UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Patrick Pulupa, Executive Officer
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive
Rancho Cordova, California 95670

Subject: Amendments to the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin to Incorporate a Central Valley-Wide Salt and Nitrate Control Program

Dear Executive Officer Pulupa:

I am pleased to approve the revised water quality standards in the subject amendments, consistent with the requirements of section 303(c) of the Clean Water Act (CWA) and 40 C.F.R. Part 131. Supported by robust science and stakeholder engagement, the standards include revisions to water quality criteria for the protection of municipal and domestic beneficial uses. I am also disapproving certain water quality standards as described below.

Summarized below are the approved standards, which take effect immediately for CWA purposes. Incorporated as part of this letter are Enclosure A (Approved and Disapproved Standards) and Enclosure B (EPA's detailed analysis of the standards and rationale for approval and disapproval).

Approved Revised Water Quality Standards

EPA approves the new and revised water quality standards for municipal and domestic beneficial uses and changes to antidegradation policies and other implementation procedures summarized in Enclosure A. The submitted provisions also included revisions that are non-substantive and are neither new nor revised water quality standards and are therefore not subject to EPA review and approval.

Disapproved Revised Water Quality Standards

EPA disapproves the following Provisions as they are not consistent with the CWA and implementing regulations: 1) Temporary Authorization of Constituents Ranging to the Short-Term Level in Table 64449-B; 2) Exceedances of Objectives Due to Natural Background Concentrations; and 3) Variance Program for Salinity Water Quality Standards. With this disapproval, pursuant to 40 C.F.R. § 131.21(e), California's previously approved water quality objectives and variance procedures remain the applicable water quality standards for CWA purposes.

I look forward to our continued partnership to protect water quality and advance human health and wildlife protection. Please call me if you would like to discuss further, or your staff may contact Matt Mitchell at (415) 972-3508 with specific questions concerning this approval.

Sincerely,

TOMAS TORRES

Digitally signed by TOMAS TORRES
Date: 2020.11.02 14:36:31 -08'00'

Tomás Torres
Director, Water Division

Enclosures

cc: Adam Laputz, CVRWQCB
Anne Walters, CVRWQCB

Enclosure A

Excerpts from: *Amendments to the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin to Incorporate a Central Valley-Wide Salt and Nitrate Control Program.* Where quoted below, California's deletions to its regulations are shown as strike-outs, while additions are shown as underlined.

The following edits were adopted in *Chapter 3 Water Quality Objectives* of the Sacramento River and San Joaquin River Basin Plan's and the Tulare Lake Basin Plan.

EPA Approved Water Quality Standards Amendments

EPA finds the revised water quality standards to be consistent with 40 C.F.R. Part 131 and approves these Provisions pursuant to Section 303(c) of the CWA.

Secondary Maximum Contaminant Level Policy

Modify the Basin Plan in Chapter 3 Water Quality Objectives under the heading, "Water Quality Objectives for Inland Surface Waters, Chemical Constituents" as follows:

Water Quality Objectives For Surface Waters

Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses…

At a minimum, *unless there is an approved site specific objective*, *surface* water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations (*Title 22*), which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of *s*~~S~~ection 64431, *and* Table 64444-A (Organic Chemicals) of *s*~~S~~ection 64444, and Tables 64449-A (Secondary Maximum Contaminant levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) and of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated for use as domestic or municipal supply (MUN) shall not contain lead in excess of 0.015 mg/l. The *Central Valley Water Board* ~~Regional Water Board~~ acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. *Some MCLs may not be appropriate as an untreated surface water objective without filtration or consideration of site-specific factors*. To protect all beneficial uses the *Central Valley Water Board*~~Regional Water Board~~ may apply limits more stringent than MCLs.

The annual average of sample results will be used to evaluate compliance with the Secondary Maximum Contaminant Levels identified in Tables 64449-A or 64449-B.

In addition, for surface waters designated MUN the concentration of chemical constituents shall not exceed the "secondary maximum contaminant level" specified in Title 22, Table 64449-A or the "Upper" level specified in Table 64449-B, unless otherwise authorized by the Central Valley Water Board in accordance with the provisions of Title 22, section 64449 et seq. Constituent concentrations ranging to the "Upper" level in Table 64449-B are acceptable if it is demonstrated that it is not reasonable or feasible to achieve lower levels;

Chapter 4, p.13

NPDES Surface Water Discharges

The Central Valley Water Board shall apply the following principles to permits being issued to regulate discharges of salinity to surface waters that are subject to NPDES permit provisions as required by the federal Clean Water Act…

3. *Consideration of Degradation to High Quality Waters* – Before authorizing degradation to high quality waters, and consistent with the state and federal antidegradation policies as applicable, the Central Valley Water Board must consider, among other things, if allowing the degradation is to the maximum benefit to the people of the state. Under the Phase I Conservative Permitting Approach, the Board must specifically find that allowing this permittee to degrade a high quality water better serves the people of the state rather than their participation in the P&O study for Phase I of the Salt Control Program.

4. *Allocation of Assimilative Capacity (i.e., mixing zone/dilution credit)* – The Central Valley Water Board will limit new or expanded allocations of assimilative capacity in surface water (i.e., mixing zone/dilution credit) and will consider whether a permittee can demonstrate that the reduction of water quality will be spatially localized or temporally limited with respect to the waterbody. The Board may consider maintaining any previously approved allocations of assimilative capacity, if the previously approved allocation was granted with the support of an antidegradation study or analysis.

5. *Salinity Variance* – Permittees operating under the Phase I Conservative Salinity Permitting Approach do not meet eligibility requirements for a salinity variance.

6. *Compliance Schedule* – Where a reasonable potential finding has been made and the permittee is unable to comply with the applicable salinity effluent limit, the Central Valley Water Board will use its discretion to limit the use of compliance schedules authorized by the State Water Board Compliance Schedule Policy for achieving compliance with salinity-based effluent limits, and will use its discretion to limit the time allowed in the event that a compliance schedule is deemed necessary under the particular circumstances associated with the discharge.

Chapter 4, pp.56-59

ASSIMILATIVE CAPACITY: The capacity of a high-quality receiving water to absorb discharges of chemical constituents and still meet applicable water quality objectives that are protective of beneficial uses. State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Antidegradation Policy*) requires a consideration, to the extent feasible, of the degree to which a discharge will affect the available assimilative capacity of a high-quality water relative to baseline water quality when the Central Valley Water Board is authorizing degradation. For the purposes of the Nitrate Control Program, available assimilative capacity may be calculated based on the average groundwater concentration of nitrate in the receiving water.

VARIANCE TO WATER QUALITY STANDARD: A special authorization, adopted by the Central Valley Water Board through the normal public review and approval process, that allows an NPDES-permitted discharge(s) to surface waters or a waterbody, subject to various conditions, without an obligation to comply with certain water quality standards that would normally apply to the given discharge(s) or waterbody. Variances are limited to specific terms governed by federal law and must also be approved by U.S. EPA. Variances apply solely to surface waterbodies or discharges to those surface waters.

