



September 21, 2026

Submitted electronically to: commentletters@waterboards.ca.gov

Courtney Tyler, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

SUBJECT: Review of State Plans and Policies

Dear Ms. Tyler,

On behalf of the California Association of Sanitation Agencies (CASA), thank you for the opportunity to provide comments to the State Water Resources Control Board (SWRCB) on [the Revised Draft Staff Report and Workplan for the Review of State Water Quality Control Plans and State Policies for Water Quality Control](#) (Staff Report). CASA represents over 150 public agencies and municipalities that engage in wastewater collection, treatment, recycling, and resource recovery. Our members are directly affected by your water quality control plans and policies, and we provide comments below in sequential order with the Staff Report, first for the “Current Projects,” then for “Projects for Future Consideration.” That said, we still highlight three main themes:

1. **Temperature** – Wastewater agencies across California are adapting near-term and long-term for a hotter, drier future, so when the SWRCB is updating individual water quality plans and policies, we request that increasing temperature and declining wastewater flows are uniformly accounted for in modeling, forecasting, and evaluating the anticipated benefits of regulatory intervention so that realistic expectations and limitations inform regulatory requirements and financial investments in compliance mechanisms. To the extent possible, nature-based solutions should be encouraged to avoid forcing investments in technologies that themselves have large energy footprints and may contribute to worsening climate change conditions.
2. **Time** - Similar to the drinking water adage about the challenges of 19th century laws, 20th century infrastructure, and 21st century climate, the timing envisioned for many water quality policies and plans do not reflect contemporary CEQA timelines and wastewater agencies’ procurement processes, much less the multi-year realities of engineering firms’ designing, bidding, and constructing capital projects to improve water quality in the state. Opportunities for more impactful multi-benefit projects should not be rendered impossible due to out-of-date timelines in Policies.
3. **Trust** – There’s another saying of importance– “Progress moves at the pace of trust.” Diverse stakeholders are coming together more frequently with the SWRCB to tackle complex water quality challenges across a myriad of starkly different watersheds around the state. CASA’s members share the same mission as the SWRCB to protect public health and the environment, and they successfully carry out this charge at the local level on a daily basis. Communication, collaboration, and consensus on these plans are critical for California to rise to the moment and make the appropriate generational investments to ensure clean and affordable water for all Californians.

Current Projects

6.1.4 ISWEBE Plan: Establish Harmful Algal Blooms and Cyanotoxins Water Quality Objectives and a Program of Implementation

The SWRCB's approach for regulating inland wastewater agencies to improve surface water quality and protect beneficial uses has undergone various iterations, each of which respectively presented numerous opportunities and challenges. We support the recent evolution in the growth of the program centered around Harmful Algal Blooms (HABs) and cyanotoxins because it inherently focuses on the actual impact to beneficial uses for the purposes of exploring regulatory intervention. We appreciate the SWRCB staff's early communication and stakeholder engagement in developing numeric water quality objectives for cyanotoxins, a narrative water quality objective for HABs, and a program of implementation to achieve those objectives. This focus on HABs and their impact to beneficial uses directly focuses on the problems, instead of utilizing a blunt biological or chemical numeric threshold as a water quality objective under which compliance would be infeasible or unreasonable due to other uncontrollable HAB drivers like temperature, flows, and non-point source pollution, which are all expected facets of our hotter, drier future. The drivers of HABs can vary regionally due to unique interactions between tidal mixing, water residence times, stratification, temperature, water clarity, invertebrate grazing, and nutrient dynamics. A thorough understanding of the key drivers of HABs across differing ecosystems is necessary to craft implementation programs that achieve the stated goals while avoiding undesirable ecological outcomes.

