

STAFF REPORT

2018 Triennial Review of the Water Quality Control Plan for the Lahontan Region

California Regional Water Quality Control Board Lahontan Region

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Introduction

The California Regional Water Quality Control Board, Lahontan Region (Water Board) is the state agency with primary responsibility for setting and implementing water quality standards in the part of California located east of the Sierra Nevada crest, from the Oregon border into the northern Mojave Desert (Figure 1). This part of California is roughly 24 percent of the state. Water quality standards and control measures are contained in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The current Basin Plan took effect in 1995, replacing three earlier plans. Sixteen sets of amendments to the 1995 Basin Plan have received all necessary approvals. The Basin Plan is available on the Water Board's Internet web page at: http://www.waterboards.ca.gov/lahontan.

State and federal laws require periodic review of Basin Plans; the federal process is called "Triennial Review." Due to resource limitations and the complexity of California's Basin Plan amendment process, Triennial Review in California is generally limited to identifying high-priority basin planning projects to be addressed over the three years between Triennial Review events. Examples of such projects include, but are not limited to, developing new or revising existing water quality objectives; evaluating, adding, or removing beneficial use designations for specific surface water bodies and/or ground water basins; and developing new or revising existing control measures, such as waste discharge prohibitions.

The Water Board's Triennial Review process produces a prioritized list of basin planning projects but does not include a description of the method or the strategy staff will take in completing the priority projects. The prioritized Triennial Review List serves as the three-year work plan for the Water Board's Basin Planning Program. The Water Board's current Triennial Review List was adopted in November 2015, following a September 17, 2015 public workshop, and has been used to allocate resources towards accomplishing the priority projects on the list. Triennial Review is not a regulatory action and does not require environmental analysis under the California Environmental Quality Act.

This staff report provides information on the Triennial Review process and on basin planning projects recommended by Water Board staff. Additional projects may be identified at the November 2018 public hearing. Staff will make final recommendations regarding basin planning projects at the November 2018 public hearing. The Water Board will consider staff's proposed 2018 Triennial Review List and could adopt the list as proposed or with modifications, or request staff to revise the list and return at a later Board meeting. Upon adoption, the 2018 Triennial Review List will identify its highpriority basin planning work for the following three years (2019 - 2021) and will also identify future basin planning projects to be addressed as future resources allow. Basin Plan amendments, whether or not they are identified in the adopted 2018 Triennial Review List, are required to proceed through a separate development and evaluation process, including future public hearings and opportunities for the public and others to provide comments. Additionally, the Executive Officer or the Water Board has the ability to change priorities during the Triennial Review cycle (2019 - 2021).

Water Quality Standards

Under the Clean Water Act, water quality standards include designated uses, water quality criteria, and an antidegradation policy. The *Porter-Cologne Water Quality Control Act* (Porter-Cologne) modifies the federal language to refer to designated uses as *beneficial uses* and water quality criteria as *water quality objectives*, which includes the State Water Board's antidegradation policy (Resolution 68-16). Porter-Cologne authorizes the Water Board to establish a *program of implementation* for water quality protection in California. A program of implementation includes actions necessary to achieve objectives, a time schedule for the actions to be taken, and monitoring to determine compliance with water quality objectives and protection of beneficial uses of water. Changes to water quality standards (beneficial uses and water quality objectives) require a Basin Plan amendment.

Water quality standards (beneficial uses and water quality objectives) are set forth in Basin Plan Chapters 2, 3, and 5 and can be viewed at:

(http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/reference s.shtml).

The Basin Plan's beneficial use tables (Tables 2-1 and 2-2) include both existing and potential beneficial uses.

Triennial Review Process and Public Participation

The Water Board's 2018 Triennial Review Process involves:

- Publicly noticing two Triennial Review workshops held in July 2018 and September 2018 through the Water Board's electronic mailing lists for: Basin Planning – Regionwide, Triennial Review, Board Meetings, Climate Change, and TMDLs – 303(d) List, and notified recipients that future correspondence would be delivered to the Triennial Review electronic mailing list.
- Publishing the hearing notice, brief list of potential projects, 2015 Triennial Review List status update, and draft staff report on the Water Board's webpage.
- Providing a public review period for draft Triennial Review Lists, and solicitation for additional 2018 Triennial Review projects and written comments.
- Publishing the hearing notice for the November 2018 public hearing where the Water Board will consider adopting the 2018 Triennial Review List.