Chapter 4, pp.61-66

Proposed Modifications to the Basin Plans' Variance Policy

Variance Policy

The following paragraphs include proposed modifications and additions to the Sacramento River and San Joaquin River Basin Plan's *Chapter 4 Implementation* in the sections indicated below. Note that these changes are also proposed for the Tulare Lake Basin Plan.

Control Action Considerations of the Central Valley ~~Regional~~ Water Board

Policies and Plans

Variance Policy for Surface Waters

As part of its state water quality standards program, states have the discretion to include variance policies. (40 C.F.R., §131.13.) This policy provides the *Central Valley Water Board*~~Regional Water Board~~ with the authority to grant a variance from application of water quality standards under certain circumstances.

I. Variances from Surface Water Quality Standards for Point Source Dischargers

A. A permit applicant or permittee subject to an NPDES permit may apply to the *Central Valley Water Board*~~Regional Water Board~~ for a variance from a surface water quality

standard for a specific constituent(s), as long as the constituent is not a priority toxic pollutant identified in 40 C.F.R., §131.38(b)(1). A permit applicant or permittee may not apply to the *Central Valley Water Board*~~Regional Water Board~~ for a variance from a surface water quality standard for temperature. The application for such a variance shall be submitted in accordance with the requirements specified in section II of this Policy. The Central Valley Water Board may adopt variance programs that provide streamlined approval procedures for multiple dischargers that share the same challenges in achieving their water quality based effluent limitation(s) (WQBELs) for the same pollutant(s). The *Variance Program for Salinity Water Quality Standards* in section III, below, is a multiple discharger variance program. Permittees that qualify for the *Variance Program for Salinity Water Quality Standards* by meeting the criteria in section III.1. may submit a salinity variance application in accordance with the requirements specified in section III of this Policy.

B. The *Central Valley Water Board*~~Regional Water Board~~ may not grant a variance if:

(1) Water quality standards addressed by the variance will be achieved by implementing technology-based effluent limitations required under sections 301(b) and 306 of the Clean Water Act, or

(2) The variance would likely jeopardize the continued existence of any endangered species under section 4 of the Endangered Species Act or result in the destruction or adverse modification of such species' critical habitat.

C. The *Central Valley Water Board*~~Regional Water Board~~ may approve all or part of a requested variance, or modify and approve a requested variance, if the permit applicant demonstrates a variance is appropriate based on at least one of the six following factors:

(1) Naturally occurring pollutant concentrations prevent the attainment of the surface water quality standard; or

(2) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the surface water quality standard, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating state water conservation requirements to enable surface water quality standards to be met; or

(3) Human caused conditions or sources of pollution prevent the attainment of the surface water quality standard and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

(4) Dams, diversions, or other types of hydrologic modifications preclude the attainment of the surface water quality standard, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way that would result in the attainment of the surface water quality standard; or

(5) Physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality preclude attainment of aquatic life protection of surface water quality standards; or

(6) Controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act would result in substantial and widespread economic and social impact.

D. In making a determination on a variance application that is based on factor (3) in paragraph C above, the *Central Valley Water Board*~~Regional Water Board~~ may consider the following:

(1) Information on the type and magnitude of adverse or beneficial environmental impacts, including the net impact on the receiving water, resulting from the proposed methodologies capable of attaining the adopted or proposed WQBEL.
(2) Other relevant information requested by the *Central Valley Water Board*~~Regional Water Board~~ or supplied by the applicant or the public.

E. In making a determination on a variance application that is based on factor (6) in paragraph C., above, the *Central Valley Water Board*~~Regional Water Board~~ may consider the following:

(1) The cost and cost-effectiveness of pollutant removal by implementing the methodology capable of attaining the adopted or proposed WQBEL for the specific constituent(s) for which a variance is being requested.
(2) The reduction in concentrations and loadings of the pollutant(s) in question that is attainable by source control and pollution prevention efforts as compared to the reduction attainable by use of the methodology capable of attaining the adopted or proposed WQBEL.
(3) The overall impact of attaining the adopted or proposed WQBEL and implementing the methodologies capable of attaining the adopted or proposed WQBEL.
(4) The technical feasibility of installing or operating any of the available methodologies capable of attaining the WQBEL for which a variance is sought.
(5) Other relevant information requested by the *Central Valley Water Board*~~Regional Water Board~~ or supplied by the applicant or the public.

F. A determination to grant or deny a requested variance shall be made in accordance with the procedures specified in section II, below. Procedures specified in section III, below, will be used for applicants that qualify for the *Variance Program for Salinity Water Quality Standards*.

G. A variance applies only to the permit applicant requesting the variance and only to the constituent(s) specified in the variance application.

H. A variance or any renewal thereof shall be for a time as short as feasible and shall not be granted for a term greater than ten years.

I. Neither the filing of a variance application nor the granting of a variance shall be grounds for the staying or dismissing of, or a defense in, a pending enforcement action. A variance shall be prospective only from the date the variance becomes effective.

J. A variance shall conform to the requirements of the State Water Board's Antidegradation Policy (State Water Board Resolution 68-16).

II. Variance Application Requirements and Processes

A. An application for a variance from a surface water quality standard for a specific constituent(s) subject to this Policy may be submitted at any time after the permittee determines that it is unable to meet a WQBEL or proposed WQBEL based on a surface water quality standard, and/or an adopted wasteload allocation. The variance application may be submitted with the renewal application (i.e., report of waste discharge) for a NPDES permit. If the permittee is seeking to obtain a variance after a WQBEL has been adopted into a NPDES permit, the WQBEL shall remain in effect until such time that the *Central Valley Water Board*~~Regional Water Board~~ makes a determination on the variance application.

B. The granting of a variance by the *Central Valley Water Board*~~Regional Water Board~~ is a discretionary action subject to the requirements of the California Environmental Quality Act. As such, the *Central Valley Water Board*~~Regional Water Board~~ may require the variance applicant to prepare such documents as are necessary so that the *Central Valley Water Board*~~Regional Water Board~~ can ensure that its action complies with the requirements set forth in the California Environmental Quality Act, or the ~~Regional Water~~ Board may use any such documents that have been prepared and certified by another state or local agency that address the potential environmental impacts associated with the project and the granting of a variance.

C. A complete variance application must contain the following:

(1) Identification of the specific constituent(s) and water quality standard(s) for which a variance is sought;
(2) Identification of the receiving surface water, and any available information with respect to receiving water quality and downstream beneficial uses for the specific constituent;
(3) Identification of the WQBEL(s) that is being considered for adoption, or has been adopted in the NPDES permit;
(4) List of methods for removing or reducing the concentrations and loadings of the pollutants with an assessment of technical effectiveness and the costs and cost effectiveness of these methods. At a minimum, and to the extent feasible, the methods must include source control measures, pollution prevention measures, facility upgrades and end-of-pipe treatment technology. From this list, the applicant must identify the method(s) that will consistently attain the WQBELs and provide a detailed discussion of such methodologies;

(5) Documentation of at least one of the following over the next ten years. Documentation that covers less than ten years will limit the maximum term that the *Central Valley Water Board*~~Regional Water Board~~ can consider for the variance:

(i) That naturally occurring pollutant concentrations prevent the attainment of the surface water quality standard; or

(ii) That natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the surface water quality standard, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges to enable surface water quality standards to be met; or

(iii) That human caused conditions or sources of pollution prevent the attainment of the surface water quality standard from which the WQBEL is based, and it is not feasible to remedy the conditions or sources of pollution; or

(iv) That dams, diversions, or other types of hydrologic modifications preclude the attainment of the surface water quality standard from which the WQBEL is based, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in attainment of the surface water quality standard; or

(v) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection of surface water quality standards from which the WQBEL is based; or

(vi) That installation and operation of each of the available methodologies capable of attaining the WQBEL would result in substantial and widespread economic and social impact.

