# 2020 - 2022 Triennial Review: Consideration and Selection of Basin Planning Priority Projects

## Draft Staff Report

LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

SEPTEMBER 4, 2020

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# 1. Introduction

The Los Angeles Region includes the coastal watersheds of Los Angeles and Ventura Counties, along with very small portions of Kern and Santa Barbara Counties (Figure 1). The Water Quality Control Plan for the Los Angeles Region (Basin Plan) contains water quality standards for surface and ground waters in the Los Angeles Region. Water quality standards include existing and designated beneficial uses for surface and ground waters, narrative and/or numeric water quality objectives to protect those beneficial uses, and the state's Antidegradation Policy (Statement of Policy with Respect to Maintaining High Quality of Waters in California, State Water Resources Control Board Resolution No. 68-16). The Basin Plan also includes comprehensive watershed and groundwater basin programs of implementation for water quality objectives, including total maximum daily loads (TMDLs) for surface waters and salt and nutrient management measures for groundwater basins, as well as descriptions of the Water Board's programs and actions to address discharges of waste to surface water and groundwater, including waste discharge requirements (WDRs), National Pollutant Discharge Elimination System (NPDES) permits, conditional waivers of WDRs, discharge prohibitions, and remediation programs, among others. The Basin Plan fulfills statutory requirements for water quality planning in California Water Code (CWC) sections 13240 through 13242 and the federal Clean Water Act (CWA) section 303(c).

Both State and federal laws mandate the periodic review of basin plans and the water quality standards contained therein. Specifically, California Water Code section 13240 states that basin plans "shall be periodically reviewed and may be revised." Additionally, section 303(c)(1) of the federal Clean Water Act (CWA) requires that a State review its water quality standards and, as appropriate, modify and adopt standards, at least once every three years. This process is known as a triennial review. As part of a triennial review, components of statewide and regional basin plans are reviewed as new data and information become available or as specific needs arise. Updates to the Los Angeles Region's Basin Plan occur during this review, and/or in response to other factors, including State or federal legal requirements, or judicial mandates such as consent decrees. California State Water Resources Control Board (State Water Board) plans and policies and those of other state and federal agencies, related to water quality, are considered in the review process.

In recent years, the California Regional Water Quality Control Board, Los Angeles Water Region (Los Angeles Water Board) conducted triennial reviews of the Basin Plan for the 2001-2004, 2005-2007, 2008-2010, 2011-2013, 2014-2016 and 2017-2019 periods. The 2020-2022 triennial review process was initiated in December 2019.

This staff report summarizes basin planning priorities identified by both Los Angeles Water Board staff and stakeholders for consideration during the current (2020–2022) triennial review, and provides an update on the status of the previous (2017–2019) triennial review projects. The report is organized as follows. Section 1 is this introduction. Section 2 provides background information on the triennial review process, including public participation components. Section 3 provides a status update on projects addressed during the 2017–2019 period. Section 4 discusses the Basin Planning projects identified by staff for consideration during this triennial review. Section 5 summarizes and responds to stakeholder recommendations on basin planning issues they would

like to be considered. Section 6 presents staff's recommendations on priorities to be addressed during the 2020–2022 Triennial Review period.

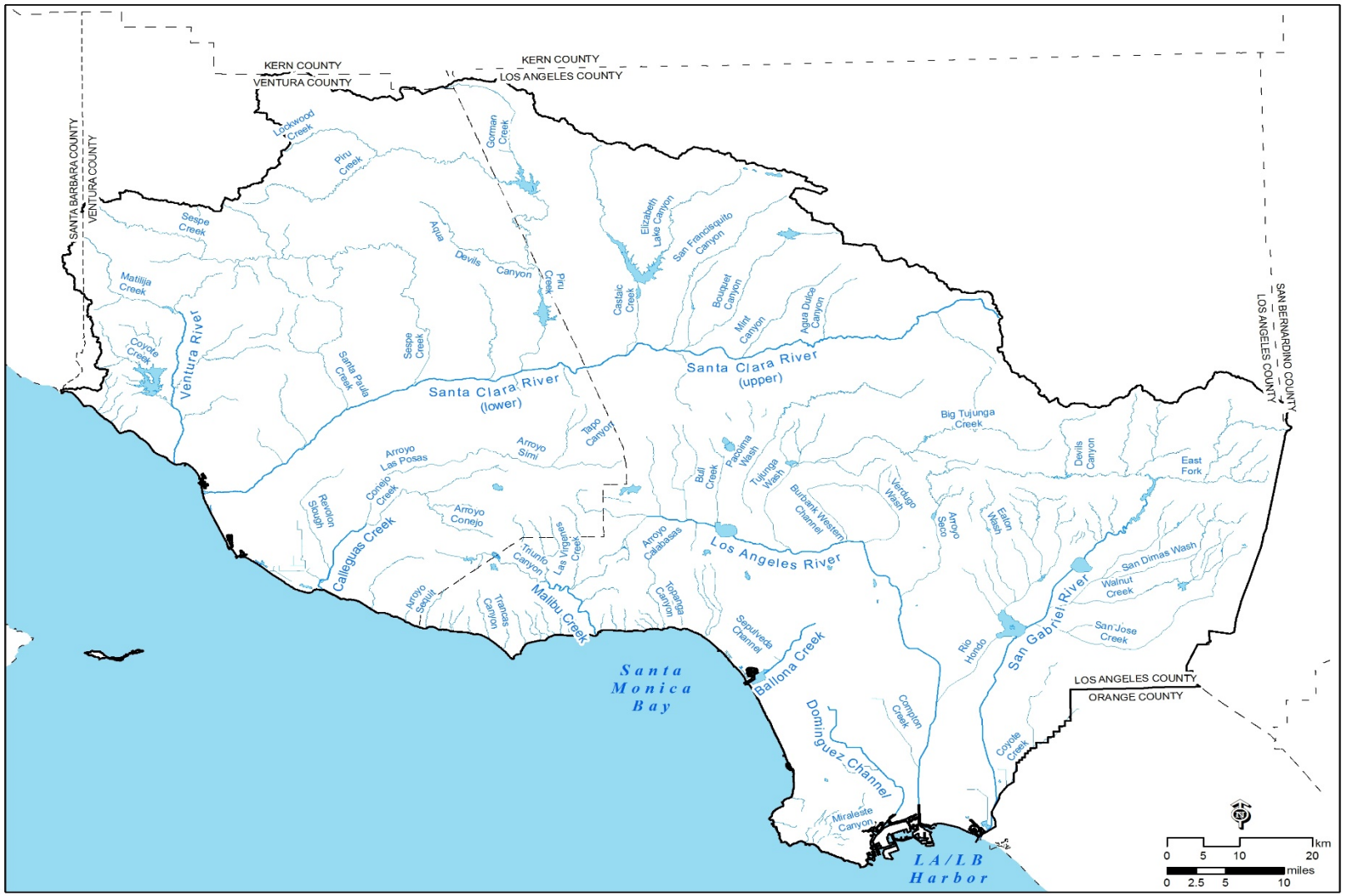



**Figure 1:** Map of the Los Angeles Region

## 2. Triennial Review Process

The Los Angeles Water Board first adopted an interim water quality control plan in 1971. After several revisions, the first comprehensive basin plans for the region (one for the Santa Clara River Basin and one for the Los Angeles River Basin) were adopted by the Los Angeles Water Board and approved by the State Water Board in March 1975. Subsequently, several amendments were adopted between 1976 and 1991. A comprehensive update to the basin plans was adopted in 1994, at which time the two basin plans were combined into one concise Basin Plan for the entire region. A more recent administrative update to the Basin Plan was conducted from 2011 through 2016 to (i) include amendments that had not been physically incorporated into the Basin Plan since 1994, (ii) to reflect more current information on the Los Angeles Water Board programs, plans and policies, and (iii) to update geographical and background information for the Los Angeles Region.

The primary purpose of a triennial review is to review water quality standards and solicit public comment on issues the Los Angeles Water Board should address through the Basin Plan amendment process. The triennial review process may or may not result in amendments to the Basin Plan over the course of the 3-year review cycle.[1] The State and federal requirement to review and revise, as appropriate, water quality standards is based upon recognition that the science of water quality is constantly advancing. Therefore, a triennial review ensures that standards are based on current science, methodologies, and the United States Environmental Protection Agency (USEPA) directives, recommendations, and guidance. The triennial review does not necessarily involve the revision of all or any particular components of the standards every three years. While the Los Angeles Water Board is required to conduct a review of its Basin Plan, neither federal nor state law imposes a duty to revise or modify it. (*City of Arcadia v. State Water Resources Control Bd*. (2010) 191 Cal.App.4th 156). Federal law only requires modifications "*as appropriate*" (CWA § 303(c)(1).) Modifications to the Basin Plan are usually made to incorporate new scientific and technical information; address new legal requirements; in response to USEPA's recommendations and guidelines; to address State Water Board policy requirements; to address stakeholder concerns, where it is appropriate to do so; and to address issues identified by the Los Angeles Water Board itself or its staff during the regular course of business. Additionally, the Los Angeles Water Board often adopts Basin Plan amendments to

[1] As stated, the identification of an issue during a triennial review does not necessarily mean that any amendment will be made to the Basin Plan. The decision as to whether to proceed with a proposed Basin Plan amendment is only made after the Los Angeles Water Board reviews the technical and legal considerations associated with an issue and determines that development of a Basin Plan amendment is supported by evidence and is appropriate. Amending the Basin Plan generally involves preparing a staff report that provides the technical, legal and policy bases for the proposed amendment; CEQA substitute environmental documents; and the actual amendment (i.e., changes to the Basin Plan). Amendments are distributed to interested persons for public review at least 45 days in advance of the public hearing, which is held at a Board meeting. The Los Angeles Water Board must adopt amendments, and then transmit them for review and approval by the State Water Resources Control Board and Office of Administrative Law, as well as by EPA if the amendment involves surface water quality standards or implementation provisions for these standards.

incorporate site-specific water quality objectives that are supported by stakeholder-led studies and/or the results of TMDL special studies.

The availability of new scientific information or methodological developments may not directly translate into a change to standards during a triennial review cycle. The state of the science also has to be taken into consideration; for example, it may be premature to modify standards while scientific understanding is actively evolving and new methodologies are being developed and tested. Moreover, notwithstanding the evolution of applicable scientific knowledge or policy considerations, federal or state law or regulations may preclude changes that might otherwise be deemed desirable by stakeholders. In addition, while a major part of the review process consists of identifying potential issues, an important part of the review is the reaffirmation of those portions of the Basin Plan where no potential issues are identified. Therefore, it is common for standards to remain unchanged as a result of a triennial review process. Even where changes are appropriate and lawful, the State's continuing planning process,[2] and other federally approved documents, recognize that the process of modifying water quality standards is resource intensive, and typically limited by staffing and budgetary constraints. As such, the triennial review process assists in identifying the most important or compelling projects and allows states to prioritize those as resources allow.

