INFORMATIONAL DOCUMENT

Early Public Consultation Meeting

PROPOSED AMENDMENT TO THE POLICY FOR RECYCLED WATER

December 1, 2017 Sacramento, CA

December 5, 2017 San Diego, CA

DIVISION OF WATER QUALITY
STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Summary

State Water Resources Control Board (State Water Board) staff is developing a proposed amendment to the Policy for Water Quality Control for Recycled Water (Recycled Water Policy) to update the monitoring requirements for constituents of emerging concern (CECs), reflect recent regulatory developments, advancements in the field of recycled water, and update or clarify guidance on salt and nutrient management plans.

This informational document describes the topics of the proposed amendment and summarizes factors that could be considered in the analysis of potential significant environmental effects under the California Environmental Quality Act (CEQA). This document is provided to the public for the purposes of receiving input on the scope of the State Water Board's CEQA analysis. State Water Board staff will host two scoping meetings to assist in identifying the issues relevant to stakeholders during the environmental review process (Cal. Code Regs., tit. 23, § 3775.5).

Friday, December 1, 2017
10:00 a.m. – 12:00 p.m.
Joe Serna, Jr.–CalEPA Headquarters Building
Klamath Training Room
1001 "I" Street, Second Floor
Sacramento, CA 95814

Tuesday, December 5, 2017
10:00 a.m. – 12:00 p.m.
San Diego Regional Water Quality Control Board
Board Meeting Room
2375 Northside Drive, Suite 100
San Diego, California 92108

This document is not intended to fulfill the State Water Board's formal rule-making requirements under the Porter Cologne Water Quality Control Act, the Federal Clean Water Act, or CEQA. State Water Board staff will prepare and circulate a draft staff report, including substitute environmental documentation, and a draft Recycled Water Policy amendment at a later date to fulfill the State Water Board's formal public noticing and participation obligations.

Project History

On February 3, 2009, the State Water Board adopted the Recycled Water Policy to encourage the safe use of recycled water in a manner that is protective of human health and the environment. The legislature defines recycled water as "water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource." (Wat. Code, Div. 7, Ch. 2, § 13050.) Many different sources of water are either re-used and/or recycled in California to supplement the water supply, but the Recycled Water Policy solely addresses use of recycled water that is sourced from treated municipal wastewater.

The Recycled Water Policy includes goals for recycled water use and guidance for streamlined permitting of projects that use recycled water for landscape irrigation and groundwater recharge. The Recycled Water Policy was amended on January 22, 2013 to specify monitoring requirements for CECs in recycled water used in groundwater recharge projects. CECs are typically unregulated or not well-monitored constituents which include chemicals in personal care products; pharmaceuticals including antibiotics and antimicrobials; industrial, agricultural, and household chemicals; hormones; food additives; transformation products; inorganic constituents; and nanomaterials. The 2013 amendment also included a provision to reconvene

a Science Advisory Panel every five years to update its recommendations for CEC monitoring in recycled water.

The Recycled Water Policy also includes guidelines and a process that encourages stakeholder collaboration with the Regional Water Boards to prepare salt and nutrient management plans for groundwater basins and sub-basins throughout California. Salt and nutrient management plans address potential cumulative impacts to groundwater quality that may be associated with use of recycled water, and take into consideration all of the other sources of salts and nutrients in a groundwater basin. The Recycled Water Policy required stakeholders to develop salt and nutrient management plans by 2014, or 2016 if the applicable Regional Water Board found that stakeholders were making substantial progress towards the completion of a plan. While 28 salt and nutrient management plans have been completed statewide and 17 are in development, deadlines to develop a plan have passed and there are still some basins that do not have a salt and nutrient management plan in development.

On December 6, 2016, the State Water Board adopted Resolution 2016-0061 directing staff to amend the Recycled Water Policy to reflect the current state of the science for recycled water as well as regulations that have been adopted since the Policy was last amended in 2013.

Environmental Background

The Recycled Water Policy was adopted to encourage the safe use of recycled water to help meet the state's growing water supply demand and sustain aquatic habitats and mitigation areas in times of drought and severe water shortage. Generally, when recycled water is used in accordance with the Recycled Water Policy and consistent with California Code of Regulations, title 22, Water Recycling Criteria, the environmental impacts of recycled water use are limited. However, as more recycled water projects come online, there may be environmental effects related to constituents in the recycled water, including salts, nutrients, and CECs.

Recycled water may contain elevated concentrations of salts and nutrients, which may have a negative effect on groundwater quality. This is of particular concern in areas where salts and nutrient concentrations exceed or threaten to exceed water quality objectives established for the groundwater basin. To address this environmental concern, the Recycled Water Policy includes guidance on developing a groundwater basin-wide or subbasin-wide salt and nutrient management plan to ensure that water quality objectives are met and beneficial uses are protected as the number of recycled water projects increases.

