



State of Oregon Department of Environmental Quality
2022 Integrated Report Web Map Viewer
Instructions for Use

Water Quality Assessments
Contact: IntegratedReport@deq.oregon.gov
700 NE Multnomah St., Suite 600
Portland, OR 97232

Oregon's Draft 2022 Integrated Report on Surface Water Quality and List of Water Quality Limited Waters is now available on DEQ's website:

<https://www.oregon.gov/deq/wq/Pages/epaApprovedIR.aspx>

The 2022 Integrated Report can be accessed in multiple ways.

- An interactive [story map](#) provides an overview of the water quality assessment process, displays assessment results and presents an overview of how DEQ's water quality programs are connected through monitoring, assessment and watershed protection.
- An interactive [web map](#) application displays the Integrated Report by overall status of an assessment unit. This is an updated application that provides all applicable water quality standards.
- An [online searchable database](#) provides parameter specific categorical conclusions for all assessed units and raw data used for download.
- An ArcGIS Assessment Geodatabase spatially displays information from Oregon's 2022 Integrated Report. GIS data is also available through ArcGIS online web services.

DEQ has migrated the Integrated Report to a new GIS platform, so there may be some slight adjustments to the map functionality over the next couple of months.

Sign up for future project updates online at:

https://public.govdelivery.com/accounts/ORDEQ/subscriber/new?topic_id=ORDEQ_382.

How to use the interactive web map

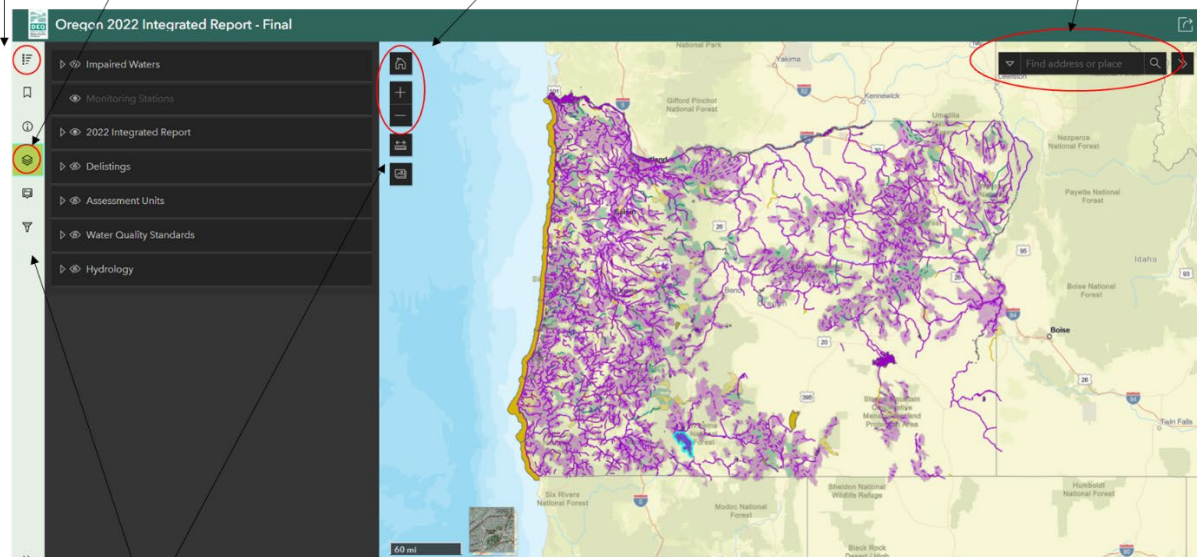
For the 2022 Integrated Report, DEQ has switched web mapping platforms to continue to add functionality and increase the usability of the application.

[General set up and tools](#)

2. Legend and Layer List

3. Navigation

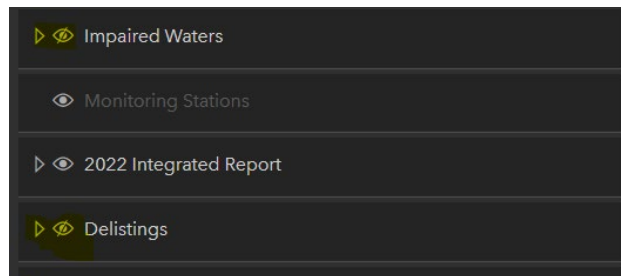
1. Search Box



4. Tools

1. **Search Box** - Use to select a specific assessment unit IDs or Monitoring Location IDs. The search may also be used for geographic locations and addresses.

