



2018 Draft Water Quality Assessment

Guidance for Public Review

Water Quality Program

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Olympia, Washington

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¹ www.ecology.wa.gov/contact

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Instructions for Public Review

The Draft 2018 Water Quality Assessment (WQA)² is ready for public review from **April 8 – June 4** for proposed listings based on data collected from 2006-2017.

If you have any problems reviewing or questions about the WQA, please contact Jeremy Reiman via e-mail at 303d@ecy.wa.gov, or by cell phone at 360-819-0197.

Navigating this guidance

The following sections provide information to assist with review of the 2018 WQA listing results. You can click on a topic below to quickly navigate to that section in this document.

Background Information on 2018 WQA

- [Schedule for Review and EPA Submittal](#)
- [Developing 2018 WQA](#)

Review and Comment on the 2018 WQA

- [How do I review the draft WQA?](#)
- [How do I submit comments?](#)
- [When are comments due?](#)
- [What happens after the public review period?](#)
- [Helpful Tips for Reviewers](#)
- [Draft WQA Search Tool Basics](#)
- [Basis Table Columns Key](#)
- [Draft Water Quality Atlas Basics](#)
- [Helpful Links](#)
- [Definitions](#)

² 2018 Water Quality Assessment (WQA) serves as Washington's 2014, 2016, and 2018 Clean Water Act Sections 303(d)/305(b) Integrated Reports (CWA 303d/305b IR). This assessment could not serve as the 2020 IR, as this would require the inclusion of data through 2019.

Background Information

Schedule for Review and EPA Submittal

Action	Dates
Ecology Internal review	January 19 – February 5, 2021
Tribal early review	February 16 – March 16, 2021
60-day public review	April 8 – June 4, 2021
Submit Integrated Report to EPA	August 31, 2021

Developing the 2018 WQA

What's included in this WQA

- This 2018 WQA represents our 2014, 2016, and 2018 biennial Integrated Reports to meet Clean Water Act sections 303(d) and 305(b).
- The 2018 WQA includes fresh and marine water quality data (water column, fish tissue, and other habitat data collected as part of a water quality study) as well as contaminated sediments data from the Toxics Cleanup Program.
- The data window for newly assessed data includes data collected 2006–2017. Data previously evaluated 2006–2010 will be reevaluated along with any new data collected after 2010. Reevaluation of data may result in changes in water quality determinations.
- Public call(s)-for-data were conducted in 2016 and 2018 to collect data up through December 2017. To start the technical assessment, a data pull was done in February 2020 that included the following data initially retrieved for consideration:
 - 116M records, 166K locations, 4500 studies from Ecology's EIM and the federal Water Quality Portal

What's new for this Assessment

- This WQA was based on the [current approved water quality standards](#), which includes new human health criteria for toxics adopted in 2016 and new water contact recreation bacteria criteria (E. coli for fresh water and enterococci for marine waters), adopted in 2019.
- [Water Quality Policy 1-11](#) provides the listing methodologies used for this assessment. Significant updates were made to Policy 1-11 in November 2018 and July 2020. These updates included new methodologies for human health criteria for toxics and bacteria, provisions to ensure the use of credible data and to minimize errors in under- and over-listing impaired waters, and clarifying the use of biological indicator data.
- Assessment units were recently refined to ensure the appropriate water quality standards are applied within waterbodies. These include boundary areas where standards change due to salinity, supplemental spawning, or other conditions.

- A new SQL-based application was developed by agency-wide IT to automate the data pull and analysis based on Policy 1-11 requirements. This new tool helped assessors with the millions of data points that needed to be grouped by parameter, organized, and assessed.
- The public Search Tool has been updated and improved for public accessibility. A new data table was added to each Listing ID to describe the basis for the listing.

Review and Comment on the 2018 WQA

How do I review the draft WQA?

The draft WQA can be reviewed using two different tools:

1. [Draft WQA Search Tool](#) – a database search tool that functions very similar to our current Approved WQA Search Tool. Results can be queried by various parameters and downloaded in .csv format. Comments on the list can also be submitted through this application.
2. [Draft Water Quality Atlas](#) – a mapping tool with the draft list in GIS format, along with several other GIS layers that may help review. Results can be queried spatially with other layers within the Atlas.

We highly recommend anyone planning to conduct in-depth review of listings to bookmark these links in your internet browser.

How do I submit comments?

We prefer you submit comments within the [Draft WQA Search Tool](#). For comments on specific listings, please use the comment box found at the bottom of the Listing ID page. For general comments, please use the [General Comment](#) form found under the "Contact Us" link in the top navigation bar of the Draft WQA Search Tool or at the bottom of List ID pages.