(6) Documentation that the permittee has reduced, or is in the process of reducing, to the maximum extent practicable, the discharge of the pollutant(s) for which a variance is sought through implementation of local pretreatment, source control, and pollution prevention efforts; and,

(7) A detailed discussion of a proposed interim discharge limitation(s) that represents the highest level of ~~treatment~~ *constituent reduction* that the permittee can consistently achieve during the term of the variance. Such discussion shall also identify and discuss any drought, water conservation, and/or water recycling efforts that may cause certain constituents in the effluent to increase, or efforts that will cause certain constituents in the effluent to decrease with a sufficient amount of certainty. When the permittee proposes an interim discharge limitation(s) that is higher than the current level of the constituent(s) in the effluent due to the need to account for drought, water conservation or water recycling efforts, the permittee must provide appropriate information to show that the increase in the level for the proposed interim discharge limitation(s) will not

adversely affect beneficial uses, is consistent with state and federal antidegradation policies (State Water Board Resolution No. 68-16 and 40 C.F.R., § 131.12.), and is consistent with anti-backsliding provisions specified in section 402(o) of the Clean Water Act. If the permittee indicates that certain constituents in the effluent are likely to decrease during the term of the variance due to recycling efforts or management measures, then the proposed interim discharge limitation(s) shall account for such decreases.

(8) Copies of any documents prepared and certified by another state or local agency pursuant to Public Resources Code section 21080 et seq.; or, such documents as are necessary for the *Central Valley Water Board*~~Regional Water Board~~ to make its decision in compliance with Public Resources Code section 21080 et seq.

D. Within 60 days of the receipt of a variance application, the *Central Valley Water Board*~~Regional Water Board~~ shall determine that the variance application is complete, or specify in writing any additional relevant information, which is deemed necessary to make a determination on the variance request. Such additional information shall be submitted by the applicant within a time period agreed upon by the applicant and the ~~Regional Water~~ Board*'s* Executive Officer. Failure of an applicant to submit any additional relevant information requested by the ~~Regional Water~~ Board*'s* Executive Officer within the agreed upon time period may result in the denial of the variance application.

E. The *Central Valley Water Board*~~Regional Water Board~~ shall provide a copy of the variance application to USEPA Region 9 within 30 days of finding that the variance application is complete.

F. Within a reasonable time period after finding that the variance application is complete, the *Central Valley Water Board*~~Regional Water Board~~ shall provide public notice, request comment, and schedule and hold a public hearing on the variance application. When the variance application is submitted with the NPDES permit renewal application (i.e., report of waste discharge), the notice, request for comment and public hearing requirement on the variance application may be conducted in conjunction with the ~~Regional Water~~ Board's process for the renewal *or amendment* of the NPDES permit.

G. The *Central Valley Water Board*~~Regional Water Board~~ may approve the variance, either as requested, or as modified by the ~~Regional Water~~ Board. The ~~Regional Water~~ Board may take action to approve a variance and renew and/or modify an existing NPDES permit as part of the same Board meeting. The permit shall contain all conditions needed to implement the variance, including, at a minimum, all of the following:

(1) An interim effluent limitation for the constituent(s) for which the variance is sought. The interim effluent limitation(s) must be consistent with the current level of the constituent(s) in the effluent and may be lower based on anticipated improvement in effluent quality. The *Central Valley Water Board*~~Regional Water Board~~ may consider granting an interim effluent limitation(s) that is higher than

the current level if the permittee has demonstrated that drought, water conservation, and/or water recycling efforts will cause the quality of the effluent to be higher than the current level and that the higher interim effluent limitation will not adversely affect beneficial uses. When the duration of the variance is shorter than the duration of the permit, compliance with effluent limitations sufficient to meet the water quality criterion upon the expiration of the variance shall be required;

(2) A requirement to prepare and implement a pollution prevention plan pursuant to Water Code section 13263.3 to address the constituent(s) for which the variance is sought;

(3) Any additional monitoring that is determined to be necessary by the *Central Valley Water Board*~~Regional Water Board~~ to evaluate the effects on the receiving water body of the variance from water quality standards;

(4) A provision allowing the *Central Valley Water Board*~~Regional Water Board~~ to reopen and modify the permit based on any revision to the variance made by the *Central Valley Water Board*~~Regional Water Board~~ during the next revision of the water quality standards or by *U.S.* EPA upon review of the variance; and

(5) Other conditions that the *Central Valley Water Board*~~Regional Water Board~~ determines to be necessary to implement the terms of the variance.

H. The variance, as adopted by the *Central Valley Water Board*~~Regional Water Board~~ in section G, is not in effect until it is approved by U.S. EPA.

I. Permit limitations for a constituent(s) contained in the applicant's permit that are in effect at the time of the variance application shall remain in effect during the consideration of a variance application for that particular constituent(s), *unless a stay is granted by the State Water Resources Control Board under Water Code section 13321*.

J. The permittee may request a renewal of a variance in accordance with the provisions contained in paragraphs A, B and C and this section. For variances with terms greater than the term of the *NPDES* permit, an application for renewal of the variance may be submitted with the renewal application for the NPDES permit in order to have the term of the variance begin concurrent with the term of the permit. The renewal application shall also contain information concerning ~~its~~ *the permittee's* compliance with the conditions incorporated into its permit as part of the original variance and shall include information to explain why a renewal of the variance is necessary. As part of its renewal application, a permittee shall also identify all efforts the permittee has made, and/or intends to make, towards meeting the standard(s). Renewal of a variance may be denied if the permittee did not comply with any of the conditions of the original variance.

K. All variances and supporting information shall be submitted by the *Central Valley Water Board*~~Regional Water Board~~ to the U.S. EPA Regional Administrator within 30 days of the date of the ~~Regional Water~~ Board's final variance decision for approval and shall include the following:

(1) The variance application and any additional information submitted to the *Central Valley Water Board*~~Regional Water Board~~;
(2) Any public notices, public comments, and records of any public hearings held in conjunction with the request for the variance;
(3) The *Central Valley Water Board*~~Regional Water Board~~'s final decision; and
(4) Any changes to NPDES permits to include the variance.

L. All variances shall be reviewed during the *Central Valley Water Board*~~Regional Water Board~~'s triennial review process of this Basin Plan. For variances with terms that are greater than the term of the permit, the ~~Regional Water~~ Board may also review the variance upon consideration of the permit renewal.