There are many sources of CECs to surface waters and groundwater, such as municipal wastewater and storm water discharges and recycled water. The toxicological relevance for human health and the environment is not known for many CECs. The Recycled Water Policy requires monitoring for a subset of CECs in recycled water used for groundwater recharge to monitor for chemicals that are of toxicological relevance for human health as well as chemicals that can indicate the performance of recycled water treatment processes.

Regulatory Background

The State Water Board and Regional Water Boards are authorized to implement California's Porter-Cologne Water Quality Control Act and the federal Clean Water Act. Sections 13140 and

13170 of the Porter-Cologne Water Quality Control Act authorize the State Water Board to adopt statewide water quality control policies and plans.

The California Code of Regulations includes Water Recycling Criteria that specify required levels of treatment for specific uses of recycled water, which include many non-potable uses (e.g., landscape and agricultural irrigation, dust control, industrial cooling) as well as indirect potable reuse (groundwater recharge[1]). (Cal. Code Regs., tit. 22, Div. 4, Ch.3). The indirect potable reuse groundwater recharge provisions became effective June 18, 2014. The State Water Board is currently considering amending these regulations to establish regulations for use of recycled water for surface water augmentation of reservoirs.[2]

In December 2016, the State Water Board released its report to the California Legislature on the feasibility of developing regulatory criteria for direct potable reuse in California. The State Water Board concluded that it is feasible to develop regulatory criteria for direct potable reuse, and that it would address outstanding research needs in parallel with criteria development. In addition, Assembly Bill 574 was signed by the Governor on October 6, 2017, which requires the State Water Board to adopt uniform water recycling criteria for raw water augmentation[3] by December 31, 2023.

The State Water Board adopted a general permit for landscape irrigation uses of recycled water (Order WQ-2009-0006-DWQ) as was required in Water Code section 13552.5, which was updated following approval of AB 1481 on October 12, 2007. The State Water Board also adopted Water Reclamation Requirements for Recycled Water Use (Order WQ 2016-0068-DDW) in 2016 in accordance with the April 25, 2014 Proclamation of the Governor. Order WQ 2016-0068-DDW replaced the General Waste Discharge Requirements for Recycled Water Use (Order WQ 2014-0090-DWQ) and offers permit coverage for non-potable uses of treated municipal wastewater.

In addition, the Drinking Water Program was transferred from the California Department of Public Health to the State Water Board in 2014 and the State Water Board is currently charged with protection of drinking water supplies.

Project Necessity

The Recycled Water Policy needs to be amended to incorporate recommendations of a Science Advisory Panel on CECs convened in 2017, changes in the regulatory environment, and Resolution 2016-0061, which the State Water Board adopted on December 6, 2016. In Resolution 2016-0061, the State Water Board encouraged the continued development of salt and nutrient management plans and directed staff to amend the Recycled Water Policy considering the following potential elements:

a. The increased and varied uses of recycled water;

[1] Groundwater recharge: The use of recycled municipal wastewater to replenish a groundwater basin for use as a source of municipal and domestic water supply.
[2] Reservoir augmentation (previously referred surface water augmentation): the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system or into a constructed system conveying water to such a reservoir
[3] Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system, as defined in Section 116275 of the Health and Safety Code.

b. Revised goals and mandates for statewide volume of recycled water;
c. Clarification of monitoring and reporting requirements to protect water quality for different uses of recycled water consistent with California Code of Regulations, title 22, Water Recycling Criteria;
d. Recommendations for the development of a framework for representative basin-wide monitoring networks to support implementation of salt and nutrient management plans;
e. An evaluation of the requirements and frequency of monitoring for priority pollutants and CECs, considering recommendations from the 2017 Science Advisory Panel;
f. A recommendation for a time schedule for Regional Water Boards to review orders and permits issued to facilities for recycled water projects prior to the adoption of Water Reclamation Requirements for Recycled Water Use (Order WQ 2016-0068-DDW) to ensure compliance with the Recycled Water Policy and to determine whether the orders should be renewed or to enroll the facilities in the statewide general order;
g. The nexus between the provisions of the Recycled Water Policy, Sustainable Groundwater Management Act requirements, groundwater recharge regulations, and surface water augmentation regulations.

Resolution 2016-0061 also directed staff to convene a Science Advisory Panel on CECs in recycled water as specified in the Recycled Water Policy to update the 2010 report titled, "Monitoring Strategies for Chemicals of Emerging Concern in Recycled Water – Recommendations of a Science Advisory Panel" to guide future actions relating to CECs. The Science Advisory Panel was reconvened in 2017 and the findings from the panel will be used to update the list of CECs and associated monitoring requirements in Attachment A of the Recycled Water Policy.

