

Guidance to Implement Secondary Maximum Contaminant Levels

Proposed Modifications to the Basin Plans to Support SNMP Implementation

To implement this SMCL Policy, the Central Valley Water Board should adopt changes to the SRSJR and TLB Basin Plans as summarized in the subsections below.

Following is a summary of proposed changes to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins. Text additions to the existing Basin Plan language are underlined. Text deletion to the existing Basin Plan are in ~~striketrough~~.

WATER QUALITY CONTROL PLAN FOR THE SACRAMENTO RIVER AND SAN JOAQUIN RIVER BASINS

CHAPTER II - EXISTING AND POTENTIAL BENEFICIAL USES

No changes to this section of the SRSJR Basin Plan is anticipated.

CHAPTER III - WATER QUALITY OBJECTIVES

- Modify the Basin Plan Page III-3.00, Chemical Constituents section will be modified as follows:

Chemical Constituents

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

At a minimum, 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, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, and Table 64444-A (Organic Chemicals) of Section 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.

In addition, for surface waters designated MUN the concentration of chemical constituents shall not exceed the “maximum contaminant level” specified in 22 CCR Table 64449-A or the “Upper” level specified in 22 CCR Table 64449-B, unless otherwise authorized by the Regional Water Board in accordance with the provisions of 22 CCR Section 64449 et seq.

- Modify the Basin Plan Page III-10.00, Chemical Constituents section will be modified as follows:

Proposed Basin Plan Language for the SMCL Policy
Last Updated on: 10/4/2017

Chemical Constituents

Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.

At a minimum, ground waters 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, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, and Table 64444-A (Organic Chemicals) of Section 64444, ~~and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

In addition, for ground waters designated MUN, concentration of chemical constituents shall not exceed the “maximum contaminant level” specified in 22 CCR Table 64449-A or the “Upper” level specified in 22 CCR Table 64449-B unless otherwise authorized by the Regional Water Board in accordance with the provisions of 22 CCR Section 64449 et seq.

CHAPTER IV - IMPLEMENTATION

- To support implementation of SMCLs, the following paragraphs are proposed for addition to the SRSJR Basin Plan's *Chapter IV. Implementation* at a location in the Chapter to be determined.

For the chemical constituents identified in 22 CCR §64449 (Table B) the water quality objectives shall be set as described in Chapter III-3.0 of this water quality control plan. Lower concentrations of these chemical constituents are desirable for promoting greater consumer confidence and acceptance of water supplied by community water systems, and, where it is reasonable and feasible to do so, WDRs should consider the “Recommended” values in 22 CCR §64449 (Table B). These “Recommended” concentrations are not water quality objectives per se but should be considered water resource management goals similar to other public policy goals established by the Regional Water Board and State Water Board to encourage greater water conservation, increased use of recycled water, more stormwater harvesting, additional groundwater recharge and storage, better drought protection, and to allow agricultural and wastewater dischargers to continue to discharge to groundwater basins and surface water bodies.

Constituent concentrations ranging to the “Upper” level in Table 64449-B are acceptable if it is neither reasonable nor feasible to provide more suitable waters; 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 §64449(d)(3). In cases where the surface water natural background concentration of a particular chemical constituent exceeds the maximum contaminant level specified in 22 CCR 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 Regional Board authorizes it consistent with State Antidegradation Policy".

To implement the SMCLs in the Chemical Constituents section of the surface water and groundwater quality objectives, the Regional Water Board shall consider, as appropriate, a number of site-specific factors when developing WDRs, including, but not limited to:

- The availability of assimilative capacity in the receiving water and compliance with the antidegradation policies;
- Naturally occurring background concentrations;
- Background concentrations due to prior anthropogenic activities where it is not feasible or practicable to remediate the effect of these past discharges;
- The net effect of discharges that improve receiving water quality;
- The presence or absence of other minerals (e.g., anion-cation balance) that may mitigate or aggravate aesthetic acceptability;
- The application of appropriate long-term averaging periods to evaluate compliance with WDR monitoring requirements;
- The potential impact on downstream beneficial uses (MUN-designated surface water and groundwater), including potential to impact water quality at the nearest downstream intakes for a community water system;
- Evaluation of downstream or down-gradient community water system(s) to determine if a waiver under 22 CCR §64449.2 has been obtained or if the provisions of §64449.4 are being met.
- Economic factors including the practicality and feasibility of achieving compliance with the SMCLs at the point-of-discharge (including consideration of cost for achieving compliance, the availability of alternative water supplies for drinking water, ability to pay, and cost of non-compliance);
- The ability of drinking water treatment processes to remove contaminants and the potential effect on drinking water treatment costs for downstream and down-gradient community water systems;
- Consideration of other regional salinity management requirements, including the ability to meet existing downstream salinity-related water quality objectives in the SRSJR and TLB Basin Plans and Bay Delta Plan¹ and policies, recommendations or regulations resulting from implementation of the CV-SALTS Salinity Management Strategy (see SNMP Attachment A-3);
- Potential for the permitted discharge to affect the concentration of constituents identified in 22 CCR Tables 64449-A and 64449-B at downstream and downgradient community water systems to ensure a safe drinking water supply for users.
- Need for additional monitoring to track the net effect of permitted discharges at locations upgradient of downgradient well locations where groundwater is extracted for water supply and to determine the need for additional management requirements to protect the supply.

¹ Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, State Water Board, December 13, 2006.

- The State Water Board’s Recycled Water Policy and the Central Valley SNMP’s goals to increase the use of recycled water, increase stormwater use, and increase water conservation as mechanisms to increase drought protection.
- The long-term cumulative impact of all discharges to the same receiving water.
- Modeling and any reduction in contaminants due to factors such as dilution and soil adsorption; and
- Other environmental considerations.

Compliance with any chemical constituent in Tables 64449-A of 64449-B shall be determined from the annual average of sample results based on the techniques in (a) and (b) below.

- (a) Compliance with the chemical constituent water quality objective shall be determined from a filtered water sample for the following constituents identified in 22 CCR §64449 (Table A): Aluminum, Color, Copper, Iron, Manganese, Silver Turbidity and Zinc.
- (b) Compliance with the chemical constituent water quality objective shall be determined from an unfiltered water sample for the following constituents identified in 22 CCR §64449 (Table A): Foaming Agents (MBAs), Methyl-tert-Butyl Ether (MTBE), Odor-Threshold and Thiobencarb.
- (c) For receiving waters that have been deemed exempt from surface water filtration requirements, compliance with chemical constituent water quality objectives for all parameters identified in §64449-Tables A and B shall be determined using an unfiltered water sample.²

² USEPA. *National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment Rule*. 71 Federal Register: 654-786. January 5, 2006.

Following is a summary of proposed changes to the Water Quality Control Plan for the Tulare Lake Basin. Text additions to the existing Basin Plan language are underlined. Text deletion to the existing Basin Plan are in ~~strikethrough~~.

WATER QUALITY CONTROL PLAN FOR THE TULARE LAKE BASIN

CHAPTER II - EXISTING AND POTENTIAL BENEFICIAL USES

No changes to this section of the TLB Basin Plan is anticipated.

CHAPTER III - WATER QUALITY OBJECTIVES

- Modify Basin Plan Page III-3, Chemical Constituents section will be modified as follows:

Chemical Constituents

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

At a minimum, 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, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, and Table 64444-A (Organic Chemicals) of Section 64444., ~~and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

In addition, for surface waters designated MUN, concentration of chemical constituents shall not exceed the “maximum contaminant level” specified in 22 CCR Table 64449-A or the “Upper” level specified in 22 CCR Table 64449-B unless otherwise authorized by the Regional Water Board in accordance with the provisions of 22 CCR Section 64449 et seq.

- Modify Basin Plan Page III-7, Chemical Constituents section will be modified as follows:

Chemical Constituents

Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses...

At a minimum, ground waters 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, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, and Table 64444-A (Organic Chemicals) of Section 64444., ~~and Tables 64449-A (Secondary Maximum~~

~~Contaminant levels (Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

In addition, for ground waters designated MUN, concentration of chemical constituents shall not exceed the “maximum contaminant level” specified in 22 CCR Table 64449-A or the “Upper” level specified in 22 CCR Table 64449-B unless otherwise authorized by the Regional Water Board in accordance with the provisions of 22 CCR Section 64449 et seq.

