

**HAWAII ADMINISTRATIVE RULES  
TITLE 11 CHAPTER 54  
WATER QUALITY STANDARDS  
DETAILS OF 2022 TRIENNIAL REVIEW**

**DEPARTMENT OF HEALTH  
ENVIRONMENTAL MANAGEMENT DIVISION  
CLEAN WATER BRANCH  
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## **I. BACKGROUND**

Water Quality Standards in Hawaii (State WQS) provide the regulatory basis for assessing, protecting and restoring water bodies in the State. The three key components of State WQS are antidegradation requirements, designated uses, and water quality criteria. Specifically, antidegradation requirements provide the regulatory framework for protecting existing uses, designated uses identify the beneficial values of all state waters, and water quality criteria define the necessary conditions for achieving designated uses. The State WQS are specified in Hawaii Administrative Rules at Title 11, Chapter 54 (HAR 11-54).

The Clean Water Act (CWA) requires all states to review and to update, if necessary, their water quality standards at least once every three years. All revisions to water quality standards must be subject to the public participation process, and they must be adopted by the applicable states and approved by the U.S. Environmental Protection Agency (EPA). The Hawaii Department of Health (HDOH) conducted the last triennial review of State WQS in March 2019. A public comment period was established, and a public hearing was held to solicit input from the public and other stakeholders about the intent to update water quality criteria for the protection of human health and to allow the use of site-specific flexibilities.

## **II. 2022 TRIENNIAL REVIEW**

The next triennial review of State WQS is scheduled for March 2022. For this upcoming triennial review, HDOH has identified thirteen (13) areas of state WQS to review and to update, if necessary. These areas include the amendment of existing State requirements, the development of future State requirements, the adoption of recent federal recommendations and requirements, and the implementation of State requirements. Applicable federal recommendations and requirements that were issued since the beginning of 2019 are considered during this upcoming triennial review.

After the public hearing for the 2022 triennial review, HDOH will publish a response to the comments submitted during the public comment period. HDOH will outline in this response a work plan of proposed updates to State WQS. It is estimated that the rationales for all proposed updates to State WQS will be ready for public review and input in early 2024.

## **III. STATE WQS TO UPDATE**

For State WQS that are proposed to be reviewed, the tables below list the description of the issues, and the proposed action to address the issues.

Table 1. Purposes of State WQS

<b>General Requirements and Implementation Policies</b> <i>Not currently specified in HAR 11-54</i>	
Description	Proposed Action
<p>The purposes of water quality standards and their statutory requirement are not clearly stated in HAR 11-54. Specifically, the purposes of preventing, controlling and abating water pollution are listed in section 4 of Hawaii Revised Statutes at Title 19, Health, Chapter 342D (HRS §342D-4), and the requirement for water quality standards is mandated in section 5 (HRS §342D-5). These two HRS sections are referenced as citations of authority in the source notes of HAR 11-54-1.</p> <p>It is also not stated in HAR 11-54 that water quality standards serve the purposes of the CWA. Specifically, the purposes of the CWA are to provide for the protection of public health, for the recreation on and in waters, for the support and propagation of aquatic life, and for the elimination of polluted discharges into surface waters.</p> <p>(end of description)</p>	<p>HDOH will update HAR 11-54 to clearly state the purposes of water quality standards and their statutory requirements.</p> <p>The following modifications are proposed for HAR 11-54-1.1:</p> <ol style="list-style-type: none"> <li>1. Rename the existing section HAR 11-54-1.1 as “Scope of water quality standards and antidegradation policy.”</li> <li>2. Renumber the existing subsections HAR 11-54-1.1(a) through HAR 11-54-1.1(d) as new subsections HAR 11-54-1.1(b)(2)(i) through HAR 11-54-1.1(b)(2)(iv) respectively.</li> <li>3. Amend the existing subsection HAR 11-54-1.1(a) to specify the purposes and objectives of water quality standards.</li> <li>4. Amend the existing subsection HAR 11-54-1.1(b) to specify the purposes and objectives of the antidegradation policy.</li> </ol> <p>Specifically, the proposed structure of HAR 11-54-1.1 is as follows:</p> <p><i>§11-54-1.1 Scope of water quality standards and antidegradation policy.</i></p> <p><i>§11-54-1.1(a) Water quality standards.</i></p> <p><i>§11-54-1.1(b) Antidegradation policy.</i></p> <p>(see next page for second part of proposed action)</p>