At the start of the triennial review process, the Los Angeles Water Board develops and adopts through a resolution a prioritized list of Basin Planning issues that it determines should be considered over the next three years. Following the Los Angeles Water Board's adoption of the resolution, this list of priorities is transmitted to the State Water Board and then to Region IX of USEPA.

The triennial review process is cyclical, meaning that at the end of one three-year review period, the review process begins again with another three-year period. In this sense, the review process is on-going, reflecting the continuing planning process followed by the State and Regional Water Boards. It does not conclude with the Los Angeles Water Board's adoption of a Basin Planning list of priorities or with any individual Basin Plan amendment that may be prioritized in the triennial review process.

Moreover, a triennial review is not the only occasion where Basin Plan modifications are contemplated. The Los Angeles Water Board can amend the Basin Plan whenever it determines an amendment is needed.[3] Such amendments need not coincide with the triennial review process. Indeed, over time, numerous Basin Plan amendments have been adopted including revisions to water quality objectives and beneficial uses and new and revised implementation provisions, programs and policies, including TMDLs. Some of these have been adopted in the context of a triennial review, and others outside that process. Most notably, in the case of TMDLs, which are usually adopted as amendments to the Basin Plan, the process occurs outside the triennial review

[2] The federal Clean Water Act (CWA) requires each state to have in place a "continuing planning process" (CPP) approved by the USEPA (CWA 303(e)).

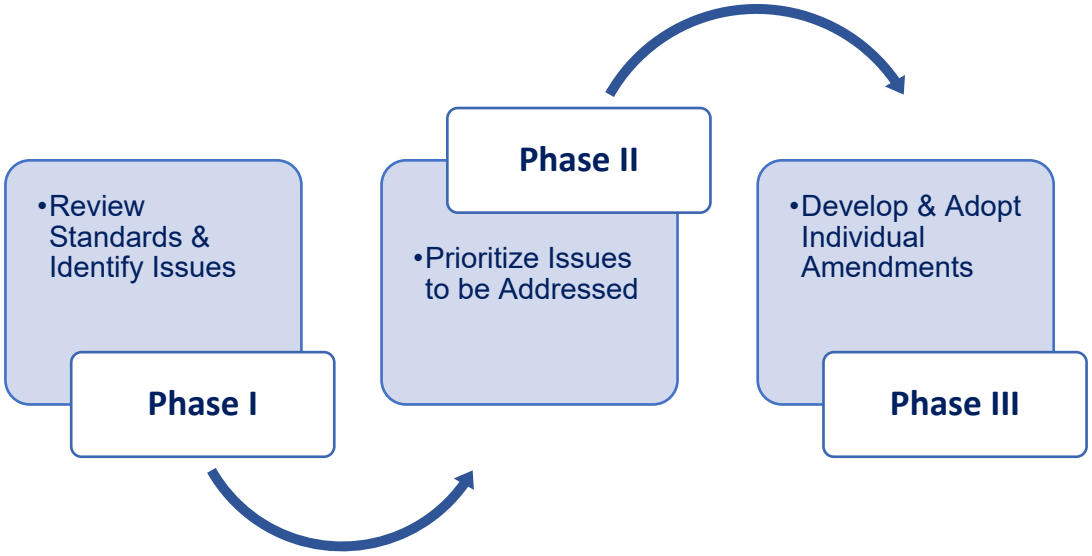
[3] To the extent that staff resources are available to develop an amendment and bring it to the Los Angeles Water Board for consideration.

process. Because the Los Angeles Water Board has a separate organizational unit for TMDL development, priority setting for the TMDL program is conducted separately from the Basin Planning program. The Basin Planning program primarily focuses on the components of the water quality standards themselves (i.e., beneficial uses, water quality objectives, and the state's antidegradation policy) rather than the programs of implementation for the standards. Nonetheless, the two programs work in close coordination such that the Basin Planning program considers priority projects that are needed to support the TMDL program.

A triennial review occurs in three phases (Figure 2). During the first phase, the Los Angeles Water Board reviews water quality standards and identifies potential issues for possible Basin Plan amendments that can be completed with existing resource allocations over a three-year period. In the second phase, the Board holds a hearing and prioritizes the standards-related issues on a priority list that will be further researched and potentially addressed through subsequent Basin Plan amendments. Placing a potential issue on the priority list only indicates the Los Angeles Water Board will consider the need for an amendment; it does not necessarily mean a revision of the Basin Plan will be made for the reasons described in Footnote 1 above. Finally, during the third phase, the Board, if appropriate, develops projects addressing these issues and adopts any resulting changes to the Basin Plan as individual Basin Plan amendments over the remaining course of the three-year review period. Stakeholder input is generally solicited on issues of concern, on prioritization, and during the development of each individual Basin Plan amendment. The triennial review process may ultimately result in some amendments to the Basin Plan to adopt or modify water quality standards and implementation provisions.

Phase I of the 2020-2022 triennial review began on December 20, 2019, when the Los Angeles Water Board sent out a solicitation letter to interested persons and entities inviting them to submit data, information, documents and other evidence regarding suggested revisions or additions to water quality standards applicable to waters in the Los Angeles Region that could be addressed during this period. Concurrently, the Los Angeles Water Board released a document evaluating USEPA's new and updated CWA section 304(a) water quality criteria recommendations as part of the Phase I process of reviewing standards and identifying those standards that may warrant modification. This document is discussed further in section 3.2.1 below. The comment submission deadline was January 23, 2020. The Los Angeles Water Board received 12 comment letters, including ones from USEPA and various categories of stakeholders. These comments are summarized and addressed in Section 5 of this report.

**Figure 2:** Schematic representation of the Triennial Review process




Phase II of the triennial review will conclude after a public comment period and public hearing on November 12, 2020, at which time the Los Angeles Water Board will consider adoption of a resolution confirming the basin planning priorities to be considered and addressed during this triennial review.

In adopting a resolution identifying basin planning priorities for this triennial review period, the Los Angeles Water Board is not required to consider the factors of California Water Code section 13241. Consideration of the factors, by section 13241's express terms, only applies in "establishing water quality objectives." Here, the Los Angeles Water Board is not establishing water quality objectives. Instead, and as required by section 303(c)(1) of the federal Clean Water Act, the Los Angeles Water Board is reviewing its water quality standards. (See *City of Arcadia, supra,* 191 Cal.App.4th 156).

# 3. 2017-2019 Triennial Review Period

## 3.1. Priority Projects for the 2017-2019 Triennial Review Period

Resolution 2018-003 identified the selected priorities for the 2017-2019 triennial review period as follows:

a) Evaluate new recommended or revised CWA section 304(a) criteria for incorporation into the Basin Plan as water quality objectives;
b) Consider any amendments to the Basin Plan's bacteria objectives that may be necessary in response to the Statewide Bacteria Provisions that are expected to be adopted this year, and which were released in draft form on January 26, 2018 as *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California (ISWEBE)* and as amendments to the *Water Quality Control Plan for Ocean Waters of California (Ocean Plan)*;
c) Resume work on developing implementation tools to address natural sources of pollutants;
d) Continue the development of Salt and Nutrient Management Plans (SNMPs), including the incorporation of management measures from the SNMPs into the Basin Plan, per the State Water Board's Recycled Water Policy (State Board Resolution No. 2009-0011, amended by State Board Resolution No. 2013-0003);
e) Continue the development of a regional strategy to address the effects of climate change on water quality;
f) Provide support to other Los Angeles Water Board programs, including TMDLs;
g) Provide support to statewide standards-related initiatives; and
h) Address legal and regulatory mandates that may arise during the remainder of the triennial review.

## 3.2. Projects Addressed

During the 2017-19 triennial review period, Basin Planning staff completed the following Basin Planning projects:

### 3.2.1. Consideration of New and Revised Section 304(a) Criteria for Incorporation into the Basin Plan as Water Quality Objectives

In October 2015, revisions to the federal Water Quality Standards (WQS) regulations at 40 C.F.R. Part 131 went into effect. The final rule addressed certain key WQS program areas, including triennial reviews pursuant to CWA section 303(c)(1). Per the final rule, during their next triennial review, states and authorized tribes were to consider for adoption as WQS new or updated CWA section 304(a) water quality criteria recommendations published by the USEPA since May 30, 2000. As the Los Angeles Water Board's 2017-2019 triennial review was the first triennial review following this rulemaking, consideration of the USEPA's section 304(a) recommended criteria for

incorporation into the Los Angeles Water Board's Basin Plan was undertaken during this review period.

In March 2018, the Los Angeles Water Board initiated a preliminary review of the section 304(a) water quality criteria recommendations published by USEPA. The resulting document presented background information on the pollutants, the recommended section 304(a) criteria, and the water quality objectives currently applied by the Los Angeles Water Board for each of the 121 pollutants considered. Further evaluation determined that consideration of the bulk of these criteria for adoption as water quality objectives would be most efficiently undertaken by the State Water Board's Division of Water Quality, since the recommended criteria could apply statewide. Therefore, once adopted as amendments to existing statewide water quality control plans, the water quality objectives would apply to all waters in the State. Also, given the limited resources of the Basin Planning Program (1.7 PY) and the number of new and updated USEPA recommendations, it would take a significant amount of time for the Los Angeles Water Board to address all these new and updated recommendations through amendments to the Los Angeles Region's Basin Plan.

In December 2019, the Los Angeles Water Board published a staff memo titled "Evaluation of New or Revised Recommended Section 304(a) Criteria for Incorporation into the Basin Plan as Water Quality Objectives." The document included (i) the determination that statewide adoption of the majority of the 304(a) criteria would be the most effective approach, (ii) the criteria recently considered or being considered by the State Water Board or USEPA, and the measures that may be taken by the Los Angeles Water Board following their adoption by the State Water Board, and (iii) the criteria that will be directly addressed by the Los Angeles Water Board. In its response to the Los Angeles Water Board's 2020-2022 triennial review solicitation letter, USEPA concurred with this approach to addressing the 304(a) criteria.

### 3.2.2. Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Fresh, Estuarine and Marine Waters Designated for Water Contact Recreation, based on the Statewide Bacteria Provisions

On August 7, 2018, the State Water Board adopted statewide Bacteria Provisions as Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California (ISWEBE) and as amendments to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan). The Bacteria Provisions apply to fresh, estuarine, and ocean waters and establish bacteria water quality objectives for the protection of water contact recreation (REC-1) – using *Escherichia coli* (*E. coli*) as the indicator of pathogens in freshwater and Enterococci as the indicator for estuarine waters and ocean waters.

Part 3 of the ISWEBE also contains implementation approaches to reflect the attainability of REC-1 beneficial use designations in fresh and estuarine waters, including a temporary high-flow suspension and a seasonal suspension of the REC-1 beneficial use, and a definition for a limited water contact recreation (LREC-1) beneficial use. These statewide Bacteria Provisions supersede

numeric water quality objectives for the REC-1 beneficial use in the water quality control plans established by all Regional Water Boards. However, TMDLs associated with the superseded bacteria water quality objectives remain in effect. Narrative water quality objectives and numeric site-specific objectives also remain in effect.

