flows did not exist prior to the importation of State Water Project water into the watershed. Additionally, stringent water quality requirements to protect agriculture can have the adverse impact of making water either too expensive or not available to the agricultural users which has a more drastic impact on beneficial uses than water quality. Flexibility in meeting these various demands is needed to allow local Stakeholder to identify creative solutions to balance the various water needs.
- In some cases, local Regional Water Board constraints and requirements have slowed or reduced the ability of recycled water projects to move forward. While projects may be aligned with the Recycled Water Policy in concept, stringent interpretations of some requirements have removed some of the flexibility for local planning and consideration included in the Policy. The Stakeholders encourage the State Water Board to continue to promote the use of recycled water as a beneficial use and remove barriers to uses that have minimal impacts on groundwater basins.

The Stakeholders are concerned that the conflicting mandates and local restrictions will eventually raise the cost of recycled water and make its use infeasible. While we recognize many of these issues are challenging topics that will require ongoing discussions to resolve, the Stakeholders request that the State Water Board, in development of new policies, consider potential impacts to other programs and provide flexibility within the policies to grow and evolve the programs in response to these changes. It would also be very helpful to have an understanding of the overarching policy objectives that should be used in making decisions amongst conflicting actions. The Stakeholders recommend including language in the Proposed Policy that notes that the California Water Action Plan is the overarching document that should guide decision-making when conflicts arise. Additionally, the Stakeholders have identified some modifications to the Proposed Recycled Water Policy that could support addressing these challenges in the future that are discussed in more detail in the following sections:

1. Allow for watershed management rather than basin by basin management by including “or watershed” whenever basin/subbasin requirements are included in the Proposed Policy and Draft Staff Report.
2. Remove the requirement for a fate and transport analysis in the SNMP and replace it with a conceptual model requirement.
3. Remove references to water required to be discharged for maintaining in-stream beneficial uses as disposal.
4. Remove references to Regional Board authority to implement alternative implementation and management plans.
5. Remove requirement to comply with other waste discharge requirements and conditional waivers of waste discharge requirements.
6. Allow for existing CEC monitoring to be used for initial assessment and baseline monitoring and revise the quality assurance and quality control requirements for the monitoring.

Comment #1: Include Provisions Acknowledging Management of Recycled Water Policy Requirements on a Watershed Basis

When the 2009 Recycled Water Policy was adopted, the Stakeholders submitted a comment letter requesting that the Policy allow for implementation on a watershed scale, rather than just a groundwater basin by groundwater basin approach. Multiple changes were made to align the document with the comments, but some of the intent of the 2009 to allow for the watershed approach has been lost or was not considered when developing the 2018 Proposed Policy. Additionally, during development of the SNMP in the watershed, the Stakeholders have identified other aspects of the policy requirements that create challenges for effectively implementing recycled water projects and the Policy.

In the Calleguas Creek Watershed, recycled water infrastructure crosses groundwater basin boundaries and the groundwater basins themselves are connected and serve as conduits for transport of both water and constituents between basins. However, the water quality objectives for salts for the groundwater basins were established based on historic water quality measurements and not the consideration of either the groundwater basin geology, groundwater movement, or beneficial uses. As a result, recycled water purveyors can be faced with meeting multiple different water quality objectives for different water application sites if strict application of the water quality objectives is used for permitting. The Stakeholders support the discussion in the Draft Staff Report on page 53 regarding the possibility for modifying water quality objectives through the SNMP and request that the Policy support

flexibility for including salts limits other than the water quality objectives for recycled water projects that are unlikely to impact beneficial uses of a groundwater basin.

Modifications to the Proposed Policy to allow watershed-wide management of salts and nutrients rather than basin-by basin requirements, consistent with the modifications made in 2009, would support the continued use of recycled water in a consistent manner across groundwater basins that protects beneficial uses in the Calleguas Creek Watershed. The Stakeholders request that all discussion of basin/sub basin in the Proposed Policy and Draft Staff Report be replaced by basin/sub-basin or watershed.