Table 1. Purposes of State WQS, Continued

<b>General Requirements and Implementation Policies</b> <i>Not currently specified in HAR 11-54</i>	
Description	Proposed Action
(see previous page for description)	<p>(see previous page for first part of proposed action)</p> <p>HAR 11-54-1.1 is proposed to be amended as follows:</p> <p><b><i><u>§11-54-1.1 [General policy of water quality antidegradation.]Scope of water quality standards and antidegradation policy.</u></i></b></p> <p><b><i><u>(a) Water quality standards.</u></i></b></p> <p><b><i><u>(1) Water quality standards that are specified in this chapter serve the purposes of the Act and chapter 342D, HRS. The purposes of water quality standards are to provide for the protection of public health, for the recreation on and in state waters, for the support of aquatic life, for the promotion of environmental quality, and for the regulation of the discharge of water pollutants into state waters.</u></i></b></p> <p><b><i><u>(2) Water quality standards define the antidegradation requirements to protect existing uses, designate the beneficial uses of state waters, and specify the water quality criteria necessary to protect state waters. The definitions and requirements that are specified in this chapter provide the regulatory basis for the management of water quality of state waters, and for the prevention, control, and abatement of water pollution in state waters.</u></i></b></p> <p>(see next page for third part of proposed action)</p>

Table 1. Purposes of State WQS, Continued

<b>General Requirements and Implementation Policies</b> <i>Not currently specified in HAR 11-54</i>	
Description	Proposed Action
(see previous page for description)	<p>(see previous page for second part of proposed action)</p> <p><i><u>(b) Antidegradation policy.</u></i></p> <p><i><u>(1) The purposes of the antidegradation policy are to ensure the protection of all existing uses, and to prevent the degradation of water quality to a level that does not protect existing uses.</u></i></p> <p><i><u>(2) The objectives of the antidegradation policy are as follows:</u></i></p> <p><i><u><del>(a)</del>(i) Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.</u></i></p> <p><i><u><del>(b)</del>(ii) Where the quality of the waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and ...<sup>1</sup></u></i></p> <p><i><u><del>(c)</del>(iii) Where existing high quality waters constitute an outstanding resource, such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.</u></i></p> <p><i><u><del>(d)</del>(iv) In those areas where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with section 316 of the Act.</u></i></p> <p>(end of proposed action)</p>

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<sup>1</sup> Due to space constraints, only the beginning of this existing requirement is shown.

Table 2. Requirements of Non-Point Source Pollution Control (HAR 11-56)

<b>General Requirements and Implementation Policies</b> <i>Not currently specified in HAR 11-54</i>	
Description	Proposed Action
<p>On 15 June 2021, Governor Ige signed new rules for the protection of state waters from non-point sources of pollution. The new regulations are specified in the new chapter HAR 11-56 called “Nonpoint Source Pollution Control”.</p> <p>HAR 11-56 provides the framework for the prevention, abatement, and control of new and existing non-point sources of pollution. The new rules are applicable to both publicly owned and privately owned entities that cause or contribute to non-point source pollution. Applicable entities must develop, submit, and implement water pollution prevention plans to effectively control non-point sources of pollution due to their activities.</p> <p>In HAR 11-54, there are requirements for controlling the discharge of soil particles from lands on which soil erosion occurred or is occurring due to activities such as construction projects, highway works or agricultural facilities [per HAR 11-54-4(d)].</p>	<p>HDOH will evaluate how to complement existing regulations in HAR 11-54 with applicable new regulations in HAR 11-56 for the protection of state waters from water pollution. Specifically, HDOH will include in HAR 11-54 the new requirements for water pollution prevention plans to control the discharge of soil particles.</p>

Table 3. Requirements of Vessel Incidental Discharge Act (VIDA)