EPA Disapproved Water Quality Standards Amendments

EPA finds the following amendments are not consistent with 40 C.F.R. Part 131 and disapproves these provisions pursuant to Section 303(c) of the CWA:

Chapter 3, p.3
In addition, constituents ranging to the "Short Term" level in Table 64449-B may be authorized on a temporary basis consistent with the provisions of section 64449(d)(3), pending construction of treatment facilities or development of new water sources, and or consistent with the Drought and Conservation Policy (Section XX).

Chapter 4, p. 82
Application of Secondary Maximum Contaminant Levels to Protect Municipal and Domestic Supply
In addition, constituents ranging to the "Short Term" level may be authorized on a temporary basis consistent with the provisions of section 64449(d)(3), pending construction of treatment facilities or development of new water sources, or with the Drought and Conservation Policy (Section ##).

Chapter 3, p.3
In cases where the surface water natural background concentration of a particular chemical constituent exceeds the maximum contaminant level specified in Table 64449-A or "Upper" level specified in Table 64449-B, the surface water shall not exceed that natural background concentration due to controllable anthropogenic sources, unless the Central Valley Water Board authorizes it consistent with State Antidegradation Policy.

Chapter 4, pp. 66-76
Variance Program for Salinity Water Quality Standards

The State Water Board and the *Central Valley Water Board*~~Regional Water Board~~ recognize that salt is impacting beneficial uses in the Central Valley and

management of salinity in surface and ground waters is a major challenge for dischargers. *No proven means exist at present that will allow ongoing human activity in the Basin and maintain salinity at current levels throughout the Basin.* ~~In response, the Water Boards initiated t~~ *T*he Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) ~~in 2006. The State Water Board *Recycled Water Policy* requires the development of salt and nutrient management plans protective of ground water and submittal of these plans to the Regional Water Board by May 2016. These plans are to become the basis of basin plan amendments to be considered by the Regional Water Board by May 2017. CV-SALTS~~ is ~~the~~*a* stakeholder ~~effort working to~~*that* develop*ed a* comprehensive salt and nitrate management plan~~s~~ (SNMP~~s~~) that ~~will satisfy the Recycled Water Policy's salt and nutrient management plans. CV-SALTS is undertaking technical work to analyze~~*documents* salt and nitrate conditions in surface and ground water in the Central Valley, *and* ~~identify~~ *identifies* implementation measures~~,~~ and ~~develop~~monitoring strategies to ensure environmental and economic sustainability. ~~The technical work under development includes developing the models for loading and transport of salt, development and evaluation of effective management practices, and implementing activities to ensure beneficial uses are protected. Participation by all stakeholders is necessary to assure that the work is scientifically justified, supported by broad stakeholder representation, and completed in a timely fashion. The Regional Water Board has indicated its support for the comprehensive effort through CV-SALTS in Resolutions R5-2006-0024, R5-2010-0024, and R5-2013-0149 and the March 2010 Memorandum of Agreement between the Regional Water Board, the Central Valley Salinity Coalition and the State Water Board.~~ *The SNMP recommends a long-term salinity management strategy that is phased over time. The first phase (Phase I) consists of developing a Prioritization and Optimization Study for long-term salinity management which is intended to be a feasibility study that identifies appropriate regional and sub-regional projects, including location, routing and implementation and operations of salt management projects. Phase II will consist of environmental permitting, obtaining funding, and engineering and design. Phase III would then consist of construction of physical projects as identified in the previous phases. Because the salinity management strategy is phased over time, there is a need for an interim salinity permitting approach to be implemented during Phase 1 and while transitioning from Phase I to Phase II. The interim salinity permitting approach is anticipated to require 15 years and will be re-evaluated prior to implementation of Phase II. Only permittees that are participating in the Prioritization and Optimization Study may apply for a variance under this Salinity Variance Program.*

A. During the development ~~and initial implementation of the SNMPs by CV-SALTS~~*of the Prioritization and Optimization Study*, permittees who qualify may apply for a variance from salinity water quality standards if they have or will have WQBELs for salinity that they are unable to meet by submitting a salinity variance application. The *Salinity Variance Program* as described specifically herein is for municipal and ~~domestic~~ industrial wastewater dischargers that have

or will implement local pretreatment, source control, and pollution prevention efforts to reduce the effluent concentrations of salinity constituents and are now faced with replacing the municipal water supply with a better quality water or installing costly improvements, such as membrane filtration treatment technology, such that widespread social and economic impacts are expected consistent with the justification provided for the case study cities in the *Staff Report for the Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Lake Basin to add Policies for Variances from Surface Water Quality Standards for Point Source Dischargers, Variance Program for Salinity, and Exception from Implementation of Water Quality Objectives for Salinity, June 2014*. Consistent with the planned development ~~and implementation of the SNMPs~~*of the Prioritization and Optimization Study*, no salinity variance under this section shall be approved after ~~30 June 2019~~*[15 years from effective date of these amendments]*. For the purposes of the Salinity Variance Program, salinity water quality standards are defined to only include water quality standards for the following constituents: electrical conductivity, total dissolved solids, chloride, sulfate and sodium.

B. An application for a variance for a specific salinity water quality standard may be submitted at any time after the permittee determines that it is unable to meet a WQBEL or proposed WQBEL based on a salinity water quality standard. Preferably, the salinity variance application should be submitted with the renewal application (i.e., report of waste discharge) for a NPDES permit. If the permittee is seeking to obtain a variance after a WQBEL has been adopted into a NPDES permit, the WQBEL shall remain in effect until such time that the *Central Valley Water Board*~~Regional Water Board~~ makes a determination on the variance application. *For dischargers that are participating in the same prioritization and optimization study, i.e. a study that covers their watershed or their groundwater basin, the dischargers may submit a joint application as long as the joint application contains all the information identified in paragraph C with individual discharger information provided for paragraphs C.7. through C.10.*

C. An application for variance from WQBELs based on a salinity water quality standard must contain the following:

(1) Identification of the salinity constituents for which the variance is sought;
(2) Identification of the receiving surface water, and any available information with respect to receiving water quality and downstream beneficial uses for the specific constituent;
(3) Identification of the WQBEL that is being considered for adoption, or has been adopted in the NPDES permit;
(4) A description of salinity reduction/elimination measures that have been undertaken as of the application date, if any;
(5) A Salinity Reduction Study Work Plan, which at a minimum must include the following:

(i) Data on current influent and effluent salinity concentrations,
(ii) Identification of known salinity sources,
(iii) Description of current plans to reduce/eliminate known salinity sources,
(iv) Preliminary identification of other potential sources,
(v) A proposed schedule for evaluating sources,
(vi) A proposed schedule for identifying and evaluating potential reduction, elimination, and prevention methods.

(6) An explanation of the basis for concluding that there are no readily available or cost-effective methodologies available to consistently attain the WQBELs for salinity.

(7) A detailed discussion explaining why the permittee's situation is similar to or comparable with the case studies supporting the *Salinity Variance Program* identified in the *Staff Report for the Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Lake Basin to add Policies for Variances from Surface Water Quality Standards for Point Source Dischargers, Variance Program for Salinity, and Exception from Implementation of Water Quality Objectives for Salinity, June 2014*.

