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OFFICE OF THE
REGIONAL ADMINISTRATOR

Bruce Anderson, Director
Hawai'i Department of Health
Kinau Hale
1250 Punchbowl Street
Honolulu, Hawai'i 96813

Re: Hawai'i 2018 List of Impaired Waters under Clean Water Act (CWA), Section 303(d)

Dear Mr. Anderson:

The Environmental Protection Agency (EPA) appreciates the Hawai'i Department of Health's (HDOH) supplemental submission of May 27, 2020, in response to EPA's withdrawal of certain aspects of Hawai'i's 2018 List of Impaired Waters.¹ EPA has carefully reviewed Hawai'i's response, including the listing decisions, the assessment methodology, and supporting data and information to determine whether the State reasonably identified waters to be listed as impaired.

Based on this analysis, EPA approves Hawai'i's decision not to list 17 of 19 waterbodies based on the State's conclusion that the readily available data and information do not require the identification of those waterbodies as impaired. While EPA does not agree with some of Hawai'i's specific reasoning for not listing, the State's decision not to list these waterbodies is reasonable.

EPA disapproves the State's decision not to list the Kamilo Beach and Tern Island waterbodies because the existing and readily available data and information for those waterbodies indicate that they are impaired by trash and the State's decision is inconsistent with CWA Section 303(d) and EPA's implementing regulations. Therefore, EPA is adding Kamilo Beach and Tern Island to Hawai'i's 2018 CWA Section 303(d) List for trash impairments of marine waters and marine bottom ecosystems designated uses.

EPA will issue a public notice providing for a 30-day public comment period on these two additions to Hawai'i's CWA Section 303(d) List. After considering any comments received, EPA may make revisions, as appropriate, and will transmit its listings to Hawai'i for incorporation into the State's water quality management plan.

The enclosed provides the analysis and basis for EPA's decision. EPA acknowledges that several states are currently evaluating similar data and information related to plastics and trash and is considering whether additional steps could be taken to support states in meeting the requirements of CWA Section 303(d). EPA stands ready to provide technical assistance to Hawai'i at your request.

¹ March 30, 2020 letter from EPA Regional Administrator John Busterud to HDOH Director Bruce Anderson

I look forward to our continued partnership in addressing water quality challenges in Hawai‘i and thank you for your attention to this matter. If you have any questions, please contact our Water Division Director, Tomás Torres at (415) 972-3337 or torres.tomas@epa.gov.

Sincerely,

JOHN  Digitally signed by
JOHN BUSTERUD
BUSTERUD Date: 2020.07.09
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John W. Busterud
Regional Administrator

Enclosures

cc: Keith Kawaoka, Deputy Director, Environmental Health Administration

EPA Review of Hawaii's 2018 Section 303(d) List Supplemental Submission, dated May 27, 2020

Purpose

The purpose of this document is to describe the basis for EPA's partial approval and partial disapproval of Hawaii's 2018 List of Impaired Waters under Clean Water Act, Section 303(d).

On March 30, 2020, EPA Region 9 withdrew specific aspects of EPA's August 16, 2018 approval of the State of Hawaii's 2018 Section 303(d) List of Impaired Waters. EPA reevaluated the State's submission and determined that it was incomplete and thus not fully consistent with the requirements of Section 303(d) of the Clean Water Act and EPA regulations. Specifically, the State's submission did not demonstrate that it satisfied its statutory and regulatory obligation to assemble and evaluate all existing and readily available water quality-related data and information, specifically for plastic trash. EPA's withdrawal action was specifically with respect to the evaluation of plastics in Hawaii waterbodies for which Hawaii received water quality-related data and information. EPA did not modify any other aspect of its August 16, 2018 approval.¹

EPA requested that the State, consistent with its responsibilities and obligations under Section 303(d)(1)(A) of the Clean Water Act and 40 C.F.R. § 130.7(b)(5), assemble and evaluate all existing and readily available water quality-related data and information related to plastics in Hawaii waterbodies for which the State has data and information. EPA further requested that the State submit the results of that evaluation for EPA consideration by May 29, 2020, including any supporting documentation and, if appropriate, an assessment of whether the waters are meeting the applicable water quality standards. Hawaii prepared a response and supplemental submission, which EPA received on May 27, 2020, and determined that no waters should be listed as impaired for plastic trash.