Since the last Policy update, there have been a number of regulatory developments and a significant amount of recycled water research and information that has become available. Consequently, the current Recycled Water Policy may not accurately reflect the current state of the science or regulatory framework for recycled water. Updating the Recycled Water Policy to reflect the state of science and regulations for recycled water will ensure that recycled water continues to be used safely in a manner that is protective of human health and the environment.

Project Goals

The project has the following goals:

1. Support the increased use of recycled water in a manner that protects the environment and public health as one piece of a broader strategy to mitigate the effects of long-term drought, climate change, and water supply uncertainty.
2. Amend the Recycled Water Policy to reflect:
    - The changing regulatory aspects of recycled water production and use in California including changes to California Code of Regulations, title 22 and other applicable regulations;
    - Findings from an evaluation of the challenges and benefits of salt and nutrient management plans development; and
    - Recommendations of the reconvened Science Advisory Panel on CECs in recycled water.
3. Clarify, streamline, and provide statewide consistency for permit requirements for recycled water projects.

Project Description

The proposed project is to amend the Recycled Water Policy to address the increased and varied uses of recycled water since the last amendment in 2013, new statutes and regulations, and the findings of the reconvened Science Advisory Panel on CECs in recycled water.

The proposed Recycled Water Policy amendment may include updates on the following topics:

Topic 1: *Update monitoring requirements for CECs*

A Science Advisory Panel on CECs in recycled water was reconvened in 2017 to review the current state of scientific knowledge and monitoring data related to human health risks associated with exposure to CECs in recycled water, including antibiotic resistant bacteria and antibiotic resistance genes.

The Panel is reviewing the conceptual framework developed in their 2010 report, evaluating relevant scientific literature, and assessing potential health risks associated with CECs in the following uses of recycled water:

- All uses of recycled water specified in California Code of Regulations, title 22 (the previous Panel evaluated only landscape irrigation and groundwater recharge uses)
- Surface water augmentation.

The proposed Recycled Water Policy amendment may update monitoring requirements for CECs in recycled water (Attachment A of the Recycled Water Policy) based on the findings of the Science Advisory Panel and may include language for use in permits.

Topic 2: *Goals and mandates*

The Recycled Water Policy contains storm water and conservation goals, which may be removed because they are now housed in the Strategy to Optimize Resource Management for Storm Water and implementation of Executive Order B-37-16 ("conservation regulations"). Any changes to the goals may also acknowledge conservation efforts and long-term water supply challenges that may affect recycled water production or use.

The statewide mandates for recycled water use may be removed from the Policy because there is no clear method of enforcing the mandates, and the goals serve a similar function of encouraging development and use of recycled water.

Topic 3: *Tracking use of recycled water*

Currently, there is no streamlined statewide reporting program and data management system for tracking recycled water production, use or potential production. The proposed Recycled Water Policy amendment may include language requiring annual reporting of recycled water production, use, and potential by recycled water producers.

Topic 4: *Add clarifying language regarding the process to comply with Water Code section 1211*

Water Code section 1211 requires wastewater treatment plants to obtain approval from the State Water Board prior to making any change in the point of discharge, place of use, or purpose or use of treated wastewater. This approval is required for many recycled water projects, and yet stakeholders have expressed concern about the mechanism for verifying

compliance with Water Code section 1211. The proposed Recycled Water Policy amendment may include language to clarify the requirement and process for complying with Water Code section 1211.

Topic 5: *Salt and nutrient management plan development: Prioritize basins and periodic updates*

- The Recycled Water Policy states the Board's intent for each groundwater basin or subbasin in California to have a salt and nutrient management plan. Some Regional Water Boards have developed their own basin prioritization schemes that identify basins where a salt and nutrient management plan is not needed due to high water quality conditions and trends that do not indicate vulnerability to salt and nutrient loading. The proposed Recycled Water Policy amendment may require Regional Water Boards to prioritize which groundwater basins or sub-basins need salt and nutrient management plans due to basin characteristics, such as existing salt and nutrient impacts, high percentage of recycled water use, and other factors that may make the basin and/or sub-basin more vulnerable to potential salt and nutrient impacts. The prioritized list would be for informational purposes and would not result in specific requirements or regulations.

- The Recycled Water Policy does not include any language regarding updating salt and nutrient management plans, however, salt and nutrient management plans may need to be periodically updated as more monitoring data becomes available. The proposed Recycled Water Policy amendment may include recommendations regarding updating salt and nutrient management plans, including recommendations on the frequency and types of data analysis to be completed.

Topic 6: *Clarify permit requirements for projects in basins with no salt and nutrient management plan and the intent and use of existing interim assimilative capacity criteria*

The Recycled Water Policy includes language that indicates that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The most effective way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects.

