BACWA
BAY AREA
CLEAN WATER
AGENCIES

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VIA EMAIL: christina.toms@waterboards.ca.gov

Subject: Comments on the Review of Resolution 94-086

Dear Ms. Toms:

The Bay Area Clean Water Agencies (BACWA) appreciates the opportunity to comment on the Review of Resolution 94-086, Policy on the use of treated wastewater to create, restore, and enhance wetlands (Wetlands Policy). BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay (SF Bay) Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health. BACWA members have an opportunity to play a key role in improving habitat, water quality, and sea level rise resilience through implementation of wetlands projects around SF Bay. BACWA supports the Regional Water Quality Control Board's (Regional Water Board) effort to revise the Wetlands Policy, and appreciates that Regional Water Board's outreach to stakeholders early in this process. Several BACWA members and staff attended the Regional Water Board's August 14, 2018 workshop on the Wetlands Policy and developed this comment letter to respond to some of the issues raised at that event.

The Wetlands Policy explicitly states in the Preamble that its intent is "*not to encourage or discourage the use of wastewater to create, restore, and/or enhance wetlands.*" BACWA recommends that the Policy be amended to encourage development of wetlands. As the Regional Water Board is aware, wetlands sustained by treated wastewater have many benefits, such as:

- Freshwater/brackish wetlands support more diverse habitat than saltwater wetlands
- Wetlands can improve water quality by removing nutrients, metals, and CECs, with lower energy and chemical demands than conventional treatment
- Wetlands can be a tool to mitigate the impacts of sea level rise by increasing shoreline resiliency
- Wetlands may improve the capacity of native wildlife species to sustain longer and more severe droughts within a changing climate

Information on some of these benefits was compiled by SFEP in their July 2018 White Paper "Treatment Wetlands and Sea Level Rise: Ensuring the San Francisco Bay Water Board's Wetland Protection Policies are Climate Change Ready," which was posted on the Regional Water Board's website prior to the August 2018 Workshop.

Wetlands projects require significant investment by public agencies in terms of land acquisition and ongoing maintenance and management, among other costs, in a time when public agency resources are increasingly stretched dealing with aging infrastructure and other challenges. Therefore, in order to maximize the public benefits listed above, the Wetlands Policy will need to incentivize the development of these projects.

Specific recommendations on how to update the Wetlands Policy to encourage wetlands projects are described herein.

1. **The Wetlands Policy should provide guidance on how to feasibly obtain a shallow discharge prohibition exception**

A POTW seeking to discharge effluent from a constructed wetland to the Bay margins must obtain a shallow discharge prohibition exception. The Basin Plan prohibition exceptions available to such projects are one of the following:

- "An inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means, such as an alternative discharge site, a higher level of treatment, and/or improved treatment reliability" (Equivalent Protection)
- "It can be demonstrated that net environmental benefits will be derived as a result of the discharge" (Net Environmental Benefit)

In practice, POTWs have struggled to obtain a Net Environmental Benefit exception since ongoing monitoring of new habitat created to prove its sustained function is required. Instead, POTWs have been allowed to discharge to shallow waters via the Equivalent Protection exception. Clarifying how wetlands projects may quality for Equivalent Protection would help agencies plan and execute these projects.

At the August 14 Workshop, presenters discussed the difficulty in tracking the performance of constructed wetlands, particularly subsurface wetlands, in removing pollutants prior to discharge to Waters of the U.S. POTW planners are concerned that in order to be granted a shallow discharge prohibition exception through Equivalent Protection for a constructed wetlands project, they would be required to do a treatment plant upgrade to achieve advanced treatment. This is a strong disincentive to developing such a project and devalues the potential treatment benefits that wetlands provide.

BACWA recommends that the Wetlands Policy provide guidance regarding the Equivalent Protection exception to recognize that effluent reliability and quality has improved over the decades since the original Wetlands Policy was written, and that POTWs may be able to meet

water quality objectives at the end of pipe, even absent additional treatment. Where specific constituents of concern are identified, wetlands may be designed to remove these constituent prior to discharge to Waters of the U.S. A Management Plan would target the prevention of conditions leading to short circuiting, clogging, or other potential problems that would reduce treatment effectiveness.

In individual permits, a finding of Equivalent Protection would incorporate effluent quality data, reference to a site-specific Management Plan, results of data from a pilot project or similar wetland project, and receiving water assimilative capacity.

2. Sea Level Rise protection should be recognized as grounds for a shallow discharge prohibition exception

One of the key drivers of new wetlands projects has been the recognition of their value for mitigating the impacts of rising seas. Many wastewater treatment plants are located in low lying areas and are at risk from flooding under different climate change scenarios[1]. Several of our member agencies are exploring the possibility of beneficially reusing their effluent to mitigate this vulnerability, often through horizontal levees. The Wetlands Policy, written almost 25 years ago, does not recognize this benefit. There are a few ways that the Wetlands Policy could be revised to enable wetlands projects designed for protecting shorelines.

