

**California Regional Water Quality Control Board  
San Francisco Bay Region**

**RESPONSE TO WRITTEN COMMENTS**

On the Tentative Order for  
Napa Sanitation District, Soscol Water Recycling Facility and Collection System  
Napa, Napa County

The Regional Water Board received written comments from the Napa Sanitation District on a tentative order distributed for public review. The comments are summarized below in *italics* (paraphrased for brevity) and followed by a staff response. For the full content and context of the comments, please refer to the comment letter. To request a copy of the comment letter, see the contact information provided in Fact Sheet section 8.3 of the Revised Tentative Order.

This document also identifies staff-initiated revisions to the tentative order. Revisions are shown with ~~striketrough~~ for deletions and underline for additions.

**NAPA SANITATION DISTRICT COMMENTS AND RESPONSES**

**Comment 1:** *The District appreciates removal of the oil and grease effluent limit and monitoring requirements.*

**Response:** No response is necessary.

**Comment 2:** *The District requests that we retain the existing effluent limits for ammonia. It indicates that, since the Water Board used U.S. EPA's Technical Support Document for Water Quality-based Toxics Control, March 1991, EPA/505/2-90-001 (Technical Support Document) to determine whether ammonia has a reasonable potential to cause a water quality objective to be exceeded in the receiving water, the reasonable potential analysis should account for dilution of the discharge in the receiving water.*

*The District says it receives a dilution ratio of 5:1 for acute conditions and 14:1 for chronic conditions, and if the reasonable potential analysis incorporated a dilution ratio of 5:1, there would be no reasonable potential for ammonia and no need for water quality-based effluent limitations. Under such circumstances, the District understands that the permit would retain the existing ammonia effluent limits of 21 mg/L as an average monthly effluent limit and 49 mg/L as a maximum daily effluent limit.*

**Response:** We did not change the tentative order in response to this comment. The Technical Support Document (page 52) allows consideration of dilution when undertaking reasonable potential analyses. However, the Technical Support Document only allows for doing so; it doesn't require doing so. In fact, the Technical Support Document is only guidance; it does not contain any regulatory requirements.

To be conservative, we did not consider dilution when we evaluated whether effluent limitations are necessary. Napa is projected to discharge un-ionized ammonia above the water quality objective, so an enforceable effluent limitation is important. Moreover, not considering dilution when undertaking a reasonable potential analysis here is consistent with how we have evaluated reasonable potential for ammonia in other permits. It is also consistent with the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP), which describes how we must evaluate reasonable potential for the 126 priority pollutants (see Fact Sheet Table F-7).

The Revised Tentative Order finds reasonable potential for ammonia and calculates water quality-based effluent limitations using the SIP as guidance. These limits reflect an ammonia mixing zone corresponding to a dilution ratio of 5:1 (five parts combined effluent and receiving water for each part effluent). The District can comply with these limits based on its past performance. During the period from November 2016 through April 2021, the District consistently reported effluent ammonia concentrations below the Revised Tentative Order's average monthly effluent limitation of 15 mg/L (65 samples ranged from < 0.04 mg/L to 11 mg/L).

**Comment 3.** *The District requests that we use the chronic dilution ratio identified in its Mixing Zone Study Report to conduct the chronic toxicity reasonable potential analysis. Specifically, it requests that we grant a dilution ratio 14:1 for chronic toxicity. It points out that the chronic toxicity reasonable potential analysis accounts for dilution as allowed by the Technical Support Document and uses the cyanide dilution ratio of 3.25:1. The District prefers the higher dilution ratio, noting that it was developed at the request of the Regional Water Board after the cyanide site-specific objective and cyanide dilution credit were added to the Basin Plan. The District says its chronic dilution ratio is based on more comprehensive monitoring and mathematical modeling than the cyanide dilution credit in the Basin Plan.*