The provisions were approved by the Office of Administrative Law (OAL) on February 4, 2019 and by USEPA on March 22, 2019. Following this, Basin Planning staff developed a Basin Plan amendment to update the Los Angeles Region's REC-1 bacteria water quality objectives to reflect the statewide Bacteria Provisions. This amendment was adopted by the Los Angeles Water Board on February 13, 2020 (Resolution No. 20-001), and the State Water Board on May 19, 2020, and will be forwarded to OAL and, subsequently, EPA for final approval.

### 3.2.3. Climate Change Resolution and Framework

Efforts to develop a Climate Change strategy for the Los Angeles Region have included the publication of a two-part regional framework that highlights potential climate change adaptation and mitigation strategies. As the first part of that framework, Los Angeles Water Board staff initiated the development of a regional strategy to address the effects of climate change on water quality with the 2015 release of the "Los Angeles Region Framework for Climate Change Adaptation and Mitigation – Current State of Knowledge & Water Quality Regulatory Program Considerations." This document took a first look at impacts of climate on water supply and water quality for various waterbody types of the region, as well as through the lenses of the Los Angeles Water Board's programs.

In May 2018, the Los Angeles Water Board adopted "A Resolution to Prioritize Actions to Adapt to and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses" (Resolution No. R18-004). The adopted resolution highlighted various actions encouraged by the State Water Board for the Los Angeles Water Board to consider in an effort to mitigate direct and indirect impacts of climate change on the region's water quality and beneficial uses. Actions listed in the resolution include (i) watershed planning, (ii) management of vulnerable infrastructure in areas at risk of sea level rise or flooding, (iii) encouragement of studies and research on sea level rise and the effects of climate change on ecological resources, (iv) environmental justice factors, and (v) coordination with stakeholders.

In April 2019, Los Angeles Water Board staff completed and released the second part of the framework, titled "Los Angeles Region Framework for Climate Change Adaptation and Mitigation – Potential Regulatory Adaptation and Mitigation Measures." The document identified specific challenges caused by climate change within the activities of the Los Angeles Water Board's programs and offered potential actions that could be implemented to address those challenges, including potential regulatory actions, monitoring and research needs, potential areas of collaboration, and environmental justice considerations. This framework was developed as a guide to help inform decisions regarding specific measures to be implemented on a short-term and long-term basis by each of the Los Angeles Water Board's programs, and to assist in mitigating the effects of climate change on water resources and associated beneficial uses, where possible. Shortly after the release of the second part of the framework, the Los Angeles Water

Board adopted additional updates to Chapter 4 and Chapter 5 of the Basin Plan, described further below. The updates included a discussion of climate change considerations in Board programs and reference to the resolution adopted by the Los Angeles Water Board.

### 3.2.4. Administrative Update of the Basin Plan's Chapter 4 "Strategic Planning and Implementation" and Chapter 5 "Plans and Policies"

A comprehensive administrative update of the Basin Plan was identified as a priority project to be addressed during the 2008-2010 triennial review period (Resolution No. R10-001). This update was conducted in phases with (i) Chapter 2 "Beneficial Uses" (Resolution No. R11-011), Chapter 3 "Water Quality Objectives" (Resolution No. R13-003), and Chapter 7 "Total Maximum Daily Loads" (Resolution No. R11-013) completed during the 2011-2013 triennial review period, (ii) Chapter 1 "Introduction," Chapter 5 "Plans and Policies," and Chapter 6 "Monitoring and Assessment" completed as one Basin Plan amendment (Resolution No. R14-009) in 2014, and (iii) Chapter 4 "Strategic Planning and Implementation" (Resolution No. R16-004 completed in 2016.

During the 2017-2019 triennial review, additional updates to Chapter 4 and Chapter 5 were made through one Basin Plan amendment (Resolution No. R19-006) in June 2019. Chapter 4 contains descriptions of all the Los Angeles Water Board's programs, and Chapter 5 summarizes significant statewide and regional plans, policies, resolutions, Basin Plan amendments, total maximum daily loads (TMDLs), and basinwide salt and nutrient management measures that direct the actions of the Los Angeles Water Board or guide the Los Angeles Water Board's intent.

The 2019 administrative updates to Chapter 4 and Chapter 5 included:

- Updates to the description of climate change considerations within the Los Angeles Water Board programs in Chapter 4
- Incorporation of a description for the State Water Board's "Comprehensive Response to Climate Change" resolution (State Water Board Resolution No. 2017-0012) in Chapters 4 and 5
- Incorporation of descriptions of new and revised statewide water quality control plans, policies, and significant resolutions in Chapter 5
- Updates to tables in Chapter 5 to reflect recent significant Los Angeles Water Board resolutions, Basin Plan updates and amendments, and newly adopted TMDLs or revisions to existing TMDLs, including the Los Angeles Water Board's resolution on climate change adaptation and mitigation (described in section 3.2.3 above)
- Addition of a table in Chapter 5 to provide a list of Basin Plan amendments incorporating groundwater basin salt and nutrient management measures identified in stakeholder-led salt and nutrient management plans (SNMPs)

## 3.3. Prioritized Projects Still in Progress

Other issues identified during the previous triennial review cycle are also being addressed, but have not yet been brought to the Board for formal action. They require further work before they may, if appropriate, be developed into Basin Plan amendments. A brief description and their status are provided below.

### 3.3.1. Addressing Natural Sources of Pollutants

A number of chemical constituents are naturally occurring in the environment. These include, but are not limited to, bacteria, nutrients (nitrogen and phosphorus), minerals, and metals. In some cases, these constituents may be naturally elevated above the water quality objective and may exceed the objective more frequently than currently allowed by the objective. In these cases, where exceedances of an objective are due to natural sources, it may be appropriate to allow exceedances of the objective comparable to those observed in a reference system. Furthermore, it is important in the development of TMDLs to be able to quantify the background levels of the pollutant of concern when setting waste load allocations and load allocations to achieve the numeric targets in the TMDL.

The Los Angeles Water Board has made progress towards developing implementation provisions or an assessment tool to address this issue. In 2012, the Los Angeles Water Board obtained funding and executed a contract with the University of California Santa Barbara to develop preliminary technical guidance to assist with making determinations that exceedances of water quality objectives of a given pollutant are solely or predominantly a result of natural sources of that pollutant. After completion of the study in 2013, work on this issue was suspended due to limited Basin Planning staff resources and competing priorities.

During the 2014-2016 triennial review this issue was listed as one that should be prioritized in the upcoming 2017-2019 period. As a result, staff resumed work on the project, as time allowed. A review of governing federal and state regulations and policy, and an assessment of approaches taken by other state and/or regional entities was initiated in an effort to discern viable options for addressing natural sources of pollutants. However, once again, the project was deprioritized. Further work will involve completing the review and assessment of the natural sources of pollutants, and an internal evaluation of possible next steps. Where time allows, work will continue on this project during the 2020-2022 triennial review period. Stakeholders and interested persons will be kept informed of any developments and will be involved in any process that may lead to Board action.

### 3.3.2. Development of Salt and Nutrient Management Plans (SNMPs), per the State's Recycled Water Policy

In February 2009 the State Water Board adopted a Recycled Water Policy (State Board Resolution No. 2009-0011), which was amended in 2013 (State Board Resolution No. 2013-0003), and updated in 2018 (State Board Resolution No. 2018-0057).

The purpose of the Recycled Water Policy is to encourage the safe use of recycled water in a manner that is protective of public health and the environment. The Policy requires that Salt and Nutrient Management Plans (SNMPs) be developed for groundwater basins or sub-basins in California where salts and/or nutrients are a threat to water quality. The Recycled Water Policy is clear that the SNMP process should be stakeholder-led and conducted in a collaborative manner among interested persons. The Los Angeles Water Board's role is that of an overseer and facilitator of the SNMP development process – providing regulatory guidance as necessary and technical and regulatory oversight of the process to ensure that the final product is compliant with the specific requirements of the policy and state and federal water quality laws.

To date, the Los Angeles Water Board has adopted six Basin Plan amendments incorporating stakeholder-proposed/developed salt and nutrient management measures from such plans for seven basins in the Los Angeles Region during the 2014-2016 triennial review. They include (i) Central Basin and West Coast Basin - Resolution No. R15-001, (ii) Lower Santa Clara River Basins - Resolution No. R15-007, (iii) Malibu Valley Basin - Resolution No. R16-005, (iv) Upper Santa Clara Basin - Resolution No. R16-008, (v) Main San Gabriel Basin - Resolution No. R16-010, and (vi) Raymond Basin - Resolution No. R16-011.

During the 2017-2019 triennial the San Fernando Valley Basin had a SNMP in development, but it was not completed. As a result, work on the San Fernando Valley Basin SNMP will continue during the 2020-2022 triennial review period.

### 3.3.3. Consideration of USEPA's 2007 Freshwater Quality Criteria for Copper (BLM) for incorporation into the Los Angeles Region's Basin Plan as a Water Quality Objective

In 2007, based on new data on the toxicity of copper to aquatic organisms in fresh and salt waters, USEPA revised its freshwater copper criteria from a hardness-based approach to a water-quality dependent approach that uses a predictive model – the Biotic Ligand Model (BLM). The BLM is a metal bioavailability model that uses receiving water body characteristics to develop site-specific water quality criteria. It utilizes the best available science and serves as the basis for the new national recommended copper criteria. The BLM requires ten input parameters to calculate a freshwater copper criterion: temperature, pH, dissolved organic carbon (DOC), calcium, magnesium, sodium, potassium, sulfate, chloride, and alkalinity. The parameters represent those individual water quality parameters for which hardness served as a surrogate in the 1984 criteria.

The BLM is used to derive the criteria rather than as a post-derivation adjustment as was the case with the hardness-based criteria. This allows the BLM-based criteria to be customized to the particular water under consideration. BLM-based criteria can be more stringent than the current hardness-based copper criteria and in certain cases, the current hardness-based copper criteria may be more stringent than the BLM-based criteria for particular water bodies. USEPA believes that the revised criteria will provide improved guidance on the concentrations of copper that will be protective of aquatic life.

The Los Angeles Basin Plan currently does not apply the 2007 USEPA criteria for copper, but instead incorporates by reference the California Toxics Rule (CTR) criteria for aquatic life for copper (40 C.F.R. section 131.38) and also contains a narrative toxicity water quality objective that applies to toxic substances in general.

In 2018, the Los Angeles Water Board prioritized consideration of USEPA's new and revised Clean Water Act Section 304(a) recommended criteria for adoption during the 2017-2019 triennial review period. Considering the incorporation of USEPA's 2007 copper criteria into the Los Angeles Region's Basin Plan is part of this effort. Following this, Basin Planning staff developed a draft document titled "Preliminary Implementation Considerations for Application of BLM-derived Copper Criteria in the Los Angeles Region." This document provided an overview of the BLM and its input parameters and discussed implementation elements to be considered in the development of BLM-derived objectives, which included data requirements, objective derivation, and options for applying these objectives in the Los Angeles Region. Subsequently, in July 2019, the Los Angeles Water Board held a stakeholder workshop on preliminary considerations for the application of USEPA's 2007 aquatic life freshwater quality criteria for copper in the Los Angeles Region. The purpose of the workshop was to present and discuss these elements, and to solicit stakeholder input that could be incorporated into the final document intended to assist Los Angeles Water Board staff and stakeholders in developing BLM-derived freshwater copper criteria in a consistent manner throughout the region.

