State of Oregon
DEQ Department of Environmental Quality

Frequently Asked Questions: Oregon's Integrated Report

Every two years, Department of Environmental Quality publishes an Integrated Report, which is a comprehensive evaluation of Oregon's surface water quality. Surface waters are any body of water above ground, including streams, rivers, lakes, wetlands, reservoirs, creeks and the ocean. To help understand and interpret the reporting DEQ has compiled a list of Frequently Asked Questions.

Contents

Information on the Integrated Report

What is the Integrated Report?

The federal Clean Water Act requires Oregon to report on the quality of its surface waters every two years. This effort represents the state's most comprehensive evaluation of water quality data and information to determine whether Oregon's waters are fully supporting the beneficial uses, such as fish and aquatic life, drinking water and water contact recreation.

For each reporting cycle, DEQ uses the applicable Assessment Methodology to document how attainment decisions will be made for reporting purposes. Specifically, the methodology includes scientifically and technically robust procedures to assign data quality and quantity requirements, describe how water quality standards will be interpreted and applied to assess against numeric and narrative criteria (including identifying indicators), and set allowable exceedance frequencies. All readily available data is assembled through an open "Call for Data" from the public and pulling data from publicly available databases into DEQ's water quality data portal AWQMS. The result of these analyses and conclusions is called the "Integrated Report" because it combines the requirements of Clean Water Act section 305(b) to develop a status report and the section 303(d) requirement to develop a list of impaired waters. DEQ submits the Integrated Report to the U.S. Environmental Protection Agency in April of even numbered years using their ATTAINS database. The process is complete, and the report becomes effective when EPA approves the final list of water quality limited waters that require a TMDL (Category 5: 303(d) list).

For more details please refer to the Introduction section of the Assessment Methodology for Oregon's 2026 Integrated Report.

What is the 303(d) List?

Under Section 303(d) of the federal Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters. Waterbodies that do not meet DEQ's protective water quality standards are identified as impaired, and added to the 303(d) List. Identifying a waterbody on the 303(d) list with specific parameters as the causes of impairment initiates the prioritization and development of a Total Maximum Daily Load (TMDL) or other pollution plan needed to address the issue. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. The 303(d) list consists of the waterbodies identified as Category 5: Impaired.

How are surface waterbodies subdivided for reporting assessment conclusions?

Because waterbody characteristics change as they flow from headwaters to the mouth (due to flow, adjacent land uses, and other characteristics), DEQ divides up waterbodies into “Assessment Units.” These units remain fixed for each assessment cycle. For Oregon's Integrated Report, water quality assessment conclusions are reported at the assessment unit level. Assessment units are segments of streams/rivers or waterbody areas that are predetermined based on similar hydrology and represent similar environmental/hydrographic characteristics. Assessment Units can vary in size from less than one stream mile to greater than 200 stream miles. Assessment Units are further grouped into five distinct types: large rivers and streams, grouping of small streams into watershed units, waterbody (lakes, reservoirs and estuaries), coastal beaches and ocean units (Figure 1).

This is covered in more detail in the Integrated Report Process - Assessment Units section of the Assessment Methodology for Oregon’s 2026 Integrated Report.