<b>General Requirements and Implementation Policies</b> <i>Not currently specified in HAR 11-54</i>	
Description	Proposed Action
<p>Point sources of water pollution include discharges from vessels and other floating crafts [per HAR 11-54-1]. A vessel is defined as any form or manner of watercraft, other than a seaplane on the water, whether or not capable of self-propulsion [per HRS 342D-101].</p> <p>On 4 December 2018, President Trump signed into law the Vessel Incidental Discharge Act (VIDA) to establish a new federal framework for regulating incidental discharges from commercial vessels. VIDA required the EPA to propose new federal standards for incidental discharges from commercial vessels before the end of December 2020, and the U.S. Coast Guard to develop the corresponding federal regulations by 2022.</p> <p>In the interim period, the existing requirements for regulating discharges incidental to the normal operations of commercial vessels that were established by the EPA through the 2013 Vessel General Permit (VGP) continue to apply. HDOH has issued a Section 401 Water Quality Certification (WQC0833) for the 2013 VGP. More information about WQC0833 can be found at the following link:</p> <p><a href="https://health.hawaii.gov/cwb/permitting/section-401-wqc/vessel-general-permit-vgp/">https://health.hawaii.gov/cwb/permitting/section-401-wqc/vessel-general-permit-vgp/</a></p>	<p>HDOH will evaluate the forthcoming federal regulations from the U.S. Coast Guard for regulating incidental discharges from commercial vessels. HDOH will ensure that existing state definitions and regulations will be in compliance with new federal definitions and regulations.</p>



Table 4. Definition of Zones of Mixing

<b>General Requirements and Implementation Policies</b> <i>Specified in HAR 11-54-1</i>	
Description	Proposed Action
<p>Zones of mixing are defined as limited areas around outfalls and other facilities to allow for the initial dilution of waste discharges [per HAR 11-54-1]. There is a reference to waste in this definition. However, waste is not defined in HAR 11-54.</p> <p>Waste is defined as sewage, industrial and agricultural matter, and all other liquid, gaseous, or solid substance, including radioactive substance, whether treated or not, which may pollute or tend to pollute state waters [per HRS 342D-1]. In other words, waste can be a liquid, a gas, or a solid.</p> <p>First, mixing zones are defined as limited areas or volumes of water where the initial dilution of discharges takes place, and where certain numeric water quality criteria may be exceeded while remaining below acutely toxic concentrations and without causing any adverse effects to aquatic life [per section 5.1 of the EPA WQS Handbook<sup>2</sup>]. Note that the federal definition only covers the permitted use of mixing zones for the initial dilution of discharges, and not waste discharges as currently specified in HAR 11-54.</p> <p>(see next page for continuation of description)</p>	<p>HDOH will update the current definition of zones of mixing in HAR 11-54 to clarify that zones of mixing are only specified in NPDES permits for the initial dilution of water pollutants from point source discharges into state waters. This clarification will be in compliance with the definition specified by the EPA by deleting the reference to “waste” in discharges.</p> <p>HAR 11-54-1 is proposed to be amended as follows:</p> <p><b><i>§11-54-1 Definitions.</i></b></p> <p><i>"Zones of mixing" means limited <u>and clearly defined</u> areas around outfalls and other facilities to allow for the initial dilution of [<del>waste discharges.</del>]point source discharges that are <u>covered by permits implementing all applicable requirements specified in chapter 11-55.</u> Zones of mixing for the assimilation of domestic, agricultural, and industrial discharges which have received the best degree of treatment or control are recognized as being necessary.</i></p> <p>(end of proposed action)</p>

<sup>2</sup> <https://www.epa.gov/sites/default/files/2014-09/documents/handbook-chapter5.pdf>

Table 4. Definition of Zones of Mixing, Continued

<b>General Requirements and Implementation Policies</b> <i>Specified in HAR 11-54-1</i>	
Description	Proposed Action
<p>(see previous page for start of description)</p> <p>Second, the discharge of all forms of waste (i.e., solid, liquid, and gaseous wastes) is beyond the permitted scope of the National Pollutant Discharge Elimination System (NPDES) program. Specifically, the NPDES program only supports the limited and conditional discharge of applicable pollutants from point sources into receiving waters.</p> <p>(end of description)</p>	<p>(see previous page for proposed action)</p>