Concurrent with the SWRCB's narrowing in on a viable way forward with the new focus on HABs and cyanotoxins, numerous inland wastewater agencies around the state have, permit by permit, committed financially and are constructing or operating large infrastructure upgrades for ammonia, nitrogen, and/or phosphorous, amongst other pollutants. We encourage the SWRCB to enshrine local evaluation of these investments and the already-achieved quality of effluent when considering water quality monitoring and modeling of regulatory intervention with a narrative water quality objective for HABs and the associated program of implementation, to ensure any further required local investments will reasonably and feasibly result in confirmed reductions in the occurrence of HABs. To that end, we support the SWRCB in providing a framework for the Regional Water Quality Control Boards (RWQCBs) to evaluate potential drivers of HABs and develop targeted programs of implementation at the regional level.

6.1.6 Ocean Plan: Address Impacts of Anthropogenic Nutrients on Coastal Ocean Acidification, Hypoxia, and Harmful Algal Blooms

Ocean acidification and hypoxia (OAH) is a global phenomenon primarily driven by CO₂ emissions and climate change – not point source discharges. To be sure, wastewater discharges generally contribute less than 6% of the estimated nutrients off the Southern California coast. While nutrients drive algal blooms that can lead to exacerbations in OAH conditions, [more than 90% of the nutrient contributions in the Southern California Bight are from naturally occurring oceanic upwelling.](#)¹

OAH and marine HABs are occurring around the world due principally to greenhouse gas emissions, changing pH levels, and warming ocean temperatures. As observed on easily-accessible global marine HABs maps, these phenomena occur in areas and regions away from large urban centers. These unintuitive locations where there are not anthropogenic contributions underscore the critical importance of properly characterizing the global phenomena and contextualizing relative loads of nutrients, for reasonably estimating the follow-along water quality improvements that would come with regulatory intervention vis-à-vis a potential Ocean Plan amendment.

¹ <https://aslopubs.onlinelibrary.wiley.com/doi/epdf/10.4319/lo.2014.59.1.0285> (see Table 3)

To provide preliminary insights of the management capabilities of regulatory intervention, as part of our efforts with coastal dischargers in Southern California, CASA released [the 2025 HDR Bight Report](#). Through this evaluation, we found that the four largest dischargers have planned projects that could reduce the municipal Total Inorganic Nitrogen (TIN) discharge load to the Bight by approximately 42% by 2052, which would reduce the total TIN load from municipal and natural sources by approximately 2%. The anticipated costs for these planned upgrades are approximately \$16.5 billion. Achieving Conventional Nutrient Removal at the other treatment facilities in Southern California could cost an additional \$3.2 billion and could reduce the municipal TIN load to the Southern California Bight by an additional 7%, or an additional 0.5% reduction in total TIN load. When considering all of the dischargers to the entire Southern California Bight, these are fundamental observations for tempering expectations of realistic water quality outcomes expected from upgrades.

The SWRCB specifies with regard to the priority of this project, that it is due to “the severity of impacts to marine life and habitat from anthropogenic nutrients, the need for a consistent objective to quantify or qualify ocean acidification, oxygen and/or toxic algae, and the high likelihood of substantial improvements to marine life through the program of implementation.”

This contention is not as certain as it is posited. We can support this statement if the term “anthropogenic” is removed, given the aforementioned predominant contribution of nutrients from upwelling versus municipal wastewater outfalls, in addition to removing the qualifiers “high” and “substantial” from the Staff Report’s phrase “the high likelihood of substantial improvements to marine life through the program of implementation,” in light of the comparatively smaller anthropogenic contribution from treatment plants. The Regional Oceanic Modeling System-Biogeochemical Elemental Cycling (ROMS-BEC) modeling around this contention is being further developed by the Southern California Coastal Waters Research Project (SCCWRP) in collaboration with its members and in line with [the report recommendation from the National Water Research Institute \(NRWI\) independent expert science panel](#) (Expert Panel) to “exercise caution when using the ROMS-BEC model to pinpoint exactly how and where discharges have affected the marine ecosystem.”

