



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

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Seattle, WA 98101

OFFICE OF THE REGIONAL  
ADMINISTRATOR

November 1, 2022

Jason Brune  
Commissioner  
Alaska Department of Environmental Conservation  
P.O. Box 111800  
Juneau, Alaska 99811

Sent via email to [DEC.Commissioner@alaska.gov](mailto:DEC.Commissioner@alaska.gov)

Dear Commissioner Brune,

Thank you for your September 30, 2022, letter responding to the U.S. Environmental Protection Agency's request for a written commitment from the state to develop new or revised human health criteria within a defined timeframe. The EPA appreciates the Alaska Department of Environmental Conservation's affirmation that revising the HHC, including the fish consumption rate used to develop the criteria, remains a high priority, and we are prepared to offer technical and policy support to DEC on this effort.

Your letter included a request for an updated economic analysis of national impacts to the regulated community in implementing revised HHC and a list of state permits in Region 10 that have incorporated permitting tools, such as compliance schedules, to address the updated HHC.

Although the EPA recognizes there are information needs associated with deriving water quality criteria to protect human health, and concerns about the implementation of potentially more stringent criteria values, the EPA does not see these items as reasons to delay DEC's updating the state's HHC. Water quality standards define the desired condition of a waterbody and protect applicable designated uses including the protection of human health. Water quality criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use(s).<sup>1</sup> Neither the economic impacts of criteria nor the technological feasibility of meeting criteria concentrations may be considered where doing so could result in criteria that are not protective or based on sound science. However, we wanted to respond to your information request, so have assembled the enclosed information including: (1) economic analyses, including the status of the EPA's update of the list of approved analytical methods for measuring regulated pollutants in wastewater; (2) a summary of WQS implementation tools; and (3) a list of permits in Region 10 that have incorporated implementation tools to address updated HHC.

As noted in my September 6, 2022, letter, the EPA is planning to decide in November how to respond to the petitions related to Alaska's HHC. We will consider DEC's commitment to finalize new or revised HHC in 24 months and will be in regular communication with your staff to monitor the state's progress.

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<sup>1</sup> 40 CFR 131.11

We will also consider the EPA's responsibility under the Clean Water Act to ensure that state WQS are protective of applicable uses and consistent with the requirements of the Act.

We look forward to continued coordination and collaboration with DEC as we work together to address this high priority issue. If you would like to discuss this topic further, please reach out to me at 206-553-1234 or Dan Opalski, Director of the Water Division, at (206) 553-1855 or [opalski.dan@epa.gov](mailto:opalski.dan@epa.gov).

Sincerely,

*/s/ 11-01-2022*

Casey Sixkiller

Regional Administrator

Enclosure

## **Enclosure to the EPA’s response to the Alaska Department of Environmental Conservation’s request for information regarding updating Alaska’s human health criteria**

### Economic Analyses

The September 30, 2022, letter from the Alaska Department of Environmental Conservation (DEC) requested that the EPA provide an updated economic analysis of impacts to major dischargers nationally and referenced the December 4, 2013, report titled *Treatment Technology Review and Assessment*, developed by HDR for the Association of Washington Business, Association of Washington Cities, and Washington State Association of Counties. That study evaluated treatment technologies potentially capable of meeting the state of Washington’s revised human health criteria (HHC), submitted to the EPA for review and action under the Clean Water Act (CWA) in 2016. HDR’s study addressed the treatment technology costs to achieve anticipated National Pollutant Discharge Elimination System (NPDES) permit discharge limits for mercury, arsenic, benzo(a)pyrene and polychlorinated biphenyls (PCBs) and examined the costs associated with alternative detection methods which are more sensitive than the EPA approved analytical methods.<sup>2</sup>

Water quality criteria are implemented in NPDES permits through water quality-based effluent limits (WQBELs). When it is determined that a discharge has a reasonable potential to cause or contribute to an excursion above the criteria for a pollutant, the permit must contain WQBELs for the discharge of the pollutant. 40 CFR 122.44. In instances when the EPA approved method analytical detection limit for a pollutant exceeds the criterion for that pollutant, the analytical detection limit (or quantitation limit) is considered sufficiently sensitive to represent the minimum enforceable level of the pollutant (referred to as the “compliance evaluation level”). 40 CFR 122.44(i).

The EPA periodically updates the list of approved analytical methods for measuring regulated pollutants in wastewater through Methods Update Rules (MURs). 40 CFR Part 136. MURs may revise the EPA approved methods, provide alternatives to existing approved methods, such as cheaper and easier alternatives, and incorporate methods that have been reviewed under the Alternate Test Procedures program and are subject to public notice and comment. The next routine MUR is expected to be proposed in the coming months, however, the EPA does not anticipate the rule will affect the HHC parameters in Alaska’s water quality standards (WQS). At this point, it would be impractical to speculate beyond the content of the next proposed MUR.