Table 5. Protection of Inland Waters

<b>General Requirements, Designated Uses, and Implementation Policies</b> <i>Specified in HAR 11-54-3(b)</i>	
Description	Proposed Action
<p>Storm water discharges into state waters shall be allowed when all applicable requirements specified in HAR 11-54-3 and the basic water quality criteria specified in HAR 11-54-4(a) are met [per HAR 11-54-3(a)].</p> <p>For class 2 inland waters, storm water discharges associated with industrial activities shall be permitted when the basic water quality criteria specified in HAR 11-54-4(a) and all applicable requirements specified in HAR 11-55 are met [per HAR 11-54-3(b)(2)(B)]. For class 1 inland waters, it is not specified that storm water discharges shall be permitted when certain conditions are met.</p> <p>For class 2 estuaries, new treated sewage discharges and new industrial discharges shall not be permitted [per HAR 11-54-3(b)(2)]. For class 1 estuaries, it is not specified if new treated sewage discharges and new industrial discharges are prohibited.</p>	<p>For class 1 inland waters, HDOH will specify that storm water discharges shall be permitted when certain conditions are met. For inland estuaries, HDOH will specify that prohibited discharges are applicable to both class 1 and class 2 inland estuaries.</p> <p>HDOH will use the following proposed structure to specify the use categories of inland waters in HAR 11-54-3(b):</p> <ul style="list-style-type: none"> <li>A. Objectives of a class of inland waters</li> <li>B. Uses of a class of inland waters</li> <li>C. Prohibited discharges for a class of inland waters</li> <li>D. Allowed discharges for a class of inland waters</li> </ul> <p>HDOH will use the following proposed rules to specify prohibited and allowed discharges for inland waters:</p> <ul style="list-style-type: none"> <li>• To equally protect all inland waters, a discharge that is prohibited in one class shall be prohibited in all classes.</li> <li>• To adequately protect inland waters, a discharge that is allowed in one class may be prohibited in other classes. HDOH will provide a rationale for prohibiting or allowing such a discharge.</li> </ul>

Table 6. Protection of Marine Waters

<b>General Requirements, Designated Uses, and Implementation Policies</b> <i>Specified in HAR 11-54-3(c)</i>	
Description	Proposed Action
<p>Storm water discharges into state waters shall be allowed when all applicable requirements specified in HAR 11-54-3 and the basic water quality criteria specified in HAR 11-54-4(a) are met [per HAR 11-54-3(a)].</p> <p>For class A marine waters, storm water discharges associated with industrial activities shall be permitted when the basic water quality criteria specified in HAR 11-54-4(a) and all applicable requirements specified in HAR 11-55 are met [per HAR 11-54-3(c)(2)(B)]. For class AA marine waters, it is not specified that storm water discharges shall be permitted when certain conditions are met.</p> <p>For class A embayments, new sewage discharges and new industrial discharges shall not be permitted [per HAR 11-54-3(c)(2)]. For class AA embayments, it is not specified if new sewage discharges and new industrial discharges are prohibited.</p>	<p>For class AA marine waters, HDOH will specify that storm water discharges shall be permitted when certain conditions are met. For embayments, HDOH will specify that prohibited discharges are applicable to both class AA and class A embayments.</p> <p>HDOH will use the following proposed structure to specify the use categories of marine waters in HAR 11-54-3(c):</p> <ul style="list-style-type: none"> <li>A. Objectives of a class of marine waters</li> <li>B. Uses of a class of marine waters</li> <li>C. Prohibited discharges for a class of marine waters</li> <li>D. Allowed discharges for a class of marine waters</li> </ul> <p>HDOH will use the following proposed rules to specify prohibited and allowed discharges for marine waters:</p> <ul style="list-style-type: none"> <li>• To equally protect all marine waters, a discharge that is prohibited in one class shall be prohibited in all classes.</li> <li>• To adequately protect marine waters, a discharge that is allowed in one class may be prohibited in other classes. HDOH will provide a rationale for prohibiting or allowing such a discharge.</li> </ul>