The Expert Panel also provided recommendations for additional model analyses to address more detailed regulatory questions, and since 2025, CASA’s members have committed nearly \$1,500,000 in funding to SCCWRP to perform and implement the Expert Panel’s highest priority recommendations for the ROMS-BEC model to better disentangle predicted impacts to the environment from upwelling and anthropogenic inputs. The Expert Panel recommended “several avenues for advancing the modeling system and the program of experiments and analysis that are conducted with it, including quantifying the impact of historical and projected trends to more rigorously separate human-caused impacts from large-scale uncontrollable or natural variability of the marine environment,” and CASA’s members have stepped up to support SCCWRP’s incorporation of the Expert Panel’s directions for increasing certainty in model output.

Moreover, CASA’s members have extensive, longstanding ocean monitoring programs that consistently document healthy and diverse ecosystems and ocean waters within water quality objectives specified by the California Ocean Plan. Previously predicted OAH “hot-spots” are not located anywhere near municipal wastewater discharge points and are nearly 50 miles offshore. Moreover, the presence of these predicted “hot spots” has not been confirmed with observational data and correlated with biological data for the species that are present in this area. As the research team has acknowledged, significantly more work is needed to understand how nutrients from discharges are transported through ocean currents and impact OAH conditions, and CASA is supportive of all these efforts to arrive at answers in an appropriate timeframe.

We also note [the SWRCB's announcement earlier this year regarding the assessment of OAH in the 2030 Integrated Report](#). Under the Clean Water Act (CWA), the 303(d) impaired waters list triggers the development of a total maximum daily load (TMDL) for point source dischargers and the establishment of Load and Wasteload Allocations. This TMDL, or pollutant budget, dictates how much a waterbody can handle before it is impaired, and the permitting agency must somehow allocate that budget among the pollutant sources. The time, energy, and expense that would be necessary to develop TMDLs to address ocean acidification, hypoxia, or HABs would not achieve the goals of the CWA. The TMDL program relies on the ability to assign responsibility for making pollutant reductions. However, the SWRCB will be powerless to set limits on either national or international air emissions of CO₂, and even if CO₂ sources were identified within the state that were contributing to the acidification of the ocean waters of the state, the CWA does not provide regulatory tools for enforcing controls on those sources.

The cause of ocean acidification – excess atmospheric CO₂ level – is an issue of global origin. Developing TMDL pollutant budgets for local coastal waters that are being impacted by global sources will not provide the sought-after benefit to water quality, especially when considering that nutrient contributions from upwelling are over 1,400% greater than contributions from wastewater treatment plants ([See Table 3](#): 750 TN upwelling, 48 TN effluent).

Nevertheless, CASA's members for years have supported the SWRCB's ongoing work associated with potentially developing an Ocean Plan amendment once there is more certainty in the scientific modeling results – including confirmation of modeled impacts with real-world data – to justify the pursuit of a blanket approach for regulating coastal wastewater agencies' discharges to the ocean to address the impacts of ocean acidification, hypoxia, or marine HABs. We look forward to ongoing and continued collaborations on the questions of most importance for these critical issues.

6.1.7 Policy to Support the Development of Site-Specific and Permit-Specific Water Quality Objectives for Copper and Zinc

CASA's members are supportive of this project to establish a new water quality control policy to support the development of site-specific and permit-specific water quality objectives for copper and zinc in low salinity waters of California using the Biotic Ligand Model. This policy update is needed to facilitate resolving zinc and copper metals compliance issues, where the options are limited for updating antiquated metals criteria in various Basin Plans for the protection of freshwater aquatic life. For example, the Basin Plan objectives for the Sacramento River watershed North of Highway 32 pre-date the existing California Toxics Rule (CTR) criteria and do not incorporate a Water Effects Ratio, so dischargers receive different permit requirements because of out-of-date Basin Plans that need to be amended. Once this project is completed, the policy would be available for use by RWQCBs as a streamlined regulatory option, which we support.

6.1.8 Recycled Water Policy: Revise the Recycled Water Goals and Constituents of Emerging Concern Monitoring Requirements

CASA members are supportive of both these projects to set realistic and achievable water recycling goals and revising monitoring requirements for Constituents of Emerging Concern (CECs), and we offer our partnership and support to the SWRCB on these projects. As SWRCB staff work to revise the Recycled Water Policy to update recycled water goals and CEC monitoring requirements, we ask that any changes be developed through comprehensive stakeholder engagement to ensure the best outcome for all interested parties.