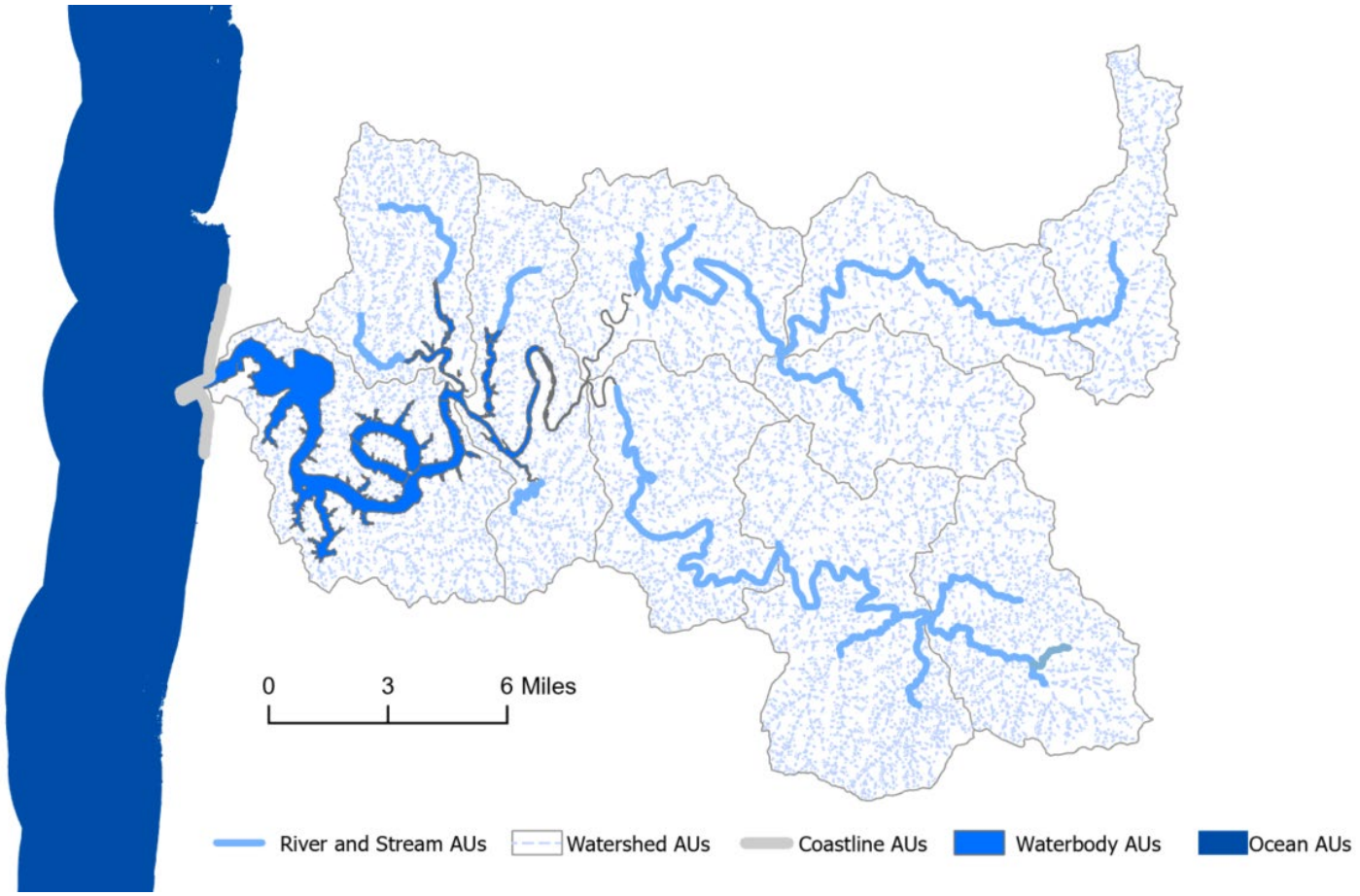

Figure 1. Example of assessment unit types.

What are the categories used in the Integrated Report?

All assessed waterbodies are given a category ranking for all assessed parameters. Based on guidance from EPA, DEQ uses the condition categories shown in Figure 2. One Assessment Unit can have data for over 150 unique parameters, collected from multiple monitoring locations. DEQ uses the applicable publicly reviewed Assessment Methodology to determine an assessment conclusion for each parameter. The overall status of

the unit is determined by a ranking of the assessment for each parameter and any one parameter determined to be not supporting a beneficial use will result in an overall impaired water. The impaired waterbody may meet water quality criteria during some years, but data indicate that the beneficial use is not always supported during the assessment window. This approach for reporting the assessment conclusions at the assessment unit level is displayed on the web map application. Oregon also uses several sub-categories.

This is covered in more detail in the Integrated Report Process - Assessment categories section of the Assessment Methodology for Oregon's 2026 Integrated Report.

