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Los Angeles Regional Water Quality Control Board

TO: Interested Persons

FROM: Ginachi Amah, D.Env
Basin Planning Program

DATE: June 29, 2015

SUBJECT: Notice of California Environmental Quality Act (CEQA) Scoping Meeting for a Proposed Amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to adopt a Program of Implementation for Management of Salts and Nutrients in the Malibu Valley Groundwater Basin.

Notice is hereby given that the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), in conjunction with the stakeholders of the Malibu Valley Groundwater Basin, will hold a CEQA Scoping Meeting. Pursuant to California Public Resources Code Section 21083.9, the purpose of this meeting is to receive comments on the appropriate scope and content of the substitute environmental documents supporting a Basin Plan amendment that would adopt implementation strategies for the management of salts, nutrients and other related constituents of concern in the of the Malibu Valley Groundwater Basin of the Los Angeles Region. The substitute environmental documents will be prepared pursuant to Public Resources Code Section 21080.5, and the State Water Resources Control Board's regulations related to its Certified Regulatory Program (23 C.C.R. § 3775 *et seq.*). The substitute environmental documents are intended to serve as program level environmental documents, consistent with Public Resources Code Section 21159.

BACKGROUND

Salt and Nutrient Management Plans (SNMPs) are required for each basin/sub-basin in California in accordance with the State Water Resources Control Board's (State Water Board's) Recycled Water Policy (Policy), which was adopted by the State Water Board through Resolution No. 2009-0011 on February 3, 2009, and became effective on May 14, 2009. This Policy was amended in 2013 through Resolution No. 2013-0003. Per the Policy, SNMPs will be developed by local water and wastewater entities, together with local salt/nutrient contributing stakeholders, through a locally-driven and controlled, collaborative process. All SNMPs should be completed and submitted to the Regional Board by May 2016.

The Policy encourages increased use of recycled water and stormwater as safe, local, drought-proof water sources. It is the intent of the Policy 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

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protection of groundwater's beneficial uses. The State Water Board finds that the appropriate way to address salt and nutrient issues is through the development of regional or sub-regional SNMPs rather than through imposing requirements solely on individual recycled water projects. The Resolution, Policy, Policy amendments, and other related information can be found at:

http://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/

The Policy defines essential elements of the SNMPs, including: 1) a basin-wide monitoring plan; 2) a provision for annual monitoring of constituents of emerging concern (CECs) for basins with recycled water recharge projects; 3) water recycling and stormwater recharge/use goals and objectives; 4) salt and nutrient source identification, basin assimilative capacity analysis, and loading estimates, together with fate and transport of salts and nutrients; 5) implementation measures to manage salts and nutrient loading on a sustainable basis; and 6) an anti-degradation analysis demonstrating that the projects described in the SNMP will, collectively, satisfy the requirements of State Water Board Resolution No. 68-16.

PROJECT DESCRIPTION

The Malibu SNMP Planning Area is located within the lower Malibu Creek watershed area and includes the Civic Center area of the City of Malibu and portions of unincorporated Los Angeles County. The Planning Area overlies the Malibu Valley Groundwater Basin, a small alluvial basin, approximately 613 acres in size, located along the Los Angeles County coastline. The groundwater basin is bounded by the Pacific Ocean on the south, and by the Santa Monica Mountains, composed of non-water-bearing Tertiary age rocks, on all remaining sides. The valley is typified by steep canyons that generally run north to south, and is drained by Malibu Creek to the Pacific Ocean. Groundwater in the Planning Area is not currently used for municipal or residential water supply; all local potable water is imported by Los Angeles County Waterworks District No. 29. The available assimilative capacity of the groundwater basin has been calculated based on the water quality objectives identified in the Basin Plan and on available data regarding groundwater quality conditions. Based on available data, no assimilative capacity currently existing in the groundwater basin for Total Dissolved Solids (TDS) or sulfate. Chloride and nitrate-N concentrations are below established water quality objectives.

In November of 2009, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted Resolution R4-2009-007 approving an amendment to Chapter IV of the Basin Plan prohibiting new OWDS and OWDS discharges from existing systems in the Malibu Civic Center Area. In response to this order, the stakeholders in the Planning Area are developing the Civic Center Wastewater Treatment Facility (CCWTF) Project. This project will result in the construction of a centralized wastewater collection, treatment and disposal system for the Civic Center area of the City and a small portion of unincorporated Los Angeles County and will include the Civic Center Wastewater Treatment Facility (CCWTF), where wastewater from the Prohibition Area will be collected and treated to a standard set forth in Title 22 of the California Code of Regulations (CCR) for unrestricted reuse of disinfected tertiary recycled water. The resultant recycled water will be used for landscape irrigation within the Civic Center and surrounding areas to the maximum extent possible; however, current and anticipated future irrigation demands are not expected to utilize all recycled water generated by the CCWTF. Recycled water not used for landscape irrigation will be injected into the underlying Malibu Valley Groundwater

