



North Coast Regional Water Quality Control Board

Regional Water Quality Control Board North Coast Region Staff Summary Report February 18-19, 2026

ITEM: 10

SUBJECT: Public Hearing for Resolution No. R1-2026-0005 for Project Criteria for an Exception to the Enclosed Bays and Estuaries Policy Prohibiting Waste Discharges to Humboldt Bay (Justin McSmith)

BOARD ACTION: The Board will consider adoption of Resolution No. R1-2026-0005 (Resolution). The Resolution provides criteria for the development of potential projects that could be included in an application to seek an exception to the Enclosed Bays and Estuaries Policy discharge prohibition.

BACKGROUND: The Enclosed Bays and Estuaries Policy (Policy) was adopted by the State Water Resources Control Board on May 16, 1974 (amended in 1995), and includes a discharge prohibition of most wastewater to enclosed bays and estuaries. The Policy states:

“It is the policy of the State Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling waste discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge.”

State Water Resources Control Board Order No. 79-20 (Order 79-20) provided guidance for dischargers to Humboldt Bay on how to pursue an exception to the Policy’s discharge prohibition to enclosed bays and estuaries. At the time Order 79-20 was adopted, the City’s wastewater treatment plant had not been built and the City was still exploring discharge options. The Regional Water Board subsequently determined that a discharge, on the ebb tide, to Humboldt Bay was considered an ocean discharge and an exception to the Policy was not necessary.

Order No. 79-20 spelled out requirements for the City of Arcata on how to obtain an exception to the Policy’s discharge prohibition. The State Water Board determined that,

HECTOR BEDOLLA, CHAIR | VALERIE QUINTO, EXECUTIVE OFFICER

as applied to Humboldt Bay, “enhancement” of water quality associated with a Bay wastewater discharge may be demonstrated through: (1) full secondary treatment, with disinfection and dechlorination, of the discharge; (2) compliance with any additional NPDES permit requirements issued by the Regional Board to protect Beneficial Uses; and (3) the fuller realization of existing Beneficial Uses or the creation of new Beneficial Uses either by or in conjunction with the wastewater treatment project. The State Water Board acknowledged: “there is a reasonable probability that dischargers to Humboldt Bay could, through projects implemented in conjunction with a Bay wastewater treatment discharge, achieve compliance with the Policy.

The City owns and operates the Elk River Wastewater Treatment Plant (Facility) and associated wastewater collection system that serves a population of approximately 46,583 from the City of Eureka and surrounding unincorporated areas. The Facility discharges secondary treated wastewater to Humboldt Bay on ebb tide cycles.

The Facility is currently regulated under Waste Discharge Requirements Order No. R1-2023-0016, which serves as a National Pollutant Discharge Elimination System (NPDES) permit for waste discharges to surface waters. The Facility has an average dry weather design treatment capacity of 5.24 million gallons per day (mgd), a peak dry weather treatment capacity of 8.6 mgd, and a peak daily wet weather treatment capacity of 12 mgd.

The City of Eureka discharge was originally defined as a discharge to the Pacific Ocean in the City's first NPDES permit, Waste Discharge Requirements Order No. 81-1, adopted by the North Coast Regional Water Quality Control Board (North Coast Water Board) on January 22, 1981.

The discharge of treated effluent via the outfall in Humboldt Bay was permitted based upon mathematical modeling, tidal monitoring, and a dye study completed in 1979, which indicated that discharging at ebb tide was expected to convey all effluent to the Pacific Ocean. The North Coast Water Board concluded that the ebb discharge concept was a viable alternative to an ocean outfall in Resolution No. 80-87.

NPDES Order No. R1-2009-0033 required the City to perform an effluent discharge study to assess potential impacts to Beneficial Uses associated with the ebb-tide discharge. On January 8, 2014, the Permittee submitted the Effluent Discharge Study for the Elk River Wastewater Treatment Plant (2014 Effluent Discharge Study). The study utilized two models to predict currents and effluent movement in Humboldt Bay. The 2014 Effluent Discharge Study modeling analysis showed that under all simulations the effluent is never completely conveyed to the ocean, and under certain conditions, up to 90% of the effluent remained in Humboldt Bay.

Consequently, the North Coast Water Board determined that the City's discharge did not qualify as an ocean discharge subject to the Ocean Plan but rather a bay discharge subject to the Policy. This determination was reflected in Waste discharge

Requirements Order No. R1-2016-0001 which was adopted by the North Coast Water Board on June 16, 2016.

In 2021, the City submitted a Humboldt Bay Effluent Modeling Report (Report). For the Report, the City of Eureka included a modeling effort that showed no evidence of long-term accumulation of effluent in Humboldt Bay. The results indicate that bay flushing is sufficient to reduce effluent concentrations to near-zero (<0.2%) following each discharge cycle, and that the practice of discharging during outgoing tides effectively limits effluent retention and confines potential ammonia toxicity to the immediate vicinity of the diffuser.

North Coast Water Board staff (Staff) are currently reviewing each report to evaluate the conflicting conclusions between the 2014 report and the 2021 report. Staff is working with experts internally to verify model results and will make a determination based on these conclusions by the end of 2026.

DISCUSSION: Resolution No. R1-2026-0005 (Resolution) provides the City with criteria for future projects that could be included in an application for an exception to the Policy's discharge prohibition. Any proposed project(s) must support the protection of existing Beneficial Uses and provide for the fuller realization of existing Beneficial Uses or create new Beneficial Uses in or around Humboldt Bay. Any exception would be subject to public notice and hearing prior to its inclusion in a subsequent permit issued to the Facility.

The Resolution requires any project, or group of projects to provide protection of and fuller realization of Beneficial Uses. The criteria to meet this include building resilience to climate adaptation, creation or restoration of habitat, removal of legacy pollutants from Humboldt Bay, and sewerizing unsewered areas.

As part of a Permit Compliance Schedule established in the City's current permit, Order No. R1-2023-0016, the City is required to submit a Feasibility Study, due October 2026, that will analyze alternatives to the current discharge to Humboldt Bay and recommend a path to compliance with the discharge prohibition contained in the Policy. The criteria included in the Resolution will be used to analyze potential projects to meet compliance with the Policy and will be included in the Feasibility Study.

A copy of the Draft Resolution was posted on the North Coast Water Board website and was available for public comment from November 7, 2025, through December 8, 2025, for an initial 30-day comment period which was extended another seven days to December 15, 2025. Staff met with the City on January 6, 2026, to discuss their comments. A full explanation of the comments and responses is provided in the attached Response to Comments document. The Proposed Resolution has been revised in response to comments received. Comment letters and staff responses are attached.

While it is not anticipated that the Permittee will contest this item, Staff expect that the Permittee and other persons will address the Board during the public hearing.

RECOMMENDATION: Adopt Resolution No. R1-2023-0016 as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Resolution No. R1-2026-0005
2. Notice of Public Hearing
3. Revised Notice of Public Hearing
4. Response to Comments Document
5. Copies of the public comment letters received regarding this Order are available upon request by emailing Justin.McSmith@Waterboards.ca.gov