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Via Electronic Mail (commentletters@waterboards.ca.gov)

Subject: Comment Letter— Water Quality Enforcement Policy

This comment letter addresses several proposed changes to the Enforcement Policy which are problematic and may have unintended results.

1. ***Exceedance of MCLs added to list of Class I violation.*** As part of the proposed changes, discharges causing or contributing to exceedances of the primary maximum contaminate levels (MCLs) in MUN classified waters would be considered a Class I violation. Based on this new specification, natural concentrations of certain soil constituents may lead to Class I violations even in the absence of any risk to the environment or public health. For example, MCL exceedances will likely occur for the aluminum MCL (1 mg/L) whenever natural soils are part of the discharge. Natural background soils in California contain approximately 7% aluminum on average.¹ Consequently, relatively small concentrations of natural soils will cause an exceedance in the discharge. Soils in the discharge at a concentration of approximately 15 mg/L, measured as total suspended solids (TSS), will exceed the MCL. Stormwater runoff, for example, typically contains in the range of 0.1 to 16 mg/L aluminum.²

Although not specified in the policy, a determination of *causing or contributing* is often based on an exceedance in the discharge paired with an exceedance in the receiving water. If mixing is available and a mixing zone is allowed by the Basin Plan, then an exceedance in the discharge could be reduced to lower levels at the edge of the mixing zone and the receiving water could be in compliance. However, the receiving water, of course, is typically contained in a channel composed of natural soils, including aluminum, and it would not be unusual for the receiving water to potentially contain 1 mg/L aluminum, or typically much more, in particulate and dissolved form. In this case, both discharge and receiving water would exceed the MCL and the discharge would apparently be identified as a Class I violation based on the proposed changes to the Policy. For impaired waterways, an exceedance in the discharge is considered *causing or contributing* if the pollutant in question is on the CWA 303(d) list for the waterway. In this case, no mixing would be allowed and an exceedance in the discharge presumably would result in a Class I violation. Several waterways have already been placed on the 303(d) list (2010) for impairment by aluminum and more are likely to be proposed to be added to the list given the ubiquitous presence of aluminum in natural waters.

¹ *Background Concentrations of Trace and Major Elements in California Soils*, UC Riverside, 1996; Table 2, average concentrations; posted [here](#).

² See for example, *Urban Storm Water*, Makepeace, et al., 1995. Similar results are available from the National Stormwater Quality Database.

Does aluminum in surface waters in concentrations above the MCL present a risk to public health or the environment sufficient to justify placement on the Class I list? This appears unlikely. Aluminum and many of the other MCL constituents are adequately controlled by treatment at the drinking water treatment plants which are very effectively at removing particulates. Ironically, aluminum salts are often added in the treatment process to support flocculation and sedimentation. Natural soils are not a risk to public health via drinking water because of the treatment provided. Regulation of surface waters to protect the MUN beneficial use should be limited to those constituents potentially passing through the treatment processes. This does not include aluminum.

2. **Definition of 'causing or contributing.'** The proposed policy uses the phrase, *causing or contributing* in reference to 1) exceedances of MCLs, 2) the presence of detrimental impacts to aquatic biota, and 3) elevated turbidity. However, this phrase is not defined and is often not clear to the regulated community. In what specific discharge situations is a pollutant causing or contributing to an exceedance? For example, must the pollutant be measured in both the effluent and in the receiving at concentrations above the standard or only in the receiving water? Where is the receiving water sample taken: at the point of discharge or some distance away? In what situations are mixing zones allowed which permits the receiving water sample to be taken some distance from the discharge? If the applicable basin plan does not provide for dilution, is the receiving water concentration assumed to be the same as the effluent concentration? Which specific standards apply (acute or chronic criteria in the CTR, instantaneous maximum or 6-month median in the Ocean Plan, etc.)?

The phrase, *causing or contributing*, should be defined.

3. **Proposed new turbidity limitation of 100 NTU.** The proposed changes to the policy would add the following as a Class I violation:

Discharges causing or contributing to in-stream turbidity in excess of 100 nephelometric turbidity units (NTU) in receiving waters with beneficial uses of COLD, WARM, and/or WILD, except during storm events.

This change appears to conflict with many existing permits which allow discharges with higher turbidity than 100 NTU. Several examples:

- Order No. R1-2015-0003 (North Coast, Low Threat)

	Monthly (30-day average)	Weekly (7-day average)	Maximum
Turbidity (NTU)	75	100	225

In this case, a daily monitoring result could be in compliance with the permit (i.e., < 225 NTU) but would exceed the proposed Enforcement Policy limitation of 100 NTU in situations of low or no mixing in the receiving water. Also see Order No. R3-2011-0223 (Central Coast) which has the same turbidity limits.

- Order WQ 2014-0174-DWQ (Statewide)

5. Turbidity in amounts that adversely affect beneficial uses in the receiving waters. In no case shall turbidity increase more than 20 percent over background levels.

Receiving water turbidities are sometimes above 100 NTU. A 20% increase is allowed by the permit but would appear to conflict with the proposed Policy when receiving water turbidities are already elevated.

- Order R5-2013-0074 (Central Valley – Dewatering and Low-threat)

Depending on natural turbidity, specified increases are allowed. One of these is:

v. Shall not increase more than 10 percent where natural turbidity is greater than 100 NTUs.

As before, the Policy appears to conflict with the permit which allows turbidity in excess of 100 NTU in some cases.

- Order No. R4-2013-0095 (Los Angeles)

	Maximum Daily	Average Monthly
Turbidity NTU	150	50

- Order WQ 2014-0194-DWQ (Statewide - Drinking Water)

The Statewide Treated Drinking Water Permit contains turbidity action levels or limits applicable to specified discharges which differ from the 100 NTU limitation imposed by the proposed Enforcement Policy.

- Groundwater Supply Well Operations must comply with a turbidity action level of 100 NTU. *“An exceedance of the turbidity numeric action level of 100 NTU is not a violation of this Order, but any exceedance does require that the Discharger take action...”*
- For Ocean discharges: *“The turbidity concentration in the discharge shall not exceed 225 NTU at any time.”*

In cases where mixing is not available or turbidity is already elevated in the receiving water, discharges allowed by the permit would appear to be categorized as Class I violations. It is inappropriate to change permit provisions via the Enforcement Policy.

4. **Establishment of a parallel regulatory structure.** NPDES permits in California contain water quality-based effluent limitations (WQBEL) and receiving water limitations in conformance with EPA regulations and state requirements. The proposed Policy appears to create a separate approach for establishing permit limitations by creating new water quality standards which are sometimes different from those in the Water Quality Plans. These new standards are being established without following the procedures for water quality objectives in Water Code § 13241, which includes an assessment of economic considerations.

Thank you for the opportunity to provide comments.

Fred Krieger