Requested change: Add “or watershed” to all references of basin/sub-basin in the Proposed Policy and Draft Staff Report

Comment #2: More flexibility should be provided for analyses required by the Salt and Nutrient Management Plans to recognize differences in basin characteristics and allow better integration with other planning efforts

The Stakeholders have been working for several years to develop a Salt and Nutrient Management Plan (SNMP) for the groundwater basins within the watershed. Through the evaluation of groundwater basin characteristics, analysis of assimilative capacity, and definition of proposed projects, the Stakeholders have identified that many of the proposed projects are unlikely to have a significant direct impact on the water in groundwater basins that is used for beneficial uses. The finding is based on the fact that in many areas there are confined groundwater basins or very deep groundwater that is not directly recharged by land application of recycled water. Additionally, trend analysis for many of the groundwater wells shows no trends or decreasing trends even as recycled water use has increased in the watershed. Finally, the majority of the projects are landscape or agricultural irrigation projects that are required to be applied at agronomic rates. As a result, infiltration of significant salt and nutrient loads to the groundwater basin is unlikely.

Situations like those observed in the Calleguas Creek SNMP are supported by statements in the Draft Staff Report. For example, Section 4.8.4, page 56 states:

“While some recycled water projects have measurable contributions to the total salt and nutrient loading in a given groundwater basin, many recycled water projects have negligible contributions to the total salt and nutrient loading in a given groundwater basin. More often, it is other entities or activities such as agriculture, industry, wastewater treatment plant operations, or water agencies importing high-salinity water that result in significant contributions of salts and/or nutrients to a groundwater basin.”

Additionally, Section 3.4.1.4, page 17 notes that application of recycled water at agronomic rates is a BMP that limits the impacts of recycled water for irrigation uses and other types of uses are unlikely to have sufficient loading to impact water quality.

“The Policy states that use of recycled water consistent with the Policy is to the benefit to the people of the state. The Uniform Statewide Recycling Criteria impose limitations on the uses of recycled water, based on the level of treatment and the specific use of recycled water to protect public health. By restricting the use of recycled water to those meeting the Uniform Statewide Recycling Criteria, the Policy ensures that recycled water is used safely. To the extent that the use of recycled water may result in some waste constituents entering the environment after effective source control, treatment, and control measures are implemented, limiting the use of recycled water to agronomic rates is part of the suite of treatment, storage and application measures that comprise best practicable treatment or control for uses with frequent or routine application, such as landscape or agricultural irrigation. Other types of uses that may be approved, such as dust control, firefighting, hydrostatic testing, and other short term or infrequent application are unlikely to result in sufficient loading of waste constituents that impact water quality.”

Despite these acknowledgements, the Proposed Policy still requires the SNMP to include development of a fate and transport analysis. Development of models, particularly for complex basins like those in the Calleguas Creek Watershed can be expensive and time consuming and may not meaningfully inform the SNMP analysis or conclusions. Through the development of the Calleguas SNMP, the Stakeholders have identified that use of monitoring data, assessment of trends, and a good understanding of the geology and basin characteristics is sufficient for determining the likely impacts of irrigation projects, particularly where the irrigation is not a new project, but just a modification of the water source for existing irrigated areas. While fate and transport analyses may be more important for groundwater recharge projects, the Stakeholders request that fate and transport analyses not be required for all SNMPs.

Throughout Section 3.4 of the Draft Staff Report, a conceptual model for the SNMP is often referenced, but fate and transport analysis is rarely discussed. Additionally, on Page 56, the follow-up assessment of the SNMP is based on the analysis of trend data and a comparison to the conceptual model “If the results of this assessment indicate that observed trends are generally in agreement with predicted trends in the SNMP and that the key assumptions of the conceptual model in the SNMP are still valid, then further updates to the SNMP would not be needed. Alternatively, if the results of this assessment indicate that the conceptual model components in the SNMP are no longer valid and/or that observed trends are significantly

different from those predicted in the SNMP, then the SNMP would need to be revised to address those changes.”

However, the SNMP requirements in the Proposed Policy do not include a conceptual model. The Stakeholders agree that a conceptual model is important and would be a better requirement than a fate and transport analysis. Conceptual models could be used to describe qualitatively the fate and transport of salts and along with monitoring and trend data, as described in the new data analysis section, would be sufficient in many cases for the analysis necessary to evaluate projects. This saves costs in developing models and is preferable to the simplified models that may not adequately assess groundwater conditions. Defining the development of a conceptual model does not preclude conducting more detailed analyses but avoids the requirement to conduct those analyses in areas where it is not warranted based on the conceptual model.