- Preparing written responses to public comments. All written comments and responses will be provided to the Water Board before the November 2018 public hearing.
- Receiving public comment at the July 2018 and September 2018 public workshops, and the November 2018 public hearing.
- The Water Board's consideration of a resolution establishing its 2018 Triennial Review List and identifying the priority basin planning projects to be addressed by staff during the 2019 2021 Triennial Review period.
- Submitting the adopted 2018 Triennial Review List to the State Water Resources Control Board (State Water Board) and U.S. Environmental Protection Agency.

The Nature of Triennial Review Projects

All Triennial Review projects involve either actual changes to Basin Plan water quality standards (beneficial uses, beneficial use designations, water quality objectives, control measures), or evaluating and determining the appropriate approach to addressing issues related to Basin Plan water quality standards. Not all Triennial Review projects result in a Basin Plan amendment, but all Triennial Review projects involve Basin Plan elements. Generally, Triennial Review projects can be placed into one of two categories:

- 1. Basin Plan amendments
- 2. Research, analysis, and/or assessment for determining if a Basin Plan amendment is appropriate.

An example of a proposed 2018 Triennial Review project in the first category is the Basin Plan amendment revising Mojave River Surface Water Beneficial Uses. The research and analysis have already been completed and support preparing and presenting a Basin Plan amendment to the Water Board for considering its adoption. If adopted, the project will also include pursuing State Water Board approval, and subsequently, U.S. Environmental Protection Agency approval. It is important to remember that the actual Basin Plan amendment is the final action or step following extensive research, analysis, and other activities. These activities that lead up to and support a Basin Plan amendment are typically conducted by Water Board staff that are involved with the regulatory programs whose issues will be addressed by the Basin Plan amendment.

An example of a proposed 2018 Triennial Review project in the second category is the Climate Change Adaptation and Mitigation Strategy (Strategy) project. Water Board staff continues to develop its proposed Strategy for the Lahontan Region. The Water Board is scheduled to consider the proposed Strategy for adoption in early 2019. The Strategy will have several recommended actions, some of which may be implemented

through regulatory/permitting actions and others that may require basin planning actions. For example, requiring certain dischargers to conduct infrastructure risk assessments can be done through regulatory/permitting actions such as amending existing permits and monitoring programs. An example of expanding waste discharge prohibitions for floodplain protection beyond Lake Tahoe and the Truckee River would require a Basin Plan amendment; once the prohibitions are part of the Basin Plan, the new prohibitions could then be used in regulatory/permitting actions.

Planning Considerations

Prioritization. The Clean Water Act requires the Water Board to give a generalized ranking of the projects by priority. The 2018 Triennial Review List (Table 1) provides general prioritization informed by multiple factors, including Water Board direction and/or key priority (e.g., human health protection, environmental health protection/improvement, climate change), State Water Board guidance, stakeholder input/support/collaboration, region-wide applicability, current staff engagement and anticipated project completion, and regulatory clarity. Additionally, Table 1 identifies specific actions related to each project that staff expects to complete in the subsequent three-year period.

Budget. The Water Board's basin planning resources are limited. The Planning and Assessment Unit, which is largely responsible for implementing the Water Board's Basin Planning, Total Maximum Daily Load (TMDL), and Surface Water Ambient Monitoring (SWAMP) Programs, includes four Environmental Scientists, a Water Resources Control Engineer, and a Scientific Aide, who are supervised by a Senior Environmental Scientist. These staff are responsible for water quality monitoring and assessment (SWAMP and Integrated Report) and addressing impaired waters for the entire Lahontan Region (TMDL program), in addition to working on basin planning projects identified and prioritized by the Triennial Review List. Meeting some of the Unit's responsibilities, including those identified in the Triennial Review List, may require contracted studies for data collection (e.g., special monitoring studies to facilitate updating water quality objectives) or predictive modeling. Additionally, the Triennial Review List includes several projects requiring research and analytical work by other Water Board staff that will eventually support either an actual Basin Plan amendment or an alternative non-basin planning action.