DEC’s request did not specify which HHC it expects the EPA to analyze and because state-adopted HHC differ across the country, the EPA assumes the request is related to the nationally recommended CWA section 304(a) HHC. The EPA has not analyzed the economic impact to major dischargers nationally of implementing HHC or any other water quality criteria. Such criteria are based solely on data and scientific judgments on the relationship between pollutant concentrations and human health effects. The EPA does not analyze the potential economic impacts of these recommended HHC because: (1) states may not adopt these exact values into their WQS, and (2) the economic impacts or lack thereof would have no bearing on the values. However, the EPA typically develops economic analyses for illustrative purposes when proposing federal water quality criteria which focus on cost estimates for the discrete area where the criteria would apply. Any evaluation of the potential economic impacts of revised HHC on dischargers in Alaska would be dependent on the number of facilities in the state that

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<sup>2</sup> <https://www.epa.gov/cwa-methods>

currently have WQBELs or are monitoring for HHC parameters and the state’s NPDES compliance and enforcement practices.

In an effort to be responsive to DEC’s request, the EPA collected information regarding the states that have revised their HHC since the EPA last updated its nationally recommended CWA section 304(a) HHC in 2015.<sup>3</sup> Specifically, we considered whether any of these states have indicated that they are experiencing any significant economic impacts or challenges associated with implementing their revised HHC (e.g., dischargers receiving more stringent permit limits, or newly impaired waters for which Total Maximum Daily Loads must be developed). Of the seventeen states that have adopted new or revised HHC since 2015, the general indication was that implementation of the HHC is still underway in these states, and the new or revised HHC have not yet been used to derive permit limits for many permitted facilities.

The table below provides a list of reports which address the anticipated implementation costs associated with HHC revisions for several states. Due to the sizes of the documents, the EPA staff will transmit the documents to DEC using a file sharing tool.

State	Reports
Washington	<ul style="list-style-type: none"> <li>• The economic analysis developed for the 2016 federal promulgation of HHC applicable to the state of Washington, <i>Economic Analysis for the Revision of Certain Federal Water Quality Criteria Applicable to Washington</i> (Docket ID: EPA-HQ-OW-2015-0174).<sup>4</sup></li> <li>• The EPA’s <i>Response to Comments</i> for the proposed rule applicable to Washington which includes the EPA’s response to HDR’s 2013 report.<sup>5</sup></li> <li>• Washington Department of Ecology’s <i>Concise Explanatory Statement</i>, summary of rulemaking and response to comments, for Ecology’s WQS submittal for the state’s HHC.<sup>6</sup></li> <li>• Washington Department of Ecology’s <i>Final Cost-Benefit and Least Burdensome Alternative Analyses</i>.<sup>7</sup></li> <li>• The updated economic analysis developed by the EPA for the 2022 proposed promulgation of HHC for the state of Washington, <i>Economic Analysis for Water Quality Standards Applicable to the state of Washington</i>.<sup>8</sup></li> </ul>
Maine	<ul style="list-style-type: none"> <li>• Economic analysis developed for the federal promulgation of HHC applicable to the State of Maine (Docket ID: EPA-HQ-OW-2015-0804).<sup>9</sup></li> <li>• Maine Department of Environmental Protection’s <i>Response to Comments</i> for the proposed HHC.<sup>10</sup></li> </ul>

<sup>3</sup> <https://www.epa.gov/wqc/human-health-water-quality-criteria-and-methods-toxics#2015>

<sup>4</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0174-0215>

<sup>5</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0174-0427>

<sup>6</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0174-0424>

<sup>7</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0174-0425>

<sup>8</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0174-1074>

<sup>9</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0804-0419>

<sup>10</sup> <https://www.regulations.gov/document/EPA-HQ-OW-2015-0804-0428>

Ohio	<ul style="list-style-type: none"> <li>The Ohio Environmental Protection Agency’s Responsiveness Summary and <i>Business Impact Analysis for Water Quality Criteria for the Protection of Human Health</i>.<sup>11</sup></li> </ul>
Washington DC	<ul style="list-style-type: none"> <li>The District of Columbia’s Department of Energy and Environment’s <i>Socioeconomic, institutional, technological, and environmental study – To determine the impacts of the WQS revisions</i>.<sup>12</sup></li> </ul>