2. **Layer Lists** – 2022 IR layers are grouped by the attributes displayed. Each group contains multiple layers based on geometry type and/or assessment unit type. The groups can be turned on or off using the eyeball graphic on the left side.



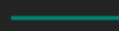


- a. **Impaired Waters** – Displays all waters found to be water quality limited for one or more parameters. This includes Category 5 and Category 4 waters.
- b. **Monitoring Stations** – Includes information for monitoring station used in water assessments. Layers that will become visible when zooming in.
- c. **2022 Integrated Report** – Displays high level assessment unit status for all assessed waters. This layer group is turned on by default.
- d. **Delisting** – Displays delisting for the 2022 IR cycle. These represent waters now attaining water quality standards or waters found to be listed in error in previous listing cycles. This layer group is unique in that each delisting is represented as an individual record rather than as an AU summary.
- e. **Assessment Units** – Displays all Oregon's fixed assessment units.
- f. **Water Quality Standards** – Displays Oregon's georeferenced water quality standards and beneficial use designations.
- g. **Hydrology** - High-resolution National Hydrography Dataset which is Oregon's state standard for displaying hydrographic data.

Legend – Display the symbology for the layer group displayed on the map.



2022 Integrated Report

AU_Rivers_CoastLine_Status





AU_status

-  Attaining
-  Impaired
-  Insufficient Data

3. Navigation –

- a.  - Use these to zoom in and out of the map.
- b.  - Returns to statewide extent.

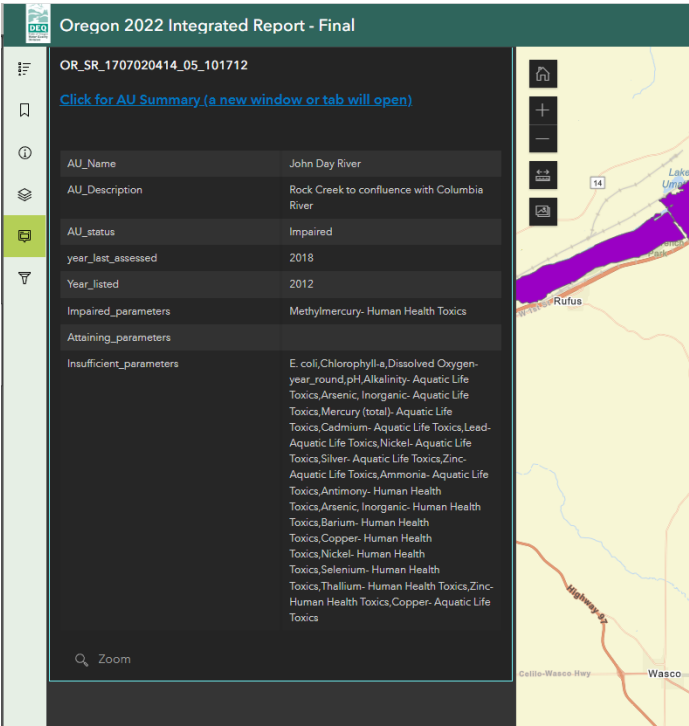
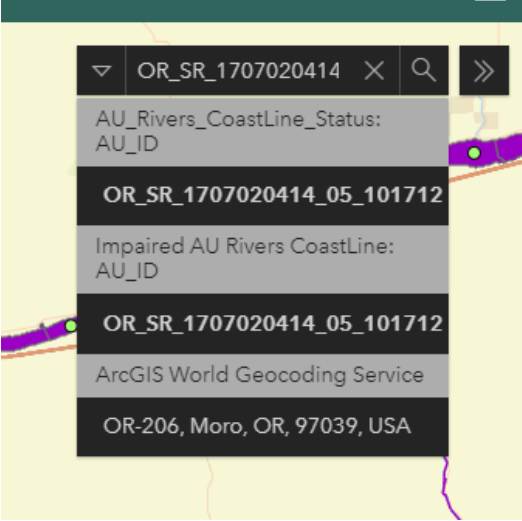
4. Tools

- a.  - click to get information about the web map application.
- b.  - Click to change base map options.
- c.  - Click to bookmark areas of interest.
- d.  - Filter (in development)

Example 1– Assessment Unit Search

Here is an example of how to use the web map application to get information for a specific assessment unit.