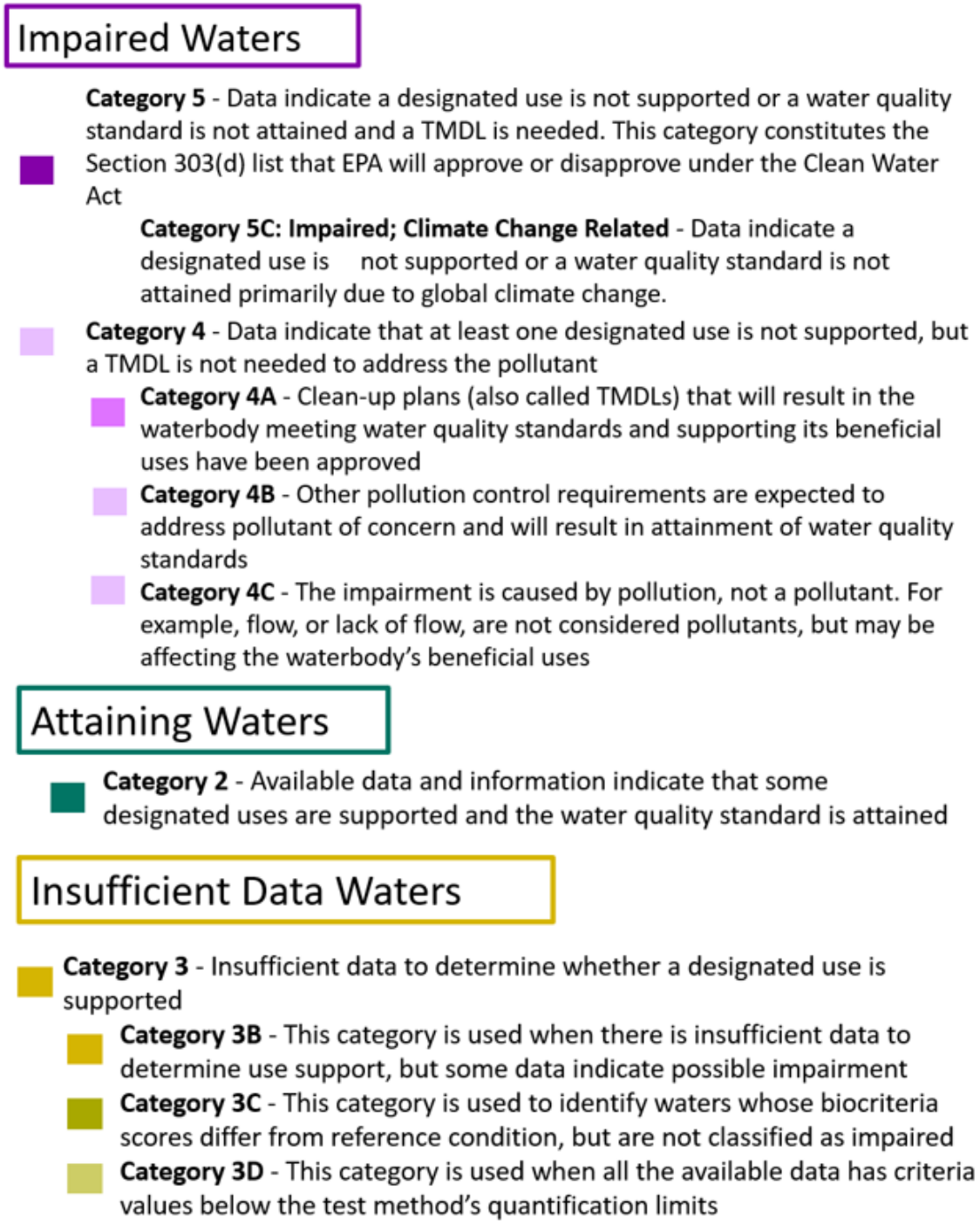

Figure 2. Assessment categories used to report on waterbody status. Boxes show the assessment unit status reported based on the ranking of individual parameter assessments.

What is Category 5C: Impaired; Climate Change Related?

Global climate change, occurring as a result of excess carbon dioxide emissions into the atmosphere, is a wide-ranging issue that can impact water quality and beneficial use support. DEQ is taking leadership on developing assessment methodologies to identify these impacts through the Section 303(d) listing process. However, the challenge of addressing climate change related impairments demands a strategic approach and will require additional tools and resources to accompany the suite of Clean Water Act management and implementation tools traditionally used to restore impaired waters. For this reason, DEQ will use Sub-Category 5C to identify climate change related waterbody impairments on the 303(d) list, while also recognizing a broader approach than the traditional TMDL and restrictions on permitted discharges may be needed to find effective solutions. This approach is similar to one EPA recommended in a 2007 memo titled "Listing Waters Impaired by Atmospheric Mercury Under Clean Water Act Section 303(d): Voluntary Subcategory 5m for States with Comprehensive Mercury Reduction Programs." The memo acknowledged the complexity of mercury impairment in water bodies and provided an alternative to a Category 5 listing alone, Category 5m.