(8) A detailed discussion of proposed interim discharge limitation(s) that represents the highest level of treatment that the permittee can consistently achieve during the term of the variance. If the permittee indicates that certain constituents in the effluent are likely to decrease during the term of the variance due to efforts, then the proposed interim discharge limitation(s) shall account for such decreases.

(9) Documentation of the applicant's active participation in ~~CV-SALTS as indicated by a letter of support from CV-SALTS.~~ *the development of the Prioritization and Optimization Study.*

(10) A detailed plan of how the applicant will continue to participate in ~~CV-SALTS and how the applicant will contribute to the development and implementation of the SNMPs~~*development of the Prioritization and Optimization Study.*

D. After the receipt of a variance application for salinity, the *Central Valley Water Board*~~Regional Water Board~~ shall determine whether the variance application is complete and whether the permittee qualifies for consideration of the variance, or specify in writing any additional relevant information that is deemed necessary to make a determination on the salinity variance request. Such additional information shall be submitted by the applicant within a time period agreed upon by the applicant and the *Central Valley Water Board's*~~Regional Water Board~~ Executive Officer. Failure of an applicant to submit any additional relevant information requested by the ~~Regional Water~~ Board*'s* Executive Officer within the time period specified by the Executive Officer may result in the denial of the variance application for salinity.

E. After determining that the variance application for salinity is complete, the *Central Valley Water Board*~~Regional Water Board~~ shall provide notice, request comment, and schedule and hold a public hearing on the variance application for salinity. When the variance application is submitted with the NPDES permit

renewal application (i.e., report of waste discharge), the notice, request for comment and public hearing requirement on the variance application may be conducted in conjunction with the *Central Valley Water Board*~~Regional Water Board~~'s process for the renewal of the NPDES permit.

F. The *Central Valley Water Board*~~Regional Water Board~~ may approve a salinity variance, either as requested, or as modified by the *Central Valley Water Board*~~Regional Water Board~~, after finding that the permittee qualifies for the salinity variance, the attainment of the WQBEL is not feasible *consistent with the demonstrations based on the case studies identified in the Staff Report for the Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Lake Basin to add Policies for Variances from Surface Water Quality Standards for Point Source Dischargers, Variance Program for Salinity, and Exception from Implementation of Water Quality Objectives for Salinity, June 2014*, the permittee has implemented or will implement feasible salinity reduction/elimination measures and the permittee continues to participate in *the development of the prioritization and optimization studies for long-term salinity management*~~CV-SALTS consistent with the demonstrations based on the case studies identified in the *Staff Report for the Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Lake Basin to add Policies for Variances from Surface Water Quality Standards for Point Source Dischargers, Variance Program for Salinity, and Exception from Implementation of Water Quality Objectives for Salinity, June 2014*~~. The *Central Valley Water Board*~~Regional Water Board~~ may take action to approve a variance and issue a new, or reissue or modify an existing NPDES permit as part of the same Board meeting. The permit shall contain all conditions needed to implement the variance, including, at a minimum, all of the following:

(a) The interim effluent limitation(s) that are determined to be attainable during the term of the variance. When the duration of the variance is shorter than the duration of the permit, compliance with effluent limitations sufficient to meet the water quality criterion upon the expiration of the variance shall be required;

(b) A requirement to implement the Salinity Reduction Study Work Plan submitted with the variance application as required by paragraph C.5, above;

(c) A requirement to participate in ~~CV-SALTS and contribute to~~ the development ~~and implementation~~ of the ~~SNMPs~~ *Prioritization and Optimization Study* in accordance with the plan required by paragraph C.10, above.

(d) Any additional monitoring that is determined to be necessary to evaluate the effects on the receiving water body of the variance from water quality standards;

(e) A provision allowing the *Central Valley Water Board*~~Regional Water Board~~ to reopen and modify the permit based on any revision to the variance made by the *Central Valley Water Board*~~Regional Water Board~~ during the next revision of the water quality standards;

(f) Other conditions that the *Central Valley Water Board*~~Regional Water Board~~ determines to be necessary to implement the terms of the variance.

G. Permit limitations for a substance contained in the applicant's permit that are in effect at the time of the variance application shall remain in effect during the consideration of the variance application for that particular substance.

H. The permittee may request a renewal of a salinity variance in accordance with the provisions contained in paragraphs B and C of this section. For variances with terms greater than the term of the permit, an application for renewal of the salinity variance may be submitted with the renewal application for the NPDES permit in order to have the term of the variance begin concurrent with the term of the permit. The renewal application shall also contain information concerning its compliance with the conditions incorporated into its permit as part of the original variance, and shall include information to explain why a renewal of the variance is necessary. As part of its renewal application, a permittee shall also identify all efforts the permittee has made, and/or intends to make, towards meeting the standard. Renewal of a variance may be denied if the permittee did not comply with the conditions of the original variance.

All variances shall be reviewed during the *Central Valley Water Board*~~Regional Water Board~~'s triennial review process of this Basin Plan. For variances with terms that are greater than the term of the permit, the *Central Valley Water Board*~~Regional Water Board~~ may also review the variance upon consideration of the permit renewal.

Enclosure B

EPA Review of California's Amendments to the Water Quality Control Plan to Incorporate a Central Valley-Wide Salt and Nitrate Control Program (State Resolution No. 2019-0057)

I. Background

Section 303 of the Clean Water Act (CWA), 33 U.S.C. §1313, requires states to establish water quality standards (WQS) and to submit any new or revised standards to EPA for review and approval or disapproval. See also 40 C.F.R. Part 131. The California Central Valley Regional Water Quality Control Board (Regional Board) adopted revised water quality standards through its Basin Plan Amendments (BPA) on May 31, 2018, under Regional Board Resolution No. R5-2018-0034. The California State Water Resources Control Board (State Board) approved the BPA on October 16, 2019, under State Resolution No. 2019-0057. A certification from the Office of Administrative Law for California dated January 17, 2020 stated that the revisions were duly adopted pursuant to State law. EPA considered the State's submittal complete when this certification was received, on January 17, 2020. As discussed more fully below, where EPA has determined that the State's revisions are new or revised water quality standards, EPA has reviewed and acted on these revisions pursuant to Section 303(c) of the CWA.[1]

Synopsis of Recommendation

Clean Water Act (CWA) section 303(c) directs states to adopt water quality standards for waters that are subject to the CWA. EPA's implementing regulations at 40 C.F.R. Part 131, require, among other things, that water quality standards specify appropriate designated uses of the waters and water quality criteria that protect those uses. California uses the term "beneficial use" to mean the same as "designated use" under the CWA and the term "water quality objective" to mean the same as "water quality criteria" under the CWA. EPA reviews the WQS to determine if they are consistent with the factors listed at 40 C.F.R. § 131.5 and contain the minimum requirements listed at 40 C.F.R. § 131.6.

California submitted changes in the "Amendments to the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin to Incorporate a Central Valley-Wide Salt and Nitrate Control Program." Where quoted below, the State Board's deletions to its regulations are shown as strike-outs, while additions are shown as underlined.