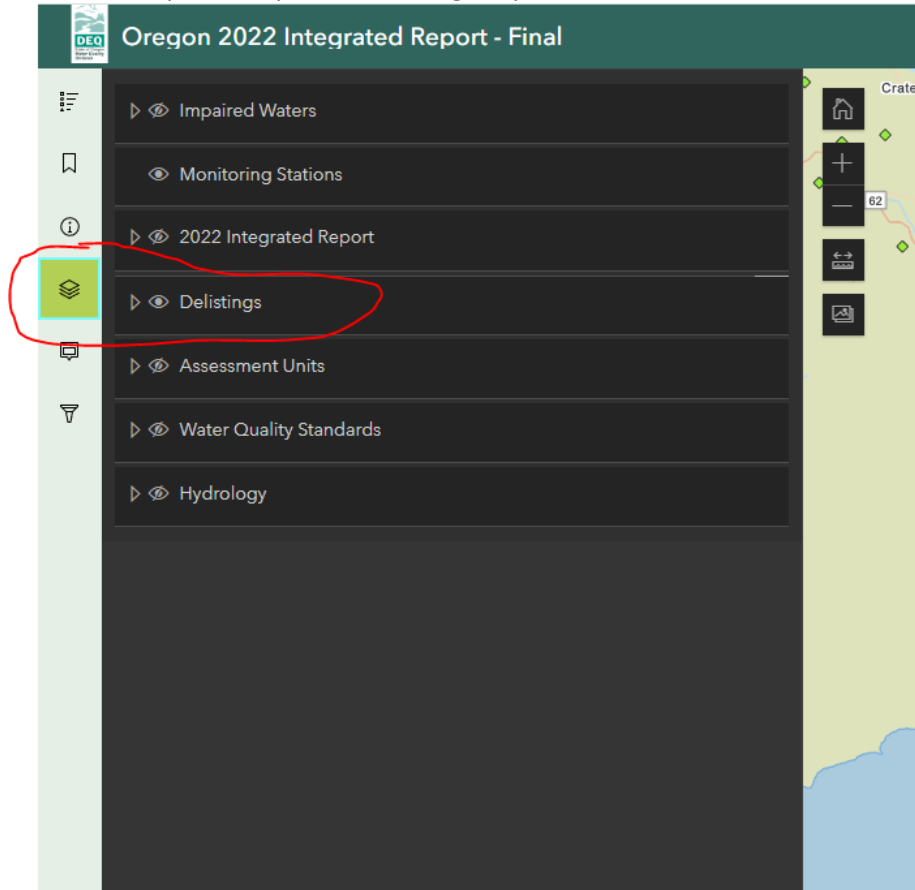
1. Use the search box to navigate to **OR_SR_1707020414_05_101712**
2. The search results are grouped by layers as highlighted by the grey bars. To see overall status, click on the black highlighted Assessment Unit ID under the **AU_Rivers_Coastline_Status: AU_ID** field.
3. The map will zoom to the selected Assessment Unit and a pop-up will appear in the left side bar with information about that Assessment Unit.
4. The popup displays summarized information about the assessment unit including which parameters are impaired, attaining, or have insufficient information. If you click on the link labeled **“Click for AU Summary (a new window or tab will open)”** a new tab will open in your browser with more information about the assessments done in that Assessment Unit.