There are many basins where salt and nutrient management plans have not been developed, and development of a salt and nutrient management plan is not likely in the future due to lack of salinity or nutrient impacts or where a Regional Water Board may have identified the basin as a very low priority. In the absence of a salt and nutrient management plan, and absent any guidance in the Recycled Water Policy, the default assumption is that each recycled water project would need to complete a project-specific antidegradation analysis to demonstrate a project's compliance with the State's Antidegradation Policy (Resolution No. 68-16), unless it is enrolled under Order WQ 2016-0068-DDW. The proposed Recycled Water Policy amendment may include guidance regarding permitting of recycled water projects where no salt and nutrient management plan has been developed or is anticipated to be developed.

In addition, the Recycled Water Policy includes an option to use an interim assimilative capacity for cases where a salt and nutrient management plan is being prepared or until such time as a salt and nutrient management plan is in effect. The proposed Recycled Water Policy amendment may clarify the intent and use of the existing interim assimilative capacity criteria.

Topic 7: *Clarify process for salt and nutrient management plans that do not result in a Basin Plan amendment*

The Recycled Water Policy states that Regional Water Boards shall consider adopting Basin Plan amendments based on stakeholder-developed salt and nutrient management plans if water quality objectives are exceeded or are threatened to be exceeded. The Recycled Water Policy also states that, when preparing salt and nutrient management plans, stakeholders shall include "compliance with CEQA." However, CEQA is only triggered when a Regional Water Board considers adopting a Basin Plan amendment. If the Regional Water Board does not plan to adopt a regulatory Basin Plan amendment based on the salt and nutrient management plan, the process for completing CEQA is unclear. The proposed Recycled Water Policy amendment may clarify the role of the Regional Water Board in accepting stakeholder-developed salt and nutrient management plans, including compliance with CEQA.

Topic 8: *Priority pollutant monitoring requirement for landscape irrigation*

The Recycled Water Policy requires priority pollutant monitoring for recycled water uses in landscape irrigation due to potential contamination from incidental runoff. However, California Code of Regulations, title 22 prohibits off-site runoff of recycled water used for landscape irrigation and any incidental runoff may have a minimal impact on water quality. Priority pollutant monitoring requirements for landscape irrigation may be reevaluated in the proposed Recycled Water Policy amendment.

Topic 9: *Establish a process for Regional Boards to review recycled water permits and orders*

Many Regional Water Boards have historically permitted recycled water projects under site-specific waste discharge requirements, water reclamation requirements, or master reclamation permits in lieu of enrolling permittees under statewide general orders. Because these types of permits and orders are not frequently updated, some recycled water facilities have permit requirements that may not be consistent with the requirements in the Recycled Water Policy or California Code of Regulations, title 22. The proposed Recycled Water Policy amendment may include a time schedule for Regional Water Boards to review and prioritize updating orders that may not be consistent with the Policy or California Code of Regulations, title 22.

Topic 10: *Rescind 2009 general order for landscape irrigation uses of recycled water*

In 2009, the State Water Board adopted a general permit for landscape irrigation uses of recycled water (Order WQ-2009-0006-DWQ) as required in Water Code section 13552.5[4]. There are two applicants enrolled in this order and the 2016 statewide general Water Reclamation Requirements may meet the intent of the statutory requirements in Water Code section 13522.5. The proposed Recycled Water Policy amendment may include language consistent with Water Code section 13552.5 that would allow the State Water Board to rescind

[4] Water Code section 13552.5 states, in part, "On or before July 31, 2009, the state board shall adopt a general permit for landscape irrigation uses of recycled water for which the State Department of Public Health has established uniform statewide recycling criteria pursuant to Section 13521."

Order WQ-2009-0006-DWQ and transition enrollees to the 2016 statewide general Water Reclamation Requirements (Order WQ 2016-0068-DDW).

Topic 11: *Non-substantive changes*

The proposed Recycled Water Policy amendment may include updates to be consistent with current regulations, orders, and strategies and change references to California Department of Public Health where appropriate to reflect the transfer of the Drinking Water Program to the State Water Board.

Analysis of Environmental Impacts

In accordance with CEQA, the State Water Board must present an analysis of the reasonably foreseeable methods of compliance with this project (Cal. Code Regs., tit. 23 § 3777). The environmental analysis will focus only on the topics that are identified as potentially having adverse environmental impacts. After receiving comments on this informational document and at the early public consultation meetings, the State Water Board will prepare substitute environmental documentation including a draft staff report, CEQA checklist, and a draft amendment to the Recycled Water Policy. These documents will be circulated for public comment. The process will follow state and federal requirements for public participation and for environmental and economic consideration.