Use of a conceptual model would also help address the concerns raised in Section 3.4.3.2 of the Draft Staff Report regarding the limitations of the monitoring data and the modeling that has been conducted. The conceptual model would help identify areas where application of recycled water or other sources may result in localized groundwater impacts that could impact beneficial uses. However, we disagree with the assessment in this section that the approaches taken overestimate assimilative capacity overall due to the limitations of the analysis or the use of deeper aquifer data. Rather, the analyses in most cases accurately capture the overall ability of the groundwater basin to assimilate salts and nutrients, but do not address localized elevated concentrations. However, localized impacts do not necessarily have an impact on beneficial uses of the groundwater basin. For example, if they occur in an area where there are no wells, then the basin likely has the ability to assimilate the salts and nutrients before they impact beneficial uses. It is important to distinguish between localized water quality concentration increases and impacts on the beneficial uses of the groundwater basin. If no short term localized impacts are allowed when no wells or other beneficial uses are impacted, recycled water use could be significantly curtailed. The Stakeholders request that Section 3.4.3.2 of the Draft Staff Report be modified to remove the discussion about the data limitations impacting the assimilative capacity analysis for the basins.

The removal of the fate and transport analysis requirements would also support the use of Groundwater Sustainability Plans as functionally equivalent documents as conceptual models could more easily be incorporated into GSP development than modeling analysis and results.

Requested change: Remove the requirement to develop a fate and transport analysis and replace it with a conceptual model that includes discussion of the fate and transport of salts and nutrients by modifying Section 6.2.4.3.(d) of the Proposed Policy and Section 3.4.3.2 of the Draft Staff Report as follows:

6.2.4.3. (d) Salt and nutrient source identification, basin/ or sub-basin assimilative capacity and loading estimates, together with a conceptual model of the fate and transport of salts and nutrients.

3.4.3.2. Stakeholder groups that have led the effort to develop SNMPs have relied on water quality data available from existing domestic supply wells. This practice is consistent with the Policy, which states that use of existing wells is preferred. However, these domestic wells are typically screened in deeper portions of aquifers in groundwater basins. They frequently do not provide data that are representative of shallower portions of the aquifer, which are typically most impacted by salt and nutrient loading. Also, many individual or small domestic water supply systems are sourced from shallower aquifers that are not represented by data collected from deeper supply wells. Because individual or small systems are not required to report water quality data to the state, the data from these systems are not readily available. ~~By excluding data from these shallow domestic systems, SNMPs frequently overestimate the total available assimilative capacity of the basin.~~

The other related technical challenge is the use of simple mass balance models to estimate the assimilative capacity of a groundwater basin. The Policy states that SNMPs shall include: "salt and nutrient source identification, basin/sub-basin assimilative capacity and loading estimates, together with fate and transport of salts and nutrients." But no guidance is provided regarding the complexity of this analysis, and most SNMPs have relied upon a very simplistic mass-based approach that assumes complete mixing of salt and nutrient loads into the basin throughout all of the groundwater in the basin. However, salts and nutrients loaded into a basin from surface sources do not typically mix throughout the entire depth of the basin. Rather, salts and nutrients loaded into a basin from the surface can concentrate in shallower aquifers where they end up affecting domestic water supplies, without mixing with groundwater in the deepest portions of the aquifer. Salt and nutrient loads also can remain in relatively confined areas laterally as well, without mixing over the entire basin area. Like the effect of relying on water quality data from deep domestic wells, the simplified total mixing assumption ~~many times results in an overestimate of the assimilative capacity of a basin, and does not consider~~ evaluate potentially significant impacts to shallow groundwater supplies or isolated areas that may have significant impacts.

Comment #3: Water discharged to maintain instream beneficial uses should not be categorized as disposal

In section 3.2.1.3 and 3.2.2. of the Proposed Policy, water required to be discharged to the stream to maintain minimum flows is to be reported under the category of disposal and is not recognized as a direct beneficial use of the water. If water has been designated as necessary for discharge to protect beneficial uses, the use should not be considered disposal of the water, particularly in cases where the water could be beneficially reused if not for mandates to maintain the stream flow.

Requested change: Rename the reporting category Disposal in Section 3.2.1.3 and 3.2.2 to Surface Water Discharge.

Comment # 4: Remove discussion of Regional Water Board Authority to adopt plans and programs of implementation under Water Code Section 13242

In Section 6.2.1.5, the Proposed Policy notes that “Regional Water Board may use its authority pursuant to Water Code section 13242 to adopt plans and programs of implementation for the protection of beneficial uses in basins whether or not a salt and nutrient management plan has been accepted by the regional water board pursuant to 6.2.3.2 or a basin plan amendment has been adopted by the regional water board pursuant to. 6.2.3.3.”