With years of data and experience from the SWRCB's annual Volumetric Annual Report, which is collected with a ~95% response rate from dischargers across the state, the SWRCB's Recycled Water team have shared analyses in Informational Items to the SWRCB highlighting very distinct wet and dry year trends in volumes of wastewater flows. For each wet and dry years respectively, influent and effluent are declining year over year, as a consequence of the implementation of water conservation measures and due to the drier, hotter trends impacting California's climate. When forecasting prospective potential for water recycling, we recommend the team use observations of flow changes since the 2018 Recycled Water Policy.

It is critical for revised recycled water goals to take into account water conservation-driven declines in available source water. Additionally, we recommend utilizing an assumption of a static population, so the Policy does not assume growth and overestimate the amount of water prospectively available, resulting in a target that is not realizable. This was not a methodological decision in the WRF 4962 research of the amount of water in California that feasibly could be recycled, and the assumption ultimately limited the reliability of the analysis, as it assumed flows would increase over time even with indoor conservation.

We also ask that, when recycled water goals are updated based on recent volumetric data, recycled water used for environmental purposes be included. Recycled water has real value beyond serving as a substitute for potable water. Accordingly, we recommend the SWRCB collect data on non-Title 22 applications for agricultural reuse and environmental flows (i.e. in-stream environmental uses).

Finally, we support convening the Direct Potable Reuse expert panel to provide support for the development of CEC monitoring requirements, and we recommend keeping the focus on public health for Title 22 water. Toward this end, we support collaboration with WaterReuse California to launch a workgroup to dive into policy, make firm industry recommendations, and accurately represent the data and planned recycled water projects. CASA agrees there is a continued need to incentivize projects and reduce barriers to their implementation, while still protecting water quality and public health. We encourage the SWRCB to work on harmonizing and developing the CEC program by grounding it in a science-based risk evaluation, with applicability decided on a project-by-project basis.

Projects for Future Consideration

6.2.1 Antidegradation Policy

CASA recommends updating the Antidegradation Policy through a formal process, especially in light of the recently adopted Dairy Order (WQ 2026-0028) amendments and last-minute revisions incorporating precedential guidance for all RWQCBs around the interpretation and application of the Antidegradation Policy. This policy affects dischargers statewide, and any actions formalizing its interpretation warrant broad stakeholder participation through a formal process. We support the SWRCB's stated direction in the Staff Report that it will add guidance to the policy itself for determining whether a discharge or potential discharge to a high quality water is subject to the best practicable treatment or control to assure pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.

6.2.3 Compliance Schedule Policy

Consistent with our initial remark about the importance of additional time, we support the SWRCB amending the Compliance Schedule Policy to allow for more time to comply with new limitations or new interpretations of limits in appropriate circumstances. We think this policy change will be the key modification that will ensure successful programs of implementation for other substantive policies and

plans that are expected to result in large capital projects for permittees to achieve compliance. The Region 2 San Francisco RWQCB and wastewater agencies subject to the Third Nutrient Watershed Permit (Order R2-2024-0013) are actively developing Basin Plan Amendment language for their compliance schedule to accommodate agencies' need for longer than 10-years to deliver the wastewater treatment plant upgrades envisioned under the permit. Implementing a statewide policy amendment will provide critical certainty for permittees in other regions of the state that they can have the time needed to achieve their compliance milestones and fulfill their permit requirements without being subjected to formal enforcement orders.

We also recommend the Compliance Schedule Policy allow the renewal of variances, which currently are limited by the length of a compliance schedule (i.e., 10 years). In other states, Compliance Schedules can be renewed so you would have interim steps to reach compliance through the variance, and so we recommend the SWRCB exploring adding this feature by including variances in the list of exceptions to the 10-year limit, i.e., the end of the policy's Grandfather Clause in ¶ 3.