Example 2– Delistings search

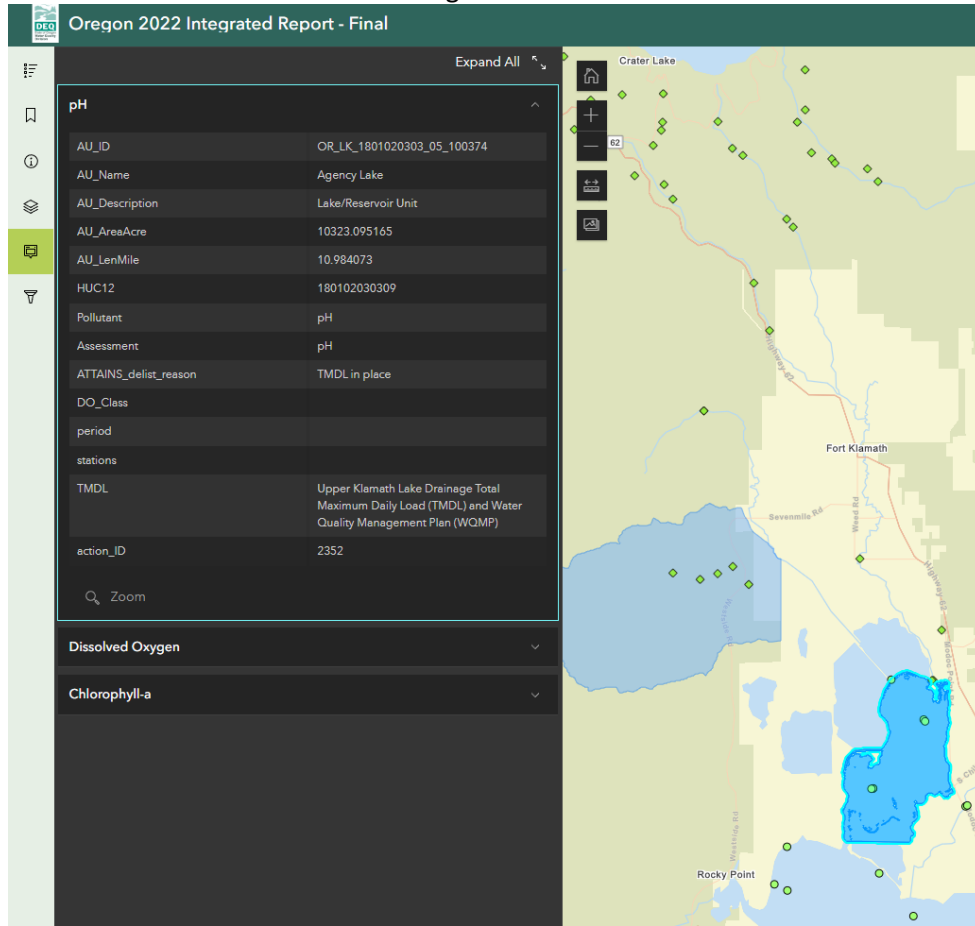
Since the delisting layer is unique in that each delisting is represented as an individual record rather than as an AU summary, a search using that layer will return multiple results. To find information about which parameters an assessment unit is delisted for follow these steps.

1. Turn off all layers except the 'Delistings' layer.



2. Click on an assessment unit with a delisting, they will be displayed on the map in blue

- In the pop-up side bar panel, there will be a separate record for each delisting. Click on each one to see information about the delisting.



Valid Values for Filters and Queries

The parameter names below can be used in the filter tool. The assessment values can be in query tool.

Parameter	Assessment
E. coli	Bacteria
Fecal Coliform	Bacteria
Enterococci	Bacteria
Chlorophyll-a	Chlorophyll-a
Dissolved Oxygen	Dissolved Oxygen
BioCriteria	Narrative Criteria for Biocriteria
Ocean Biological Integrity	Narrative Criteria for Biocriteria