DEQ is proposing to use this sub-category for changing ocean condition impairments related to ocean acidification and hypoxia identified in the draft 2024 Integrated Report. A significant body of research on these two water quality concerns suggests the main causes of impairment are excess CO_2 absorbed by the ocean, changing weather patterns, and shifting ocean currents, all of which are linked to climate change. [1,2,3,4,5,6,7] DEQ and other jurisdictions are undertaking efforts to address and reduce sources of CO_2, the main underlying cause of ocean acidification and hypoxia. The 5C subcategory acknowledges the complexity in developing TMDLs for waters impaired mainly due to conditions linked to global climate change. It is also intended to promote early action in developing and implementing efforts to address waters impaired in this way.

DEQ is taking early action to address waters impaired by climate change by leading efforts to reduce Oregon's contribution to global greenhouse gas pollution by developing and implementing policies, strategies and programs that provide important reductions in these emissions. DEQ's Greenhouse Gas Programs operates several initiatives that track and reduce emissions in Oregon, such as the Greenhouse Gas Reporting Program and the Clean Fuels Program. The Office continues to work toward achieving Oregon's greenhouse gas reduction goals by issuing rebates to Oregonians purchasing electric vehicles and offering diverse set of tools and programs to help Oregonians assess and reduce their contribution to global GHG emissions. Additionally, DEQ is currently in the process of adopting a new climate mitigation program that will establish new, enforceable, and declining limits on fossil fuel emissions across Oregon. Finally, DEQ is participating in efforts within Oregon and in partnership with other west coast states to confront the causes and effects of OAH in

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[1] EPA 2007, Listing Waters Impaired by Atmospheric Mercury Under Clean Water Act Section 303(d): Voluntary Subcategory 5m for States with Comprehensive Mercury Reduction Programs

[2] Grantham, B. A., Chan, F., Nielsen, K. J., Fox, D. S., Barth, J. A., Huyer, A., ... & Menge, B. A. (2004). Upwelling-driven nearshore hypoxia signals ecosystem and oceanographic changes in the northeast Pacific. Nature, 429(6993), 749-754. https://doi.org/10.1038/nature02605

[3] Barth, J. A., Pierce, S. D., Carter, B. R., Chan, F., Erofeev, A. Y., Fisher, J. L., ... & Simon, V. (2024). Widespread and increasing near-bottom hypoxia in the coastal ocean off the United States Pacific Northwest. Scientific Reports, 14(1), 3798. https://doi.org/10.1038/s41598-024- 54476-0

[4] Doney, S. C., Ruckelshaus, M., Emmett Duffy, J., Barry, J. P., Chan, F., English, C. A., ... & Talley, L. D. (2012). Climate change impacts on marine ecosystems. Annual review of marine science, 4, 11-37. https://doi.org/10.1146/annurev-marine-041911-111611

[5] Feely, R. A., Alin, S. R., Carter, B., Bednaršek, N., Hales, B., Chan, F., ... & Juranek, L. (2016). Chemical and biological impacts of ocean acidification along the west coast of North America. Estuarine, Coastal and Shelf Science, 183, 260-270. https://doi.org/10.1016/j.ecss.2016.08.043

[6] Somero, G. N., Beers, J. M., Chan, F., Hill, T. M., Klinger, T., & Litvin, S. Y. (2016). What changes in the carbonate system, oxygen, and temperature portend for the northeastern Pacific Ocean: a physiological perspective. BioScience, 66(1), 14-26. https://doi.org/10.1093/biosci/biv162

[7]Harris, K.E., DeGrandpre, M.D. and Hales, B., 2013. Aragonite saturation state dynamics in a coastal upwelling zone. Geophysical Research Letters, 40(11), pp.2720-2725. https://doi.org/10.1002/grl.50460

coastal environments; through the recent Ocean Acidification and Hypoxia Technical Workgroup and the ongoing work of the Oregon Coordinating Council on Ocean Acidification and Hypoxia.

Typically, when DEQ identifies a waterbody as impaired, that action is the first step, followed by developing management plans, such as TMDLs, or alternative management strategies. EPA's 2022 - 2032 Vision for the Clean Water Act Section 303(d) Program recognizes the strategic approach needed to account for climate change related impacts to water quality, suggesting: "Examining the potential impact of changing climate conditions on 303(d) program activities will often involve unique considerations depending on regional, local, or project-specific conditions." In the case of ocean acidification and hypoxia, more information and tools are needed to understand the most effective actions by the state of Oregon, pursuant to the Clean Water Act, to reduce and/or mitigate the effects of changing ocean conditions on fish and aquatic life. DEQ's WQ program will focus on collaboration with DEQ's climate mitigation programs and other climate-related efforts with external partners to best address impairments in waterbodies categorized in 5C, during which time they will be assigned a low priority ranking for TMDL development. Until a TMDL or alternative restoration plan is in place, assimilative capacity of ocean waters for permitting purposes will be determined through best professional judgement.