Alongside these efforts, the Los Angeles Water Board contracted with the Southern California Coastal Water Research Project (SCCWRP) in May 2019 to develop a database of existing data that could be used in the application of BLM-derived copper criteria in the Los Angeles Region. The scope of the contract also included identification of data gaps and limited sampling and analysis to add to the database. Also, stakeholders have been encouraged to initiate the collection of site-specific data on the input parameters that support the BLM.

Future work will involve final determination of an approach to incorporating the criteria, review and analysis of additional data and information, stakeholder interaction, and a Basin Plan amendment process to adopt the copper water quality objective(s). Basin Planning staff will continue to inform and involve stakeholders and interested persons during the process. Upon Los Angeles Water Board adoption, further action by USEPA to de-promulgate the existing CTR freshwater copper criteria will be necessary.

# 4. 2020-2022 Triennial Review: Potential Projects Identified by Staff

Basin Planning staff has initially identified ten potential projects as important to consider addressing during the 2020-2022 triennial review period. These potential projects were selected based on USEPA's directives and/or recommendations, considerations of on-going work on statewide plans and policies, needs and suggestions from various Los Angeles Water Board programs, and information and comments submitted by stakeholders during previous triennial reviews. They also include projects carried over from previous triennial reviews that are still being addressed by staff and were described in more detail in Section 3. A description of these projects follows.

## 4.1. Revise the Basin Plan's Freshwater Ammonia Objectives

The water quality objectives for ammonia in freshwater currently contained in the Los Angeles Region's Basin Plan are based on the 1999 USEPA recommended criteria. The acute freshwater objective is dependent on pH and fish species (salmonids present or absent), but not temperature. It is assumed that salmonids may be present in waters designated in the Basin Plan as "COLD" or "MIGR" and that salmonids are absent in waters not designated in the Basin Plan as "COLD" or "MIGR," in the absence of additional information to the contrary. The chronic freshwater objective is dependent on pH, temperature, and the presence or absence of early life stages of fish (ELS). In addition, for some of the region's freshwater streams, the Basin Plan ammonia chronic objectives are expressed as Site Specific Objectives (SSOs).

In August 2013, USEPA published its updated, final national recommended water quality criteria for the protection of aquatic life from the toxic effects of ammonia in freshwater (USEPA 822-R13-001). The new recommended criteria reflect new data on sensitive freshwater mussels and snails, incorporate scientific views USEPA received on its draft 2009 criteria, and supersede USEPA's previously recommended 1999 ammonia criteria.

The new acute criterion is pH and temperature dependent. It is determined primarily by effects on freshwater unionid mussels for water temperatures greater than 15.7°C, and by the presence or absence of rainbow trout at lower temperature. The chronic criterion is pH and temperature dependent, and is determined primarily by the effects of ammonia on freshwater mollusks, particularly unionid mussels, throughout the temperature range. In addition, recognizing that unionid mussels may be absent in some waters, USEPA allows for site-specific criteria to be developed, using recalculation procedures to remove the mussel species from the national criteria dataset to better represent the species present at the site.

In order to address the applicability of the 2013 USEPA criteria to the Los Angeles Region, the presence of unionid mussels in the region's freshwater bodies needed to be determined. To this end, in 2016, the Los Angeles Water Board entered a contract with the University of California Santa Barbara to determine whether native unionid mussels are currently present throughout the Los Angeles and Ventura County coastlines. The study was completed in 2019. This potential project would use of the results of the 2019 study to update the Basin Plan's freshwater ammonia objectives (based on the 2013 USEPA criteria recommendations) during this triennial review.

## 4.2. Consider EPA's 2007 Freshwater Quality Criteria for Copper (BLM) for incorporation into the Los Angeles Region's Basin Plan as a Water Quality Objective

As discussed in Section 3.3.3, this project would entail the incorporation of USEPA's 2007 Freshwater Quality Criteria for Copper into the Basin Plan as a water quality objective during the 2020-2022 triennial review period.

## 4.3. Apply Site-Specific Water Quality Objectives for Lead in the Los Angeles Region based on Recalculated Lead Criteria

To protect the region's waters, the Los Angeles Water Bord applies the lead water quality criteria contained in the California Toxics Rule (CTR) criteria, set forth in 40 C.F.R. section 131.38, and incorporated by reference in the Basin Plan. The CTR contains federally promulgated water quality criteria applicable to California waters for 126 priority pollutants for the protection of aquatic life and human health.

In 2015, the Los Angeles Water Board adopted Resolution No. 2015-004, which amended the Basin Plan to incorporate SSOs for lead in the Los Angeles River and its tributaries within the urbanized area of the watershed. The SSOs for lead were developed using USEPA's Recalculation Procedure, which provided a method for utilizing lead toxicity data from all available national studies to calculate updated criteria from those established in the CTR. Subsequent to State Water Board, Office of Administrative Law, and USEPA approvals, USEPA de-promulgated the CTR criteria for lead for the Los Angeles River specifically, thereby allowing the SSO to replace it.

As part of the Recalculation Procedure, the recalculated criteria were evaluated in the context of sensitive species occurring at the site, including threatened or endangered species and commercially or recreationally important species. Because the procedure applied for the Los Angeles River watershed used a national USEPA dataset, the results of this recalculation are potentially applicable to streams state-wide, provided a site-specific evaluation of sensitive species is conducted.

In 2016, the Los Angeles Water Board entered a contract with the California State University, Los Angeles, to conduct such sensitive species evaluation in the rest of the watersheds of the Los Angeles Region and adjust the recalculated lead criteria for each watershed as needed. The study was completed in 2019. This potential project would use the results of the 2019 study to develop SSOs for lead in other watersheds of the Los Angeles Region during the 2020-2022 triennial review period.

## 4.4. Incorporate the Tribal and Subsistence Beneficial Use Definitions into the Basin Plan (along with the Statewide Mercury Objectives) and begin the Process of Tribal Outreach for the Purpose of Applying the New Designations

On May 2, 2017 the State Water Board adopted Resolution 2017-0027, approving "Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE) — Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions." This action established three new beneficial use definitions for use by the State and Regional Water Boards: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB) beneficial uses of inland surface waters, enclosed bays, or estuaries in the State. It also included new water quality objectives for mercury.

The Tribal Tradition and Culture (CUL) beneficial use reflects uses of water that support the cultural, spiritual, and traditional ways of living by California Native American tribes (California tribes). Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing by other communities or individuals (SUB) recognize populations that are assumed to consume more fish than the average recreational angler in California (protected under the Commercial and Sport Fishing (COMM) beneficial use).

The Mercury Water Quality Objectives were derived to protect uses related to humans or wildlife that eat fish from waterbodies in California. Uses pertaining to fish consumption are the most sensitive uses related to mercury because of the bioaccumulation of methylmercury in the food web. Two of the five statewide mercury water quality objectives contained in the Provisions support the subsistence beneficial uses (T-SUB and SUB).

With the formal establishment of the tribal and subsistence beneficial use definitions by the State Water Board, Regional Water Boards can incorporate the beneficial uses into their basin plans, and consider designation of these uses in waterbodies where they are determined to be existing or attainable. To designate the Tribal Tradition and Culture or Tribal Subsistence Fishing beneficial uses for a particular waterbody segment and time(s) of year, a California tribe must confirm the designation is appropriate. No confirmation is required to designate the Subsistence Fishing beneficial use. Any water quality objectives developed for the protection of these uses would apply to waters where the Regional Water Boards have made such specific beneficial use designations.

This project would incorporate the new beneficial use definitions into the Basin Plan during the 2020-2022 triennial review.

Also, in response to the data solicitation for the triennial review, the Gabrielino Band of Mission Indians – Kizh Nation expressed interest in designating certain waterbodies in the Los Angeles Region for the CUL beneficial use. Therefore, this project would also initiate a focused effort to work with the region's Native American tribes on the inclusion of tribal beneficial uses definitions in the Basin Plan, and the eventual designation of waterbodies for these uses, as appropriate, during the 2020-2022 triennial review period.

## 4.5. Re-evaluate and Consider Updating the Temperature Water Quality Objectives

Water temperature has far reaching effects on both aquatic chemistry and aquatic life. For example, temperature influences the concentration of oxygen in the water and chemical reaction rates as well as the growth, feeding, fecundity, and incubation rates of organisms. Elevated water temperatures can contribute to beneficial use impairment both directly by influencing and/or interrupting the life cycles of aquatic organisms and indirectly by affecting the attainment of another water quality objective such as dissolved oxygen or ammonia. The Basin Plan objectives for temperature are as follows:

*For waters designated WARM, water temperature shall not be altered by more than 5 °F above the natural temperature. At no time shall these WARM designated waters be raised above 80 °F as a result of waste discharge.*

*For waters designated COLD, water temperature shall not be altered by more than 5 °F above the natural temperature.*

The application of the temperature objectives require determination of the "natural temperature" of waterbodies. This determination is complex and requires analysis of information, such as historical data records, which may or may not be available. In addition, the portion of the water quality objective for the WARM aquatic life beneficial use that states, "*as a result of waste discharge"* is difficult to determine due to the site-specific conditions, such as flow and substrate, that can effect temperature in receiving waters.

Los Angeles Water Board staff have long recognized the need for a re-evaluation of the temperature objective and the re-evaluation was identified as a potential project in the 2014-2016 triennial review. However, it was not adopted as a priority project during that triennial review period as, given the complexity of the issue it would require significant staff resources which were limited, and attempts to secure funding for the project were unsuccessful.

More recently, reconsideration of the temperature objectives has been frequently raised by staff from the Los Angeles Water Board's permitting program as a high priority that needs to be addressed in a timely manner. Therefore, re-evaluation of the temperature water quality objectives is identified as a potential project during the 2020-2022 triennial review.

## 4.6. Incorporate the Statewide Toxicity Provisions into the Los Angeles Region's Basin Plan

Aquatic toxicity occurs when the effects of pollutants in surface water negatively impact aquatic life beneficial uses. When originating from an effluent, these effects are typically referred to as "whole effluent toxicity" (WET). Toxicity tests estimate the effects of discharges to surface waters on the survival, growth, and reproduction of aquatic species in the receiving water. This is done through exposing test species to a laboratory test sample of either ambient water or effluent and comparing the effects to control water.