Basin near its boundary with the Pacific Ocean for disposal or it will be percolated into the aquifer in Winter Canyon through percolation ponds at the treatment facility. OWDS use will be eliminated in that same area as the CCWTF Project comes online. As a result, the SNMP includes required background information and an assessment of the groundwater basin, provides a description of water recycling and stormwater recharge goals and objectives, quantification of sources, identification of loading estimates, estimates of assimilative capacity and a description of the fate and transport of salts and nutrients. Based on this technical information and the parameters of the proposed CCWTF project, a list of potential management measures to address salt and nutrient inputs is identified. The SNMP provides a general evaluation of the future scenarios and identifies management measures where appropriate. The SNMP builds on a range of water quality management policies and mechanisms already in place or being implemented, and is accordingly focused on management of recycled water utilization to benefit the Malibu Valley Groundwater Basin.

The initial SNMP findings and implementation measures are described in more detail in the attached Project Summary. Various SNMP documents and other related materials are available on the City of Malibu's website at:

<https://www.malibucity.org/>

The Regional Water Board proposed to adopt a program of implementation based on the implementation strategies contained in the SNMP for the Malibu Valley Groundwater Basin. This SNMP is being developed with co-equal priorities of protecting groundwater quality and permitting recycled water use, which is strongly encouraged by the State Water Board's Recycled Water Policy as a means of ensuring sustainable local water supply in the future. Specifically, the SNMP addresses potential increases in salts, nutrients and constituents of emerging concern (CECs) that could occur as a result of the use of recycled water. Per the State's policy, implementation strategies contained in the SNMPs must be consistent with the State's Policy with Respect to Maintaining High Quality of Waters in California (Anti-degradation Policy, State Water Board Resolution 68-16). The purpose of the CEQA Scoping Meeting is to present the foreseeable management alternatives and to determine if these strategies would result in significant adverse impacts to the environment. Some of the proposed strategies are an expansion of already existing effective programs; others are yet to be implemented. All will be fully examined in subsequent substitute environmental documents.

Interested persons are specifically requested to provide the following information:

- Other reasonably foreseeable strategies for management of salts, nutrients and CECs, not included in the Project Summary.
- The reasonably foreseeable significant adverse environmental impacts associated with the strategies provided.
- Specific evidence supporting that such impacts are reasonably foreseeable and describing the magnitude (significance level) of the impacts.
- Reasonable alternative management strategies resulting in less significant environmental impacts.
- Reasonable mitigation measures that would minimize any unavoidable significant adverse environmental impacts associated with the proposed implementation strategies.

The proposed information and resulting analysis will be incorporated into the Draft Substitute Environmental Document. The CEQA Scoping Meeting will be held at:

1:00 pm, Tuesday, July 28, 2015
City of Malibu Conference Room
23825 Stuart Ranch Road
Malibu, CA 90265

QUESTIONS AND ADDITIONAL INFORMATION

General questions concerning this notice may be directed to Dr. Ginachi Amah at (213) 576-6685 or e-mail Ginachi.Amah@waterboards.ca.gov. You may also contact Mr. Craig George at (310) 456-2489, ext. 229 or cgeorge@malibucity.org. Please bring the foregoing to the attention of any persons known to you who would be interested in this matter.

cc: Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

PROJECT SUMMARY

Requirement for a Salt & Nutrient Management Plan

In February 2009, the State Water Resources Control Board (SWRCB) established a statewide Recycled Water Policy to encourage increased use of recycled municipal wastewater as a safe, local, drought-proof, and highly reliable source of water supply. The Policy also required local water and wastewater entities (stakeholders) to develop a Salt & Nutrient Management Plan (SNMP) for each groundwater basin in California, including the Malibu Valley Groundwater Basin.

The purpose of the SNMP is to identify all sources of salts and nutrients in groundwater basins and manage those salts and nutrients in a manner that preserves and enhances the quality of groundwater for designated beneficial uses.

Area Covered by the Salt and Nutrient Management Plan

The SNMP area covers the lower Malibu Creek watershed area and includes the Civic Center area of the City of Malibu and portions of unincorporated Los Angeles County. The planning area overlies the Malibu Valley Groundwater Basin, a small alluvial basin, approximately 613 acres in size, located along the Los Angeles County coastline. The groundwater basin is bounded by the Pacific Ocean on the south, and by the Santa Monica Mountains, composed of non-water-bearing Tertiary age rocks, on all remaining sides. The valley is typified by steep canyons that generally run north to south, and is drained by Malibu Creek to the Pacific Ocean.



Figure 1. Malibu Valley Groundwater Basin

SNMP Analysis – Salt & Nutrient Sources and Modeling

As part of the analysis for the SNMP, total dissolved solids (TDS) and nitrates (as N) were determined to be the indicator compounds for salts and nutrients. In accordance with the Recycled Water Policy, all major sources of salts and nutrients to groundwater and their fate and transport were assessed in the SNMP. To determine the sources and concentrations of salts and nutrients in the groundwater, all available groundwater quality data were compiled and reviewed. Groundwater data were evaluated for trends, summary statistics were prepared, and average ambient groundwater quality was compared to water quality objectives for each indicator constituent.