This approach is consistent with the findings from the West Coast Ocean Acidification and Hypoxia Science Panel which recognizes state and local governments alone do not have the capability to halt fundamental, widespread changes to the chemistry of coastal waters. Decision-makers need a common core of scientific information that will enable them to use limited resources in a strategic, coordinated, regional fashion to best serve the ecological and socioeconomic needs of the entire West Coast region.

Assessment methodology

How does DEQ make its assessment conclusions?

DEQ uses the Assessment Methodology to document the "decision rules" DEQ will use to compare data and information to existing water quality standards for the development of Oregon's Integrated Report. DEQ follows U.S. EPA guidance when developing its assessment methodology and meets Oregon statutory requirements by releasing the document for public comment prior to assessing data and information.

Using the applicable Assessment Methodology, DEQ staff review water quality data and determine which assessment units do not meet either numeric water quality standards (such as dissolved oxygen or temperature) or narrative standards, and thus do not support their beneficial uses. Narrative standards include biological criteria which states; "Waters of the State must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities" (OAR 340-041-0011). DEQ staff also use the methodology to determine when an assessment unit should be removed (delisted) from the 303(d) list.

What are DEQ's minimum data requirements?

Minimum data requirements for classifying a waterbody as impaired vary depending upon the parameter and water quality standard being considered (more than 150 different pollutants are evaluated as part of the Integrated Report). Depending on the standard, different parameters have different minimum data thresholds to be classified as attaining or impaired. Additionally, in 2022 DEQ revised the Assessment Methodology to require a greater number of samples to make an attainment determination then is needed to make an impairment determination. In cases where the minimum data threshold within an assessment unit is not met, a determination of 'attaining' or 'impaired' cannot be made; instead, the waterbody is categorized as having 'insufficient data'.

For example, when using grab sample data, to make a determination using the statistically based binomial method to determine whether pH standards are being met within a given assessment unit, DEQ must have at least eight pH samples collected on separate days at a single monitoring location, but an impairment determination can be made with a minimum of five samples. If there are only five samples and none are exceeding the applicable pH standard, the waterbody is categorized as having 'insufficient data'.

This is covered in more detail in the Integrated Report Process - General Methodologies for Parameter Assessments section of the Assessment Methodology for Oregon's 2026 Integrated Report.

How is a waterbody removed from the 303(d) list?

Waterbodies may be removed from the 303(d) list for a variety of reasons:

1. Current data indicate that water quality standards are attained and delisting requirements are met indicating the waterbody is no longer impaired,
2. An error has been identified in the original Category 5 determination,
3. Water quality standards, such as through updated science or improved measuring processes, have changed or no longer apply to a waterbody,
4. The expression of water quality standard pollutant has changed (e.g., now being measured as the dissolved fraction, when previously had been measured as the total amount of the pollutant),
5. A TMDL or other pollution control plan is in place, or
6. The impairment is caused by pollution rather than a known pollutant (i.e. flow or habitat modification).

This is covered in more detail in the Integrated Report Process - Delisting water bodies section of the Assessment Methodology for Oregon's 2026 Integrated Report.

How has DEQ's Integrated Report changed over time?

What is the difference between the Assessment Units in the 2026 Integrated Report and the Segments used in past Integrated Reports?

Before the 2020 Integrated Report cycle, segments were divided on a complex system based on monitoring station locations and designated uses. Those segments could change with each assessment cycle. This process led to a series of overlapping segments that differed by parameter assessed, and an entire waterbody was sometimes identified as impaired based on a single monitoring station. The new assessment units were established in 2020 and continue to be used in biennial Integrated Reports for the 2026 report.

Reporting

This is covered in more detail in the Integrated Report Process - Assessment unit data evaluation and reporting section of the Assessment Methodology for Oregon's 2026 Integrated Report.

Why is there so much purple on the map?