Table 7. Definition of Class AA Reef Areas

<b>General Requirements, Designated Uses, and Implementation Policies</b> <i>Specified in HAR 11-54-3(c)(1)</i>	
Description	Proposed Action
<p>For class AA marine waters within a defined reef area, no zones of mixing are allowed if the depth is less than ten (10) fathoms [per HAR 11-54-3(c)(1)(A)].</p> <p>When class AA marine waters are not located within a defined reef area, an “imaginary” reef is specified at three hundred (300) meters offshore. Within this “imaginary” reef area, no zones of mixing are allowed if the depth is greater than ten (10) fathoms [per HAR 11-54-3(c)(1)(B)]. In other words, zones of mixing are allowed if the depth is less than ten (10) fathoms when there is no defined reef area.</p> <p>For zones of mixing in class AA marine waters, the depth requirement for areas with no defined reef is the exact opposite of the depth requirement for areas with a defined reef. For zones of mixing, there can only be one depth requirement that is applicable to all class AA marine waters.</p>	<p>HDOH will modify the current specification for zones of mixing in class AA marine waters to specify that no zones of mixing are allowed if the depth is less than ten (10) fathoms.</p> <p>HAR 11-54-(3)(c)(1)(B) is proposed to be amended as follows:</p> <p><b><i>§11-54-3 Classification of water uses.</i></b>  <i>(c) Marine waters.</i>  <i>(1) Class AA.</i>  <i>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 <del>[this class:]</del> <u>the following areas:</u></i>  <i>(A) Within a defined reef area, in waters of a depth less than ten fathoms (eighteen meters); or</i>  <i>(B) <del>[H]</del> <u>If there is no defined reef area, in waters up to a distance of three hundred meters (one thousand feet) offshore [if there is no defined reef area and if the] and of a depth [is greater]less than ten fathoms (eighteen meters).</u></i></p>

Table 8. Clarification of Toxicity Standards

<b>General Requirements and Water Quality Criteria</b> <i>Specified in HAR 11-54-4(c)</i>	
Description	Proposed Action
<p>One of the basic water quality criteria requires that all state waters must be free of 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 these waters [per HAR 11-54-4(a)(4)]. Therefore, all state waters are monitored and analyzed to determine compliance with toxicity standards that are specified for the protection of both human health and aquatic life.</p> <p>The toxicity standards applicable to all state waters are specified in HAR 11-54-4(c). It is only stated that toxicity standards are for the protection of human health.</p>	<p>HDOH will update the requirement for toxicity standards to clarify that these standards are for the protection of both human health and aquatic life.</p> <p>HAR 11-54-4(c) is proposed to be amended as follows:</p> <p><b><i>§11-54-4 Basic water quality criteria applicable to all waters.</i></b>  <i>(c) To ensure compliance with section 11-54-4(a)(4), all state waters are subject to monitoring and to the following <u>acute and chronic toxicity standards for [acute and chronic toxicity and the protection of human health.]the protection of human health and aquatic life.</u></i></p>

Table 9. Adoption of National Aquatic Life Criteria

<b>Water Quality Criteria and Implementation Policies</b> <i>Specified in HAR 11-54-4(c)</i>	
Description	Proposed Action
<p>The EPA periodically publishes updated water quality criteria for the protection of aquatic life. In June 2016, the EPA updated the national recommended water quality criteria for cadmium and selenium in fresh waters to reflect the latest scientific information. For selenium, the final national chronic aquatic life criterion in fresh waters is composed of four elements; two of these elements are expressed as water concentrations and the other two as fish tissue concentrations.</p> <p>Due to their remote location and tropical climate, the Hawaiian islands are characterized by the diversity and uniqueness of native species. Since the aquatic species that are endemic to Hawaii are not accounted for in the derivation of aquatic life criteria recommended by the EPA, HDOH needed more time to evaluate their applicability.</p> <p>For the 2019 triennial review, HDOH did not adopt any national acute and national chronic criteria that the EPA recommended for the protection of aquatic life. HDOH only adopted the national water quality criteria that the EPA recommended in 2015 for the protection of human health.</p>	<p>HDOH will evaluate the national acute and national chronic criteria that the EPA has recommended. At the very least, HDOH will consider the adoption of a subset of these national aquatic life criteria. As part of this evaluation, HDOH will consider the applicability of water quality criteria that the EPA recently recommended for aluminum, cadmium, and selenium in fresh waters.</p>