EPA finds the revised water quality standards noted as approved in Enclosure A to be consistent with 40 C.F.R. Part 131 and approves these Provisions pursuant to Section 303(c) of the CWA. In addition, EPA finds the following amendments are not consistent with 40 C.F.R. Part 131 and disapproves these provisions pursuant to Section 303(c) of the CWA:

- Temporary Authorization of Constituents Ranging to the Short-Term Level in Table 64449-B, BPA Chapter 3, p.3 and BPA Chapter 4, p.82
- Exceedances of Objectives Due to Natural Background Concentrations, BPA Chapter 3, p.3
- Variance Program for Salinity Water Quality Standards, BPA Chapter 4, pp.66-70

EPA's analysis and basis for approval and disapproval is detailed in the following sections below.

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[1] EPA has provided FAQs on "What is a New or Revised Water Quality Standard Under CWA 303(c)(3)?" at https://www.epa.gov/sites/production/files/2014-11/documents/cwa303faq.pdf. The link provides detailed information of such analysis.

II. Analysis of State Board Submittal

A. EPA Approval of Water Quality Criteria/Objectives

1. Water Quality Objectives For Surface Waters, Chapter 3, p.3[2]

The BPA adds several new conditions (see below) modifying the maximum contaminant levels (MCLs) that are incorporated into the BPA by reference:

- Language allowing site-specific objectives in lieu of the maximum contaminant levels (MCLs) and secondary maximum contaminant levels (SMCLs) intended to protect designated uses for domestic or municipal supply (MUN).

- Language stating that the existing MCLs may not be appropriate as water quality objectives without filtration or consideration of site-specific factors.

- Language stating that compliance with SMCLs will be evaluated by an annual average of samples.

- Language clarifying that each SMCL may not exceed the level established in Table 64449-A and "upper level" specified in Table 64449-B unless otherwise authorized by the drinking water regulations and that constituent concentrations ranging to the "upper level" in Table 64449-B are acceptable if it is demonstrated that it is not reasonable or feasible to achieve lower levels.

  BPA excerpt: Chapter 3, p.3
  Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses…

  At a minimum*, unless there is an approved site specific objective*, *surface* water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations (*Title 22*), which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of *s*~~S~~ection 64431, *and* Table 64444-A (Organic Chemicals) of *s*~~S~~ection 64444, and Tables 64449-A (Secondary Maximum Contaminant levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) and of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated for use as domestic or municipal supply (MUN)

[2] Chapter 4, p.82 of the BPA repeats language from Chapter 3, p.3 that constituent concentrations ranging to the "upper level" in Table 64449-B are acceptable if it is demonstrated that it is not reasonable or feasible to achieve lower levels. As stated above in the approval of the provision in Chapter 3, p.3, the Regional Board has the discretion to provide more clarity about the conditions under which it is acceptable for the water quality objectives to be in the upper range and when the objectives must be at lower levels within the range. EPA considers the language from Chapter 3, p.3 to be a revised water quality standard. EPA does not consider the language in Chapter 4, p.82 to be a water quality standard but rather a restatement of the revised water quality standard.

shall not contain lead in excess of 0.015 mg/l. The *Central Valley Water Board* ~~Regional Water Board~~ acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. *Some MCLs may not be appropriate as an untreated surface water objective without filtration or consideration of site-specific factors*.

- *The annual average of sample results will be used to evaluate compliance with the Secondary Maximum Contaminant Levels identified in Tables 64449-A or 64449-B.*

- *In addition, for surface waters designated MUN the concentration of chemical constituents shall not exceed the "secondary maximum contaminant level" specified in Title 22, Table 64449-A or the "Upper" level specified in Table 64449-B, unless otherwise authorized by the Central Valley Water Board in accordance with the provisions of Title 22, section 64449 et seq. Constituent concentrations ranging to the "Upper" level in Table 64449-B are acceptable if it is demonstrated that it is not reasonable or feasible to achieve lower levels;*

According to EPA regulations at 40 C.F.R. § 131.11, it is within the Regional Board's authority to consider site-specific objectives as alternatives to the water quality objectives to protect MUN. Site-specific objectives must be approved by EPA. It is also within the Regional Board's discretion to take into account how it will determine compliance with the water quality objectives by choosing the appropriate averaging periods, monitoring methods, and other site-specific factors to protect designated uses. In addition, since the existing water quality objectives are derived from SMCLs, some of which are presented as a range from recommended values to upper level values, the Regional Board has the discretion to provide more clarity about the conditions under which it is acceptable for the water quality objectives to be in the upper range and when the objectives must be at lower levels within the range. For these reasons, EPA approves these provisions under Section 303(c) of the CWA.

These provisions of the BPA also include minor clarifications or corrections. These minor, non-regulatory edits do not affect or change any State or regional policy. EPA finds these updates to be non-substantive changes. EPA acknowledges these non-substantive changes to previously approved WQS in order to ensure public transparency as to which provisions are applicable for purposes of the CWA in accordance with 40 C.F.R § 131.21(c). EPA's acknowledgement of the non-substantive changes does not constitute an action on the underlying previously approved WQS because they are not new or revised. See: What is a new or revised WQS FAQ (https://www.epa.gov/sites/production/files/2014-11/documents/cwa303faq.pdf).

2. Variances, Antidegradation, Mixing Zones, and Compliance Schedules

- **Implementation Procedures for NPDES Surface Water Dischargers of Salinity, Chapter 4, p.13**

The BPA contains a conservative salinity permitting approach for those salinity dischargers that choose not to participate in the Phase I Prioritization and Optimization Study. The BPA includes separate language (see below) which explains how antidegradation, mixing zones, variances, and compliance schedules will apply to dischargers to surface waters under the conservative salinity permitting approach.

While antidegradation policies under this approach are stated in the BPA, EPA finds them to be unchanged from the State's existing antidegradation procedures. However, the Regional Board will limit new or expanded allocations of assimilative capacity in surface water for those dischargers under the conservative permitting approach. Dischargers operating under the conservative permitting approach do not meet the eligibility requirements for variances. The Regional Board will also use its discretion to limit the use of compliance schedules or limit the time allowed under a compliance schedule for dischargers under the conservative permitting approach.

> BPA Excerpt: Chapter 4, p.13
> *NPDES Surface Water Discharges*
> The Central Valley Water Board shall apply the following principles to permits being issued to regulate discharges of salinity to surface waters that are subject to NPDES permit provisions as required by the federal Clean Water Act…
>
> 3. *Consideration of Degradation to High Quality Waters* – Before authorizing degradation to high quality waters, and consistent with the state and federal antidegradation policies as applicable, the Central Valley Water Board must consider, among other things, if allowing the degradation is to the maximum benefit to the people of the state. Under the Phase I Conservative Permitting Approach, the Board must specifically find that allowing this permittee to degrade a high quality water better serves the people of the state rather than their participation in the P&O study for Phase I of the Salt Control Program.
>
> 4. *Allocation of Assimilative Capacity (i.e., mixing zone/dilution credit)* – The Central Valley Water Board will limit new or expanded allocations of assimilative capacity in surface water (i.e., mixing zone/dilution credit) and will consider whether a permittee can demonstrate that the reduction of water quality will be spatially localized or temporally limited with respect to the waterbody. The Board may consider maintaining any previously approved allocations of assimilative capacity, if the previously approved allocation was granted with the support of an antidegradation study or analysis.
>
> 5. *Salinity Variance* – Permittees operating under the Phase I Conservative Salinity Permitting Approach do not meet eligibility requirements for a salinity variance.
>
> 6. *Compliance Schedule* – Where a reasonable potential finding has been made and the permittee is unable to comply with the applicable salinity effluent limit, the Central Valley Water Board will use its discretion to limit the use of compliance schedules authorized by the State Water Board Compliance Schedule Policy for achieving compliance with salinity-based effluent limits, and will use its discretion to limit the time allowed in the event that a compliance schedule is deemed necessary under the particular circumstances associated with the discharge.