**Response:** We did not change the tentative order in response to this comment. Basin Plan section 4.5.5.3.2 states that the Regional Water Board may consider allowing a dilution credit for chronic toxicity comparable to the dilution credits allowed for numeric chemical-specific objectives. For cyanide, the Basin Plan specifies a dilution credit (D) of 2.25 (3.25:1 dilution ratio). As shown in Fact Sheet Table F-8, the Revised Tentative Order grants dilution credits of 0 (no dilution, 1:1 dilution ratio) for copper, nickel, and dioxin-TEQ; and 4 (5:1 dilution ratio) for ammonia. The chronic toxicity dilution credit of 2.25 is "comparable" to the other dilution credits. In contrast, a chronic toxicity dilution credit of 13 (a 14:1 dilution ratio) would not be comparable to the other dilution credits in the Revised Tentative Order. Even using the 2:25:1 dilution credit for chronic toxicity, we did not find reasonable potential, and the Revised Tentative Order does not contain a chronic toxicity effluent limit.

For the District's next permit reissuance, we expect that the State Water Board's *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and*

*Estuaries of California and Toxicity Provisions (Toxicity Provisions) will be effective. As written, those Toxicity Provisions will supersede the Basin Plan's requirements and specify new requirements for chronic toxicity mixing zones and dilution credits.*

**Comment 4:** *The District requests that duplicative recycled water reporting be removed. It points out that the tentative order requires recycled water volumetric data to be submitted to two state databases: GeoTracker and the California Integrated Water Quality System (CIWQS). State Water Resources Control Board Order WQ 2019-0037-EXEC required the GeoTracker reporting. Therefore, the District requests that we remove the CIWQS reporting requirement, calling it a waste of municipal public resources.*

**Response:** We did not change the tentative order in response to this comment. The Monitoring and Reporting Program (Attachment E) requires the District to monitor and report daily average flow and total monthly flow volumes via CIWQS. This reporting provides water balance information and distinguishes, on a daily basis, the amount of treated wastewater discharged to the Napa River versus the amount directed offsite for water reuse. This information is necessary to evaluate compliance with Discharge Prohibition 3.5, which prohibits discharge to the Napa River from June 1 through September 30 unless the capacity of the recycled water distribution and storage system is exceeded. While there is some overlap with the water reuse reporting the State Water Board required via Geotracker, it's not duplicative. The Revised Tentative Order only requires the District to report monthly water reuse volumes via Geotracker.

**Comment 5.** *The District says Fact Sheet Table F-4 contains sanitary sewer overflow (SSO) statistics that are misleading. It says Table F-4 has been simplified so much that it does not provide an accurate picture for assessing potential issues, and conclusions could be drawn that are untrue. For example, the number of SSOs in Southern California, where average annual rainfall is only a fraction of that in the Bay Area, heavily influences the lower number of SSOs for the entire state. Comparing statewide numbers to the Bay Area, and especially to the wetter North Bay, is inappropriate. Weather conditions play a part in the number of SSOs because municipal agencies can only design and build sewer systems for a finite level of conveyance.*

*The District says the wet weather events in 2017 (a 2-year, 24-hour event) and 2019 (a 5-year, 24-hour event) were comparable in total rainfall in the Napa area. Although 2019 saw higher peaks than 2017, the District's 2019 SSO rate was half that of 2017. The District believes the significant funds it has been spending on infiltration and inflow projects over the last few years were the reason SSO numbers fell in 2019. The table does not show this level of detail.*

*The District further explains that it owns and maintains the lower laterals within its collection system, but most Bay Area agencies, and most California agencies as a whole, do not own or maintain lower laterals. The District says the third and fourth rows of the table suggest that all agencies own or maintain lower laterals.*

*Comparing the first two rows with the last two rows is therefore inappropriate because the numbers do not have a common basis.*

*The District notes that Table F-4 only provides the number of SSOs and asserts that the total volume would be a much more informative metric for assessing potential issues. For example, numerous Bay Area agencies experienced high volume SSOs during the bomb cyclone/atmospheric river event on October 24 and 25, 2021 (a 200-year, 24-hour event). The District's total volume of SSOs during this period was fairly low, especially in comparison to the agencies listed in the November 2021 Executive Officer's Report.*

*The District claims Table F-4 is not giving the Board members the information they need to properly judge any particular agency.*

**Response:** We disagree. The purpose of the table is to present some relevant SSO statistics for the District, other San Francisco Bay Region agencies, and agencies throughout the State of California. It is not meant to be comprehensive. The text below Table F-4 provides additional context, explaining, "During the previous order term, the Discharger's SSO rates were similar to those for the San Francisco Bay Region and State with the exception of 2017 and 2019. In 2017 and 2019, the rates per 100 miles were significantly higher than the regional average due to capacity-related issues during heavy rain, consistent with other North Bay dischargers that are similar in size with similar geography."

