



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Kathleen S. Ho  
Deputy Director for Environmental Health  
Hawai'i Department of Health  
P.O. Box 3378  
Honolulu, Hawai'i 96801-3378

Subject: Hawai'i's 2022 Integrated Report

Dear Deputy Director Ho:

I am pleased to approve all water quality-limited segments and associated pollutants requiring total maximum daily loads (TMDLs) contained in the subject report consistent with section 303(d) of the Clean Water Act and 40 C.F.R. Part 130.7.

Supported by robust science and stakeholder outreach, Hawai'i's 2022 Integrated Report includes the required water quality assessment and list of impaired water bodies needing TMDLs. EPA's evaluation of Hawai'i's Integrated Report is further described in the enclosure.

I look forward to our continued partnership to protect Hawai'i water quality and advance human health and wildlife protection. Please call me if you would like to discuss further, or you staff may contact Eric Dubinsky at (415) 972-3517 with specific questions concerning this approval.

Sincerely,

Tomás Torres  
Director, Water Division

Enclosure

cc: Alec Wong, Hawai'i Department of Health  
Joanna Seto, Hawai'i Department of Health  
Myron Honda, Hawai'i Department of Health

## Enclosure

### EPA Review of Hawai‘i’s 2022 CWA Section 303(d) List

#### I. Purpose

Section 303(d) of the Clean Water Act (CWA) requires each state and territory to “identify those waters within its boundaries for which [current pollution control technologies] ... are not stringent enough to implement any water quality standard applicable to such waters.” This list is referred to as the Impaired Waters List, 303(d) List or Category 5 (see Five Reporting Categories below).<sup>1</sup> In addition to section 303(d) lists of impaired waters, states are required to submit CWA section 305(b) water quality reports that provide information on the water quality status of all waters in the state. EPA recommends that states combine the section 305(b) report and section 303(d) List into a single “Integrated Report” (IR). EPA reviews CWA 305(b) reports but is only required to approve or disapprove CWA 303(d) Lists. EPA reviews Integrated Report submittals for consistency with the CWA and its implementing regulations, as well as EPA Guidance and information addressing assessment, listing, and reporting requirements under CWA sections 303(d), 305(b) and 314 (see References).

<b>Five Integrated Report Categories</b>	
Category 1	All designated uses are supported, no use is threatened.
Category 2	Available data and/or some information indicated that some, but not all of the designated uses are supported.
Category 3	There is insufficient available data and/or information to make a use support determination.
Category 4	Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed.
Category 5	Available data and/or information indicate that at least one designated use is not being support or is threatened, and a TMDL is needed.

EPA received the Hawai‘i Department of Health’s (HDOH’s) final submittal: *2022 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to §303(d) and §305(b), Clean Water Act (P.L. 97-117) (2022 Integrated Report)* in the ATTAINS database on April 26, 2022. The submittal includes the State’s 2022 CWA section 303(d) list of water quality-limited segments (WQLSs) requiring a Total Maximum Daily Load (TMDL) pursuant to 40 C.F.R. § 130.7 (2022 List), listing decisions, assessment methodology, and supporting data, as well as its required CWA section 305(b) report.

This document describes EPA’s rationale for approval of the State’s 2022 List: EPA approves the State’s listings of WQLSs requiring a TMDL identified in the 2022 Integrated Report, *Appendix C: §303(d) List of Impaired Waters* and 303(d) listings in EPA’s ATTAINS database.

---

<sup>1</sup> U.S. Environmental Protection Agency. 2005. “Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act,” Diane Regas, EPA Office of Wetlands, Oceans, and Watersheds, Washington, DC.

## **II. Statutory and Regulatory Background**

### **A. Identification of WQLSs for Inclusion in the List**

CWA section 303(d)(1) directs states to identify those waters within its jurisdiction for which effluent limitations required by CWA section 301(b)(1)(A) and (B) are not stringent enough to achieve applicable water quality standards, and to establish a priority ranking for addressing such waters, taking into account the severity of the pollution and the designated uses of such waters. CWA section 303(d) listing requirements apply to waters impaired by both point sources and nonpoint sources of pollution.

As provided at 40 C.F.R. § 130.7(b)(1), a state need not include WQLSs in Category 5 when specific circumstances exist. Such WQLSs are included in Category 4 as follows:

- Category 4a: A TMDL to address a specific segment/pollutant combination has been approved or established by EPA.
- Category 4b: A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements.
- Category 4c: A use is impaired, but the impairment is not caused by a pollutant.

### **B. Consideration of Existing and Readily Available Water Quality-Related Data and Information**

EPA regulations require each state to “assemble and evaluate all existing and readily available water quality-related data and information to develop the list” and provide a rationale, subject to EPA approval, for any decision not to use existing and readily available data and information. 40 C.F.R. § 130.7(b).