EPA carefully reviewed Hawaii's response including the listing decisions, the assessment methodology and rationale used by the State in developing its decisions, and the supporting data and information to determine whether the State assembled and evaluated existing and readily available water quality-related data and information for plastic trash and reasonably identified waters to be listed as impaired. The sections below describe the bases for EPA's decision to partially approve Hawaii's decision not to list any waterbodies for plastic trash. This document also describes the bases for EPA's decision to disapprove Hawaii's decision not to list for the applicable water quality standards at Kamilo Beach and Tern Island for trash impairments.

As required by EPA's regulations, EPA will issue a public notice seeking comment on the addition of Kamilo Beach and Tern Island to Hawaii's Section 303(d) List for trash impairments of marine waters and marine bottom ecosystems designated uses and will, if appropriate, revise the list following consideration of any comments received.

¹ When EPA acts on a state's list submission, that action supersedes any prior action on the same waters. *See Blue Water Baltimore v. Pruitt*, 266 F. Supp. 3d 174, 180-81 (D.D.C.), *amended sub nom. Baltimore v. Pruitt*, 293 F. Supp. 3d 1 (D.D.C. 2017). Therefore, EPA's action on the State's 2018 303(d) list, including this action on Hawaii's supplemental submission on plastics, supersedes its approval of the State's 2016 303(d) list.

Statutory and Regulatory Background

Identification of Water Quality Limited Segments for Inclusion on a Section 303(d) List

Section 303(d)(1) of the Clean Water Act directs each state to identify those waters within its boundaries for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement includes waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that states do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Clean Water Act, (2) more stringent effluent limitations required by federal, State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 C.F.R. § 130.7(b)(1).

Evaluation of Existing and Readily Available Water Quality-Related Data and Information

In developing its list of water-quality-limited segments requiring a Total Maximum Daily Load (TMDL), a state is required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the State's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. See 40 C.F.R. § 130.7(b)(5). In addition to these minimum categories, States are required to assemble and evaluate any other water quality-related data and information that is existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available (see EPA 1991, Appendix C).

While states are required to assemble and evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters. EPA regulations at 40 C.F.R. § 130.7(b)(6) require states to include as part of their submittal to EPA documentation to support decisions to use or not use particular existing and readily available 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.

For any waterbody included on the Section 303(d) List, EPA regulations at 40 C.F.R. §§ 130.7(b)(4) and 130.7(d)(2) require the identification of the pollutants causing or expected to cause violations of the applicable water quality standards.

Analysis of Hawaii's May 27, 2020 Submittal

Identification of Waters and Evaluation of Existing and Readily Available Water Quality-Related Data and Information

On May 27, 2020, Hawaii submitted to EPA its response letter and two attachments: 1) "Evaluation of Data and Information Submitted by the Center for Biological Diversity (CBD) for evaluation in Hawaii's 2018 Section 303(d) List of Impaired Waters, By Hawaii Department of Health, Clean Water Branch April 2020"² and 2) "Summary and Analysis of CBD Data and Information Provided for Plastics Impairment Listing."

EPA has reviewed the State's submittal and has concluded that the State developed its list of water quality limited segments requiring a TMDL in compliance with Section 303(d) of the Act and 40 CFR § 130.7, except with respect to two waterbodies identified by EPA in this document. All of the data and information reviewed for this action pertained to the presence of plastic debris and other materials, which are a subcategory of trash. Accordingly, for the purposes of this action and the State's Section 303(d) List, the pollutant causing the impairment of the two segments that are the subject of EPA's disapproval is trash.