The Basin Plan for the Los Angeles Region contains a narrative toxicity objective as follows:

"*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration or other appropriate methods as specified by the State or Regional Board.*"

This narrative objective is interpreted and implemented on a permit-by-permit basis. In addition, Section 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, which is also known as the Statewide Implementation Plan (SIP), includes minimum chronic toxicity control requirements for implementing the Basin Plan's narrative toxicity objectives. This is the approach taken by Regional Water Boards throughout the state, leading to a lack of consistency and resulting in the State Water Board considering new statewide aquatic toxicity water quality objectives.

The State Water Board has developed proposed Toxicity Provisions (Provisions) to establish numeric water quality objectives for both acute and chronic toxicity, and a program of implementation to protect aquatic life beneficial uses. A revised draft of these Provisions was released for public comment on July 8, 2020, and is expected to be considered and adopted by the State Water Board by the end of the year.

While these Provisions will not supersede the existing narrative toxicity water quality objectives, they will supersede Basin Plan implementation provisions that specify methods of assessing compliance with any numeric or narrative toxicity water quality objective, or specific toxicity testing and/or interpretation of toxicity testing data.

This potential project would revise the Los Angeles Region's implementation provisions for the toxicity objective to align them with the statewide provisions, upon State Water Board adoption of the proposed Provisions.

## 4.7. Continue Work on Addressing Natural Sources of Pollutants

As discussed in 3.3.1, work has been done sporadically to address the issue of natural sources of pollutants, over time. Work would continue on the project, as resources allow, during the 2020-2022 triennial review period.

## 4.8. Consider a High Flow Suspension of REC-1 Beneficial Uses for the Engineered Channels in Ventura County

The inherent danger of recreating in engineered channels during and immediately following storm events is widely recognized and is already addressed by county policies. On this basis, the Los Angeles Water Board adopted an amendment that temporarily suspends the recreational beneficial uses in a number of engineered channels during and immediately following significant storm events in Los Angeles County (Resolution R03-010).

At the time of adoption, data on engineered channels in Ventura County were not readily available. Therefore, though similar "swift-water" conditions may exist in engineered channels in Ventura County, the high-flow suspension is not currently applied there. Since 2003, Ventura County has assembled data and other necessary information on engineered channels. Thus, developing a high flow suspension of recreational beneficial uses for engineered channels in Ventura County, where applicable, is now feasible. The suspension would only apply during unsafe wet weather conditions and would be modeled after the amendment adopted for Los Angeles County in 2003. This project would support consistency in approaches across the region.

In 2013, Basin Planning staff initiated preliminary field surveys of the engineered channels identified on the Ventura County Watershed Protection Division's GIS layers to identify potential candidates for development of a high flow suspension of the recreational beneficial uses. However, this project was set aside due to resource constraints. Future work will entail more comprehensive field assessments, compilation and analysis of hydrologic and other relevant information, and interaction with stakeholders throughout the process to solicit information, consider findings from assessments and analyses, and plan the subsequent actions to be taken.

In the absence of sufficient resources, for this potential project to proceed, staff may have to rely on stakeholders and/or interested persons to conduct assessments and analyses, while providing oversight of the process.

## 4.9. Continue Development of Salt and Nutrient Management Plans

As discussed in Section 3.3.1, work on Salt and Nutrient Management Plan development for the San Fernando Valley Groundwater Basin will continue during the 2020-2022 triennial review.

## 4.10. Consider Updating the Chlorine Water Quality Objectives

Discharges of chlorine are common because it is used to disinfect effluent, to control fouling organisms in cooling water systems, and in industrial processes, particularly in the food and paper industries. When chlorine is added to fresh water, the solution will usually contain two forms of free chlorine: hypochlorous acid (HOCl) and the hypochlorite ion ($OCl^-$). If the water contains ammonia, the solution will probably also contain two forms of combined chlorine: monochloramine and dichloramine. The term "total residual chlorine" (TRC) is used to refer to the sum of free chlorine and combined chlorine in fresh water. All four forms are toxic to aquatic organisms.

The Basin Plan objectives for total residual chlorine, which have been in place since a 1994 amendment are as follows:

The first part states that, "Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L."

The second part states that, "…[chlorine residual] shall not persist in receiving waters at any concentration that causes impairment of beneficial uses."

In their May 2000 approval of the 1994 Basin Plan amendments, USEPA expressed concern that the adopted objectives for total residual chlorine were based on consideration of equipment reliability and monitoring limitations at sewage treatment plants. They stated that the discharge limitation was not sufficiently stringent to ensure the protection of aquatic life beneficial uses in regional surface waters since it was not water quality based. They directed the Los Angeles Water Board to expand the existing narrative objective for total residual chlorine to include numeric objectives for the protection of aquatic life in the next triennial review. USEPA also directed the objectives should be based on a consideration of the USEPA's 1984 national recommended water quality criteria for chlorine.

This issue was identified as a high priority during the 1995, 2001, and 2004 triennial reviews. However, as the State Water Board was in the process of addressing it through a statewide policy, Los Angeles Water Board staff did not move forward with an independent process but rather provided input to the State Water Board's effort.

In 2006, the State Board, Division of Water Quality, Freshwater Standards Unit developed, and made public, a draft Statewide Chlorine Policy to protect aquatic beneficial uses, promote consistency, and improve clarity for dischargers and Water Board permit writers. The draft policy included numeric objectives based on USEPA's 1984 recommended criteria, along with implementation provisions and compliance determinations. This policy was never finalized, instead it has transitioned into a future amendment to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The timeline for this amendment has not yet been determined.

Los Angeles Water Board staff considers this an important issue, and will continue to follow-up with the State Water Board on the progression of the statewide effort, and provide input as necessary. In the event that a statewide action is taken, staff could potentially take steps towards its incorporation into the Basin Plan.

# 5. 2020-2022 Triennial Review: Potential Projects Identified by Stakeholders

Stakeholder input on potential issues to be addressed during the 2020-2022 triennial review cycle was solicited through a request for information sent out on December 20, 2019. In the solicitation, Los Angeles Water Board staff requested data and other information on any suggested revisions or additions to water quality standards that stakeholders would like the Los Angeles Water Board to consider during this period. In total, twelve (12) letters were received in response to this solicitation. Commenters included the United States Environmental Protection Agency (EPA), City of Los Angeles Sanitation and Environment (LASAN), Los Angeles Department of Water and Power (LADWP), Fred Krieger (Private Citizen), County Sanitation Districts of Los Angeles County (Sanitation Districts), stakeholders implementing TMDLs in the Calleguas Creek Watershed (Calleguas Creek Watershed Management Plan (CCWMP)), Ventura Countywide Stormwater Quality Management Program (VCSQMP – which includes Ventura County Watershed Protection District, the County of Ventura, and the incorporated cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Ventura, Santa Paula, Simi Valley, and Thousand Oaks), Richard Watson & Associates (RWA), Channel Islands Neighborhood Council and Marine Advisory Committee (CINC/MAC), International Zinc Association (IZA), Gabrieleno Band of Mission Indians – Kizh Nation (Kizh Nation), and Non-Governmental Organizations (NGOs) - consisting of a collective group of NGOs: the Los Angeles Waterkeeper, Heal the Bay, California Coastkeeper Alliance, The Nature Conservancy, and the Wishtoyo Foundation/Ventura Coastkeeper.

A summary of the general issues raised within four distinct categories – Water Quality Objectives, Implementation Provisions, Beneficial Uses, and Other Issues – is provided below in italicized text. A brief discussion in regular text follows the summary, and where any of the issues are being addressed or may be addressed in the future by the Basin Planning program or other Los Angeles Water Board programs, staff has indicated such.

## 5.1. Water Quality Objectives

### 5.1.1. Identify Specific Waters to which the new Tribal and Subsistence Beneficial Uses will apply

*USEPA recommended that upon incorporating the State Water Board's new human health beneficial uses for tribal and subsistence uses and the fish tissue water quality objectives for the protection of human health, aquatic life and wildlife (and associated implementation provisions) into the Basin Plan, the Los Angeles Water Board should identify the specific waters to which the new human health uses will apply, as these uses and objectives are important for the protection of human health and wildlife throughout the State.*

As discussed in detail in Section 4.4 of this document, the State Water Board adopted "Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries (ISWEBE) of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions"

on May 2, 2017. Incorporation of these new beneficial uses into the Basin Plan is identified as a potential project during the 2020-2022 triennial review period. If approved, the beneficial use definitions will be incorporated into the Basin Plan as a single action during the 2020-2022 triennial review period. Following this, the Los Angeles Water Board will consult with the appropriate tribes regarding potential tribal beneficial use designations for specific waterbodies in the Los Angeles Region. Any such designations will be done through a Basin Plan amendment process, with stakeholder involvement.

### 5.1.2. Prioritize Adoption and Incorporation of USEPA's 2007 Recommended Freshwater Criteria for Copper into the Basin Plan

*Fred Krieger (a Private Citizen) requested that the Los Angeles Water Board prioritize and adopt the copper Biotic Ligand Model (BLM) - USEPA's 2007 recommended criteria for copper.*

In 2007, USEPA revised its freshwater copper criteria from a hardness-based approach to a water-quality dependent approach that uses a predictive model – the Biotic Ligand Model (BLM). As discussed in Section 3.3.3, during the 2017-2019 triennial review period, the Los Angeles Water Board prioritized consideration of the revised criteria for incorporation into its Basin Plan, and began work on this effort. This project is expected to continue and be completed during the 2020-2022 triennial review period. However, it should be noted that further action by USEPA, to de-promulgate the existing freshwater copper criteria, will likely be necessary in order for the Los Angeles Water Board to apply the BLM-derived copper objectives in its regulatory actions.

### 5.1.3. Incorporate the Biotic Ligand Model for Zinc Freshwater Quality Criteria

*The International Zinc Association (IZA) and Richard Watson & Associates (RWA) recommended that the Los Angeles Water Board revise the Basin Plan to incorporate the use of the Biotic Ligand Model as an interim zinc freshwater quality criterion. Furthermore, IZA and RWA requested that once USEPA has revised the nationally recommended freshwater quality criteria for zinc to the BLM, the Los Angeles Water Board adopt the BLM for zinc freshwater quality criteria as part of the USEPA's nationally recommended freshwater quality criteria for zinc. IZA also encouraged the Los Angeles Water Board to prepare for bioavailability-based water quality objectives and measurements of dissolved metals and water chemistry characteristics such as pH, dissolved organic carbon (DOC), alkalinity, and major ions.*

Los Angeles Water Board staff are aware that in December 2017, USEPA signed a Cooperative Research and Development Agreement (CRADA) with eight metals associations (Aluminum Association, Aluminum REACH Consortium, Cobalt Institute, International Copper Association, Copper Development Association, International Lead Association, International Zinc Association, and NiPERA, Inc.) in order to leverage the knowledge and resources of scientists inside and outside of the agency to better protect aquatic life. USEPA's Office of Science and Technology within the Office of Water is the Agency's technical lead on this CRADA.