All recharge to the groundwater basin typically contributes to salt and nutrient loading. However, if the salt and nutrient concentrations in the recharge water are less than the average concentrations existing in groundwater, this recharge will reduce salt and nutrient loads and improve groundwater quality. Pumping wells and outflow to the ocean and Malibu Creek and Lagoon remove salts and nutrients from the basin.

In the Malibu Valley Groundwater Basin, basin groundwater quality varies to some extent with proximity to the Pacific Ocean, Malibu Creek/Lagoon and the location of septic systems (known locally as onsite wastewater disposal systems or OWDSs). Surface water recharge and land use appear to be the largest drivers of water quality in the groundwater basin.

SNMP Results – Salt & Nutrient Groundwater Quality

Based on the water quality analysis, the assimilative capacity of the groundwater basin was calculated. The assimilative capacity analysis demonstrated that assimilative capacity is available within the planning area for nitrates.

What are Water Quality Objectives (WQOs)?

WQOs are narrative and numerical objectives established by the California Regional Water Quality Control Board, Los Angeles Region, in the Basin Plan. WQOs must be attained or maintained to protect the beneficial uses designated in the Basin Plan.

What is Assimilative Capacity (AC)?

A groundwater basin as AC when the existing water quality is better than that required to support the most beneficial uses of basin. AC is calculated as the difference between the WQO of a certain constituent and its existing average concentration in groundwater.

Recycled Water Project Evaluation

Once fully implemented, the CCWTF Project will represent the only recycled water project in the Malibu Valley Groundwater Basin. As such, two scenarios were evaluated examining the impacts to groundwater quality from continued use of septic systems relative to the implementation of the CCWTF Project and associated recycled water use for irrigation and recycled water injection. The net loading from these two scenarios were compared to the assimilative capacity to provide an assessment of anticipated changes to groundwater quality. Comparison to the available assimilative capacity defines the amount of loading that could be added in the future without degradation of groundwater quality in the groundwater basin. In general, implementation of the CCWTF Project and the associated cessation of septic system use had a lesser long-term impact on groundwater quality.

Implementation Measures

Implementation Measures

Implementation measures are projects or programs that are established to control salt and nutrient loading on a sustainable basis. As recycled water is utilized in the Malibu Valley Groundwater Basin, implementation measures will help protect groundwater and beneficial uses.

Stakeholders in the planning area have a strong commitment to actively protect the groundwater basin and managing salts and nutrients. A number of management measures have already been implemented in the planning area to manage salts and nutrients; key existing measures to manage salts and nutrients in the SNMP are listed below.

1. Groundwater Management Ordinance – will manage future well construction and groundwater extractions from the Malibu Valley Groundwater Basin to provide wellhead protection, overdraft mitigation and protect against seawater intrusion.
2. Water Quality Mitigation Plan – projects requiring a Coastal Development Permit and falling into a pre-defined category must demonstrate how polluted runoff after construction will be minimized or prevented.
3. New development and redevelopment requirements that require infiltration of stormwater where feasible.
4. Land development approvals to protect key basin recharge areas.
5. Stormwater Management Plan requirements for projects in the Coastal Development Zone to mitigate the effect of development on stormwater after construction.

If additional management measures are needed to offset salt and/or nutrient loads, additional measures may be selected from the list below for future implementation. This list represents a menu of potential management measures that could be implemented if needed to manage salts and nutrients on a sustainable basis. The measures provided in the SNMP are intended to represent a wide-range of potential options that could be considered and do not represent management measures that will definitely be implemented. The categories and brief descriptions of potential future management measures considered in the SNMP are provided below.

- Mapping of basin recharge areas for protection against development
- Injection of unused recycled water as a recharge barrier against seawater intrusion
- Groundwater elevation monitoring network
- Groundwater quality monitoring program
- Ordinance prohibiting the use of regenerative salt-based water softeners

Next Steps

A California Environmental Quality Act (CEQA) Scoping Meeting will be held on July 28, 2015 to describe the SNMP findings and implementation measures and elicit public comments on the environmental analysis. A Draft SNMP and Draft Substitute Environmental Document (SED) are expected to be submitted to the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) for review in August 2015. A Final SNMP is expected to be submitted to the LARWQCB by October 2015.

How can I get more information regarding the SNMP for the Malibu Valley Groundwater Basin?

Please refer to the website below for additional information regarding the SNMP.

<http://www.malibucity.org/>

Feel free to email Dr. Ginachi Amah at Ginachi.Amah@waterboards.ca.gov. You may also email Mr. Craig George at cgeorge@malibucity.org if you have any questions/comments or would like to join our mailing list. We encourage and greatly appreciate public participation in the SNMP process.