CHAPTER IV - IMPLEMENTATION

- To support implementation of SMCLs, the following text will be added to the TLB Basin Plan's *Chapter IV. Implementation Plan* at a location to be determined, but potentially in association with “Policy for Application of Water Quality Objectives (Pg. IV-21 ff.):

For the chemical constituents identified in 22 CCR §64449 (Table B) the water quality objectives shall be set as described in Chapter III-10.0 of this water quality control plan. Lower concentrations of these chemical constituents are desirable for promoting greater consumer confidence and acceptance of water supplied by community water systems, and, where it is reasonable and feasible to do so, WDRs should consider the “Recommended” values in 22 CCR §64449 (Table B). These “Recommended” concentrations are not water quality objectives per se but, rather, should be considered water resource management goals similar to other public policy goals established by the Regional Water Board and State Water Board to encourage greater water conservation, increased use of recycled water, more stormwater harvesting, additional groundwater recharge and storage, better drought protection, and to allow agricultural and wastewater dischargers to continue to discharge to groundwater basins and surface water bodies.

Constituent concentrations ranging to the “Upper” level in Table 64449-B are acceptable if it is neither reasonable nor feasible to provide more suitable waters; 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 §64449(d)(3). In cases where the surface water natural background concentration of a particular chemical constituent exceeds the maximum contaminant level specified in 22 CCR 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 Regional Board authorizes it consistent with State Antidegradation Policy”.

To implement the SMCLs in the Chemical Constituents section of the surface water and groundwater quality objectives, the Regional Water Board shall consider, as appropriate, a number of site-specific factors when developing WDRs, including, but not limited to:

- The availability of assimilative capacity in the receiving water and compliance with the antidegradation policies;
- Naturally occurring background concentrations;

- Background concentrations due to prior anthropogenic activities where it is not feasible or practicable to remediate the effect of these past discharges;
- The net effect of discharges that improve receiving water quality;
- The presence or absence of other minerals (e.g., anion-cation balance) that may mitigate or aggravate aesthetic acceptability;
- The application of appropriate long-term averaging periods to evaluate compliance with WDR monitoring requirements;
- The potential impact on downstream beneficial uses (MUN-designated surface water and groundwater), including potential to impact water quality at the nearest downstream intakes for a community water system;
- Evaluation of downstream or down-gradient community water system(s) to determine if a waiver under 22 CCR §64449.2 has been obtained or if the provisions of §64449.4 are being met.
- Economic factors including the practicality and feasibility of achieving compliance with the SMCLs at the point-of-discharge (including consideration of cost for achieving compliance, the availability of alternative water supplies for drinking water, ability to pay, and cost of non-compliance);
- The ability of drinking water treatment processes to remove contaminants and the potential effect on drinking water treatment costs for downstream and down-gradient community water systems;
- Consideration of other regional salinity management requirements, including the ability to meet existing downstream salinity-related water quality objectives in the SRSJR and TLB Basin Plans and Bay Delta Plan³ and policies, recommendations or regulations resulting from implementation of the CV-SALTS Salinity Management Strategy (see SNMP Attachment A-3);
- Potential for the permitted discharge to affect the concentration of constituents identified in 22 CCR Tables 64449-A and 64449-B at downstream and downgradient community water systems to ensure a safe drinking water supply for users.
- Need for additional monitoring to track the net effect of permitted discharges at locations upgradient of downgradient well locations where groundwater is extracted for water supply and to determine the need for additional management requirements to protect the supply.
- The State Water Board's Recycled Water Policy and the Central Valley SNMP's goals to increase the use of recycled water, increase stormwater use, and increase water conservation as mechanisms to increase drought protection.
- The long-term cumulative impact of all discharges to the same receiving water.
- Modeling and any reduction in contaminants due to factors such as dilution and soil adsorption; and
- Other environmental considerations.

³ Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, State Water Board, December 13, 2006.

Compliance with any chemical constituent in Tables 64449-A of 64449-B shall be determined from the annual average of sample results based on the techniques in (a) and (b) below.

- (a) Compliance with the chemical constituent water quality objective shall be determined from a filtered water sample for the following constituents identified in 22 CCR §64449 (Table A): Aluminum, Color, Copper, Iron, Manganese, Silver Turbidity and Zinc.
- (b) Compliance with the chemical constituent water quality objective shall be determined from an unfiltered water sample for the following constituents identified in 22 CCR §64449 (Table A): Foaming Agents (MBAs), Methyl-tert-Butyl Ether (MTBE), Odor-Threshold and Thiobencarb.
- (c) For receiving waters that have been deemed exempt from surface water filtration requirements, compliance with chemical constituent water quality objectives for all parameters identified in §64449-Tables A and B shall be determined using an unfiltered water sample.⁴

⁴ USEPA. *National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment Rule*. 71 Federal Register: 654-786. January 5, 2006.