The Stakeholders are concerned that inclusion of this statement defeats the purpose of stakeholder developed SNMPs. While the Regional Water Boards may have this authority, including it expressly in the Proposed Policy implies that SNMP efforts are likely to be overridden by Regional Water Board implementation plans. In the Los Angeles Region, recycled water permitting has been slowed and additional monitoring and restrictions have been placed on recycled water projects even when a SNMP has been adopted into the Basin Plan. The Stakeholders are concerned that including this language will continue to minimize the value of SNMPs in the Los Angeles Region and place additional barriers to recycled water use.

Requested change: Remove Section 6.2.1.5

Comment # 5: Remove requirement to comply with other waste discharge requirements and agricultural waivers

The addition of Section 7.3.2.1.7 requiring compliance with all requirements of applicable waste discharge requirements, waivers of waste discharge requirements, and waste discharge requirements or waivers regulating agricultural discharges from irrigated lands places requirements upon recycled water purveyors that are well beyond their authority to control.

Recycled water purveyors do not have the obligation to meet requirements assigned to other dischargers. This language implies that by the act of supplying water to a user, the recycled water purveyor is responsible for all of the actions in the other order (e.g. management plan development, monitoring, reporting, etc.). By meeting the other requirements of the Universal Statewide Recycled Water Criteria and other requirements in the recycled water permit, the recycled water purveyor would be required to provide water of sufficient quality for the use. Whether or not that water is used in accordance with another discharger's waste discharge requirements are not the responsibility of the water provider. The Stakeholders request that this provision be removed from the Proposed Policy.

Requested change: Remove Section 7.3.2.1.7

Comment #6: Clarify Elements of the Constituents of Emerging Concern (CEC) Monitoring Requirements

The discussion of the Quality Assurance and Quality Control Requirements in Attachment A include language that could be interpreted as requiring individual recycled water proponents to in essence "certify" the laboratories used for the CEC monitoring. The Stakeholders support the suggested modifications provided by the Coalition of Accredited Laboratories to clarify that Quality Assurance and Quality Control accreditation of laboratories should be conducted through an established method, such as the ELAP, and the only responsibility of the recycled water proponents is to use a certified lab and have a Quality Assurance Project Plan that specifies the analysis methods.

Secondly, the Stakeholders would like to request inclusion of language that allows for existing CEC monitoring to be used for the initial assessment and baseline monitoring if it meets the requirements of Attachment A. In the Los Angeles Region, the Regional Water Board has required CEC monitoring in NPDES permits for many years. Most of the POTWs in the Calleguas Creek Watershed have existing CEC monitoring that should be of sufficient quality to meet the requirements of Attachment A. While these monitoring data have not been generated specifically for the purposes of assessing specific groundwater recharge or reservoir augmentation projects, the data should be able to be used to meet monitoring requirements for effluent data in the Policy when a project is developed. The data should be able to be used for both the initial assessment and baseline monitoring if the data meet the requirements in Attachment A.

Requested change: Add language to Section 4.1 and 4.2 of Attachment A allowing for available existing monitoring data to be used in lieu of new monitoring for the initial assessment and baseline monitoring requirements

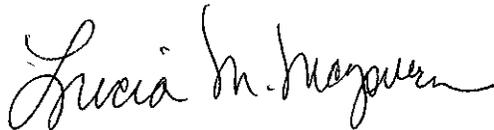
Comment #7: Correct that Los Angeles Region SNMPs have been adopted by Basin Plan Amendment

All accepted SNMPs in the Los Angeles Region to date have gone through the Basin Plan Amendment adoption process. Although the SNMPs did not result in modified water quality objectives, the programs of implementation were adopted into the Basin Plan along with CEQA and antidegradation analyses. The discussion should be corrected in the Draft Staff Report.

Requested change: Modify the Draft Staff Report to clarify that the SNMPs in the Los Angeles Region have been adopted as Basin Plan Amendments

Finally, the Stakeholders support the WaterReuse Association's comments. Please contact me at 805-583-6401 if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Lucia M. McGovern". The signature is written in a cursive style with a large initial "L" and a long, sweeping underline.

Lucie McGovern

Chair, Parties Implementing TMDLs in the Calleguas Creek Watershed