Hawaii's Data Evaluation and Decision Rationale

In Hawaii's supplemental submission, the State explained that it reviewed all of the relevant studies and information provided by the CBD in its October 15, 2015 letter to the Hawaii Department of Health (DOH). Of this information, the State identified five primary studies that contained information specific to 19 Hawaii waters:

1. Carson, H. S., Colbert, S. L., Kaylor, M. J., McDermid, K. J., 2011. Small plastic debris changes water movement and heat transfer through beach sediments. *Marine Pollution Bulletin* 62, 1708-1713.
2. Cooper, D. A., Corcoran, P. L., 2010. Effects of mechanical and chemical processes on the degradation of plastic beach debris on the island of Kauai, Hawaii. *Marine Pollution Bulletin* 60, 650-654.
3. Ericksen, M., Lebreton, L. C. M., Carson, H. S., Thiel, M., Moore, C. J., et al., 2014. Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea. *PLoS ONE* 9(12). e111913. DOI:10.1371/journal.pone.0111913.
4. McDermid, K. J., McMullen, T. L., 2004. Quantitative analysis of small plastic debris on beaches in the Hawai'ian archipelago. *Marine Pollution Bulletin* 48, 790-794.
5. Rios, L. M., Moore, C., Jones, P. R., 2007. Persistent organic pollutants carried by synthetic polymers in the ocean environment. *Marine Pollution Bulletin* 54, 1230-1237.

² Hawaii's May 27, 2020 Response Attachment 1 included a *Summary Table of Rationale for Not Listing Plastics Impairment on 303(d) List*, with 22 Waterbody entries, including 2 entries for Kamilo Beach, and 3 entries for Tern Island. EPA considered all the entries but consolidated the 2 Kamilo Beach entries as 1 waterbody and similarly consolidated the 3 Tern Island entries as 1 waterbody, for a total of 19 waterbodies subject to EPA's evaluation. In addition to the 17 waterbodies CBD asked Hawaii to consider for listing, Hawaii's Summary Table also included Waikapuna Beach, Hawaii and Kualoa Beach, Oahu.

The State summarized the data from each of the five studies and cited the following reasons for not using the data to assess water quality impairment of 19 evaluated waterbodies (Table 1):

- The impairment threshold is unknown and undeterminable,
- Samples from beyond 3-mile State limit,
- Ownership jurisdiction dispute,
- Organics analyses (on plastics from beach) translation to water quality impact unavailable and undeterminable, and
- Sediment analyses translation to water quality impact unavailable and undeterminable.

Hawaii also stated that “there is insufficient information and assessment methodology to make a determination of water quality impairment due to plastics.” EPA understands the State’s assertion that “there is insufficient information” to summarize its more specific technical concerns, which are discussed below. In addition, EPA has concluded that in this case the State’s lack of a formalized methodology by itself is not a basis to decline to evaluate available data or information when developing its Section 303(d) List.

EPA also disagrees with Hawaii’s assertion that sediment analysis translation to water quality impacts is unavailable and undeterminable. Hawaii’s assessment methodology states that information about sediment contamination can be evaluated in making listing decisions for surface waters. (2018 State of Hawaii Water Quality Monitoring and Assessment Report: Integrated Report to the U.S. Environmental Protection Agency and the U.S. Congress).

While the State evaluated the data presented in the five primary studies, there is additional existing and readily available information discussed in CBD’s submission to the State and its cited references that are also appropriate for assessing waters for trash impairments on the Kamilo Beach and Tern Island waterbodies. The State should have evaluated this information in its decision making and EPA is therefore disapproving the State’s decision not to identify these waterbodies for inclusion on Hawaii’s 2018 Section 303(d) List.

As summarized on Table 1 attached, EPA partially approves and partially disapproves Hawaii’s supplemental Section 303(d) List submission. For those portions of the list that EPA is approving, EPA agrees with the State’s conclusion that the data and information do not require the identification of those waterbodies as impaired. However, EPA’s rationale differs to some extent from the State’s as explained below. EPA disapproves the State’s decision not to list the Kamilo Beach and Tern Island waterbodies because the existing and readily available data and information for those waterbodies indicate that they are impaired by trash and the State’s decision not to list these waterbodies is inconsistent with CWA Section 303(d) and EPA’s implementing regulations.