Washington State Water Quality Assessment TEST
303(d)/305(b) List

Candidate List **Contact Us** WQ Atlas

[Back To Results](#)

Listing ID: 3730
Main Listing Information

Listing ID: 3730
Waterbody Name: WENATCHEE RIVER
Medium: Water
Parameter: Temperature
WQI Project: Wenatchee River Watershed Temperature TMDL
Designated Use: Aquatic Life - Core Summer Salmonid Habitat

Candidate Category: 4A
[View Category History](#)

Assessment Unit
Assessment Unit ID: 17020011000117_001_001
Size: 1.24 Kilometers
County: Chelan
WRIA: 45 - Wenatchee
Associated Component(s): Reach: 17020011000117 0% - 100%, Type: Rivers/Streams

Basis Table

Sampling Year	Excursion Count	Sample Count	Criterion/Threshold	Aggregate	Calculated Value	Supplemental Spawning Criterion	Supplemental Spawning Period
2017	5	226	16.0 deg C	7-DADMax	17.25	13.0 deg C	Sep 15 - July 1

Basis Statement
HISTORICAL INFORMATION
Location ID: 45A110 -- In 2005, 1 of 3 sample values (33%) showed an excursion of the criteria (16°C) for this waterbody;
(Supplemental Spawning Period): Location ID: 45A110 -- In 2005, 0 of 9 sample values (0%) showed an excursion of the criteria (13°C) for this waterbody;
Location ID: 45A110 -- In 2005, between 7/2/2005 and 9/14/2005, the 7-day mean of daily maximum values (7DADmax) exceeded the criterion for this waterbody (16°C) on 69 of 75 days (92%); The maximum exceedance during this period was 23.26°C for the 7-day period centered on 8/8/2005;
Remarks
Supplemental Spawning Criteria: 13.0 deg C from Sep 15 - July 1
Assessment Cycle 2018 - A historic Category 4A determination was carried forward from a previous assessment or administrative decision. See Historic Basis Statement for previous assessment information.
Data for 2006 does not cover the core critical season for temperature. Maximum temperatures may be higher than observed data; Data for 2001 does not cover the core critical season for temperature. Maximum temperatures may be higher than observed data; Supplemental Criteria apply from Sep 15 - Jul 1
In addition to the general temperature criteria the following criteria also apply to this waterbody: [Chapter, 173-201A WAC Table 200 (1)(c)] --Sept. 15-July 1, the temperature shall not exceed a 1-day maximum of 13°C.
Part of the Wenatchee River Watershed Temperature TMDL approved by EPA 8/03/07.

Data Sources

Study Id	Location Id	Source Database
AMS001	45A110	EIM
AMS001E	45A110	EIM
AMS004	45A110	EIM
AMS005	45A110	EIM

Map Link
[Map Link](#)

[Back To Results](#)

Submit questions or comments about this specific Listing:
*Your Name:
Your Email:
*Comment/Question:

If you wish to comment about something unrelated to this listing, please [Contact Us](#).

Screenshot of General Comments Form

General Comments

You may also email us directly at 303D@ecy.wa.gov.

*Your Name:

*Your Email:

Your Affiliation:

Public/Other

▼

Organization Name:

Comment Type:

General

▼

Listing ID:

WRIA:

None Selected

▼

Waterbody Name:

None Selected

▼

Parameter:

None Selected

▼

Medium:

None Selected

▼

*Reason (Select most appropriate):

Check Data

▼

*Question/Comment:

Submit Comment

These two methods make it drastically easier for the WQA team to track and follow-up on comments. However, we do understand that these two methods may not be the best alternatives for all reviewers. If you feel you would like to provide comments in an alternative format, please contact Jeremy Reiman (303d@ecy.wa.gov | 360-819-0197) and we can develop an alternative solution.

When are comments due?

Please submit all comments by **June 4, 2021**.

What happens after the public review period?