**Comment 6:** *The District requests that we correct some typographical errors.*

**Response:** We changed the tentative order to correct the typographical errors.

### **STAFF INITIATED CHANGES**

In addition to making minor editorial and formatting changes, we made several revisions to the Fact Sheet to clarify the basis for the new total residual chlorine effluent limitations in the tentative order. Specifically, we made the following changes:

1. We revised the last paragraph of Fact Sheet, section 2.6, Planned Changes, as shown below:

These planned changes are not requirements of this Order, but may be necessary to ensure ~~except to the extent that they pertain to~~ ensuring Facility reliability.

2. We revised the third paragraph of Fact Sheet, section 4.1.2, Basin Plan Discharge Prohibition 1, as shown below:

Studies indicate that the discharge receives some dilution year-round but not 10:1 initial dilution. To allow discharge during wet weather, this Order grants an exception to Basin Plan Discharge Prohibition 1 when

~~there is no or low recycled water demand, and between July 1 through September 30, and when there is no or low recycled water demand (when discharge exceeds the capacity of the recycled water distribution and storage systems and discharge is necessary to avoid an upset to the treatment works). The rationale for this exception is as follows this Order grants an exception to Basin Plan Discharge Prohibition 1 for the following reasons:~~

3. We revised the first paragraph of Fact Sheet, section 4.2.2.3, as shown below:

**Total Residual Chlorine.** ~~The total residual chlorine effluent limitation is based on Basin Plan Table 4-2. This technology-based effluent limit will be replaced by a water quality-based effluent limit (see Fact Sheet section 4.3.5.4) on the first day of the month following U.S. EPA approval of the chlorine water quality objectives set forth in Regional Water Board Resolution R2-2020-0031. the previous order and the limit that, until recently, had been required by Basin Plan Table 4-2. The Regional Water Board recently adopted a Basin Plan amendment (Resolution R2-2020-0031) that established new chlorine water quality objectives and related implementation provisions, and removed the technology-based limit from Basin Plan Table 4-2. This Order imposes a new water quality-based effluent limitation to implement the new water quality objectives when U.S. EPA approves the new objectives. Thus, this technology-based effluent limit will be replaced by the water quality-based effluent limit (see Fact Sheet section 4.3.5.4) on the first day of the month following U.S. EPA approval of the objectives. The Regional Water Board plans to send a notice to the Discharger when this change becomes effective.~~

4. We revised Fact Sheet, section 4.3.3.3, as shown below:

**Total Residual Chlorine.** ~~Basin Plan Table 4-2 requires a total residual chlorine effluent limitation for all treatment facilities with the potential to discharge chlorine. Following U.S. EPA approval of the chlorine water quality objectives set forth in Regional Water Board Resolution R2-2020-0031, a water quality-based effluent limitation for total residual chlorine will be required because the Facility disinfects its effluent with chlorine and, without sufficient dechlorination, the discharge could contain chlorine above the new water quality objective. Until then, there is no reasonable potential for total residual chlorine to exceed this water quality objective because it has not yet become effective. Until it is, this Order contains a technology-based effluent limit of 0.0 mg/L chlorine.~~

5. We revised Fact Sheet, section 4.4.1, as shown below:

**Anti-Backsliding.** This Order complies with the anti-backsliding provisions of CWA sections 402(o) and 303(d)(4), and 40 C.F.R. section 122.44(l), which generally require comparable effluent limitations in a reissued permit to be as stringent as those in the previous order. ~~This Order does not authorize lowering water quality as compared to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for an increased flow or a reduced level of treatment relative to the previous order.~~ The requirements of this Order are at least as stringent as those in the previous order, except for oil and grease, total residual chlorine, and Enterococcus bacteria as discussed below.