Basis for EPA Decision to Partially Approve Hawaii’s 2018 303(d) List

EPA agrees that Hawaii’s decision was reasonable not to identify most of the waterbodies it examined as impaired based on the existing and readily available data and information. Accordingly, EPA approves Hawaii’s decision not to list 17 of 19 waterbodies in Table 1. While

EPA does not agree with some of Hawaii's specific reasoning as discussed herein, EPA finds that Hawaii's decision not to list is reasonable.

EPA approves Hawaii's decision not to list the waterbodies of **Necker Island, Nihoa Island, and between Nihoa and Ni'ihau Islands**. In its supplemental submission, Hawaii declined to use data samples that were collected between 7 and 50 miles offshore, well beyond the 3-mile limit of Hawaii's coastal jurisdiction. Although in some cases states may make reasonable inferences about state water quality on the basis of representative data collected outside of state waters, EPA agrees that in this instance the available data and information do not provide a basis to extrapolate to Hawaii's waters. The studies do not provide specific information about the presence of trash in Hawaii's waters, nor do they provide a basis to extrapolate to the State waters in light of the distances involved. Therefore, in light of the existing and readily available data and information, the State's conclusion was reasonable and it was not required to list.

EPA approves Hawaii's decision not to list the **Southeast Hawaii (Island) waterbody**. EPA finds that there are questions and uncertainty about whether the available data and information are temporally or spatially representative such that the State was not required to find that the waters are impaired. The only data for this waterbody is from Ericksen et al. (2014). Ericksen includes only four samples taken from across approximately 80 km of coastline and represents approximately 600 km² of open water. Considered individually, each location was sampled only once, and so there is ambiguity about the temporal representativeness of these data—specifically, whether a single time point is sufficient to represent variable ocean conditions here. Therefore, in light of the existing and readily available data and information, the State's conclusion was reasonable and it was not required to list.

EPA approves Hawaii's decision not to list the **Ka'ula Island waterbody**, but on grounds other than those provided by the State. EPA finds that there are questions and uncertainty about whether the available data and information are temporally or spatially representative such that the State was not required to find that the waters are impaired. Therefore, in light of the single sample collected by Ericksen et al. (2014), which is the only existing and readily available data and information, the State's conclusion was reasonable and it was not required to list. EPA is not basing its decision on the State's proffered rationale regarding an ownership dispute between the State and the federal government over the island.

EPA approves Hawaii's decision not to list **Kualoa Beach, Oahu**. EPA finds that there are questions and uncertainty about whether the available data and information are temporally or spatially representative such that the State was not required to find that the waters are impaired. EPA's evaluation of the data found that Rios et al. (2007) did not describe their sampling methods including the number of samples or the locations or areas of the beach that were sampled. Therefore, in light of the existing and readily available data and information, the State's conclusion was reasonable and it was not required to list.

EPA approves Hawaii's decision not to list **Waikapuna Beach, Hawaii**. Carson et al. (2011) used this beach as a "control" to Kamilo Beach because it does not accumulate large amounts of plastic debris. Most beach sediment samples collected below the high tide mark were free from plastics. Therefore, in light of the existing and readily available data and information, the State's conclusion was reasonable and it was not required to list.

EPA approves Hawaii's decision not to list the **Kaua'i Beaches of Kalihiwai, Kealia, Lydgate and Maha'ulepu**. EPA finds that there are questions and uncertainty about whether the available data and information are temporally or spatially representative such that the State was not required to find that the waters are impaired. Data for these beaches are contained in Cooper and Corcoran (2010). The study reported beach sediment plastics as aggregate numbers of plastics collected from all sample locations including dry sand above the high tide line. EPA's evaluation of the data could not determine to what extent plastic may have been collected from the marine bottom within the waterbody or whether the plastics documented were deposited from coastal waters or sources outside the waterbody. Therefore, in light of the existing and readily available data and information, the State's conclusion was reasonable and it was not required to list.