While the basin planning resources are limited, some of the projects may be able to progress more quickly if external entities provide resources, such as performing technical analyses and related tasks. Assistance from external entities has the potential to make significant progress on a project, but only Water Board staff can carry a Basin Plan amendment through the regulatory approval process.

Projects Needing Additional Funding. The State Water Board's guidance for the Triennial Review process asks Regional Water Boards to identify planning projects that would require additional funding to address. Therefore, the Water Board's Triennial Review List will identify basin planning and related activities targeted for progress

during the following three years (2019 - 2021), and those requiring additional funding to be addressed during this time period. The 2018 Triennial Review List (Table 1) is prioritized. Projects that do not have dedicated funds are *not* highlighted in **yellow** and are "below the line," and staff will work on them when resources become available.

Basin Plan Amendment Process. Not all projects identified in a Triennial Review List will culminate in Basin Plan amendments. The projects that do typically require significant research and analysis to support the resulting Basin Plan amendment. In many cases, the Basin Plan amendment is addressing one or more program-specific issues, and the research and analytical work is best conducted by Water Board staff working within such programs (e.g., NPDES, Storm Water, Land Disposal). Research for Basin Plan amendments can include scientific literature review and/or water quality monitoring or special studies conducted by Water Board staff or contractors. Scientific peer review is required for amendments involving scientific judgment, and the reviewer's comments may result in significant changes to preliminary draft amendments before they are released for public review. The basin planning process can require six months to more than a year to account for public input, environmental documentation, peer review, and Water Board action. An additional nine months or more can be required after Water Board action for the amendments to receive all subsequent approvals at the state and federal levels. Following Water Board adoption, amendments must be approved by the State Water Board, the California Office of Administrative Law (OAL), and in some cases, the U.S. Environmental Protection Agency. To facilitate the OAL review process, staff prepares and indexes a detailed administrative record.

2018 Triennial Review Planning Projects

Table 1, attached, identifies 19 currently proposed basin planning projects for the 2018 Triennial Review period. Water Board staff proposes dedicating resources to the following 10 projects for the 2018 Triennial Review period.

Ongoing Work. Water Board staff made significant progress towards completing the projects listed, below, during the 2015 Triennial Review period. Staff is proposing to dedicate adequate resources to complete the projects identified, below, during the 2018 Triennial Review period.

- Mojave River Surface Water Beneficial Use Revisions (Basin Plan amendment)
- Site Specific Water Quality Objectives for Mojave Ground Water Basins (Strategy development)
- Remove Lake Tahoe Prohibition on New Pier Construction (Basin Plan amendment)

2015 *Projects to Commence in the 2018 Cycle*. The projects listed, below, are identified in the 2015 Triennial Review List, but received very little or no resources during the 2015 Triennial Review period. Their priority is being elevated in the 2018 Triennial Review List due to (1) actions/activities completed by other parties, (2)

support by other parties, (3) related to other high-priority projects, and/or (4) easily incorporated into a proposed Basin Plan amendment.

- Evaluate Bacteria Water Quality Objectives (Analysis and strategy development/implementation)
- Truckee River Embedded/Deposited Sediment Objective (Strategy development)
- Riparian Protection Policy (Needs evaluation and strategy development)
- Editorial Revisions, Corrections, and Incorporation of Adopted State Water Board Policies (Basin Plan amendment)

New Projects Receiving Resources. The projects listed, below, have been identified by Water Board members, staff, and/or stakeholders since the 2015 Triennial Review List was adopted.

- Climate Change Adaptation and Mitigation Strategy (Basin planning needs assessment)
- Source Water Protection (Policy development)
- Tribal and Subsistence Beneficial Uses (Coordination and collaboration with Tribal organizations)

New Projects Without Resources

- Develop New Beneficial Use-Based Water Quality Objectives (Evaluate options/approaches)
- Clean Water Act 304(a) Water Quality Criteria (Incorporate new U.S. Environmental Protection Agency criteria into the Basin Plan)

2018 Triennial Review List Resources

In adopting the 2018 Triennial Review List, the Water Board will identify the basin planning projects Water Board staff will focus its resources upon during the following three years. Table 1 highlights these 10 projects in yellow. Basin planning projects can take multiple years. For that reason, Table 1 also identifies specific actions staff anticipates completing during the next three years. For projects identified as "below the line," Table 1 also includes specific actions. Please note that for the projects listed below the line, staff does not anticipate working on these projects in the next three years without new resources, unless the Water Board or its Executive Officer raise the priority or if other resources (such as from an external entity) allow work to progress on one of the below the line projects