Pursuant to 40 C.F.R. § 131.13, the Regional Board has discretion to limit the use of implementation procedures for mixing zones, variances, and compliance schedules where appropriate. EPA approves these provisions under Section 303(c) of the CWA.

- **BPA Excerpt: Definitions in Chapter 4, p.56-59**

Definitions (see below) are included for "assimilative capacity" and "variance to water quality standard" that further inform the application of mixing zones and variances that are specific to the Salt and Nitrate Control Program.

> BPA, Chapter 4, p.56
> **ASSIMILATIVE CAPACITY:** The capacity of a high-quality receiving water to absorb discharges of chemical constituents and still meet applicable water quality objectives that are protective of beneficial uses. State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Antidegradation Policy*) requires a consideration, to the extent feasible, of the degree to which a discharge will affect the available assimilative capacity of a high-quality water relative to baseline water quality when the Central Valley Water Board is authorizing degradation. For the purposes of the Nitrate Control Program, available assimilative capacity may be calculated based on the average groundwater concentration of nitrate in the receiving water.
>
> BPA, Chapter 4, p.59
> **VARIANCE TO WATER QUALITY STANDARD:** A special authorization, adopted by the Central Valley Water Board through the normal public review and approval process, that allows an NPDES-permitted discharge(s) to surface waters or a waterbody, subject to various conditions, without an obligation to comply with certain water quality standards that would normally apply to the given discharge(s) or waterbody. Variances are limited to specific terms governed by federal law and must also be approved by U.S. EPA. Variances apply solely to surface waterbodies or discharges to those surface waters.

EPA finds the definitions are consistent with the EPA antidegradation policy and implementation methods in 40 C.F.R. § 131.12 and water quality standards variances in 40 C.F.R. § 131.14 and are approved.

- **Modifications to the Basin Plans' General Variance Policy, Chapter 4, pp.61-66**

The BPA (see Attachment A for the full amendment language) includes edits to the Regional Board's general Variance Policy that covers the rules and procedures for variance applications and approvals. The amendments include minor clarifications and name changes to the variance procedures in Chapter 4 of the Basin Plan. EPA finds these updates to be non-substantive changes. EPA acknowledges these non-substantive changes to previously approved WQS in order to ensure public transparency as to which provisions are applicable for purposes of the CWA in accordance with 40 C.F.R § 131.21(c). EPA's acknowledgement of the non-substantive changes does not constitute an action on the underlying previously approved WQS because they are not new or revised. See: What is a new or revised WQS FAQ (https://www.epa.gov/sites/production/files/2014-11/documents/cwa303faq.pdf).

B. EPA Disapproval of Water Quality Criteria/Objectives

1. Temporary Authorization of Salinity Constituents Ranging to the Short-Term Level in Table 64449- B

The current water quality objectives in the Basin Plan reference the SMCLs in Table 64449-B and include a recommended level, upper level, and short-term level for salinity constituents including electrical conductivity (EC), total dissolved solids, chloride, and sulfate. The BPA allows a temporary authorization of concentrations ranging up to the short-term value level for each constituent in Table 64449-B (See excerpt from Chapter 3, p.3 below). Similar language is repeated in Chapter 4, p.82. This language describes the conditions under which concentrations of salinity indicators above the upper levels would be permissible. In the case of EC, concentrations above the upper level of 1600 µS/cm and ranging to the short-term levels of up to 2200 µS/cm could be temporarily authorized. . The Basin Plan currently allows temporary authorizations at these concentrations if there is pending construction of treatment facilities or development of new water sources. Under the amendments, temporary authorizations would also be allowed during drought conditions or if dischargers are undertaking conservation measures consistent with the Drought and Conservation Policy.

> BPA excerpt: Chapter 3, p.3
> In addition, constituents ranging to the "Short Term" level in Table 64449-B may be authorized on a temporary basis consistent with the provisions of section 64449(d)(3), pending construction of treatment facilities or development of new water sources, and or consistent with the Drought and Conservation Policy (Section XX).
>
> BPA excerpt: Chapter 4, p.82
> **Application of Secondary Maximum Contaminant Levels to Protect Municipal and Domestic Supply**
> In addition, constituents ranging to the "Short Term" level may be authorized on a temporary basis consistent with the provisions of section 64449(d)(3), pending construction of treatment facilities or development of new water sources, or with the Drought and Conservation Policy (Section ##).

In the CV-SALTS Responses to Comment (RTC), dated October 16, 2019, the State Board indicated that a variance would be required when the concentration of salinity constituents exceeded the upper level in Table 64449-B. Specifically, the RTC document stated that variances would be required when the discharge of salt into surface waters would result in levels of salinity as measured by EC to be above an annual average of 1600 µS/cm to 2200 µS/cm.[3] In addition, State Board Resolution No. 2019-0057 (at page 10) directed the Regional Board to revise the Secondary Maximum Contaminant Level Policy to remove the references to the Drought and Conservation Policy as a provision allowing exceedance of the upper level SMCL. Therefore, the BPA change authorizing a temporary basis for constituents to range to the short-term value level in Table 64449-B consistent with the Drought and Conservation Policy is inconsistent with the State's intent to require a variance when the water quality objective exceeds the upper level values.

[3] A variance would also be required when the other salinity constituents in Table 64449-B are elevated above the upper levels and into its short-term levels. For example, a variance would be required if total dissolved solids, chloride, and sulfate exceeded the upper level of 1000 mg/l, 500 mg/l, and 500 mg/l respectively.

An exceedance of the upper level values SMCLs in Table 64449-B would not attain the designated use for municipal and domestic supply (MUN) unless the use was modified through a variance or removal of the designated use consistent with 40 C.F.R. 131.14 and 40 C.F.R. 131.10(g). EPA finds a variance would be necessary to authorize a short-term exceedance of a designated use and therefore disapproves this provision in both Chapter 3, p.3 and Chapter 4, p.82.

2. Exceedances of Objectives Due to Natural Background Concentrations

In situations where the surface natural background concentration exceeds the MCLs in Table 64449-A or the upper level MCLs in Table 64449-B, the BPA provides that the surface water shall not exceed that natural background concentration due to controllable anthropogenic sources. The Regional Board may authorize concentrations greater than natural background levels if consistent with State Antidegradation Policy.