The map of Oregon appears purple because it is a reflection of how DEQ is required to report the Integrated Report to EPA at the assessment unit level. DEQ must report whether or not a waterbody is attaining each applicable criterion. For example, if DEQ received data for 100 pollutants on a waterbody and that waterbody attained 99 out of 100 of its criteria, the waterbody appears purple on the map because one of its criteria was not attained. The draft 2024 Integrated Report includes 39,227 individual parameter categorical assessment conclusions of those 38% attained their criteria (Category 2) and 14% are considered to be impaired (Categories 4 and 5) and the remaining as insufficient data. As demonstrated by the parameter assessment

conclusions, Oregon continues to support high quality waters for many parameters despite how purple the map of Oregon looks for impaired waterbodies.

Watershed Assessment Units

What is a Watershed Assessment Unit?

In order to meet Clean Water Act requirements for assessing water quality in Oregon, DEQ must partition the state's waterbodies (streams, river, lakes, etc.) into assessment units. Understanding that the water quality of one part of a waterbody may be different at different points of the waterbody. DEQ developed several types of assessment units based on the nationally recognized hydrography dataset. In addition to assessment units established for segments of larger streams and rivers, our methods also involve an assessment unit referred to as a "watershed unit", which collectively represents small streams within a "sub-watershed" level. These "watershed units" represent the smallest stream hydrologic classification areas currently mapped within Oregon and provide a tractable method for conducting a statewide assessment.

Since the number of waterbodies in Oregon is over 2 million, DEQ decided to group smaller waterbodies into manageable units for assessment purposes. In the absence of this approach for smaller streams within the upper reaches of watersheds, Oregon would have over 2 million assessment units, which would be impractical to assess relative to the state's monitoring and assessment resources.

This is covered in more detail in the Integrated Report Process - Assessment unit section of the Assessment Methodology for Oregon's 2026 Integrated Report.

How is a Watershed Assessment Unit assessed?

Beginning with the 2022 Integrated Report, watershed units were assessed at each individual monitoring station. This approach allows for identification of the specific monitoring station and stream within a watershed unit where the impairment occurs. The EPA requires assessment units to have a single assessment conclusion. Monitoring station conclusions were compiled to determine a waterbody conclusion, and waterbody conclusions were rolled up to a single assessment unit conclusion. If one monitoring station were considered impaired, the assessment unit was reported as impaired. DEQ created an interactive Story Map that details the assessment process for watershed assessment units.

The conclusions of the Integrated Report are a required "snapshot" of water quality across the state and are the beginning of the regulatory process, not the end. The data or information resulting in an identification of impairment is most relevant to the stream in which it was collected. Before a TMDL or permit can be developed, a deeper analysis into the extent of the water quality impairment and its possible causes must be conducted. Further data collection can then be targeted to refine report conclusions before beginning the permit, TMDL, or other regulatory mechanism.

Why is there a solid purple line running through a watershed unit considered to be attaining?

River and stream assessment units are assessed independently of surrounding watershed assessment units. Streams that are classified as fifth-order or higher, are larger and tend to have larger volumes of runoff as they collect water from the smaller waterways flowing into them. As a result, assessment conclusions may be different for these larger river/stream assessment units. Assessed waterbodies within watershed units are delineated on the web map with dashed lines.

Why do some green and yellow watershed assessment units not have any dashed lines in them?

Assessment conclusions for individual streams in watershed units are represented as dashed lines in the current draft 2024 report. Watershed units that may be yellow or green without any dashed lines were assessments that were done in the 2020 cycle, but no new data were assessed in the draft 2022 or 2024 Integrated Reports. When DEQ created its interactive map during the 2020 cycle, only impaired streams within watershed units were identified on the map. Starting from 2022 Integrated Report including the 2024 Integrated Report, for the interactive maps all streams that were assessed in watershed units are represented as dashed lines (i.e. green = attaining, yellow = insufficient, purple = impaired).

What does it mean to have an impaired watershed unit?

When a watershed unit has been reported as Category 5 (“Impaired”), it indicates that an impairment exists within the watershed unit, not that the entire watershed is impaired. Impaired waterbodies within a watershed assessment unit are illustrated by a dotted purple line on DEQ’s interactive map. The report/list does not, unto itself, specify or determine any regulatory actions or consequences (other than identifying that an area has impairment and is in need of follow-up investigation and development of management plan). Follow-up monitoring attention on impaired assessment units will be necessary to better delineate/characterize the extent of impairment before any prescriptive regulatory actions are taken (e.g. permit limits, TMDL or other management response). Follow-up investigations would initially focus on the sampling stations in the watershed assessment unit that indicated impairment, as well as additional sampling efforts, to better delineate/characterize the full extent of impairment. Source reductions or management responses would be required of nonpoint sources within the watershed through the TMDL development process and resulting Water Quality Management Plans, not assessments identified in the Integrated Report. Using the watershed unit approach to partition waterbodies does not change how TMDLs are developed, which are developed at a larger scale than assessment units (typically basin or sub-basin scale).

