



## Proposed Revisions to the Water Quality Objectives for the Secondary MCLs

### **Draft Recommendation:**

Section 3.3.22 of the Basin Plan should be modified to delete all reference to the secondary maximum contaminant levels as shown below:

#### 3.3.22 CONSTITUENTS OF CONCERN FOR MUNICIPAL AND AGRICULTURAL WATER SUPPLIES

At a minimum, surface waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of constituents in excess of the maximum (MCLs) ~~or secondary maximum contaminant levels (SMCLs)~~ specified in the following provisions of Title 22, which are incorporated by reference into this plan: Table 64431-A (Inorganic Chemicals) of Section 64431, and Table 64433.2-A (Fluoride) of Section 64433.2, and Table 64444-A (Organic Chemicals) of Section 64444, ~~and Table 64449-A (SMCLs-Consumer Acceptance Limits) and 64449-B (SMCLs-Ranges) of Section 64449.~~ This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. Table 3-5 contains water quality objectives for municipal supply, including the MCLs contained in various sections of Title 22 as of the adoption of this plan.

### **Justification for the Proposed Revisions:**

- 1) The Secondary MCLs described in Title-22 are drinking water standards. Compliance with these standards was intended to occur "at the tap" not in the receiving waters that serve as the source of supply for municipal drinking water systems. This is especially true for surface waters where new filtration requirements<sup>1</sup> significantly reduce the concentration of total suspended solids (TSS), including objectionable minerals such as iron, manganese, chloride, sulfate and aluminum, prior to delivery.
- 2) Most other Regional Water Quality Control Boards (#1, #3, #6, #7 and #9) have not adopted the Secondary MCLs as numeric water quality objectives in their respective Basin Plans, relying instead on narrative receiving water limitations to regulate mineral concentrations to prevent objectionable tastes and odors where needed.

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<sup>1</sup> U.S. EPA. National Primary Drinking Water Regulations: Long Term 2 Enhanced Surface Water Treatment Rule. 71 FR 3, 654 (January 5, 2006).

- 3) The Secondary MCLs are intended to address aesthetic concerns, such as taste and odor, not human health. Consumer acceptance is highly subjective and complicated by factors such as the form of the specific constituent (e.g. sodium-sulfate vs. calcium-sulfate) and the presence or absence of other major anions and cations. The numeric water quality objectives do not provide adequate consideration for the influence of other factors that may aggravate or mitigate objectionable tastes and odors.
- 4) Reasonable protection against unacceptable tastes and odors continues to be provided, as needed on a case-by-case basis, through the narrative objective described in §3.3.16 of the Basin Plan. This approach encourages greater consistency with similar narrative provisions in Title-22.<sup>2</sup> It provides the flexibility to consider all relevant site-specific factors (including natural background concentrations, interactions between mineral ions, availability of assimilative capacity in the receiving water, downstream filtration facilities, etc.). And, it allows the Regional Board to recognize waivers issued by CDPH where a community water system voluntarily elect to accept elevated mineral concentrations because, customer surveys have confirmed that the cost of meeting the Secondary MCLs greatly exceeds the value of doing so.<sup>3</sup>
- 5) Where existing mineral concentrations are already lower than the concentrations identified in the Secondary MCLs, the state antidegradation policy (SWRCB Res. No. 68-16) would continue to provide the Regional Board adequate legal authority to prevent waste discharges from lowering water quality without explicit approval in the permit.
- 6) Establishing numeric water quality objectives to prevent objectionable tastes and odors had the unintended effect of requiring the Regional Board to impose numeric effluent limits on municipal wastewater discharges despite the fact that state law prohibits recycled water from being served through community water systems. The result was wasteful and unnecessary treatment requirements that had no beneficial effect on water supply sources actually used by community water systems.
- 7) A detailed mass-balance analysis of mineral concentrations in representative water supply sources throughout the Central Valley region demonstrate that removing the effluent limitations previously intended to assure compliance with the Secondary MCLs would not result in additional treatment costs to community water systems located downstream of these permitted discharges.<sup>4</sup>

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<sup>2</sup> 22 CCR §64449(d)

<sup>3</sup> 22 CCR §64449(f)

<sup>4</sup> Study to be undertaken by CV-Salts in support of the proposed Basin Plan amendment.