Finally, we note the relationship between compliance schedules and implementation plans. Under the Water Code, all water quality objectives are supposed to have an implementation plan, which includes a time schedule for when compliance will be achieved as waters do not generally comply on the first day unless the standard is set at a level reflective of current conditions. If the implementation plan assumes it will take 20 years to attain, then a 10-year compliance schedule is not always going to be long enough. We recommend that the SWRCB and RWQCBs routinely include such implementation schedules and then allow compliance up to the same timeline instead of using an arbitrary 10 years. Again, this type of approach can reassure permittees that they can have the time needed to comply without being subjected to formal enforcement action, which otherwise may be the only available mechanism to provide the time needed to complete complex projects.

6.2.8 Impaired Waters Policy

CASA members support the SWRCB's two proposed projects for the Impaired Waters Policy. Adding a description of how a TMDL and its regulatory requirements apply after a waterbody is delisted from the Clean Water Act section 303(d) list is an important update given that agencies' efforts are resulting in improved water quality, as is adding a description of the process for amending or rescinding a TMDL.

As a broad comment, impairment listings under the Listing Policy are intentionally designed with a positive bias, meaning potential impairments are included even when the underlying data are limited, so that RWQCBs can further confirm or evaluate them. While this approach is reasonable as a screening tool, it also means that many listings carry significant uncertainty at the point they are made. In practice, these listings often become a low priority for regulators given the large and growing number of impairments relative to available monitoring and staff resources. At the same time, they carry real administrative and cost implications for regulated entities, which must account for impairment listings in their implementation, compliance planning, and monitoring, regardless of how well-confirmed the underlying impairment is.

While the Impaired Waters Policy provides useful tools for RWQCBs to implement TMDLs in a pragmatic way, the framework needs to evolve to reflect the changing nature of the impairments being identified. Many current and emerging impairments involve low-concentration, episodic, or diffuse sources that do not fit the traditional TMDL model of a single large, controllable discharger. In some cases, the primary contributors are parties not directly regulated under the Clean Water Act, and RWQCBs and the SWRCB lack effective authority to regulate those sources directly. This includes constituents such as pesticides, CECs, microplastics, and PFAS, many of which enter waters of the state through diffuse or unregulated pathways rather than permitted discharges. Addressing these gaps may ultimately require legislative action,

but in the interim, we recommend that the SWRCB acknowledge these limitations in TMDLs and alternative program development, and to structure implementation approaches so that regulated entities who are not meaningfully contributing to an impairment are not required to expend significant resources for negligible water quality benefit.

Finally, we recommend looking to Oregon and updating the policy to include a “5-C” designation for impairments related to climate change, similar to the SWRCB’s “5-Bio” designation for benthic communities in the SWRCB’s 2024 final staff report, which observed, “A TMDL for degraded biological populations and communities is not appropriate because TMDLs are intended for pollutants.”

Oregon’s [2024 Oregon Integrated Report](#) included 5-C for OAH, which acknowledges our overarching concern with pursuing a TMDL given that changing climate is the primary driver of certain types of water quality issues:

“The challenge of addressing climate change related impairments demands a strategic approach and will require additional tools and resources to accompany the suite of Clean Water Act management and implementation tools traditionally used to restore impaired waters. For this reason, DEQ will use Sub-Category 5C to identify climate change related waterbody impairments on the 303(d) list, while also recognizing a broader approach than the traditional TMDL and restrictions on permitted discharges may be needed to find effective solutions.” (p. 72)

In the light of this recognition about the limitations of addressing impairments driven by climate change through the Clean Water Act, we respectfully recommend for this project that California also include updates to the Categories of impairments.

6.2.10 ISWEBE Plan

The ISWEBE Plan entails a comprehensive approach for regulating inland wastewater agencies to improve surface water quality and protect beneficial uses. We provide specific input on a few of items below.

A. Add or revise water quality objectives for human health and aquatic life to be consistent with new or revised 304(a) recommended criteria. See Section 7 for an initial prioritization of parameters potentially impacting human health and aquatic life.

We comment more below regarding 304(a) criteria and incorporate by reference others’ comments encapsulating our reservations with this new proposed approach. We recommend that the SWRCB not try to implement automatic incorporation.