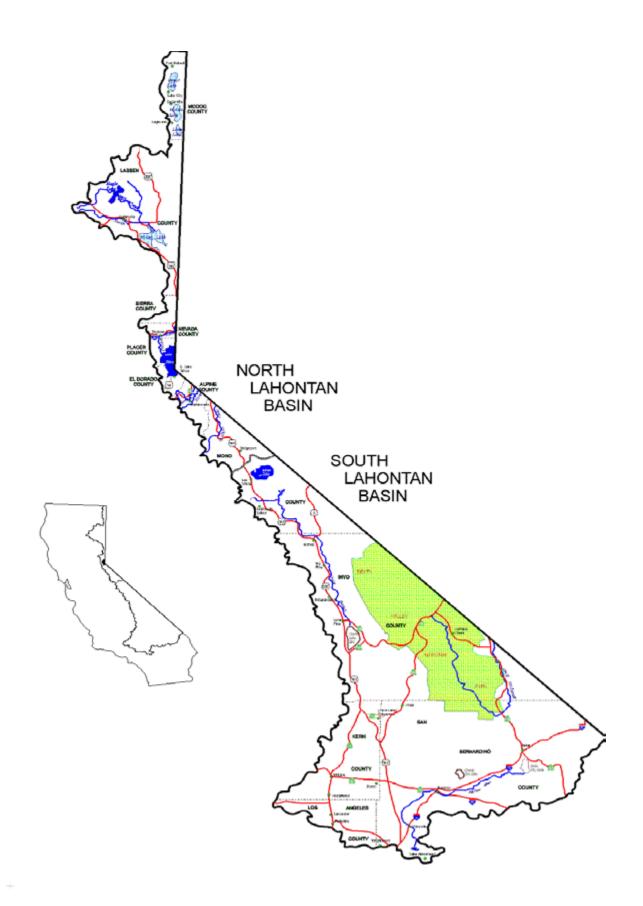
Schedules for addressing the projects identified will depend upon the complexity of the selected matters and available resources. As discussed, above, additional basin planning activities may be identified because of completing work on projects identified in the 2018 Triennial Review List. Work on such basin planning activities could be initiated during the 2018 Triennial Review period, or later depending upon available resources and Water Board priorities. Additionally, if important new topics arise before the next Triennial Review (2022 - 2024), basin planning priorities may be revised by the Water Board or its Executive Officer. If additional funding is received or outside

support provided, staff will attempt to address one or more of the projects currently shown "below the line."

Attachments

- Figure 1. Map of the Lahontan Region
- Table 1.2018 Triennial Review List





Priority	Project	Description	Prioritization	Next Steps*
1	Evaluate Bacteria Water Quality Objectives	Evaluate Basin Plan fecal coliform objectives for surface waters and clarify their regulatory and assessment applications considering the State Water Board's recently adopted statewide bacteria objective for REC-1 beneficial use.	 Improve regulatory clarity Region-wide applicability State Water Board guidance 	 Begin work in Year 1: Evaluate regional data Consult stakeholders Develop strategy
2	Climate Change Adaptation and Mitigation Strategy	Water Board is currently developing a Climate Change Adaptation and Mitigation Strategy (Strategy).If adopted, identify, prioritize, and begin work on the Strategy's recommended priority actions requiring basin planning response(s). Additionally, evaluate opportunities to incorporate/address Source Water Protection (priority Project 3) and Riparian Protection Policy (priority Project 4) elements.	 Water Board priorities (human health protection and environmental health protection/ restoration) Region-wide applicability Stakeholder collaboration/ support 	 Begin work in Year 1: Identify and prioritize basin planning-related recommendations Evaluate opportunity to address Project 3 and Project 4 goals/objectives Initiate work on highest- priority recommendation(s), as guided by Strategy and resources
3	Source Water Protection	Identify potential basin planning activities necessary to further improve source water protection within the Lahontan Region. Source waters include headwaters for surface waters usually in the mountains and groundwater recharge areas typically near the base of mountains.	 Water Board priorities (human health protection and environmental health protection/restoration) Region-wide applicability 	 Continue work in Year 1: Continue coordination with State Water Board on state- wide policy development Identify opportunities to address project goals/objectives through Project 2.
4	Riparian Protection Policy	Evaluate need to develop a policy or revise or add Basin Plan control measures to prevent/minimize/mitigate impacts of hydromodification upon groundwater and surface water beneficial uses	 Water Board priorities (environmental health protection/restoration) Region-wide applicability 	 Begin work in Year 2 or 3: Evaluate need for and identify scope of Basin Plan control measures or policy development Evaluate opportunities to address project goals/objectives through Project 2 and/or Project 3