What does it mean for my permit if I discharge to an impaired watershed unit?

If the permittee discharges upstream of the impairment in a watershed assessment unit, a reasonable potential analysis and assessment will need to be performed to determine if they are causing or contributing to the impairment before a determination can be made as to whether there are specific requirements or limits that will be included based on discharging to an impaired waterbody.

The data and/or information resulting in the identification of impairment is most relevant to the stream in which it was collected. If the permittee discharges into a distinctly different stream than the waterbody identified as impaired with no hydrological connection to the stream used in the assessment within the Watershed Assessment Unit, DEQ will evaluate permit requirements based solely on the water quality within the segment to which the facility discharges.

Public Process

What if I have data that I would like DEQ to use for future Integrated Reports?

DEQ intends to begin its statewide request for data for the 2026 Integrated Report in early 2025. DEQ only accepts data during the call for data time period. However, if groups would like to begin preparations for data submittal, the data submission templates, instructions, and tutorials can be found at the Integrated Report Call

for Data website. In addition, you may also sign up to receive notifications to find out when DEQ is conducting its call for data.

Sign up for email or text updates via GovDelivery to stay up to date on public processes and data calls.

Special Topics

Can I swim at a beach listed as impaired for Water Contact Recreation?

Beaches listed as impaired mean that the beach does not fully support its Water Contact Recreation designated beneficial use over the assessment period. Bacteria levels above what is considered safe for swimming may occur periodically throughout the year, and there may be times when swimming is not recommended. Before recreating in the water, visit the Oregon Health Authority's website, which maintains current advisories.

Can I harvest shellfish at a beach listed as impaired for Shellfish Harvesting?

The most commonly occurring toxins in shellfish harvested in Oregon waters are Paralytic Shellfish Toxin (PST) and Domoic Acid. These shellfish toxins are produced by species of naturally occurring marine algae and accumulate in shellfish that feed on the algae. Over the last 10 years, all of Oregon's coastline has had at least one closure issued by the Oregon Department of Agriculture which led to DEQ's determination of impairment for not fully supporting the Shellfish Harvesting use over the assessment period.

In 2020, DEQ identified Oregon's coastal beaches as impaired due to the recurring nature of these advisories, which indicated that there could be waterbody pollutants or conditions that should be investigated, identified, and controlled.

Shellfish from Oregon's coast continue to be safe to harvest and eat most of the time. Advisories issued by the Department of Agriculture continue to be the best source of information about when and where conditions do not support shellfish harvesting and consumption. For additional information regarding when and where you should take precaution for harvesting shellfish containing natural toxins, see the Oregon Department of Agriculture current advisories and shellfish bed closures at for more information.

Is it safe to eat fish from a waterbody listed as impaired for fish consumption?

The purpose of the 303(d) listings is to indicate where water quality does not meet water quality standards that protect beneficial uses of the water. DEQ does not issue advisories or guidance to the public on the safety or risk of consuming specific kinds of fish from specific streams in Oregon. The Oregon Health Authority provides advisories to the public on when and how the public should limit consumption of fish using data and information for specific waters and fish. The most commonly occurring advisories are based on mercury and PCBs in fish tissue. OHA and DEQ have developed fact sheets and websites to provide the public information on mercury and PCBs in Oregon waters. DEQ'S draft 2024 Integrated Report proposes listing the Columbia Slough on the 303(d) list for PFOS based on Oregon Health Authority's fish consumption advisory. The use of PFAS and similar compounds, including PFOS, is widespread in many industrial and consumer products making it abundant in the environment.

What is ocean acidification and hypoxia, and how does it relate to the integrated report?

Oregon's coastal waters are part of the California Current Ecosystem, one of the world's most productive ocean regions, where seasonal winds during the spring and summer bring deep ocean water to the surface in a process called upwelling. However, the upwelling that fuels this productivity also results in dramatic variability in dissolved oxygen and pH, which naturally limits available habitat for marine organisms with calcium carbonate shells and those that need oxygen for respiration. Scientists, researchers, and coastal managers have been increasingly concerned in recent years that changing ocean conditions related to climate change may be impacting Oregon's marine waters outside of this range of natural variability.

