

Regional Water Quality Control Board**North Coast Region****Staff Summary Report April 2, 2025****ITEM: 5****SUBJECT:**

Resolution No. R1-2025-0010 Supporting Submittal of the Coastal Pathogen Source Reduction Strategy to the State Water Resources Control Board to Include as Part of the 2028 Integrated Report (Prachi Kulkarni)

BOARD ACTION:

Resolution No. R1-2025-0010 Supporting Submittal of the Coastal Pathogen Source Reduction Strategy to the State Water Resources Control Board to Include as Part of the 2028 Integrated Report. The Resolution approves the submittal of the Coastal Pathogen Category 4b Demonstration Report (Attachment 1) to the State Water Resources Control Board staff for inclusion in the 2028 Integrated Report process.

BACKGROUND:

Under the Clean Water Act (CWA) Section 303(d), the North Coast Water Board is required to establish a Total Maximum Daily Load (TMDL) for those pollutants identified as causing impairment of waters on the 303(d) List. The United State Environmental Protection Agency's (U.S. EPA) 2022-2032 Vision for the CWA Section 303(d) Program (EPA Vision) recognizes the use of alternative plans (including a Category 4b demonstration) in addition to or in-lieu of TMDLs. The EPA Vision recognizes that certain alternatives may be more immediately beneficial or practicable for restoring water quality, and encourages the most effective approaches be applied for restoring water quality. A Category 4b demonstration documents the manner in which established or planned pollution control requirements are expected to result in the attainment of an applicable objective in a reasonable period of time. If accepted by U.S. EPA, a Category 4b demonstration would result in a determination that a TMDL is not needed to restore supporting conditions for beneficial uses in the waters addressed because alternative mechanisms are expected to do so. U.S. EPA undertakes review and acceptance of Category 4b demonstrations as part of the Integrated Report process.

Consistent with the EPA Vision, the North Coast Water Board staff have developed the Coastal Pathogen Source Reduction Strategy (Implementation Plan) as a Category 4b demonstration (Attachment 2). The Implementation Plan identifies existing or planned permit conditions and regulatory authorities that address the controllable anthropogenic

(human, dog, cattle) fecal sources that have been identified as sources leading to impairment of Water Contact Recreation (REC-1) and/or Shellfish Harvesting (SHELL) in certain waterbodies. The Implementation Plan addresses pathogen impairment in six streams and at nine beaches along the North Coast. In addition, although not required as part of a Category 4b demonstration, the Implementation Plan also addresses the need for source control at 13 additional Humboldt County streams currently not on the Section 303(d) List, but where data indicates at least one exceedance of the REC-1 bacteria water quality objective (objective).

DISCUSSION:

North Coast Water Board staff evaluated fecal indicator bacteria, microbial source tracking, land cover, land use, and cattle presence data associated with the Coastal Pathogen Project. Results from this analysis identified dog waste as a significant source of fecal pollution in almost all waterbodies evaluated, followed by human waste. Cattle waste was identified as a contributor to only a small number of the waterbodies evaluated. Staff's analyses showed that fecal waste from ruminant wildlife (deer, elk) and gulls was also a major contributor to pollution in a large number of the waterbodies evaluated.

Based upon land uses associated with the fecal indicator bacteria and microbial source tracking data, North Coast Water Board staff identified onsite wastewater treatment systems (OWTS), stormwater runoff, damaged, defective, or non-functioning wastewater collection systems, grazing, recreational use, and transient communities as the anthropogenic fecal waste sources impacted the sampled waterbodies.. The Implementation Plan prioritizes the control of anthropogenic (human, dog, cattle) fecal waste sources, rather than the wildlife (deer, elk, gulls) fecal waste sources because 1) feces from dogs, humans, and cattle are statistically more harmful to public health than feces from wildlife and shorebirds, and 2) pollutant discharge from these anthropogenic sources is controllable.

The Implementation Plan places impaired waterbodies identified as having controllable anthropogenic sources of fecal pollution (six streams and nine beaches) on an "Impaired Waterbodies Action List" (the Action List) indicating they are the highest priority for source control and the 13 streams with exceedances of the REC-1 Objective on a "Waterbody Watch List" (the Watch List) indicating a secondary priority for source control. The Implementation Plan does not recommend source control actions for three beaches currently on the Section 303(d) List because available data indicates that fecal sources at these beaches are from wildlife and therefore not controllable anthropogenic fecal sources of pollution.

Source control will be achieved through the use of existing regulatory and or non-regulatory mechanisms currently being employed by regulatory agencies and other

entities with jurisdiction in the sampled areas. Source control associated with the waterbodies on the Action List is to be addressed first, followed by the waterbodies on the Watch List. Cooperating entities have agreed to focus first on the Action List waterbodies and then the Watch List. The Action and Watch Lists only contain those waterbodies that were sampled under studies that had a complete Quality Assurance Project Plan (QAPP) at the time of data assessment.