*Staff plans to provide the Water Board with project updates through a combination of EO Report articles and status reports.

Priority	Project	Description	Prioritization	Next Steps*
5	Mojave River Surface Water Beneficial Use Revisions	 Basin Plan amendment involving the following revisions. Add BIOL and RARE to specific reaches of Mojave River and its tributaries Remove COLD from specific reach Clarify use of existing water quality objectives for the floodplain aquifer. 	 Underway/near completion Regulatory clarity Stakeholder support 	 Complete work in Year 1: Complete Staff Report and Use Attainability Analysis Complete Substitute Environmental Document Public workshop Adoption hearing
6	Site-Specific Water Quality Objectives for Mojave Ground Water	Staff will evaluate groundwater quality information to determine whether it is appropriate to set specific WQOs.	 Underway Regulatory clarity Stakeholder support 	 Continue work in Year 1: Prioritize ground water subbasins for evaluation Evaluate available data/information and determine if it is adequate for determining the need for and ability to develop new water quality objectives Develop strategy, including stakeholder involvement and schedule, to develop new water quality objectives where appropriate
7	Remove Lake Tahoe Prohibition on New Pier Construction	This project will remove language in the Basin Plan that conflicts with TRPA's Code of Ordinances regarding new pier construction.	 Underway Regulatory clarity 	Complete work in Year 1: • Complete Staff Report • Complete Substitute Environmental Document • Public workshop • Adoption hearing

*Staff plans to provide the Water Board with project updates through a combination of EO Report articles and status reports.

Priority	Project	Description	Prioritization	Next Steps*
8	Tribal and Subsistence Beneficial Uses	Add Tribal Cultural, Tribal Subsistence Fishing, and Subsistence Fishing beneficial uses (CUL, T-SUB, SUB) to the Basin Plan. Engage with tribes to identify waters that support Tribal beneficial uses	 Water Board priorities (human health protection) Tribal requests Environmental justice/ disadvantage communities 	 Begin work in Year 1: Develop and implement Tribal consultation process Develop approach and schedule to incorporate beneficial uses into the Basin Plan and to designate waterbodies with those uses
9	Truckee River Embedded/Deposited Sediment Objective	Evaluate whether to propose a new water quality objective for deposited/embedded sediment for the Middle Truckee River to address impairment of COLD and SPWN beneficial uses. The current TMDL is based on the water quality objective for suspended sediment which is not effective at addressing the impairment of COLD and SPWN beneficial uses.	 Water Board priorities (environmental health protection/restoration) Stakeholder support/collaboration 	 Begin work in Year 1: Collaborate with Truckee River Watershed Council to develop strategy regarding data collection, analysis, and needs assessment Evaluate options for addressing beneficial use impairment following data collection, analysis, and needs assessment
10	Editorial Revisions, Corrections, and Incorporation of Adopted State Water Board Policies	 Miscellaneous corrections and improvements, such as: Correcting square mile number for Region and features in the wrong watershed Consistent use of terms Correct and updated references to policies and plans Formatting changes 	 Basin Plan accuracy and ease of use Potential to combine with other basin planning actions 	 Begin work in Year 2 or 3: Identify other basin planning efforts where these needs could be incorporated

*Staff plans to provide the Water Board with project updates through a combination of EO Report articles and status reports.