B. Add a human waste parameter, such as the human DNA marker HF183, to the bacteria water quality objectives for the protection of water contact recreation.

CASA supports the proposed addition of HF183 to the ISWEBE Bacteria Objectives only as either a screening method for evaluating human health risk or as a voluntary source-tracking tool in an agency’s permit compliance toolkit. We do not support at this time using HF183 directly as a water quality objective. We understand the value of human markers such as HF183 in identifying potential human sources of contamination. However, HF183 does not indicate an actual pathogenic risk, and any water quality standard should be based on confirmed risk to human health rather than the presence of the marker alone. HF183 cannot distinguish between live organisms and dead cells or genetic fragments, and it can be detected in

recycled water even in the absence of any actual health risk. For this reason, we recommend HF183 should be re-named as a “human health risk parameter” rather than a “human waste parameter.” What is needed is a predictor of human health risk, not simply an indicator of human sewage presence, and we support moving toward that kind of risk-based indicator.

E. Develop laboratory test methods and alpha values for aquatic toxicity test species to expand the number of species for which the test of significant toxicity could be applied, then amend the Aquatic Toxicity Provisions’ Table 1: Toxicity Test Methods, Regulatory Management Decision, β Error, and α Error. This project applies to the Toxicity Provisions that are both a state water quality control plan and a state policy for water quality control.

While we refrain from remarking about this proposed change to the Toxicity Provisions, we do recommend that the SWRCB conduct another inter-calibration study for *c. dubia* to assess how ELAP-accredited California labs' performance has changed since [the 2023 final report from the *c. dubia* study](#). Only 1 lab in the Cerio Study (2023) achieved a Coefficient of Variation (CV) of 0.15, compared to when the Toxicity Provisions were adopted a few years before and 8 labs in the state had achieved that metric. Evaluating how the Cerio Study resulted in changed lab practices and improved performance is a critical investment and pursuit, as commercial labs are essential partners servicing all but two wastewater agencies in the state.

Tangentially, but specifically, we reiterate our request on the 2024 survey that the SWRCB remove restrictions on the use of replacement tests for routine compliance monitoring in the month when testing is performed from the Toxicity Provisions Section III.C.4.d. This high-priority change affects the use of public funds and will reduce confusion and uncertainty from duplicate tests. The Provisions allow a replacement toxicity test if the required test cannot be completed. For POTWs testing monthly, this makeup test can occur in the next monthly monitoring period when another routine test is required. The Provisions prevent this makeup test from being used as a routine test. The same effluent sample(s) may need to be used for duplicate testing. It adds costs to repeat tests on the same sample(s) at the same time. Instead, it would be a more efficient use of public funds, and technically justified, if a replacement test conducted in the next calendar month can be used as the routine monitoring test result for the month in which the samples are collected.

6.2.11 Listing Policy

CASA supports the SWRCB updating your listing and delisting factors and facilitating a more efficient methodology for developing an accurate and useful Clean Water Act section 303(d) list of impaired waters.

In its pursuit of greater efficiency, we note that over the last half-decade, the SWRCB already has introduced structural efficiencies by taking over the preliminary development of the list from the RWQCBs who previously devised the first cut for local prioritization and then sent it to the SWRCB. CASA has commented in the past about the elimination of the RWQCBs from the early-stage process; however, we also recognize the strong efforts from the SWRCB to still engage and incorporate RWQCB input. We encourage the SWRCB to not compromise on critical RWQCB consultation in pursuing an even more efficient methodology.

Toward that end, we respectfully recommend the SWRCB include additional amendments to the Listing Policy. Particularly, we recommend the SWRCB amend the policy to eliminate the exemption of a Quality Assurance Project Plan (QAPP) for data collected and assessed under the Listing Policy (See 6.1.4, pp. 20-21). QAPPs are critical for ensuring data quality and provide a uniform standard for producing data of known quality for specific water quality assessment purposes.