> BPA excerpt: Chapter 3, p.3
> *In cases where the surface water natural background concentration of a particular chemical constituent exceeds the maximum contaminant level specified in Table 64449-A or "Upper" level specified in Table 64449-B, the surface water shall not exceed that natural background concentration due to controllable anthropogenic sources, unless the Central Valley Water Board authorizes it consistent with State Antidegradation Policy.*

EPA finds the provision is not consistent with 40 C.F.R. § 131.11 which requires criteria to be "based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use." There are two issues with the scientific defensibility and protectiveness of this natural background provision. The first is that the Regional Board did not provide sufficient information to allow EPA to determine how the Board would define natural background and derive a resulting criterion value. Without this information, EPA cannot evaluate whether the resulting values are based on sound scientific rationale. Second, this provision applies to criteria to support a human health-related designated use - municipal and domestic water supply. While aquatic life may adapt to natural background conditions, humans have not adapted to natural background concentrations and may be adversely impacted by natural background concentrations. EPA finds that Regional Board did not provide sufficient information for EPA to conclude that the resulting values will protect the applicable designated use. Additionally, EPA has recommended that states not set criteria for protection of human health equal to natural background, unless the use specifies that the water will be treated to levels that will be protective of human health. EPA articulated this rationale in a 1997 memorandum and in recent EPA actions.[4]

EPA finds the State Board did not provide sufficient rationale to explain how natural background concentrations will be established or how those resulting conditions will be protective of human health designated uses in these particular waterbodies and the provision is therefore disapproved.[5]

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[4] *See* Memorandum from Tudor T. Davies on Establishing Site Specific Aquatic Life Criteria Equal to Natural Background, November 5, 1990 (available at https://www.epa.gov/sites/production/files/2014-08/documents/naturalbackground-memo.pdf); *see also* Response to Comments, Revision of Certain Federal Water Quality Criteria Application to Washington, March 2020, at p. 15.

[5] In cases where the natural conditions would not be protective of human health, EPA recommends that states revise the applicable designated use(s) for the affected water(s). *See id.*

3. Variance Program for Salinity Water Quality Standards

In 2016, EPA approved the Regional Board's Variance Program for Salinity Water Quality Standards. The Variance Program was a multi-discharger variance based on substantial and widespread economic and social impact in communities where publicly owned treatment works (POTWs) were required to comply with a Bay-Delta site-specific water quality objective for EC of 700 µS/cm. This Variance Program expired in June 2019.

The current BPA (see Attachment A, re: Chapter 4, pp.66-76, for the full amendment language) revises the Variance Program language to extend the previous multi-discharger variance for 15 years and would increase eligibility for the variance beyond the POTWs eligible for the expired multi-discharger variance.[6] Dischargers under the proposed BPA would be subject to less stringent effluent limits in a range from 900-1600 µS/cm and would need a variance only if they exceeded 1600 µS/cm. (Although dischargers to waters with site-specific numeric EC objectives may need a variance for more stringent EC objectives). The Regional Board based its rationale on the same June 2014 economic impact study that was used to justify a finding of substantial and widespread economic impact to comply 40 C.F.R. § 131.10(g)(6) for its previous, now-expired, Salinity Variance Program. Under the proposed amendment, if an applicant for a salinity variance can show that meeting an effluent limit based on the salinity water quality objective is not feasible, consistent with the demonstrations based on the case studies from the June 2014 BPA, and meets all other requirements, the Regional Board may approve the variance and it would become effective.

EPA disapproves the Variance Program for Salinity Water Quality Standards because there is no assurance that applicants claiming non-feasibility as described above would meet the requirements of 40 C.F.R. § 131.10(g)(6). The applicant needs to provide a justification consistent with 40 C.F.R. § 131.10(g)(6) to take into account the unique conditions that would apply in this revised BPA. For example, under the amended Salinity Variance Program, the applicant may need to comply with a less stringent salinity effluent limit than the previous program. In addition, the amended Salinity Program allows an expanded universe of potential applicants such as industrial dischargers. Industrial dischargers must submit a different type of analysis than POTWs to demonstrate substantial and widespread economic impacts.

The State Board Resolution No. 2019-0057 acknowledges EPA comments on the Salinity Variance Program and the State Board's responses to those comments. The Resolution directs the Regional Board to revise the Salinity Variance Program to be consistent with the Regional Board's intent, as stated in its response to EPA comments, to not rely on the program as a multi-discharger variance program, but rather as guidance for individual variances that would be submitted to EPA for its approval in conjunction with the development of NPDES permits for permitees that may exceed the 1600 µS/cm EC threshold. EPA's disapproval action as to this BPA provision is consistent with that State Board direction.

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[6] The *Salinity Variance Program* as described specifically herein is for municipal and ~~domestic~~ industrial wastewater dischargers that have or will implement local pretreatment, source control, and pollution prevention efforts to reduce the effluent concentrations of salinity constituents and are now faced with replacing the municipal water supply with a better quality water or installing costly improvements, such as membrane filtration treatment technology, such that widespread social and economic impacts are expected consistent with the justification provided for the case study cities in the *Staff Report for the Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Lake Basin to add Policies for Variances from Surface Water Quality Standards for Point Source Dischargers, Variance Program for Salinity, and Exception from Implementation of Water Quality Objectives for Salinity, June 2014.*

III. Compliance with the Endangered Species Act (ESA) Section 7

EPA's action on water quality standards is subject to Section 7 of the Endangered Species Act. EPA's "Recommended Approaches to Improve Endangered Species Act (ESA) Consultation on Approvals of State and Tribal Water Quality Standards," dated January 16, 2009, states that ESA consultation requirements do not apply to actions where EPA lacks discretion to protect species, or where an EPA action has no effect on listed species or critical habitat. EPA has concluded that it lacks sufficient discretionary federal involvement or control to protect listed species when it approves state water quality standards actions to protect human health as human health standards are designed to protect humans, not plants or other animals. EPA's discretion to act on a state submission concerning human health is limited to determining whether the submission protects human health. EPA has no discretion to revise an otherwise approvable human health standard to benefit listed species.

EPA finds the changes to water quality standards in this BPA are only for standards intended to protect the human health-based designated beneficial use for municipal and domestic drinking water (MUN). Therefore, compliance with the ESA for EPA's approval of these amendments to water quality standards is not applicable.

IV. Consultation with Indian Tribes

EPA upholds its trust responsibility to federally recognized tribal governments consistent with the "*2011 EPA Policy on Consultation and Coordination with Indian Tribes*" (https://www.epa.gov/tribal/epa-policy-consultation-and-coordination-indian-tribes). Fundamental to this policy is to have meaningful communication and coordination with appropriate tribal leadership on a government-to-government basis prior to EPA taking actions or making decisions that may affect tribal interests.

On January 17, 2020 EPA sent a letter offering consultation to tribes whose interests may be affected by this action. No tribes requested consultation.

V. Conclusion

Based on EPA's review, the revised WQS are partially consistent with the requirements of the CWA and 40 C.F.R. Part 131. Therefore, the revisions are partially approved and partially disapproved by EPA pursuant to Section 303(c) of the CWA.