EPA approves Hawaii's decision not to list the **Nanakuli Beach Park on O'ahu, North Halawa Valley on Moloka'i, South Halawa Valley on Moloka'i, Green Sands Beach on Hawai'i, North Waipi'o Valley on Hawaii and South Waipi'o Valley on Hawaii waterbodies**. EPA finds that there are questions and uncertainty about whether the available data and information are temporally or spatially representative such that the State was not required to find that the waters are impaired. McDermid and McMullen (2004) collected plastics from small 0.61 x 0.61 m² plots at only two locations per beach. For the O'ahu and Hawaii beaches one plot was located on the berm above the high tide line, and EPA was unable to determine how much, if any, plastic was collected from the marine bottom within the waterbody or whether the plastics documented were deposited from coastal waters or sources outside the waterbody. Therefore, in light of the existing and readily available data and information, the State's conclusion was reasonable and it was not required to list.

Basis for EPA Decision to Partially Disapprove and Add Two Waters to Hawaii's 2018 303(d) List

This section describes the basis for EPA's disapproval of the State's decision not to list Kamilo Beach and Tern Island waterbodies and EPA's addition of these waterbodies to Hawaii's 2018 Section 303(d) List.

Relevant Hawaii Water Quality Standards (WQS)

Hawaii's standards are found in its Administrative Rules, Title 11 Department of Health, Chapter 54 Water Quality Standards (HAR §11-54 et seq.).³ The relevant sections for the purposes of assessing trash related impairments are included as Attachment A.

³ <https://health.hawaii.gov/cwb/hawaii-administrative-rules-har/har-11-54/>

Waters Added to Hawaii's 303(d) List:

1) Kamilo Beach, Island of Hawaii

Hawaii declined to list Kamilo Beach however, EPA finds that the data and information provided in Carson et al. (2011) demonstrate that Kamilo Beach is impaired by trash and should be included on Hawaii's list of water quality impaired waters. Hawaii has classified Kamilo Beach as a Class AA marine water⁴ and Class II marine bottom ecosystem.⁵ As such, EPA finds the following portions of Hawaii's water quality standards are relevant to its listing decision here:

HAR §11-54-4 *Basic water quality criteria applicable to all waters.*

(a) All waters shall be free of...(1) Materials that will settle to form objectionable ... bottom deposits; (2) Floating debris, ... or other floating materials; (3) Substances in amounts sufficient to...produce objectionable ...conditions in the receiving waters; (4) ...or other deleterious substances ... in amounts sufficient to interfere with any beneficial use of the water.

HAR §11-54-3 *Classification of water uses. ...*

(c) Marine waters.

(1) Class AA. It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected.

HAR §11-54-3, *Classification of water uses...*

(d) Marine bottom ecosystems.

(2) Class II. It is the objective of class II marine bottom ecosystems that their use for protection ... for recreational purposes not be limited in any way. The uses to be protected in this class of marine bottom ecosystems are all uses compatible ...with recreation.

Carson et al. (2011) used a robust sampling strategy to quantify plastic fragments in beach sands at Kamilo Beach. This study collected sediments along five random transects perpendicular to the shoreline. Each transect consisted of one core taken at the center of the prominent wrack line, a second core taken one-meter seaward, and a third core taken two meters landward from the wrack line (on the "berm"). Each 25-cm deep core was split into 5 cm deep increments for analysis and data reporting. Plastics were quantified as % sediment by weight.

The data collected below the high tide line, which is part of what Hawaii's water quality standards describe as the marine bottom ecosystem,⁶ demonstrates that the waters are impaired, with plastics widespread throughout sediments below the high tide line at Kamilo Beach.

⁴ HAR §11-54 Appendix D

⁵ HAR §11-54-7

⁶ HAR §11-54-3

EPA also finds Hawaii did not evaluate other existing and readily available information presented in Carson et al. (2011). The study describes additional information about the condition of Kamilo Beach that shows impairment by trash. The study describes that Kamilo Beach is referred to as “Junk Beach,” and discusses that there are documentaries about the large amounts of plastic trash that accumulate on Kamilo Beach. Carson et al. (2011, 2013) also explains that since 2003, Hawaii Wildlife Fund organizes clean-ups at Kamilo Beach or nearby coastlines four times a year removing an average of 16 metric tons of trash per year from this area, of which a significant portion is plastic trash.⁷ EPA verified the narrative information describing the continual deposition of trash on Kamilo Beach, and the frequent clean-up efforts by citizen groups as demonstrating that trash pollution at this beach is temporally and spatially widespread.