Priority	Project	Description	Prioritization	Next Steps
11	Develop New Beneficial Use-Based Water Quality Objectives	 Add new water quality objectives (WQOs) to the Basin Plan based on protection of beneficial uses. Note that this project could also address or facilitate progress on the following projects identified on the 2015 Triennial Review List: Mean of Monthly Means Region-wide Approach to TDS Water Quality Objectives for Surface Waters Susan River Site-Specific Objectives Water Quality Objectives for Leviathan and Bryant Creeks Revise Hot Creek Water Quality Objectives Site-Specific Objectives for Fish Springs 	Staff posits a need to develop water quality objectives that are associated with the protection of specific beneficial uses. This is a complex topic that is influenced by, and will influence, such things as 303(d) list development, permits, and anti-degradation evaluations. There are more immediate Basin Planning needs, and so staff proposes postponing this project, which has potential to displace all above projects, and recommends this project be prioritized in the 2021 Triennial Review.	 Identify and evaluate options/approaches regarding developing new beneficial use-based water quality objectives and how existing water quality objectives will be used.
12	Evaluate New Section CWA 304(a) Criteria	Identify new or updated Clean Water Act section 304(a) water quality criteria published by the USEPA for incorporation into the Lahontan Basin Plan. This project would also incorporate the 2015 Triennial Review project "Biotic Ligand Model for Copper," which is a 2007 USEPA national criteria.	With some exceptions, the new 304(a) criteria contaminants revise criteria included in the California Toxics Rule, which the Water Board does not have the ability to modify. The State Water Board addressed updated bacteria ambient water quality criteria for recreational waters and has a project underway to address cadmium. It is most efficient for the State Water Board to adopt those 304(a) criteria (when more stringent than existing water quality objectives) as statewide WQOs.	 Work with State Water Board and recommend that State Water Board address this evaluation on a state-wide basis Evaluate new or revised CWA section 304(a) recommended water quality criteria for incorporation into the Basin Plan as water quality objectives

Priority	Project	Description	Prioritization	Next Steps
13	Eagle Lake "Building Moratorium"	Reevaluate the Basin Plan's waste discharge prohibition establishing a maximum development density of one single family dwelling equivalent per 20 acres for new development discharging waste to subsurface disposal systems in the Eagle Drainage Hydrologic Area (Eagle Lake watershed excluding the Stones-Bengard, Spalding Tract, and Eagle's Nest subdivisions) in light of the State Water Board's Onsite Wastewater Treatment System Policy. This prohibition has restricted development in the rural area not serviced by a community service district who provide sewer and waste disposal.	Lahontan Water Board staff in the permitting program is evaluating alternatives to address this issue	 Develop Guidance document identifying alternative approach(es) Evaluate how to implement the guidance and determine if a Basin Plan amendment is necessary
14	Water Quality Objectives for Lake Tahoe Nearshore	Evaluate research findings to determine if new nearshore water quality standards are necessary.	 Water Board-funded research effort currently underway Research findings and recommendations will be developed during the next 3 to 5 years Research findings and recommendations are important to evaluate if new water quality standards are necessary 	• Evaluate research findings and determine need for new water quality standards
15	Biological Indicators	Develop narrative and/or numeric biological objectives (i.e., biocriteria) to protect the biological integrity of the Region's surface waters.	 Project goal/objectives may be addressed by State Water Board's developing Biological Integrity Project 	 Monitor and participate in State Board efforts Evaluate need for region- specific water quality objectives

Priority	Project	Description	Prioritization	Next Steps
16	Instream Flow Criteria	Evaluate developing narrative or site-specific numeric flow criteria and/or WQOs for flow requirements.	 State Water Board (DWQ, Water Rights) In-Stream Flow Program under development Project goals/objectives may in part be addressed by Project 2 	 Prioritize needs by waterbody and beneficial use Use State Water Board metrics to determine recommended flow levels
17	Remove Beneficial Uses from Piute Ponds Wetlands	Remove Groundwater Recharge (GWR) and Agricultural Supply (AGR) beneficial uses from the Piute Ponds and wetlands in the Amargosa Creek watershed eastern Los Angeles County.	Need to reevaluate need for project with Discharger that requested project.	 Stakeholder and tribal engagement Conduct Use Attainability Analysis
18	Clarify Policy on Package Plants	Clarify language regarding package plants, as necessary, which may require a Basin Plan amendment.	 Project goals/objectives may be addressed through non-basin planning action. 	Evaluate need for revising Basin Plan language.
19	Revise PCPs Water Quality Objectives	The USEPA recommended revising water quality objectives for pentachlorophenol (PCPs), where appropriate.	Defer and recommend to State Water Board addressing matter on a state-wide basis	