This Order does not retain effluent limits for oil and grease. Regional Water Board Resolution R2 2020-0031 eliminated the requirement to impose oil and grease limits on municipal treatment plants that provide secondary or advanced secondary treatment because these plants do not discharge oil and grease.

This Order contains new effluent limits for total residual chlorine based on Regional Water Board Resolution R2-2020-0031. The new effluent limits are expressed differently than the previous limits and are therefore not directly comparable. ~~While this Order does not retain effluent limits for oil and grease and relaxes total residual chlorine effluent limits, these changes meet an exception to the prohibition. CWA 402(o) prohibits backsliding from an effluent limitation that is based on state standards, such as water quality standards or treatment standards, unless the change is consistent with CWA section 303(d)(4). Here, the previous oil and grease and total residual chlorine effluent limitations were based on State treatment standards, but backsliding is allowed by CWA section 303(d)(4) because the surface waters of the San Francisco Bay region are not impaired by chlorine or oil and grease. CWA section 303(d)(4) allows these effluent limits to be relaxed if doing so is consistent with antidegradation policies. As explained below, this Order complies with antidegradation policies.~~

This Order contains new *Enterococcus* bacteria effluent limits based on the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Part 3, Bacteria Provisions and a Water Quality Standards Variance Policy. The new effluent limits are expressed using different averaging periods than the previous limits and are therefore not directly comparable.

6. We revised the third and fourth paragraphs of Fact Sheet, section 4.4.2, as shown below:

This Order does not authorize lowering water quality as compared to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for an increased flow or a reduced level of treatment relative to the previous order. This Order contains a new total residual chlorine limit, but any increase in the amount of chlorine discharged is unlikely to be observable in the receiving waters, particularly outside the total residual chlorine mixing zones, because chlorine dissipates rapidly in receiving waters. Any effect will be spatially localized and temporally limited, and will not result in any long-term deleterious effects on water quality or any significant reduction in water quality. Any increase in chlorine discharge would be modest and consistent with the maximum benefit of the people of the State because it will reduce the use and discharge of dechlorination chemicals, which generate greenhouse gas emissions during manufacturing and delivery, and consume oxygen within receiving waters when discharged. The revised chlorine effluent limit reflects the updated understanding that overdosing with dechlorination chemicals is no longer the best practicable treatment or control of chlorine because of possible water quality impacts. Compliance with the new effluent limit will not unreasonably affect current or anticipated beneficial uses because the objectives it implements are for the protection of water quality and aquatic life. It will not result in water quality less than prescribed in the Basin Plan. The total residual chlorine WQBEL authorized by this Order is consistent with Resolution 68-16. This Order authorizes higher total residual chlorine limit, although the increase is unlikely to be observable in the receiving waters, particularly outside the total residual chlorine mixing zones, both because chlorine dissipates rapidly in receiving water and because the new effluent limit is water quality-based. The modest increase in chlorine discharge is consistent with the maximum benefit of the people of the State because it will reduce the use and discharge of dechlorination chemicals, which generate greenhouse gas emissions during manufacturing and delivery, consume oxygen within receiving waters when discharged, and generate additional costs for the Discharger. The revised effluent limits thus reflect the updated understanding that overdosing with dechlorination chemicals is no longer the best practicable treatment or control of chlorine because of possible water quality impacts and a waste of resources. Compliance with the new effluent limit will not unreasonably affect current or anticipated beneficial uses because the objectives it implements are for the protection of water quality and aquatic life. In addition, this Order requires continuous monitoring to assess whether discharges comply with the new effluent limit based on a one-hour average.

The elimination of the oil and grease effluent limits is also consistent with antidegradation policies Resolution 68-16. The elimination of these limits is not expected to result in an increased volume or concentration of oil and grease in the discharge because those limits did not drive the secondary or advanced secondary treatment performance at the Facility. During the course of TSS and BOD removal through secondary or advanced secondary treatment, essentially all oil and grease is removed.