EPA finds there is sufficient existing and readily available water quality-related data and information that can be used to perform a reliable assessment of Kamilo Beach under Hawaii’s basic water quality criteria and designated uses.

Based on the data and information described above, EPA has determined that Hawaii’s basic water quality criteria (HAR §11-54-4) and designated uses for Class AA marine waters (HAR §11-54-3) and Class II marine bottom ecosystems (HAR §11-54-3) are not met and identifies these waters for inclusion on Hawaii’s 2018 303(d) List of impaired waters due to trash.

2) **Tern Island, Northwestern Hawaiian Islands**

Hawaii declined to list Tern Island, however, EPA finds that the available data and information demonstrate that Tern Island is impaired by trash and should be included on Hawaii’s list of water quality impaired waters. Hawaii has classified Tern Island as a Class AA marine water⁸ and Class I marine bottom ecosystem.⁹ As such, EPA finds the following portions of Hawaii’s water quality standards are relevant to its listing decision:

HAR §11-54-4 (a) All waters shall be free of...(1) Materials that will settle to form objectionable ... bottom deposits; (2) Floating debris, ... or other floating materials; (3) Substances in amounts sufficient to...produce objectionable ...conditions in the receiving waters; (4) ...or other deleterious substances ... in amounts sufficient to interfere with any beneficial use of the water.

HAR §11-54-3 *Classification of water uses.* ...

(c) Marine waters.

(1) Class AA. It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused

⁷ Carson et al. 2013. Tracking the sources and sinks of local marine debris in Hawai’i. *Marine Environmental Research* 84:76–83.

⁸ HAR §11-54 Appendix D

⁹ HAR §11-54-7

source or actions. To the extent practicable, the wilderness character of these areas shall be protected.

HAR §11-54-3, *Classification of water uses...*

(d) Marine bottom ecosystems.

(1) Class I. It is the objective of class I marine bottom ecosystems that they remain as nearly as possible in their natural pristine state with an absolute minimum of pollution from any human-induced source. Uses ... in this class are passive human uses without intervention or alteration, allowing the perpetuation and preservation of the marine bottom in a most natural state...

The State concluded that the data in the study by Rios et al. (2007) and McDermid and McMullen (2004) are not, by themselves, sufficient to require the identification of these waters as impaired. EPA agrees and finds that there are questions about whether the data in those studies are temporally or spatially representative such that the State was not required to find that the waters are impaired based on those data.¹⁰

However, there are other lines of evidence indicating impairment of the Tern Island waterbody. EPA finds Hawaii did not evaluate readily available data and information from the *“Technical Support Document to the Preliminary Assessment of the FWS – Hawai‘ian Islands National Wildlife Refuge: Tern Island Site in the French Frigate Shoals, Hawai‘i”* (EPA 2014).¹¹ In that report, EPA evaluated available information on the releases of hazardous substances, pollutants, or contaminants that may pose a threat to human health or the environment. The report states that due to the location of Tern Island with respect to the North Pacific Subtropical Convergence Zone, large quantities of marine debris, including plastics, are deposited on Tern Island. The report documents that Tern Island receives consistent high-volume deposition of marine debris and includes findings from a 16-year study that documents “continuous and significant” accumulation of trash from marine debris.¹²

Plastics, excluding polystyrene, comprised 71% of the marine debris deposited on Tern Island during the study. The EPA 2014 report also discusses periodic clean-ups of marine debris conducted by NOAA around Tern Island, and reports that over an 11-year period NOAA removed 77.2 metric tons of marine debris around French Frigate Shoals, with approximately 14.5 metric tons collected within 3 miles of Tern Island. The report includes information collected over many years and EPA has no newer information to suggest different current conditions.

EPA finds there is sufficient existing and readily available water quality-related data and information that can be used to perform a reliable assessment of Tern Island under Hawaii’s basic water quality criteria and designated uses.

¹⁰ EPA discusses data representativeness in the context of listing under CWA section 303(d) in Integrated Reporting Memoranda for 2004 (starting on page 24) and 2006 (starting on page 33).