Shellfish Toxins	Narrative Criteria for Toxic Substances
Turbidity	Narrative Criteria for Turbidity
pH	pH
Temperature	Temperature - Numeric
Total Dissolved gas	Total Dissolved Gas
Aldrin	Toxic Substances - Aquatic Life
Alkalinity	Toxic Substances - Aquatic Life
Ammonia	Toxic Substances - Aquatic Life
Arsenic, Inorganic	Toxic Substances - Aquatic Life
BHC Gamma (Lindane)	Toxic Substances - Aquatic Life
Chlordane	Toxic Substances - Aquatic Life
Chloride	Toxic Substances - Aquatic Life
Chlorpyrifos	Toxic Substances - Aquatic Life
DDT 4,4'	Toxic Substances - Aquatic Life
Dieldrin	Toxic Substances - Aquatic Life
Endrin	Toxic Substances - Aquatic Life
Guthion	Toxic Substances - Aquatic Life
Heptachlor	Toxic Substances - Aquatic Life
Heptachlor Epoxide	Toxic Substances - Aquatic Life
Iron (total)	Toxic Substances - Aquatic Life
Lead	Toxic Substances - Aquatic Life
Malathion	Toxic Substances - Aquatic Life
Mercury (total)	Toxic Substances - Aquatic Life
Methoxychlor	Toxic Substances - Aquatic Life
Pentachlorophenol	Toxic Substances - Aquatic Life
Cadmium	Toxic Substances - Aquatic Life
Zinc	Toxic Substances - Aquatic Life
Aluminum	Toxic Substances - Aquatic Life
Silver	Toxic Substances - Aquatic Life
Nickel	Toxic Substances - Aquatic Life
DDD 4,4'	Toxic Substances - Aquatic Life
DDE 4,4'	Toxic Substances - Aquatic Life
Endosulfan Alpha	Toxic Substances - Aquatic Life
Endosulfan Beta	Toxic Substances - Aquatic Life
Mirex	Toxic Substances - Aquatic Life
Parathion	Toxic Substances - Aquatic Life
Polychlorinated Biphenyls (PCBs)	Toxic Substances - Aquatic Life
Phosphorus	Toxic Substances - Aquatic Life
Chromium VI	Toxic Substances - Aquatic Life
Chlorine	Toxic Substances - Aquatic Life
Diazinon	Toxic Substances - Aquatic Life
Endosulfan	Toxic Substances - Aquatic Life

Demeton	Toxic Substances - Aquatic Life
Cyanide	Toxic Substances - Aquatic Life
Toxaphene	Toxic Substances - Aquatic Life
Aldrin	Toxic Substances - Human Health
Arsenic, Inorganic	Toxic Substances - Human Health
BHC Alpha	Toxic Substances - Human Health
BHC Beta	Toxic Substances - Human Health
BHC Gamma (Lindane)	Toxic Substances - Human Health
Chlordane	Toxic Substances - Human Health
Chlorophenoxy Herbicide (2,4-D)	Toxic Substances - Human Health
Chlorophenoxy Herbicide (2,4,5,TP)	Toxic Substances - Human Health
DDD 4,4'	Toxic Substances - Human Health
DDE 4,4'	Toxic Substances - Human Health
DDT 4,4'	Toxic Substances - Human Health
Dieldrin	Toxic Substances - Human Health
Endosulfan Alpha	Toxic Substances - Human Health
Endosulfan Beta	Toxic Substances - Human Health
Endosulfan Sulfate	Toxic Substances - Human Health
Endrin	Toxic Substances - Human Health
Endrin Aldehyde	Toxic Substances - Human Health
Heptachlor	Toxic Substances - Human Health
Heptachlor Epoxide	Toxic Substances - Human Health
Methoxychlor	Toxic Substances - Human Health
Pentachlorophenol	Toxic Substances - Human Health
Thallium	Toxic Substances - Human Health
Copper	Toxic Substances - Human Health
Selenium	Toxic Substances - Human Health
Zinc	Toxic Substances - Human Health
Antimony	Toxic Substances - Human Health
Barium	Toxic Substances - Human Health
Methylmercury	Toxic Substances - Human Health
Acrolein	Toxic Substances - Human Health
Benzene	Toxic Substances - Human Health
Bromoform	Toxic Substances - Human Health
Carbon Tetrachloride	Toxic Substances - Human Health
Chlorobenzene	Toxic Substances - Human Health
Chlorodibromomethane	Toxic Substances - Human Health
Chloroform	Toxic Substances - Human Health
Dichlorobenzene(o) 1,2	Toxic Substances - Human Health
Dichlorobenzene(p) 1,4	Toxic Substances - Human Health
Dichloroethane 1,2	Toxic Substances - Human Health
Dichloroethylene 1,1	Toxic Substances - Human Health
Dichloroethylene trans 1,2	Toxic Substances - Human Health