Table 10. Use of “Combined” Template for Inland Waters

<b>General Requirements, Designated Uses, Water Quality Criteria, and Implementation Policies</b> <i>Specified in HAR 11-54-5.1 and HAR 11-54-5.2</i>	
Description	Proposed Action
<p>State waters are classified by types of inland water and marine water in HAR 11-54-2. Certain types of marine water are further classified by types of bottom ecosystem. Specific criteria are applicable to each type of inland water, marine water, and marine bottom ecosystem. Two templates are currently used in HAR 11-54 for the application of specific criteria.</p> <p>For marine waters, a “combined” template is used. This means that the definition of a given type of marine water, the corresponding list of marine waters to be protected as this given type, and the applicable specific criteria are specified in the same section. As an example, the definition of an embayment, the list of marine waters to be protected as embayments, and the specific criteria of embayments are specified in the same section, HAR 11-54-6(a). For marine bottom ecosystems, this “combined” template is also used. As an example, the definition of a sand beach, the list of marine waters to be protected as sand beaches, and the specific criteria of sand beaches are specified in the same section, HAR 11-54-7(a).</p> <p>(see next page for continuation of description)</p>	<p>For inland waters, HDOH will modify HAR 11-54 to adopt the “combined” template, that is currently used for marine waters and marine bottom ecosystems. Specifically, HDOH will specify the list of inland waters, that are protected as a given type, and the applicable specific criteria in the same section, HAR 11-54-5.</p> <p>The following modifications are proposed for HAR 11-54:</p> <ol style="list-style-type: none"> <li>1. Repeal the existing section HAR 11-54-5.1, “Inland water areas to be protected,” and move the lists of inland waters to be protected to the existing section HAR 11-54-5, “Uses and specific criteria applicable to inland waters.”</li> <li>2. Repeal the existing section HAR 11-54-5.2, “Inland water criteria,” and move the specific water quality criteria of inland waters to the existing section HAR 11-54-5, “Uses and specific criteria applicable to inland waters.”</li> </ol> <p>Incidental to the adoption of the “combined” template for inland waters, HDOH will also modify HAR 11-54 to specify all definitions in the same section, HAR 11-54-1 titled “Definitions.” In other words, it is proposed to move all definitions that are currently specified in any sections other than HAR 11-54-1 for consistency.</p> <p>(end of proposed action)</p>



Table 10. Use of “Combined” Template for Inland Waters, Continued

<b>General Requirements, Designated Uses, Water Quality Criteria, and Implementation Policies</b> <i>Specified in HAR 11-54-5.1 and HAR 11-54-5.2</i>	
Description	Proposed Action
<p>(see previous page for start of description)</p> <p>For inland waters, a “split” template is used. This means that the definition of a given type of inland water is specified in HAR 11-54-1, titled “Definitions,” the corresponding list of inland waters to be protected as this given type, is specified in a section, and the applicable specific criteria are specified in another section. As an example, the definition of streams is specified in HAR 11-54-1, the list of inland waters to be protected as streams is specified in HAR 11-54-5.1(a)(1), and the specific criteria of streams are specified in HAR 11-54-5.2(b).</p> <p>From an implementation perspective, it is preferable to specify the list of state waters, that are protected as a given type, and the applicable specific criteria in the same section.</p> <p>(end of description)</p>	<p>(see previous page for proposed action)</p>

Table 11. Analyses of Water Samples

<b>General Requirements and Implementation Policies</b> <i>Specified in HAR 11-54-10(a)</i>	
Description	Proposed Action
<p>The analysis of water samples shall be performed by a laboratory approved by HDOH [per HAR 11-54-10(a)]. This requirement was mandated by the Environmental Planning Office (EPO) in a memorandum dated August 26, 2004.</p> <p>Due to the reduction of federal funding from the EPA, the EPO closed effective May 2, 2018. The tasks of reviewing and approving laboratories, that were previously performed by the EPO, are not currently performed by any HDOH divisions or branches. There is no current list of laboratories approved by HDOH.</p> <p>The CWA requires all analytical methods that are used to analyze water and other environmental samples to be approved by the EPA. Approved analytical methods are specified in the Code of Federal Regulations at Title 40, Part 136 (40 CFR §136). Currently, there are no provisions in HAR 11-54 to allow the use of analytical methods that are not specified in 40 CFR §136.</p>	<p>HDOH will delete from HAR 11-54-10(a) the requirement to have the analysis of water and other environmental samples performed by a HDOH-approved laboratory. Depending on the availability of future funding, HDOH will re-evaluate this requirement during upcoming triennial reviews.</p> <p>HDOH will add to HAR 11-54-10(a) a new requirement to allow the use of analytical methods that are not approved by the EPA. It is not the intent of this proposed requirement to allow the use of alternate analytical methods when there are analytical methods that are approved by the EPA.</p> <p>HAR 11-54-10(a) is proposed to be amended as follows:</p> <p><b><i>§11-54-10 Water quality analyses. (a)</i></b>  <del><i>[Laboratory analysis shall be performed by a laboratory approved by the department.]</i></del>  <u><i>Analytical methods approved by the EPA shall be used for the analysis of water and other environmental samples. The director may in the director's discretion allow the use of analytical methods that are not specified in title 40 Code of Federal Regulations, part 136 (40 C.F.R. §136) as long as such analytical methods are not used as substitutes for analytical methods approved by the EPA.</i></u></p>