¹¹ <https://www.epa.gov/trash-free-waters/tern-island-preliminary-assessment-and-technical-support-document>

¹² Morishige et al. 2007. Factors affecting marine debris deposition at French Frigate Shoals, Northwestern Hawaiian Islands Marine National Monument, 1990–2006. *Marine Pollution Bulletin* 54:1162-1169.

Based on the data and information described above, EPA has determined that Hawaii's basic water quality criteria (HAR §11-54-4) and designated uses for Class AA marine waters (HAR §11-54-3) and Class I marine bottom ecosystems (HAR §11-54-3) are not met and identifies these waters for inclusion on Hawaii's 2018 303(d) List of impaired waters due to trash.

Supporting Documents for This Action and Next Steps

In support of this decision to partially approve and partially disapprove Hawaii's evaluation of plastics data and information and listing decisions, EPA reviewed, inter alia, Hawaii's May 27, 2020 supplemental response and submission, the data, information, and comments CBD submitted to Hawaii regarding its 2016 Section 303(d) List including referenced materials, EPA guidance concerning preparation of Section 303(d) Lists, EPA's letter partially withdrawing approval of the 2018 List, as well as other documents available upon request.

Pursuant to EPA regulations, 40 C.F.R. § 130.7(d)(2), EPA will issue a public notice seeking comment on these two additions to Hawaii's CWA Section 303(d) List. After considering any comments received, EPA may make revisions, as appropriate, and transmit its listings to Hawaii for incorporation in the State's water quality management plan.

Attachment A

Hawaii Administrative Rules, Title 11 Department of Health, Chapter 54 Water Quality Standards (HAR §11-54 et seq.). See: [HAR §11-54](https://health.hawaii.gov/cwb/hawaii-administrative-rules-har/har-11-54/) for a link to the full chapter. (<https://health.hawaii.gov/cwb/hawaii-administrative-rules-har/har-11-54/>)

1. HAR §11-54-4 *Basic water quality criteria applicable to all waters.* (a) All waters shall be free of substances attributable to domestic, industrial, or other controllable sources of pollutants, including:

- (1) Materials that will settle to form objectionable sludge or bottom deposits;
- (2) Floating debris, oil, grease, scum, or other floating materials;
- (3) Substances in amounts sufficient to produce taste in the water or detectable off-flavor in the flesh of fish, or in amounts sufficient to produce objectionable color, turbidity or other conditions in the receiving waters;
- (4) High or low temperatures, biocides, pathogenic organisms, toxic, radioactive, corrosive, or other deleterious substances at levels or in combinations sufficient to be toxic or harmful to human, animal, plant, or aquatic life, or in amounts sufficient to interfere with any beneficial use of the water;
- (5) Substances or conditions or combinations thereof in concentrations which produce undesirable aquatic life; and
- (6) Soil particles resulting from erosion on land involved in earthwork, such as the construction of public works; highways; subdivisions; recreational, commercial, or industrial developments; or the cultivation and management of agricultural lands.

2. HAR §11-54-3 *Classification of water uses.* (a) The following use categories classify inland and marine waters for purposes of applying the standards set forth in this chapter, and for the selection or definition of appropriate quality parameters and uses to be protected in these waters. Storm water discharge into State waters shall be allowed provided it meets the requirements specified in this section and the basic water quality criteria specified in section 11-54-4.

(b) Inland waters...

(c) Marine waters.

(1) Class AA. It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected. No zones of mixing shall be permitted in this class:

(A) Within a defined reef area, in waters of a depth less than 18 meters (ten fathoms); or

(B) In waters up to a distance of 300 meters (one thousand feet) off shore if there is no defined reef area and if the depth is greater than 18 meters (ten fathoms).

The uses to be protected in this class of waters are oceanographic research, the support and propagation of shellfish and other marine life, conservation of coral reefs and wilderness areas, compatible recreation, and aesthetic enjoyment. The classification of any water area as Class AA shall not preclude other uses of the waters compatible with these objectives and in conformance with the criteria applicable to them;

(2) Class A. It is the objective of class A waters that their use for recreational purposes and aesthetic enjoyment be protected. Any other use shall be permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters.