Dichloropropane 1,2	Toxic Substances - Human Health
Dichloropropene 1,3	Toxic Substances - Human Health
Ethylbenzene	Toxic Substances - Human Health
Hexachlorobutadiene	Toxic Substances - Human Health
Methyl Bromide	Toxic Substances - Human Health
Methylene Chloride	Toxic Substances - Human Health
Nickel	Toxic Substances - Human Health
Tetrachloroethane 1,1,2,2	Toxic Substances - Human Health
Tetrachloroethylene	Toxic Substances - Human Health
Toluene	Toxic Substances - Human Health
Trichlorobenzene 1,2,4	Toxic Substances - Human Health
Trichloroethane 1,1,2	Toxic Substances - Human Health
Vinyl Chloride	Toxic Substances - Human Health
Nitrates	Toxic Substances - Human Health
Acenaphthene	Toxic Substances - Human Health
Anthracene	Toxic Substances - Human Health
Benz(a)anthracene	Toxic Substances - Human Health
Benzo(a)pyrene	Toxic Substances - Human Health
Benzo(b)fluoranthene 3,4	Toxic Substances - Human Health
Benzo(k)fluoranthene	Toxic Substances - Human Health
Butylbenzyl Phthalate	Toxic Substances - Human Health
Chloronaphthalene 2	Toxic Substances - Human Health
Chrysene	Toxic Substances - Human Health
Dibenz(a,h)anthracene	Toxic Substances - Human Health
Dichlorophenol 2,4	Toxic Substances - Human Health
Dimethyl Phthalate	Toxic Substances - Human Health
Dimethylphenol 2,4	Toxic Substances - Human Health
Dinitrotoluene 2,4	Toxic Substances - Human Health
Dioxin (2,3,7,8-TCDD)	Toxic Substances - Human Health
Fluoranthene	Toxic Substances - Human Health
Fluorene	Toxic Substances - Human Health
Hexachlorobenzene	Toxic Substances - Human Health
Isophorone	Toxic Substances - Human Health
Nitrobenzene	Toxic Substances - Human Health
Pentachlorobenzene	Toxic Substances - Human Health
Pyrene	Toxic Substances - Human Health
Tetrachlorobenzene, 1,2,4,5-	Toxic Substances - Human Health
Trichlorophenol 2,4,6	Toxic Substances - Human Health
Trichlorophenol, 2, 4, 5-	Toxic Substances - Human Health
Di-n-butyl Phthalate	Toxic Substances - Human Health
Diethyl Phthalate	Toxic Substances - Human Health
Ethylhexyl Phthalate bis 2	Toxic Substances - Human Health

Indeno(1,2,3-cd)pyrene	Toxic Substances - Human Health
Phenol	Toxic Substances - Human Health
Trichloroethylene	Toxic Substances - Human Health
Chloroethyl Ether bis 2	Toxic Substances - Human Health
Chloroisopropyl Ether bis 2	Toxic Substances - Human Health
Dichlorobenzene(m) 1,3	Toxic Substances - Human Health
Hexachlorocyclopentadiene	Toxic Substances - Human Health
Hexachloroethane	Toxic Substances - Human Health
Nitrosodi-n-propylamine, N	Toxic Substances - Human Health
Nitrosodibutylamine, N	Toxic Substances - Human Health
Nitrosodiethylamine, N	Toxic Substances - Human Health
Nitrosodimethylamine, N	Toxic Substances - Human Health
Nitrosodiphenylamine, N	Toxic Substances - Human Health
Nitrosopyrrolidine, N	Toxic Substances - Human Health
Chlorophenol 2	Toxic Substances - Human Health
Acrylonitrile	Toxic Substances - Human Health
Dichlorobromomethane	Toxic Substances - Human Health
Dinitrophenol 2,4	Toxic Substances - Human Health
Manganese	Toxic Substances - Human Health
Methyl-4,6-dinitrophenol	Toxic Substances - Human Health
Benzidine	Toxic Substances - Human Health
Dichlorobenzidine 3,3'	Toxic Substances - Human Health
Polycyclic Aromatic Hydrocarbons (PAHs)	Toxic Substances - Human Health
Cyanide	Toxic Substances - Human Health
Toxaphene	Toxic Substances - Human Health
Habitat Modification	
Sedimentation	
Flow Modification	
Aquatic Weeds	
Harmful Algal Blooms	
Excess Algal Growth	