To assist in targeted actions and the most efficient use of resources, the Implementation Plan describes pollutant sources by waterbody and associated ongoing or expected implementation actions to control pollutant discharges. The Implementation Plan does not establish or change any existing regulations but relies on existing or soon to be updated regulatory and non-regulatory actions that are expected to result in attainment of objectives in these waterbodies. Regulatory actions include the anticipated updated Phase II Small Municipal Separate Storm Sewer System permit, the Sanitary Sewer Systems General Order, the General Waste Discharge Requirements for Dairies Order, and the Onsite Wastewater Treatment Systems Policy. Non-regulatory actions include current pet waste disposal policies at parks and trails managed by regulatory and non-regulatory agencies, ongoing and planned sewer infrastructure construction and improvement, transient housing construction and cleanup efforts in sampled areas. The Implementation Plan further relies on the typical monitoring and reporting requirements associated with the various regulatory measures.

Ongoing and anticipated targeted actions by numerous parties in the affected watersheds are expected to improve and protect water quality in receiving waters. These parties include the Humboldt County Department of Environmental Health, Humboldt County Public Works Department, City of Arcata Environmental Services Department, City of Eureka Public Works Department, Jacoby Creek Land Trust, Trinidad Coastal Land Trust, Mendocino County Environmental Health Division, Mendocino Land Trust, North Coast Water Board Dairy Program, North Coast Water Board Enforcement Unit, North Coast Water Board Storm Water Unit, California Department of Parks and Recreation, and State Water Resources Control Board. An overview of the regulatory mechanisms currently being used to control dog, human, and cattle fecal waste sources in the waterbodies on the Action and Watch Lists is provided below:

- Dog and Human Fecal Waste Sources
 - Proposed requirements within the upcoming Phase II Municipal Separate Stormwater System (MS4) Permit
 - Sanitary Sewer Systems (SSS) General Order
 - Humboldt, Mendocino, and Sonoma County Local Area Management Plan (LAMP) requirements for OWTS and septic systems

- Existing Pet Waste Control Mechanisms employed by California Department of Parks and Recreation, Humboldt County Parks Department, Trinidad Coastal Land Trust, Mendocino Land Trust, and Jacoby Land Trust
- Existing and Upcoming pet waste, transient housing and community connection building, sewer system construction and improvement projects being conducted by the Cities of Arcata and Eureka
- Dairy and Non-Dairy Cattle Fecal Waste
 - General Waste Discharge Requirements for Dairies in the North Coast Region (Dairy Permit)
 - Existing enforcement action, and future action if needed, by the North Coast Water Board Enforcement program

Since 2020 and continuing through the early part of 2025, North Coast Water Board staff have actively engaged the interested parties named above that represent regulatory, environmental, and community perspectives to develop and conduct Coastal Pathogen Project sampling, share and obtain water quality data, and to develop and inform the Implementation Plan. The coordination has included meetings with both regulatory agencies and non-government organizations, including Humboldt County Department of Environmental Health, Humboldt County Public Works Department, City of Arcata Environmental Services Department, City of Eureka Public Works Department, Jacoby Creek Land Trust, Trinidad Coastal Land Trust, Humboldt Waterkeeper, Mendocino County Environmental Health Division, Mendocino Land Trust, North Coast Water Board Dairy Program, North Coast Water Board Enforcement Unit, North Coast Water Board Storm Water Unit, California Department of Parks and Recreation, and State Water Resources Control Board. Staff also distributed fact sheets to these and other entities describing the Implementation Plan in order to provide information and solicit feedback from regulatory and non-regulatory agencies including those that operate, or have regulatory authority, over the Action List and Watch List waterbodies.

Staff propose that the Implementation Plan (Category 4b demonstration) be submitted as an attachment to the 2028 California Integrated Report for Clean Water Act 303(d) List and 305(b) Report (Integrated Report) via the State Water Resources Control Board (State Water Board). As part of the Integrated Report processes, the Category 4b demonstration would undergo review by State Water Board staff, a period of public review and comment, consideration by the State Water Board for approval, and consideration by U.S. EPA for acceptance. The Integrated Report public review and comment period, including the Implementation Plan, would be anticipated to occur in early 2027, followed by State Water Board adoption of the Integrated Report in 2028 and ultimately submittal to the U.S. EPA for approval later that year.

Because the State Water Board will engage in a formal public process as part of approving and accepting the Category 4b demonstration in the upcoming 2028 Integrated Report cycle, staff is requesting the North Coast Water Board approve this resolution supporting that staff submit the Implementation Plan: 1) as a mechanism to continue forward progress on this project through the Integrated Report process, 2) as acknowledgement that source control implementation can and should proceed as soon as possible, and 3) to formalize the conclusion of staff's work on this triennial review project and transition of the work to the 2028 Integrated Report process.

RECOMMENDATION:

Adopt Resolution No. R1-2025-0010, as proposed.

SUPPORTING DOCUMENTS:

1. [Proposed Resolution No. R1-2025-0010](https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/coastal_pathogen/pdf/250312/25_0010_cpp_resolution.pdf)
(https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/coastal_pathogen/pdf/250312/25_0010_cpp_resolution.pdf)
2. [Category 4b Demonstration for the Coastal Pathogen Source Reduction Strategy](https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/coastal_pathogen/pdf/250312/25_0010_cpp_category_4b_demonstration_report.pdf)
(https://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/coastal_pathogen/pdf/250312/25_0010_cpp_category_4b_demonstration_report.pdf)