Table 12. Specification of Numeric Criteria for TPHs and Xylene

<b>General Requirements and Water Quality Criteria</b> <i>Not currently specified in Appendix E of HAR 11-54</i>	
Description	Proposed Action
<p>On 5 December 2021, the U.S. Navy confirmed that a leak of roughly 14,000 gallons of a mixture of water and jet fuel had occurred on 20 November 2021 from a drain line located at the Red Hill Bulk Fuel Storage Facility. The area, where the leak occurred, is located adjacent to the Red Hill water supply shaft. This supply shaft is the source of drinking water for the Joint Base Pearl Harbor-Hickam water system.</p> <p>On 9 December 2021, the U.S. Navy reported that diesel fuel at levels 350 times greater than the HDOH limit for drinking water has been detected in water samples taken from the Red Hill water supply shaft. Specifically, the reported level of 140,000 parts per billion (ppb) far exceeds the HDOH environmental action level of 400 ppb for the diesel range of total petroleum hydrocarbons (TPH-d).<sup>3</sup></p> <p>Petroleum hydrocarbons are chemical compounds found in common fuels such as diesel, gasoline, and motor oil. Each type of fuel is a mixture of different hydrocarbons including benzene, ethylbenzene, fluorene, naphthalene, toluene, and xylene.</p> <p>(see next page for continuation of description)</p>	<p>To better protect state waters from leakages of fuel, HDOH will update Appendix E of HAR 11-54, called "Numeric Standards for Toxic Pollutants Applicable to All Waters". Specifically, this update will add numeric criteria for TPHs and for xylene in order to protect human health and aquatic life.</p> <p>(end of proposed action)</p>

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<sup>3</sup> [News Releases from Department of Health | Hawai'i Department of Health confirms high levels of petroleum contamination in Navy's Red Hill Shaft \(hawaii.gov\)](#)

Table 12. Specification of Numeric Criteria for TPHs and Xylene, Continued

<b>General Requirements and Water Quality Criteria</b> <i>Not currently specified in Appendix E of HAR 11-54</i>	
Description	Proposed Action
<p>(see previous page for start of description)</p> <p>In the event of leakages of fuel, HDOH has to monitor the discharge of petroleum hydrocarbons into state waters, and to assess the potential adverse impacts to human health and aquatic life. Currently, there are numeric criteria specified in HAR 11-54 for five (5) hydrocarbons including benzene, ethylbenzene, fluorene, naphthalene, and toluene. However, there are no numeric criteria specified in HAR 11-54 for TPHs and xylene. Only benzene, ethylbenzene, fluorene, naphthalene, and toluene are designated as priority pollutants by the EPA [per Appendix A of 40 CFR §423].</p> <p>(end of description)</p>	<p>(see previous page for proposed action)</p>

Table 13. Revision of Existing State WQS and Adoption of New State WQS

<b>General Requirements, Designated Uses, Water Quality Criteria, and Implementation Policies</b> <i>Not currently specified in HAR 11-54</i>	
Description	Proposed Action
<p>The public and other stakeholders have an opportunity to propose both the revision of existing water quality standards and the adoption of new water quality standards during the public comment period of the upcoming 2022 triennial review. HDOH is aware that revised and new water quality standards are necessary to mitigate the adverse impacts of polluted runoff, plastic pollution, and climate change, and to protect the quality and sustainability of coastal and inland water resources in Hawaii.</p>	<p>HDOH will consider all proposals that are deemed necessary for the protection of state waters, and that are submitted during the public comment period of the 2022 triennial review. Depending on the schedule of planned updates and the availability of budgeted resources, HDOH may include applicable proposals in the next round of proposed amendments to water quality standards. HDOH may consider all unselected proposals in future rounds of proposed amendments to water quality standards.</p>