There is a two-phased approach to this effort. In the first phase, USEPA is working collaboratively with the metals associations to develop a common modeling approach to predict the bioavailability and toxicity of metals. Modeling approaches such as the Biotic Ligand Model (BLM) and Multiple Linear Regressions (MLRs) are being considered. In the second phase, USEPA will work with the metals associations to develop models for individual metals, including zinc. Using the resulting peer-reviewed models, USEPA plans to develop updated Aquatic Life Ambient Water Quality Criteria for metals that reflect the latest science and are easier to implement than more complex, previous approaches using metals bioavailability modeling for criteria development. This effort is expected to conclude by 2022.

Given the ongoing CRADA effort, it is premature for the Los Angeles Water Board to attempt to develop interim limits in anticipation of a final determination by USEPA. That said, the Los Angeles Water Board has acknowledged the effectiveness of the BLM as a tool to address the site-specific bioavailability of metals as evidenced by on-going work to incorporate BLM-derived water quality objectives for copper into the Basin Plan. In addition, stakeholders have been encouraged to initiate the collection of site-specific data on the input parameters that support BLM-derived criteria development for copper. Such data could also be used to derive water quality objectives for other metals in the event that USEPA chooses the BLM approach for criteria derivation.

### 5.1.4. Implement a Biological Objectives Data Project for the Future Development of Biological Water Quality Objectives

*Non-Governmental Organizations (NGOs) recommended that the Los Angeles Water Board allocate sufficient resources, including staff time, for the implementation of a Biological Objectives Data Project. They recommended that the Project include the following phases: 1) compilation of a census of relevant existing monitoring efforts as well as all relevant existing data; 2) evaluation of extent to which existing data could be used to calculate scientifically sound California Stream Condition Index (CSCI) scores and ensure that appropriate reference sites exist regionally and statewide; 3) target monitoring in any areas where data gaps may exist; 4) creation of a "clearinghouse" by assembling supporting data and associated CSCI scores in one user-friendly format accessible to the general public; and 5) completion of a final project report by the end of the 2020-2022 triennial review cycle that can function as a technical appendix in a Basin Plan amendment proposing biological objectives for the Los Angeles Region.*

The Clean Water Act and the Porter-Cologne Water Quality Control Act describe water quality in terms of the biological, chemical, and physical characteristics of water. However, while biological objectives may provide a means to assess the relationship between chemical, physical, and biological conditions of a waterbody, the State and Regional Water Boards have historically focused on chemical water quality objectives for the protection of water quality. This approach has not prevented degradation of biological communities in the state's inland surface waters, and the impairment of aquatic life beneficial uses. To improve protection of these beneficial uses, the State Water Board initiated development of a statewide biological objectives policy for perennial wadeable streams. This effort has involved scientists, regulators, and stakeholders working together in varying capacities to develop and refine the technical tools needed to support

biological objectives. The statewide objectives are intended to have statewide consistency and provide regional flexibility.

In February 2019, the San Diego Regional Water Board released a proposed Basin Plan amendment to incorporate narrative guidance for developing biological objectives and a numeric objective for perennial and seasonal streams, into their Basin Plan. The proposed objectives were developed using the tools being considered by the statewide effort. The proposed Basin Plan amendment was revised in August 2020 and has not yet been brought up for adoption by the San Diego Regional Water Board.

The Los Angeles Water Board recognizes the importance of the move towards biological assessment of water quality and its potential to address degradation and/or impairment of aquatic life beneficial uses. Staff have been closely following both the Statewide effort and that of the San Diego Regional Water Board. While limited Basin Planning resources will dictate the extent of any effort towards developing region-specific biological objectives, support of this issue is identified as a potential project during the 2020-2022 triennial review.

### 5.1.5. Modify the Calleguas Creek Watershed Metals and Selenium Total Maximum Daily Loads (TMDLs) to reflect USEPA's draft Selenium and draft Saltwater Copper Criteria

*Stakeholders for the Calleguas Creek Watershed Management Plan (CCWMP) requested that the Los Angeles Water Board modify the Calleguas Creek Watershed Metals and Selenium TMDL to incorporate USEPA's draft selenium criteria, the results of a study to translate from the draft selenium tissue criteria to water column concentrations in Revolon Slough, and results of the copper study to utilize the draft USEPA saltwater criteria for copper to modify the TMDL targets and allocations in Revolon Slough (if conducted). CCWMP also requested that the Los Angeles Water Board revise the selenium and copper objectives for Revolon Slough, in the event that the draft criteria are not approved by USEPA.*

In December 2018, USEPA released a proposed draft freshwater criterion for selenium in California. Once the criterion is finalized and promulgated, it will be applicable statewide. At this point the Los Angeles Water Board's TMDL Program may consider revisions to the Selenium TMDL, as deemed necessary. However, as explained earlier, any actions pertaining to establishing or revising TMDLs themselves are not considered in the context of the triennial review, which is focused on the underlying water quality standards.

Also, USEPA's consideration of BLM-derived saltwater quality criteria for copper appears to be on hold while alternative approaches to addressing metals criteria are reviewed through their CRADA with the metals industry (see detailed discussion in section 5.1.3). The Los Angeles Water Board will not take action on any revisions to the saltwater quality objectives for copper ahead of any final recommendations from USEPA. Therefore, this project will not be recommended for prioritization during the 2020-2022 triennial review.

### 5.1.6. Monitor Implementation of the Proposed Safe, Clean Water Program Regional Bacterial Scientific Study

*Richard Watson & Associates (RWA) encouraged the Los Angeles Water Board to monitor the implementation of the proposed Safe, Clean Water Program Regional Bacterial Scientific Study and to participate in the stakeholder process in preparation for consideration of a possible bacteria water quality standard project during the 2023-2025 Triennial Review period.*

The Los Angeles Water Board is aware of the proposed Safe, Clean Water Program Regional Bacterial Scientific Study concerning health risk-based indicators, and plans to commit staff resources to participate in and provide oversight of the effort it, should it be funded. The Los Angeles Water Board will also consider bacteria water quality objectives for the protection of REC-1 uses based on alternative indicators and/or methods when the necessary science is adequately developed.

## 5.2. Implementation Provisions

### 5.2.1. Prioritize a Natural Source Exclusion Policy

*Fred Krieger (a Private Citizen) requested that the Los Angeles Water Board prioritize development of a policy for making natural source determinations to address exceedances of pollutants in waterbodies caused or contributed to by natural sources.*

As discussed in Sections 3.3.1 and 4.7, the Los Angeles Water Board has made some progress towards developing either implementation provisions or some form of assessment tool to address the issue of chemical constituents that exceed their water quality objectives as a result of their natural occurrence in the environment. Work is expected to continue on this issue, as resources allow, during the 2020-2022 triennial review.

### 5.2.2. Clarify the Variance Policy as applied in the Los Angeles Region

*Fred Krieger (a Private Citizen) requested that the Los Angeles Water Board develop a regional variance policy specifically focused on the pollutants for which compliance is not currently feasible and also provide guidance on how dischargers can collectively pursue region-wide variances.*

In October 2015, revisions to the federal Water Quality Standards (WQS) regulations at 40 C.F.R. Part 131 went into effect. The final rule addressed certain key WQS program areas including variances. The final rule establishes a clear regulatory framework for the adoption of WQS variances that states and authorized tribes can use to implement adaptive management approaches to improve water quality. It explicitly authorizes the use of WQS variances for certain CWA purposes and provides requirements to ensure that WQS variances are used appropriately. Per this rule, a WQS variance may be adopted for one or more permittees or for a waterbody or waterbody segment.

In August 2017, USEPA made available a WQS Variance Building Tool, available at https://www.epa.gov/wqs-tech/water-quality-standards-variance-building-tool. This tool was designed both to assist states and authorized tribes determine whether a WQS variance is an appropriate too for a particular situation, and to help navigate the requirements at 40 CFR Part 131.14 to determine what a legally binding WQS variance would look like and what additional information must be documented and submitted to USEPA to support the WQS variance. USEPA has also developed a Frequently Asked Questions (FAQs) document titled "Discharger-specific Variances on a Broader Scale: Developing Credible Rationales for Variances that Apply to Multiple Dischargers" to help address questions that arise when states and tribes seek to streamline the adoption and approval of water quality standards (WQS) variances for pollutants that have an impact on multiple permittees (or dischargers). Such variances could be considered for groups of permittees that are experiencing the same challenges in meeting their water quality based effluent limits (WQBELs) for the same pollutant, regardless of whether or not the permittees are located on the same waterbody. USEPA notes, however, that multiple discharger variances may not be appropriate or practical for all situations, and may be highly dependent on the parameters considered and the number of affected permittees.

On August 7, 2018, the State Water Board adopted a statewide Water Quality Standards Variance Policy, along with statewide bacteria provisions. This policy identifies the water quality standards variance regulatory framework established by USEPA (40 C.F.R. § 131.14) and explains the requirements the Water Boards must utilize to establish water quality standards variances, consistent with the federal rule, for any pollutant.

Given the statewide applicability of the proposed WQS Variance Policy, and the availability of guidance documents and tools from USEPA, developing a regional variance policy would be redundant and is not recommended to the Los Angeles Water Board for consideration during this triennial review.

### 5.2.3. Reconsider the use of Primary Maximum Contaminant Levels (MCLs) as Surface Water Standards

*Richard Watson & Associates (RWA) and Fred Krieger (a Private Citizen) requested that the Los Angeles Water Board reconsider applying Maximum Contaminant Levels (MCLs) to surface waters designated as MUN, as these objectives were developed for finished drinking water. RWA expressed particular concern for the MCLs for aluminum and turbidity applying to stormwater discharges.*

As noted by one of the commenters, most of the surface waters in the region have an asterisked Municipal and Domestic Supply (MUN*) beneficial use designation. The asterisk indicates that further evaluation of the MUN use will be undertaken prior to requiring MUN-related effluent limits in permits. Therefore, the Los Angeles Water Board does not apply the MUN water quality objectives to these waterbodies for assessment of impairment, nor require that MS4s report exceedances of the primary MCLs.

Also, regarding the application of MCLs to MUN-designated surface waters, the Safe Drinking Water Act (SDWA) (42 USC § 300f et seq.), first enacted in 1974 and amended in 1996, promotes a multiple-barrier approach to safeguarding the nation's water supply. This multiple-barrier approach goes beyond the traditional emphasis on treatment to address new challenges and reflects a better understanding of the need for a coordinated source water protection effort. Preventing contamination of drinking water sources is one of the key elements of the approach. Per USEPA, "[r]eliance solely on drinking water treatment, beyond that which is needed to address naturally occurring pollutant concentrations, imposes an unfair burden on communities to address preventable problems caused by man-made sources of pollution" (USEPA Memorandum to Regional Water Management Division Directors titled "Effective use of Water Quality Standards to Protect Sources of Drinking Water," October 1, 2003). Therefore, for surface waters designated as MUN without an asterisk, applying MCLs surface waters is necessary to adequately protect the state's water supply.

Given these considerations, this issue will not be recommended for consideration during the 2020-2022 triennial review.