BACWA's preferred approach would be for the Regional Water Board to develop a Basin Plan Amendment to recognize shoreline resiliency as a new shallow discharge prohibition exception. This aligns well with the 2018 Triennial Review's top-ranked project *Climate Change and Wetland Policy Update.* The project description states that: "Other phases of this project could explore other potential changes to the Basin Plan to address other program needs or additional policy development to advance use of natural infrastructure and living shoreline solutions as shoreline adaptation solutions."

If the Regional Water Board does not adopt a Basin Plan Amendment to recognize a new shallow discharge prohibition exception for shoreline resiliency projects, then the Wetlands Policy could provide an expanded definition of the Net Environmental Benefit exception to include shoreline resiliency.

3. Treatment credit for specific constituents can incentivize agencies to develop wetlands projects

To encourage wetlands projects, BACWA recommends that the Wetlands Policy recognize that for some constituents, a constructed wetland may obviate the need for some parts of the

[1] See BACWA's Sea Level Rise Projections, pg. 69 of Nutrient Reduction Study - Potential Nutrient Reduction by Treatment Optimization, Sidestream Treatment, Treatment Upgrades, and Other Means, available at: https://bacwa.org/wp-content/uploads/2018/06/BACWA_Final_Nutrient_Reduction_Report.pdf

treatment train. For example, chlorine residual will be removed after treatment through a wetland with sufficient retention time, as it will quickly react with the organic matter in the wetland. It is a waste of the dechlorinating agent, sodium bisulfite, to dose it into effluent prior to wetlands treatment where its only impact is to consume oxygen and increase POTWs' chemical costs.

Similarly, nutrient reduction is likely to be a driver for implementing wetlands projects in the future. Where land is available, wetland treatment is significantly more cost-effective for reducing nutrients than traditional grey-scape technologies, and provides additional benefits as outlined above.[2] In order to incentivize use of wetlands for nutrient removal, credit for nutrient reduction through the wetlands will need to be recognized, and can be established building on pilot and existing project data.

4. Consideration of how mixing zones are established for discharges to wetlands should be a part of the Wetlands Policy Review

Several of our members have expressed that they are reluctant to proceed with a wetland project without clarity on how mixing zones will apply to their discharge in the future. They are concerned that their mixing zones, and therefore permit effluent limits, may change with each permit cycle, making long term management decisions problematic. To give project proponents the regulatory certainty they need to proceed with their projects, BACWA requests that as the review of the Wetlands Policy moves forward, standardizing how mixing zones apply to these projects be a part of the discussion.

5. The Boundary between treatment wetlands and Waters of the U.S. should be site-specific

At the August 14 Workshop, presenters noted that a key consideration in the Wetlands Policy review is where the boundary is established between a wetland that is considered part of the treatment train of a POTW, and a wetland that is part of Waters of the U.S. In most cases, it is most advantageous to POTWs developing wetlands projects to have the boundary be as far downstream as possible, since any area upstream of that boundary may be eligible for treatment credits, as described above, and would avoid interagency permitting issues. However, in some cases, having part of a wetland be included as Waters of the U.S. could make a project permittable if the wetland was included in the receiving water mixing zone along with open waters. Receiving waters that are wetlands may have more assimilative capacity than open waters for some constituents, which would be reflected in the mixing zones used to establish permit limits. This issue illustrates the importance of using real life case studies when updating the Wetlands Policy.

[2] TREATMENT WETLANDS FOR NUTRIENT REMOVAL FROM BAY AREA WASTEWATER FACILITIES
http://sfbaynutrients.sfei.org/sites/default/files/2017_treatment_wetlands_opportunities_screening_report.pdf

6. **The Regional Water Board should continue to work with the Resources Agencies and other Governmental Entities to streamline shoreline project permitting**

Several of our members have identified permit acquisition from multiple agencies as a barrier to executing wetlands projects. The permitting process and associated expense is also problematic for ongoing management and maintenance of wetland sites. BACWA is following the development of the Bay Restoration Regulatory Integration Team (BRRIT), formed to respond to projects that are funded under Measure AA, with interest and hope that it will be effective at identifying solutions to permitting constraints. BACWA would be pleased to provide information to BRRIT about specific projects that are on the horizon as the effort moves forward beginning in 2019.

BACWA is interested in continued collaboration with the Regional Water Board to find permitting solutions to encourage wetlands projects. We have identified specific case studies of projects being considered by our members and will continue to provide more information to the Regional Water Board as it becomes available.

BACWA appreciates the opportunity to comment on the review of Resolution 94-086 and thanks you for considering our input.

Respectfully Submitted,

David R. Williams

David R. Williams
Executive Director
Bay Area Clean Water Agencies

cc: BACWA Executive Board