Additionally, the last update to the Listing Policy since 2005 was the updated definition of readily accessible data, which has changed since then– the official database in the definition is CEDEN but the R4 RWQCB used CIWQS for the most recent cycle, and CEDEN 2.0 has been released, so this should be standardized and uniform for the state.

Finally, many standards for specific constituents need revision. While the Listing Policy itself may not be the best vehicle to address these underlying numeric standards, we identify the concern here for the SWRCB to consider if such a broader standards-related update project should be pursued at the state level or whether the SWRCB can provide direction to the RWQCBs to contemplate such projects through their respective Triennial Reviews.

6.2.13 Ocean Plan

J. Develop a water quality objective and program of implementation to address microplastic and microfiber pollution.

We recommend the SWRCB revise this priority and review the prospective efficacy of establishing an Ocean Plan water quality objective and program of implementation for microplastic and microfiber pollution. The [OPC, SCCWRP, and CASA embarked on a five-year study](#) to evaluate wastewater treatment removal efficiency in the first half of this decade. The findings demonstrated that relative to influent concentrations, wastewater treatment plants remove 95.3, 99.1, and 99.9% of microplastics with primary, secondary, and tertiary treatment processes, respectively, findings that are supported in the wider literature. Moreover, ~70-80% of the plastics identified in marine waters derive from macroplastics like litter², underscoring the critical value of existing and ongoing efforts to reduce trash in California’s water, instead of imposing costly end-of-pipe control measures to eliminate the tiny fraction of microplastics that are not removed from primary and secondary treatment processes, which is discussed more below. This recognition of the predominance of Secondary Microplastics is critical for appropriately identifying relative source contributions and understanding different outcomes for the various regulatory interventions a water quality objective would trigger.

Further, we know from the SWRCB’s statewide investigative order of PFAS that 70% of wastewater treatment facilities above 1 MGD receive less than 5% industrial flow and that 80% of facilities receive less than 10% industrial flow. It can be uncontroversially assumed that the vast majority of loadings of microplastics reaching local wastewater treatment facilities are from residential and commercial pathways, not industrial ones. Accordingly, consumer behavior around residential and commercial uses are the most effective intervention pathways, and we support the Ocean Protection Council’s (OPC) all-of-the-above approach in their recent report to the legislature with regard to “product and material regulations,” “economic strategies,” and “product alternatives,” as that will have the greatest benefit from preventing pollution from ever entering the environment in the first place.

One clear example of this in practice is CASA’s 2015 legislation banning microbeads, which was followed a short time later by the passage of federal legislation effectuating the same policies nationwide. This new law was not in effect during the sampling for the 2018 SFEI study but was for the 2024 SCCWRP study, which observed significantly less microbeads from across the wastewater samples collected and analyzed. Likewise, we would expect a similar outcome for legislation around the dryer filter finding from San Francisco Estuary Institute’s forthcoming research. There, preliminary findings show that dryer emissions are a major source of microfibers to the marine environment, and all commercially available secondary

² <https://www.europarl.europa.eu/topics/en/article/20181116STO19217/microplastics-sources-effects-and-eu-solutions>

dryer filters that were tested significantly reduced microplastic emissions, providing critical data to inform industry standards and potential policy interventions aimed at reducing microfiber emissions at the source.

Beyond the essential importance of product stewardship for the issue of microplastic pollution, all treatment facilities in California, with exception of two plants, utilize secondary treatment at a minimum, so wastewater treatment as an intervention pathway already is successful. Adopting water quality objectives in the Ocean Plan to drive wastewater treatment plant upgrades should be avoided, as it cannot provide a commensurate reduction in microplastics being discharged compared to the costs for wastewater agencies to move from secondary to tertiary treatment.