### 5.2.4. Clarify Reference to Drinking Water Secondary Maximum Contaminant Levels in Water Quality Objectives

*Fred Krieger (a Private Citizen) requested that the Los Angeles Water Board specify in the Basin Plan that the references to the secondary drinking water standards for turbidity and color are for information only. Mr. Krieger also requested that clarification be provided regarding how the secondary MCLs for TDS and chloride would be applied to stormwater permittees.*

The water quality objectives for turbidity, color, TDS, and chloride are objectives set to protect designated beneficial uses in the Los Angeles Region's waterbodies. For narrative objectives (such as color and turbidity), secondary MCLs can be used for translation into numeric effluent limitations. The Basin Plan also uses secondary MCLs for TDS and chloride in instances where waterbody specific objectives are not provided (see footnote f of Table 3-10 of the Basin Plan). Although USEPA recommends these levels as guidelines, USEPA recognizes that states may adopt them as enforceable standards. All Basin Plan objectives including MCLs (primary and secondary) are incorporated in the Los Angeles Water Board's Phase I MS4 Permits as receiving water limitations. MCLs specifically apply to surface waterbodies with the MUN beneficial use. The Los Angeles Water Board's Phase I MS4 Permits currently include water quality based effluent limitations and receiving water limitations for chloride and TDS, derived from TMDL WLAs, that apply to storm water discharges from the outfall and in-stream, respectively. The application of these secondary MCLs in permits, where appropriate, is justifiable, therefore, these issues will not be recommended for prioritization during the 2020-2022 triennial review.

## 5.3. General and Specific Beneficial Uses

### 5.3.1. Adopt the Tribal Tradition and Culture (CUL) and Tribal Subsistence Fishing (T-SUB) Beneficial Uses into the Basin Plan, and Designate Specific Waterbodies for these Uses

*The Gabrieleno Band of Mission Indians – Kizh Nation (Kizh Nation)) requested that the Los Angeles Water Board adopt the Tribal Tradition and Culture (CUL) and Tribal Subsistence Fishing (T-SUB) beneficial uses and give designation to applicable surface waters, enclosed bays, and estuaries.*

On May 2, 2017, the State Water Resources Control Board adopted Resolution No. 2017-0027, which approved "Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions." The resolution established three new beneficial use definitions for use by the State and Regional Water Boards: Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB).

As discussed in Section 4.4, Regional Water Boards can now incorporate these beneficial uses into their basin plans, and consider designation of these uses in waterbodies where they are determined to be existing or attainable. To designate the Tribal Tradition and Culture or Tribal Subsistence Fishing beneficial uses for a particular waterbody segment and time(s) of year, a California Native American tribe must confirm the designation is appropriate. No confirmation is required to designate the Subsistence Fishing beneficial use. Any water quality objectives developed for the protection of these uses would apply to waters where the Regional Water Boards have made such specific beneficial use designations.

Incorporation of the new beneficial use definitions into the Basin Plan is identified as a potential project during the 2020-2022 triennial review. Staff also recommends prioritizing the initiation of a focused effort to work with the region's Native American tribes on the inclusion of tribal beneficial uses definitions in the Los Angeles Region's Basin Plan, and the eventual designation of waterbodies for these uses, as appropriate.

### 5.3.2. Incorporate High Flow Suspension and Low Flow Suspension of the Water Contact (REC-1) Beneficial Use for Applicable Waterbodies and Engineered Channels

*Stakeholders (Calleguas Creek Watershed Management Plan (CCWMP) and Ventura Countywide Stormwater Quality Management Program (VCSQMP)) requested that waterbodies within the Calleguas Creek and Ventura County Watersheds that meet the definitions outlined in the 2003 Basin Plan Amendment for "engineered channels" be included in the Basin Plan as waterbodies to which the High Flow Suspension of the water contact recreation (REC-1) beneficial use apply.*

*CCWMP and VCSWMP also requested that the Los Angeles Water Board allocate Basin Planning resources to conduct a Use Attainability Analysis, as required by the Statewide Bacteria Provisions, to determine other waterbodies to which a seasonal (high or low flow) suspension would apply.*

As discussed earlier in Section 4.8, in 2003, the Los Angeles Water Board adopted an amendment that temporarily suspends the recreational beneficial uses in a number of engineered channels in Los Angeles County during and immediately following significant storm events (Resolution R03-010) (high flow suspension). At that time, data on engineered channels in Ventura County were not readily available. therefore, they were not included in the high flow suspension. However, since then the necessary data has become available and the Los Angeles Water Board has considered a similar application for Ventura County's engineered channels. In 2013, Basin Planning staff initiated the process by conducting preliminary field surveys of the engineered channels identified on the GIS layers. Limited staff resources required putting this effort on hold. As mentioned in Section 4.8, in order for this project to move forward, staff may have to rely on stakeholders and/or interested persons to conduct the required assessments and analyses, while providing oversight of the process.

Regarding the application of seasonal high or low flow suspensions to waterbodies other than engineered channels, as indicated during the adoption of the update to the Basin Plan's bacteria water quality objectives for water contact recreation, the Los Angeles Water Board will give careful consideration to such actions on a case-by-case basis. This issue will not be recommended for prioritization during the 2020-2022 triennial review. However, this does not preclude stakeholders and/or interested person from conducting the necessary analysis and presenting the results and other accompanying information for the Los Angeles Water Board's consideration. It should be noted, however, that undertaking such an effort is not a guarantee that a proposed suspension of recreational beneficial uses will be approved by the Board.

### 5.3.3. Modify the Beneficial Uses of the Edison Canal Estuary

*The Channel Islands Neighborhood Council and Marine Advisory Committee (CINC/MAC) requested that the Los Angeles Water Board redefine the Edison Canal Estuary's designated beneficial use as Estuarine Habitat (EST). Additionally, CINC/MAC requested that the Los Angeles Water Board consider redefining the Edison Canal Estuary as Wetland Habitat (WET) and consider applying footnote 'e' (species uses for foraging and/or nesting) and footnote 'f' (aquatic species use for spawning or early development with freshwater inputs) to the potential WET beneficial use if applicable upon further study.*

Edison Canal Estuary exists on land that was historically categorized as alkali meadow/flats and sand dunes, with a small portion belonging to a non-tidal lagoon. The Basin Plan for the Los Angeles Region lists beneficial uses of the Edison Canal Estuary as: industrial service supply, water contact recreation, non-contact water recreation, marine habitat, wildlife habitat, and preservation of rare and endangered species. However, it has not been designated for estuarine habitat (EST) or wetland habitat (WET) beneficial use in either the current or historical Basin Plans. Therefore, a comprehensive peer-reviewed study may be required to determine the

appropriateness of designating it for these beneficial uses, particularly given the recent change in its use and function. The Basin Planning Program currently lacks the resources to conduct such a study, and so this issue will not be recommended for prioritization during the 2020-2022 triennial review. However, should contract funds become available, this project could be a candidate for consideration and prioritization in upcoming triennial reviews. Alternatively, stakeholders could choose to undertake such a study (with staff oversight) and present the results to the Los Angeles Water Board for consideration. Finally, consideration should be given to the possibility that the ecosystem of the area could still be in flux, due to the recent changes in the hydrology of the harbor and estuary resulting from the shutdown of the Mandalay Power Generating Plant, and a re-assessment of its beneficial uses may be premature. That said, it bears noting that the proposed beneficial use designations are currently protected, in large part, by the water quality objectives that protect the currently designated beneficial uses.

### 5.3.4. Modify the extent of San Gabriel River's Reach 2 to address Areas of Different Hydrologic Characteristics

*County Sanitation Districts of Los Angeles County (Sanitation Districts) requested that the Los Angeles Water Board modify the extent of San Gabriel River Reach 2 (Firestone Boulevard to Whittier Narrows Dam), which is predominantly a natural-bottomed zone with impoundments for groundwater replenishment. The southern boundary of the reach would most appropriately be delineated where the natural bottom changes to a concrete channel, which occurs approximately 0.25 mile north of Firestone Boulevard. The Sanitation Districts requested that the modification be made, either (i) by revising the narrative descriptions for Reach 1 from the San Gabriel River Estuary to the edge of the concrete-lined channel and Reach 2 from the edge of the concrete-lined channel to Whittier Narrows Dam, or (ii) by splitting Reach 2 into two sub-reaches.*

The Basin Plan defines San Gabriel River Reach 1 as being from the San Gabriel River Estuary to Firestone Boulevard and Reach 2 as being from Firestone Boulevard to the Whittier Narrows Dam. While Reach 1 is a concrete-lined channel, Reach 2 contains areas of different hydrologic characteristics: a concrete-lined section, and a longer section with an earthen bottom. Expanding the extent of Reach 1 to include the concrete-lined section of Reach 2 (thereby leaving the modified Reach 2 as an entirely earthen-bottomed section) creates a few discrepancies. Reach 1 and Reach 2 of the San Gabriel River do not have identical beneficial uses. Accordingly, making this change will not be as straight-forward as moving a boundary from one location to another. Also, since CWA section 303(d) impairments and TMDL waste load allocations are reach-dependent, any such modifications may trigger re-considerations of both. Rather, separating Reach 2 into different sections – one containing the concrete-lined channel, and the other containing the earthen bottom channel – is a more viable alternative given the discrepancies identified.

That said, given the limited resources of the Basin Planning Program, regionwide projects take precedence over more localized ones such as the reach-specific project described above. Therefore, this project will not be recommended for prioritization during the 2020-2022 triennial review. However, stakeholders have the option of compiling and submitting relevant data,

information, and analyses to support a reach revision, for future consideration by the Los Angeles Water Board. It should be noted, however, that undertaking such an effort is not a guarantee that the proposed revision will be approved by the Board.

#### 5.3.5. Reconsider Elderberry Forebay Beneficial Uses (MUN, PROC, AGR, GWR, WARM, REC-1, REC-2)

*The Los Angeles Department of Water and Power (LADWP) requested that the Los Angeles Water Board revisit the beneficial uses assigned to Elderberry Forebay and consider information to remove certain uses (including MUN, PROC, AGR, GWR, WARM, REC-1 and REC-2). LADWP contends such designations are inappropriate as (i) Elderberry Forebay was constructed strictly to provide water storage for pumped-storage hydroelectric generation, and (ii) it is partially concrete-lined, and access is prohibited as high flow velocities and rapid fluctuations in water levels could be hazardous to the public.*

Given the limited resources of the Basin Planning Program, regionwide projects take precedent over more localized ones such as that described above. The requested re-evaluation of beneficial uses of Elderberry Forebay will not be recommended for prioritization during the 2020-2022 triennial review. However, stakeholders have the option of compiling and submitting relevant data, information, and analyses to support beneficial use revisions (per 40 CFR 131.10(g)) for future consideration by the Los Angeles Water Board. It should be noted, that undertaking such an effort is not a guarantee that the proposed revisions will be approved by the Board.

### 5.4. Other Issues of Concern

A number of commenters raised issues and made requests for actions by the Los Angeles Water Board that are outside the scope of the triennial review process. Therefore, the issues below are not included in the proposed priority projects for the 2020-2022 triennial review period. Nonetheless, the Los Angeles Water Board recognizes the importance of these issues to stakeholders and, as briefly discussed below, is in many cases, already engaged with the commenters regarding the concerns and requests.