### Implementation Tools

Should Alaska anticipate substantial costs associated with meeting revised HHC, implementation tools, such as WQS variances may be employed. A WQS variance is a regulatory mechanism that allows progress toward attaining a designated use and criterion that is not currently attainable. The EPA’s regulation at 40 CFR 131.14 establishes a regulatory framework for WQS variances that provides states and dischargers the time and flexibility to make incremental water quality improvements reflecting the best that can be achieved in a given period, with accountability measures to assure the public that progress will occur. WQS variances must first be adopted as legally binding provisions by a state and approved by the EPA before they can be the basis for deriving WQBELs in a permit. On March 23, 2020, the EPA approved Alaska’s new and revised WQS related to procedures for variances at 18 AAC 70. The EPA has developed resources to assist states and authorized tribes in adopting WQS variances, including a 2017 WQS Variance Building Tool<sup>13</sup> to help determine whether a WQS variance is appropriate for a particular situation, navigate the 40 CFR 131.14 requirements<sup>14</sup> to develop an initial WQS variance, and identify the necessary supporting documentation.

Another implementation tool is a compliance schedule, which is an enforceable sequence of actions or operations in a NPDES permit that leads to compliance with the WQBELs. Compliance schedules provide a method by which dischargers are given a limited time period to comply with their NPDES permit limits, generally due to technological or financial inability to comply immediately. In August 2015, the EPA finalized revisions to its WQS implementing regulations that included specific federal requirements for compliance schedule authorizing provisions at 40 CFR 131.15.<sup>15</sup>

### NPDES Permits in Region 10

The letter also requested that the EPA provide a list of permits that have incorporated implementation tools to address updated HHC. Below is a list of state-issued permits in Region 10 that reflect new or

<sup>11</sup> See page 115 of the Ohio Environmental Protection Agency’s Responsiveness Summary.

<sup>12</sup> [https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service\\_content/attachments/SITE%20Study%20WQS%202016.pdf](https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/SITE%20Study%20WQS%202016.pdf)

<sup>13</sup> <https://www.epa.gov/wqs-tech/water-quality-standards-variance-building-tool>

<sup>14</sup> The EPA’s regulation at 40 CFR 131.14 requires that WQS variances must: 1) be legally binding, 2) define the scope (discharger(s) and water(s)), 3) identify the pollutant(s), 4) specify the interim quantifiable expression that reflects the highest attainable condition during the term of the variance (this condition cannot be lower than currently attained water quality), 5) define the term as the length of time necessary to achieve the highest attainable condition (if this term is longer than 5 years, the variance must define re-evaluation periods to ensure regular review with public input), and 6) be adopted after a public hearing consistent with 40 CFR 131.20. States must submit associated documentation to justify the need for the variance, the highest attainable condition, and the variance duration.

<sup>15</sup> USEPA. August 21, 2015. Water Quality Standards Regulatory Revisions; Final Rule (40 CFR Part 131). Federal Register Vol. 80, No. 162. 51019-51050. <https://www.gpo.gov/fdsys/pkg/FR-2015-08-21/html/2015-19821.htm>.

revised HHC. In summary, there were five Washington State permits identified, all for discharges to the Spokane River with WQBELs for PCBs. These permits include pollutant minimization plans for PCBs and two have compliance schedules. There have been seven permits reissued in Idaho since the EPA approved the state's revised HHC in 2019 that include monitoring requirements for HHC parameters. None of the Idaho permits include WQBELs or compliance schedules applicable to HHC parameters. One permit in Oregon has been reissued with WQBELs for arsenic and hydrogen sulfide and a compliance schedule for arsenic. The state of Oregon implements mercury minimization plans which consider the state's HHC for methylmercury, however there are no compliance schedules associated with the plans. The EPA staff will transmit the associated permit documents to DEC, including compliance schedules, using a file sharing tool.

<b>Permit Number</b>	<b>Facility Name</b>	<b>State</b>	<b>WQBELs Based on HHC</b>	<b>Compliance Schedule (Y/N)</b>
WA0024473	Spokane Riverside Park Advanced Wastewater Treatment Plant	Washington	PCBs	Y
WA0093317	Spokane County Regional Water Reclamation Facility	Washington	PCBs	N, Best Management Practices Plan
WA0045144	Liberty Lake Sewer and Water District	Washington	PCBs	N, Best Management Practices Plan
WA0000892	Kaiser Aluminum	Washington	PCBs	Y
WA0000825	Inland Empire Paper	Washington	PCBs	N, Pollutant minimization plan
OR0020621	Ontario STP	Oregon	arsenic; hydrogen sulfide	Y