Moreover, not only are wastewater treatment plants incredibly effective for removing microplastics with traditional treatment, but contributions of microplastics from wastewater discharges compared to other pathways – like aerial deposition and stormwater – are immensely lower. The groundbreaking 2019 San Francisco Estuary Institute (SFEI) study found that wastewater loadings to the marine environment comprised only 0.03% of the overall contributions of microplastics, with the study observing *“a plastic polymer that is 1% of the stormwater microplastic load would be three to five times greater than the entire wastewater microplastic load”* (p. 72/402). This led the SFEI study to conclude that for the wastewater sector, facility upgrades are not the solution, but rather pollution prevention is the key: *“It is likely far more cost-effective to prevent pollution in the first place (e.g., bans on sources of microplastic pollution, such as microbeads) or to control it directly at the point of entry (e.g., providing filters for washing machines)”* (p. 115/402). These aspects of relative volumes of microplastics in wastewater also should have implications for any future monitoring contemplated so local resources are prioritized.

6.2.20 Supplemental Environmental Projects Policy

CASA appreciates the SWRCB’s elevating future work to update the Supplemental Environmental Projects (SEP) Policy. We support making improvements to project tracking and reporting in accordance with the existing policy, and we especially support amending the policy to extend the period for completion of projects from 36 months to 60 months based on the contemporary realities of completing project delivery processes like CEQA and obtaining permits, which often alone extends beyond 12 months for complex projects. This longer time frame will enable the identification and direction of settlement funds to more meaningful water quality projects, while minimizing the administrative burden of requesting, reviewing, and granting a project extension. Having this additional time in many instances is essential.

Likewise, during the last Policy update, there were several stipulations added of restricted project types (i.e., IV. Projects Not Acceptable as SEPs), for which loosening some of these would create more flexibility for agencies to ensure monies are directed to the highest priority projects related to the issue for which the SEP is being developed. Specifically, the SEP Policy stipulates that an eligible project cannot be required by another regulatory permit, which is overly restrictive and should be reconsidered in light of affordability challenges facing local public agencies to deliver local projects that improve water quality. Similarly, we would request flexibility in the amount of the penalty that can go to the SEP, based on the merit of project, instead of an automatic 50% cap. In these instances, SEPs allow local agencies to commit ratepayer funds to local projects to improve operations and performance and will allow for consideration of more significant water quality improvement projects than would otherwise be feasible.

Finally, we support amending the SEP Policy to allow for the use of SEP funds for regional studies and regional monitoring programs too, like the SWRCB recently approved for the R8 Santa Ana RWQCB in collaboration with SCCWRP, and in other instances with other RWQCBs. Having this option uniformly on the menu statewide will provide another pathway to address water quality management questions, while

also providing consistency among regions and not imposing an administrative burden of seeking separate SWRCB authorization each time.

6.2.23 Water Reclamation Policy

We support the SWRCB's rescinding the Water Reclamation Policy in consideration of its duplicative overlap with the 2018 Recycled Water Policy.

7. Review of 304(a) Recommended Criteria

CASA understands the SWRCB is required to consider the 304(a) recommended criteria as part of this proceeding. While generally beyond CASA's technical reach, our partners have shared directly about the consequential implications with this proposal. We agree with their concerns and incorporate by reference the comments from CVCWA and CASQA pertaining to: use of non-detect data to initiate additional review, naturally occurring background concentrations, misalignment with other regulatory program, only more-stringent criteria being evaluated, prioritization of parameters based on resulting additional 303(d) listings or the presence of the constituent in wastewater effluent where receiving water data was not available, and, *increases* in water quality not being considered. The RWQCBs will be key partners in this effort as they are updating Basin Plans, and we encourage a more frequent stakeholder process to efficiently work through the review of the 304(a) Recommended Criteria together.

Conclusion

In closing, we reiterate our appreciation of the SWRCB staff for developing the Staff Report. We would appreciate learning about the 2024 survey results as this matter moves ahead, and we again highlight the importance of overlaying the impacts of temperature, the need for time, and leaning into trust by collaborating together across the various Policy updates. We look forward to working with the SWRCB on these important Policy projects. If there are any questions about our comments, please contact me at (916) 446-0388 or jvoskuhl@casaweb.org.

Thank you,

A handwritten signature in grey ink, appearing to read "J Voskuhl", is positioned above the printed name.

Jared Voskuhl
Director of Regulatory Affairs