EPA's *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act* describes examples of the types of water quality-related data and information that should be assembled and evaluated for developing state lists. The regulations at 40 C.F.R. § 130.7(b)(5) specify that this requirement includes, but is not limited to, all the existing and readily available data and information about the following categories of waters:

- Waters identified as partially meeting or not meeting designated uses or as threatened in the state's most recent CWA section 305(b) report.
- Waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards.
- Waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions.
- Waters identified as impaired or threatened in any CWA section 319 nonpoint source assessment submitted to the EPA.

Pursuant to 40 C.F.R. § 130.7(b)(6), each state must include, as part of its submittal to EPA, documentation to support decisions to rely or not rely on particular data and information, and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information:

(1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by EPA.

### **C. Priority Ranking**

EPA regulations at 40 C.F.R. § 130.7(b)(4) also require each state to prioritize WQLSs for TMDL development and to specifically identify those targeted for TMDL development in the next two years. In prioritizing and targeting waters, each state must, at a minimum, take into account the severity of the pollution and the uses of such waters. CWA section 303(d)(1)(A). A state may consider other factors including immediate programmatic needs including vulnerable aquatic habitats, recreational, economic, and aesthetic importance, degree of public interest and support, and state or national policies and priorities.<sup>2,3</sup>

## **III. Analysis of Submittal**

### **A. Identification of WQLSs for Inclusion in the List**

EPA has reviewed the State’s submittal and concludes the State’s 2022 List is in compliance with CWA section 303(d) and 40 C.F.R. § 130.7.

The State based its 2022 List on its analysis of readily available data and information to determine whether additions to or deletions from its 2020 List were necessary (*2020 State of Hawaii Water Quality Monitoring and Assessment Report*). The State’s approach, wherein previously listed waters remain WQLSs unless the existing and readily available water quality-related data no longer indicate impairment, is consistent with federal requirements. EPA finds it was reasonable for the State to include most of the previously listed waters on its 2022 List. The State also added new listings based on review of data.

### **B. Assembly of Data**

EPA evaluated whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed. EPA’s finds the State’s data compilation process was clear and provided an adequate basis for assessments.

The State considered research data provided by government and non-government agencies and water quality data collected by HDOH Clean Water Branch (CWB) staff between November 1, 2019 and October 31, 2021. In some cases, the data assessment window was extended back an additional two years to meet the minimum sample size set by the State in its assessment methodology.

The State compiled data and information from multiple sources, including those identified at 40 C.F.R. § 130.7(b)(5)(iii). The State requested the submittal of water quality data between April 7, 2021 and November 1, 2021 via the HDOH CWB’s website (<http://health.hawaii.gov/cwb/>) and local newspapers.

---

<sup>2</sup> U.S. Environmental Protection Agency. 1992. July 24, 1992 Federal Register and 40 C.F.R. Parts 122, 123, 130, revision of regulation, 57 Fed. Reg. 43 pp. 33040.

<sup>3</sup> U.S. Environmental Protection Agency. 1991. “Guidance for Water Quality-Based Decisions: The TMDL Process,” Office of Water. EPA 440/4-91-001.

Most of the data assessed in the 2022 Integrated Report originated from HDOH CWB coastal beach samples collected in nearshore coastal areas, as most of the CWB's monitoring efforts are currently focused on coastal beach monitoring, with only a minor amount of data assessed from inland water bodies. HDOH also compiled data and information from other sources, including those identified in 40 C.F.R. § 130.7(b)(5)(iii). Additional water quality data considered for the 2022 Integrated Report originated from NPDES permitted facilities, private contractors, and non-governmental organizations (NGOs) as shown in Appendix A of the State's submittal.

List of sources of data used for the 2022 Integrated Report:

- City and County of Honolulu
- HDOH Clean Water Branch
- Coral Reef Alliance-Hawaii Wai Ola
- Discharge Monitoring Reports from NPDES permitted facilities
- Hui O Ka Wai Ola
- Marine Research Consultants
- Natural Energy Laboratory of Hawaii Authority
- Pacific Islands Ocean Observing System (PacIOOS)
- Surfrider Foundation Blue Water Task Force
- Waimea Water Services
- Water Resources Research Center

An individual submitted information on trash for five Kaua'i beaches. HDOH reviewed the information and found the data did not meet its quality assurance acceptance requirements and determined that the information was insufficient to make a listing decision. HDOH acknowledged the need for a more thorough assessment of trash at these beaches and placed the waterbodies in Category 3. EPA also reviewed the information and concludes it is reasonable for the State not to include these five beaches on the 2022 List.

EPA concludes that the State appropriately considered the existing and readily available data and information during development of its 2022 List.

### **C. Listing Methodology**

The State's listing methodology identifies impaired waters and specifies explicit factors for making listing and delisting decisions for different pollutant types based on different kinds of data. In general, the State lists a waterbody based on adequate documentation that water quality standards (WQSs), as defined in the Hawaii Administrative Rules Title 11, Chapter 54, and approved by EPA, were not met during the assessment period.

Decisions to list or delist are based on the quality and quantity of data, water body type, and the applicable WQS. The State's surface waters are monitored to determine if water quality conditions support aquatic life, human health, recreational uses, and ecosystem health.