#### 5.4.1. Modify Compliance Schedules for all Bacteria Total Maximum Daily Loads (TMDLs) in Ventura County

*The Ventura Countywide Stormwater Quality Management Program (VCSQMP) requested that the Los Angeles Water Board modify compliance schedules for all Bacteria TMDLs in Ventura County, including the Santa Clara River Bacteria TMDL, the Harbor Beaches of Ventura County Bacteria TMDL, and the Malibu Creek Bacteria TMDL. Per VCSWQMP, this modification is necessary as (i) additional time is needed to develop comprehensive watershed management plans for the stormwater permit for Ventura County currently under development and implement the projects associated with these plans, (ii) there is a significant amount of new science and information that may impact the decisions regarding which control measures are the most*

*effective to address bacteria impairments, and (iii) the existing Bacteria TMDL requirements are not aligned with the recently adopted Statewide Bacteria Provisions.*

Any actions or decisions regarding modification of Total TMDL compliance schedules or additional time for development and implementation of stormwater pollutant control measures are within the purview of the Los Angeles Water Board's TMDL and Stormwater programs, respectively, and as explained earlier, are outside the scope of this triennial review. However, the TMDL and Stormwater programs have been discussing the consideration of TMDL extensions in the context of the Los Angeles Water Board's consideration of the Regional MS4 Permit and are working on a parallel Basin Planning effort in this regard. See, also, the discussion in Section 5.4.2 below.

### 5.4.2. Reconsider TMDL Schedules with Near-Term Final Deadlines or allow for Alternative Compliance Schedules as part of Watershed Management Programs for the Municipal Separate Storm Sewer System (MS4) Permit

*The City of Los Angeles Sanitation and Environment (LASAN) recommends that the Los Angeles Water Board either reconsider TMDL schedules with near-term final deadlines in light of new information (such as the passage of Measure W), or develop a Basin Plan amendment that allows for the utilization of alternative compliance schedules proposed as part of the Watershed Management Programs, which consider the sequencing of TMDL implementation and Safe Clean Water Program funding, in an MS4 Permit.*

As noted in Section 5.4.1 above, any actions or decisions regarding modification of TMDL compliance schedules or additional time for development and implementation of stormwater pollutant control measures are within the purview of the Los Angeles Water Board's TMDL and Stormwater programs, and as explained earlier, are outside the scope of this triennial review. However, the TMDL and Stormwater programs have been discussing the consideration of TMDL extensions in the context of the Los Angeles Water Board's consideration of the Regional MS4 Permit and are working on a parallel Basin Planning effort in this regard, which will be publicly noticed for comment and then brought to the Board for its consideration in the near future.

### 5.4.3. Reclassify the Edison Canal Estuary and Channel Islands Harbor as Recognized Impaired Waterbodies

*The Channel Islands Neighborhood Council and Marine Advisory Committee (CINC/MAC) recommended that the Los Angeles Water Board reclassify the Edison Canal Estuary and Channel Islands Harbor as impaired waterbodies due to water quality deterioration resulting from the closure of the Mandalay Power Plant.*

The Edison Canal was excavated in 1958 to provide a source of seawater for cooling of the Mandalay Power Generating Plant. Edison Canal Estuary was connected to Port Hueneme until the Channel Island Harbor was constructed in 1965. The Mandalay Generating Power Plant's intake pumps constantly drew on the seawater in the Channel Islands Harbor, causing the water

to flow south to north. Water from the Mandalay Generating Power Plant was discharged into the Pacific Ocean, creating counter-clockwise flow pattern between the Power Plant, Channel Islands Harbor, and the Edison Canal Estuary. In response to the statewide Once-Through Cooling Policy, the Mandalay Generating Power Plant was closed in March 2018 and the pumps were shut off. This has contributed to recent reduced circulation and flushing of pollutants in the canal.

Section 303(d) of the Clean Water Act requires the identification of water bodies that do not meet, or are not expected to meet, water quality standards (i.e., impaired water bodies). The affected water body, and associated pollutant or stressor, is then prioritized on a 303(d) List to be addressed through development of a total maximum daily load (TMDL) or other approach. Determinations of impairment are generally made through a waterbody assessment process in accordance with the State Water Board's *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List.* The State Water Board coordinates such assessments for each Regional Water Board every six years. As part of the exercise, the State Water Board solicits data and information from interested persons and stakeholders that would be used to assess overall surface water quality conditions, including those not meeting water quality standards (i.e. impaired). Staff from one of the Los Angeles Water Board's TMDL units work alongside the State Water Board in conducting such assessments. On June 30, 2020, the State Water Board sent out a solicitation notice of the Los Angeles Region's Section 303(d) assessment for the 2024 listing cycle. The CINC/MAC is encouraged to submit relevant data and information regarding water quality conditions in Edison Canal Estuary and the Channel Islands Harbor for consideration during this assessment period.

The 303(d) listing process is a different process from the triennial review process; the triennial review process is used to evaluate and modify as appropriate the water quality standards established to protect the region's waterbodies, whereas the 303(d) listing process is used to evaluate water quality monitoring data in comparison to the established water quality standards. Because the 303(d) listing process is a separate and distinct process, it is outside the scope of the triennial review. Los Angeles Water Board staff have already been engaging with stakeholders about evaluating available water quality data for Edison Canal and Channel Islands Harbor as part of the recently initiated 303(d) list update.

### 5.4.4. Identify and Monitor the North Shore at Mandalay Bay, Doris Drain, 5th Street Drain, and Oxnard West Drain as Potential Polluting Sources of the Edison Canal Estuary and Channel Islands Harbor

*The Channel Islands Neighborhood Council and Marine Advisory Committee (CINC/MAC) recommended that the Los Angeles Water Board classify the North Shore at Mandalay Bay, Doris Drain, 5th Street Drain, and Oxnard West Drain as potential polluting sources for the Edison Canal Estuary.*

Identifying potential polluting sources in a waterbody is generally done through the development of total maximum daily loads or a discharge permitting process. As explained earlier, these actions

are beyond the purview of the Basin Planning Program and outside the scope of the triennial review process. However, as noted in Section 5.4.3, the process of updating the region's 303(d) list of impaired waterbodies has recently begun, Los Angeles Water Board staff have been engaging with stakeholders concerned about water quality in Channel Islands Harbor and Edison Canal, and sources of pollutants can be considered during that process where data support such a consideration.

### 5.4.5. Develop Trash and Agricultural Pollutant TMDL for the Edison Canal Estuary

*The Channel Islands Neighborhood Council and Marine Advisory Committee (CINC/MAC) requested that the Los Angeles Water Board develop a trash and agricultural TMDL for the Edison Canal Estuary and include trash as a contributing impairment. Additionally, Stakeholders (CINC/MAC) request that the Los Angeles Water Board accelerate the required timelines for all the proposed TMDLs and reduce any/all discharges.*

Development of total maximum daily loads is beyond the purview of the Basin Planning Program, as explained earlier. However, as discussed in Section 5.4.3, TMDL development can be initiated through a waterbody assessment process and determination of impairment, whereby the waterbody could be placed on a 303(d) list for addressing the impairment. As noted above, Los Angeles Water Board staff responsible for the update to the 303(d) list are engaged with CINC/MAC and the CINC/MAC is encouraged to submit relevant data and information regarding water quality conditions in Edison Canal Estuary and the Channel Islands Harbor for consideration during the current solicitation period for the 303(d) assessment for the Los Angeles Region.

### 5.4.6. Establish Program to Fund Monitoring Actions in the Channel Islands Harbor

*The Channel Islands Neighborhood Council and Marine Advisory Committee (CINC/MAC) requested that the Los Angeles Water Board establish a program to directly fund and advise monitoring actions for the quality assurance project plan (QAPP) relating to the Channel Islands Harbor.*

Establishing funding programs for water quality monitoring is outside the purview of the Basin Planning Program, and so this project will not be considered for the triennial review. However, information on funding for water quality improvement projects is contained in Chapter 4 of the Los Angeles Region's Basin Plan (see pages 4-136 through 4-141).[4] Also, since 2019, staff from other Los Angeles Water Board programs have been providing assistance in identifying potential funding sources to assist the CINC/MAC with their monitoring efforts. In addition, these staff have provided support in developing the CINC/MAC's monitoring and quality assurance plans and

[4] Funding information is also available on the Los Angeles Water Board's website at: https://www.waterboards.ca.gov/losangeles/water_issues/programs/grants_loans/ and the State Water Board's website at: https://www.waterboards.ca.gov/water_issues/programs/grants_loans/

provided the opportunity for laboratory analyses of some samples collected by CINC/MAC to be performed using Los Angeles Water Board resources.

# 6. 2020-2022 Triennial Review: Staff Recommendations on Priorities

## 6.1. Staff Recommendations

The Los Angeles Water Board's Basin Planning Program currently consists of 1.7 "personnel years" (PYs). Carrying out the projects identified during the triennial review process is only one of the responsibilities of those staff whose time comprises the 1.7 PYs each year; some of these resources are used towards supporting other Los Angeles Water Board programs and for ongoing Statewide projects. Therefore, the number of projects that can be addressed during the time remaining in this triennial review period is limited. During the current triennial review cycle, 0.5 Basin Planning PYs are required to participate in statewide Basin Planning initiatives and support other Water Board programs, leaving 1.2 Basin Planning PYs available to address the projects selected.

Based on the status of the previous triennial review priority projects, stakeholder input, Los Angeles Water Board program needs, and available resources, staff recommends the following list of priority projects for consideration during the 2020-2022 triennial review period:

- Complete work on updating the freshwater quality objectives for copper consistent with the CWA section 303(c) recommended water quality criteria
- Update the Basin Plan's ammonia objectives consistent with the CWA section 303(c) recommended water quality criteria
- Evaluate the application of site specific objectives for lead developed using U.S. EPA's Recalculation Procedure to waterbodies in the region
- Incorporate the tribal and subsistence fishing beneficial use definitions into the Basin Plan
- Initiate tribal outreach efforts for potential waterbody-specific designations of the tribal beneficial uses
- Initiate re-evaluation of the Basin Plan's temperature water quality objectives
- Consider any amendments to the Basin Plan's toxicity objectives that may be necessary in response to the Statewide Toxicity Provisions
- Provide support for efforts towards developing region-specific bio-objectives
- Continue to coordinate the development of Salt and Nutrient Management Plans (SNMPs), per the Statewide Water Quality Control Policy for Recycled Water, including the incorporation of management measures from the SNMPs into the Basin Plan
- Continue work on developing implementation tools to address natural sources of pollutants as resources allow
- Initiate the 2023-2025 Triennial Review process

In addition, as resources allow, Basin Planning staff will continue to provide support to other Los Angeles Water Board programs and statewide standards-related initiatives, and to address legal and regulatory mandates that may arise during the triennial review period.