The ocean absorbs about 30 percent of the carbon dioxide (CO_2) that is released into the atmosphere. As levels of atmospheric CO_2 increase from human activity, the amount of carbon dioxide absorbed by the ocean also increases. As excess CO_2 is absorbed by seawater, a series of chemical reactions result in changes in the carbonate chemistry, lowering the pH of ocean waters in a process called ocean acidification. This increase in acidity can be especially detrimental to shell building animals such as some mollusks (oysters, clams, crabs, pteropods), echinoderms (sea urchins), and corals. Additionally, there has been an increase in observations of severely hypoxic (low dissolved oxygen, <1.0 mg/L) and even anoxic (zero dissolved oxygen) waters on the Oregon coastal shelf during summer upwelling, raising concern for impacts to resident biological communities and habitats.

Water quality impacts related to ocean acidification and low dissolved oxygen are commonly referred to as ocean acidification and hypoxia, or OAH. Local processes such as seasonal upwelling, freshwater inputs, and in some cases land-based activities may have an amplifying effect on OAH conditions, making nearshore waters and the animals that live there some of the most vulnerable to early impacts of changing ocean conditions related to climate change.

West Coast states have yet to routinely assess the water quality impacts of OAH on ocean designated uses, in part because numeric OAH water quality criteria or Assessment Methodologies to conduct such assessments have not existed. In 2022, in consultation with a technical workgroup of OAH experts, DEQ's Integrated Report Team developed methodologies to assess impairment of narrative water quality criteria relevant to marine waters: Oregon's narrative biocriteria (ocean acidification assessment) and marine dissolved oxygen criteria (hypoxia assessment). Both ocean acidification and hypoxia methodologies favor an approach that utilizes multiple lines of evidence to assess water quality impact in comparison to natural background conditions.

More information about the details of the methodology updates and assessment conclusions can be found in the Assessment Methodology for Oregon's 2024 Integrated Report Assessment Methodologies for Specific Pollutants or Parameters section, Appendixes C and D and an accompanying Technical Support Document.

What are the implications for ocean areas identified as impaired for OAH?

Waterbodies are identified as impaired and added to the 303(d) list when one or more beneficial use is not fully supported. In most instances, placing a waterbody on the 303(d) list initiates the prioritization and development of a Total Maximum Daily Load, or an alternative plan for attaining better water quality. While a TMDL can be an effective approach to identifying and controlling sources of pollutants within a watershed, regulating small point source discharges into marine waters may not be the most effective use of resources given the significant global influence of changing ocean conditions on OAH. By identifying these stressors to marine life as pollution to be regulated under the Clean Water Act, DEQ's goal is to work collaboratively with existing state programs

and with the scientific community to increase coastal resilience and develop tools and approaches to better understand and mitigate the effects of OAH and changing ocean conditions at the state level.

What does it mean for my permit if I discharge to a waterbody that is impaired for Harmful Algal Blooms or biocriteria?

In most cases, DEQ does not have information regarding the specific pollutant(s) of concern that is responsible for the algal blooms, biocriteria impacts, etc. Often the stressor is not known until a TMDL is developed, which will identify the cause of the impairment, including linking a pollutant to the water quality condition. The TMDL will identify the pollutant of concern for the impairments and derive the wasteload allocations for the relevant pollutants from discharging facilities. When a permit is developed prior to having the pollutant(s) of concern identified, no reasonable potential analysis can be conducted. However, when DEQ undertakes a revision of a permit and has information related to the pollutant of concern that is relevant to the facility, DEQ may include monitoring or other appropriate requirements in the permit.

What are the implications for waterbodies with a 303(d) listing for aquatic trash?

DEQ recognizes that identifying sources and controlling aquatic trash pollution is a complex issue. Waterbodies are identified as impaired and added to the 303(d) list when one or more beneficial use is not fully supported. In most instances, placing a waterbody on the 303(d) list initiates the prioritization and development of a Total Maximum Daily Load, or an alternative plan for attaining better water quality. While a TMDL can be an effective approach to identifying and controlling other pollutants within a watershed, considering the complexity of sources and jurisdictions, TMDLs may not be the most effective tool to reduce aquatic trash once it gets into waterways. By including aquatic trash in the Integrated Report, DEQ is acknowledging that aquatic trash getting into waterways is an environmental threat. DEQ is interested in seeking creative solutions to determine the most effective tool for restoring waters by working collaboratively with local communities and sister agencies on pollution prevention across water land and social programs, which all have important roles in addressing this issue.

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