3. HAR §11-54-3, *Classification of water uses...* (d) Marine bottom ecosystems.

(1) Class I. It is the objective of class I marine bottom ecosystems that they remain as nearly as possible in their natural pristine state with an absolute minimum of pollution from any human-induced source. Uses of marine bottom ecosystems in this class are passive human uses without intervention or alteration, allowing the perpetuation and preservation of the marine bottom in a most natural state, such as for nonconsumptive scientific research (demonstration, observation or monitoring only), nonconsumptive education, aesthetic enjoyment, passive activities, and preservation;

(2) Class II. It is the objective of class II marine bottom ecosystems that their use for protection including propagation of fish, shellfish, and wildlife, and for recreational purposes not be limited in any way. The uses to be protected in this class of marine bottom ecosystems are all uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation.

4. HAR §11-54-7, *Uses and specific criteria applicable to marine bottom types.*

(a) Sand beaches. (1) As used in this subsection: "Sand beaches" means shoreline composed of the weathered calcareous remains of marine algae and animals (white sand), the weathered remains of volcanic tuff (olivine), or the weathered remains of lava (black sand). Associated animals are largely burrowers and are related to particle grain size, slope, and color of the beach.

(2) Water areas to be protected:

(A) Class I - All beaches on the Northwestern Hawaiian Islands. These islands comprise that portion of the Hawaiian archipelago which lies northwest of the Island of Kauai and is part of the State of Hawaii; including Nihoa Island, Necker Island, French Frigate Shoals, Brooks Banks, Gardiner Pinnacles, Dowsett and Maro Reef, Laysan Island, Lisianski Island, Pearl and Hermes Atoll, Gambia Shoal, and Kure Atoll.

(B) Class II - All beaches not in Class I.

(b) Lava rock shoreline and solution benches...

(c) Marine pools and protected coves...

(d) Artificial basins...

(e) Reef flats and reef communities. (1) As used in this subsection: "Nearshore reef flats" means shallow platforms of reef rock, rubble, and sand extending from the shoreline. Smaller, younger flats projected out as semicircular aprons while

older, larger flats form wide continuous platforms. Associated animals are mollusks, echinoderms, worms, crustaceans (many living beneath the surface), and reef-building corals. "Offshore reef flats" means shallow, submerged platforms of reef rock and sand between depths of zero to three meters (zero to ten feet) which are separated from the shoreline of high volcanic islands by lagoons or ocean expanses. Dominant organisms are bottom-dwelling algae. Biological composition is extremely variable...

Table 1

Summary of EPA Decisions for Partial Approval of Hawaii 2018 Section 303(d) List of Impaired Waters

	Waterbody	EPA Decision
1	SE Hawaii	Approve non-list decision
2	Necker Island	Approve non-list decision
3	Nihoa Island	Approve non-list decision
4	Between Nihoa and Ni'ihau	Approve non-list decision
5	Ka'ula	Approve non-list decision
6	Tern Island I Tern Island II Tern Island S. Beach	Disapprove non-list decision Add Tern Island to Hawaii's 303(d) List for trash
7	Kualoa Beach, Oahu	Approve non-list decision
8	Kamilo Beach, Hawaii	Disapprove non-list decision Add Kamilo Beach to Hawaii's 303(d) List for trash
9	Waikapuna Beach, Hawaii	Approve non-list decision
10	Kalihiwai, Kauai	Approve non-list decision
11	Kealia, Kauai	Approve non-list decision
12	Lydgate, Kauai	Approve non-list decision
13	Maha'ulepu, Kauai	Approve non-list decision
14	Nanakuli Beach, Oahu	Approve non-list decision
15	N. Halawa Valley, Molokai	Approve non-list decision
16	S. Halawa Valley, Molokai	Approve non-list decision
17	Green Sands Bch., Hawaii	Approve non-list decision
18	N. Waipi'o Valley, Hawaii	Approve non-list decision
19	S. Waipi'o Valley, Hawaii	Approve non-list decision