The State's assessment methodologies and quantitative assessment factors include statistical methods for evaluating potential WQS exceedances, and data quality requirements. These decision factors are applied to various types of data, including water chemistry, bacteria, nutrients, and other parameters. The State uses the assessment decision factors as the basis for its 2022 listing decisions. EPA reviewed the assessments and finds the State's assessments are consistent with federal listing requirements and

applicable WQS. The State’s submittal also includes a list of segments that are impaired but are being addressed by an EPA approved TMDL (Appendix C).

**D. New Impairment Listings**

The State’s 2022 Integrated Report added 72 new waterbody-pollutant impairment listings in marine waterbodies and 20 new waterbody-pollutant impairment listings in inland waterbodies compared to its 2020 List. New listings are shown in Tables 9 through 13 of the submittal (2022 Integrated Report) for marine waterbodies and Tables 18 and 19 for inland waterbodies. In marine waterbodies, turbidity is the leading cause of impairments, followed by nutrients and chlorophyll *a*. In inland waterbodies, enterococci indicator bacteria is the leading cause of impairments, followed by nutrients and turbidity.

**E. Waters Removed from Hawai‘i’s 303(d) List**

The State delists 23 waterbody-pollutant impairments in marine waterbodies and five waterbody-pollutant impairments in inland waterbodies that were identified on the 2020 List. Delistings for marine waterbodies are shown in Tables 9 through 13 of the submittal (2022 Integrated Report) and for inland waterbodies in Tables 18 and 19. The most frequent delisted impairments for both marine and inland waterbodies are nutrients. The reason cited for the removal of waterbody-impairments from the 2022 List was that assessment of new data supported a conclusion that water quality has improved such that applicable WQS were no longer exceeded in these waterbodies. EPA concludes that the State’s decision to delist the waters identified in its submittal is consistent with federal listing requirements.

<b>Changes in Listed Waterbodies and Pollutants 2020 to 2022</b>				
<b>Island</b>	<b>Marine</b>		<b>Inland</b>	
	<b>Delisted</b>	<b>New</b>	<b>Delisted</b>	<b>New</b>
Kaua‘i	-1	+11	-2	+11
O‘ahu	3	+28	-3	9
Moloka‘i	NA	NA	NA	NA
Lāna‘i	0	1	NA	NA
Maui	3	+13	NA	NA
Hawai‘i	-16	+19	NA	NA
<b>TOTAL</b>	<b>-23</b>	<b>+72</b>	<b>-5</b>	<b>+20</b>

NA = no waterbodies assessed

**F. Public Comment**

The State solicited public comments on its draft 2022 Integrated Report over a 32-day period from March 2, 2022 through April 4, 2022, through the HDOH CWB’s website and local newspapers. HDOH received no comments during the public comment period. EPA finds the State’s list was developed with opportunities for public participation.

#### **IV. TMDL Priority Ranking and Schedule**

The State's submittal includes a priority ranking for TMDL completion for those waters requiring a TMDL, using a low/medium/high scale. The State's TMDL priority rankings are shown in Appendix C in the State's submittal. EPA finds that the State has developed a priority ranking for TMDL development consistent the requirements in 40 C.F.R. § 130.7(b).

#### **References**

2022 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to §303(d) and §305(b), Clean Water Act (P.L. 97-117). Submitted via letter from Kathleen Ho to Tomás Torres, Director, Water Division, U.S. EPA Region 9 on April 12, 2022. A revised version was submitted to ATTAINS on April 26, 2022.

2020 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress Pursuant to §303(d) and §305(b), Clean Water Act (P.L. 97-117).

Hawaii Department of Health. Hawaii Administrative Rules. Title 11, Chapter 54. Water Quality Standards.

U.S. Environmental Protection Agency. 1991. "Guidance for Water Quality-Based Decisions: The TMDL Process," Office of Water. EPA 440/4-91-001.

U.S. Environmental Protection Agency. 1992. July 24, 1992 Federal Register and 40 C.F.R. Parts 122, 123, 130, revision of regulation, 57 Fed. Reg. 43 pp. 33040.

U.S. Environmental Protection Agency. 2002. Consolidated Assessment and Listing Methodology. Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2003. "Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act," Diane Regas, Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2005. "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act," Diane Regas, EPA Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2006. "Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Diane Regas, EPA Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2009. "Information Concerning 2010 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Suzanne Schwartz, Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2011. "Information Concerning 2012 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Denise Keehner, Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2013. "Information Concerning 2014 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Denise Keehner, Office of Wetlands, Oceans, and Watersheds, September 3, 2013.

U.S. Environmental Protection Agency. 2015. "Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Benita Best-Wong, Office of Wetlands, Oceans, and Watersheds, August 13, 2015.

U.S. Environmental Protection Agency. 2017. "Information Concerning 2018 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," John Goodin, Office of Wetlands, Oceans, and Watersheds, December 22, 2017.

U.S. Environmental Protection Agency. 2021. "Information Concerning 2022 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," John Goodin, Office of Wetlands, Oceans, and Watersheds, March 31, 2021.