Once all comments have been received and incorporated, we will provide a thorough response to comments document on our website. We will then update our list in the search tools and submit the candidate list to EPA for approval. See below for a timeline for the next steps:

Action	Dates
Ecology internal review	January 19 – February 5, 2021
Public early review	February 16 – March 16, 2021
60-day public review	April 8 – June 4, 2021
Submittal of Integrated Report to EPA	August 31, 2021

Helpful Tips for Reviewers

1. **Search Tools:** Use the [Draft WQA Search Tool](#) or [Draft Water Quality Atlas](#) to review listings in areas you are interested in or familiar with.
2. **Look for errors:** The WQA Team has worked hard to assign categories based on our policy, correct locations, remove duplicate listings, and fix errors. However, we know that “mistakes will be made” with the large amount of data we have assessed. Reviewing the listing results on waterbodies and watersheds you work with or are familiar with will improve the quality of the results.
3. **Specific listing comments:** If you have concerns or questions on a specific listing, fill out the *Listing Comment Form* available at the bottom of the listing ID record. It will be most helpful if you suggest what the desired action is and any other information that will help us to correct errors. See section [How do I submit comments?](#) for more information.
4. **General comments:** On the main database search page for the 2018 Assessment results, there is a link for submitting a general comment. This form is for submitting comments that aren’t specific to one listing, such as a comment regarding an assessment method, procedure, or policy. See section [How do I submit comments?](#) for more information.

Draft WQA Search Tool Basics

The [Draft WQA Search Tool](#) allows users to search and download WQA results. The search tool houses draft WQA results and results from past assessments. From the **home page**, users can filter by several different fields. Click the field name for a definition of the search field. Selecting multiple criteria within the same search field will return results that meet any of those criteria. When selecting criteria across multiple search fields, the search will return results that meet all of the selected criteria.

For example, the search below will return only Dioxin and pH listings within Thurston County that were Category 5 in both 2018 and 2012.

IMPORTANT NOTE: When searching within the “Categories” field, remember to select **Add** to apply your search criteria.

When starting a new search, always click the “Clear Search Parameters” button at the bottom of the screen to ensure you are starting with a clean slate. For more tips on searching, click the [blue question mark icon](#) in the page header. To apply your search, click the search button.

Search Candidate Water Quality Assessment for Review

Results are not official. For review purposes only.

To view the current approved Water Quality Assessment, click the “Approved WQ Assessment” link in the top navigation bar.

Welcome to Washington State's draft 2018 Water Quality Assessment.
To begin review, search for specific listings using the search fields below.
Click the question mark to the left for search tips.
Specific listing comments can be submitted at the bottom of Listing ID pages.
General comments can be submitted by clicking the “Contact Us” link in the top navigation bar.

Listing Details

Listing ID:

Medium:

Parameter:

Designated Use:

Sample Date(s) (Sediment Listing Only)

On/From:

To:

Categories

Year	Category	
2018	5	Clear
2012	5	Clear
2018	ALL	Add

☒ Listed in 1998 ☐ ALL ☐ Yes ☐ No

☒ Listed in 1996 ☐ ALL ☐ Yes ☐ No

Category Descriptions

Sources

Study ID:

Location:

Source Database:

Location

Assessment Unit ID:

Reach Code:

Waterbody:

Waterbody Type:

Grid Cell:

County:

WRIA:

WQI Project/TMDL

Active WQI Project:

Supporting Documentation

Basis Statement:

Remarks:

Basis Table Fields

Sampling Year:

Aggregate:

Calculated Value:

Data Source:

Excursion Count:

Criterion/Threshold:

Species:

Sample Count:

The **search results page** displays all listings meeting the criteria of your search. You can view the details of individual listings by clicking the “view” link next to the ListingID. Clicking links in the “WQ Atlas Map Link” column will display individual listings on our [Draft Water Quality Atlas](#) mapping tool. These results can also be exported by clicking the “Export” button at the top or bottom of the search results page. Records as exported in .csv format and can be viewed in Microsoft Excel. Remember: the greater the number of records, the more time it will take to export.

[New Search](#) [Modify Search](#) [Export](#)

Search Results - 32 Matched Listings									
	ListingID	AU ID	Medium	Parameter	Category	Waterbody Name	WRIA	WQ Improvement Project	WQ Atlas Map Link
View	5813	17100101000446_001_001	Water	pH	5	COAL CREEK	20 - Soleduck-Hoh		5813
View	5815	17100101000319_003_003	Water	pH	5	CROOKED CREEK	20 - Soleduck-Hoh		5815
View	5818	17100101000318_001_001	Water	pH	5	OZETTE RIVER	20 - Soleduck-Hoh		5818
View	5824	17100101000264_001_001	Water	pH	5	SOLEDUCK RIVER	20 - Soleduck-Hoh		5824
View	6754	17100101000323_005_006	Water	pH	5	BIG RIVER	20 - Soleduck-Hoh		6754
View	51002	17110020000577_001_001	Water	pH	5	MEADOWBROOK SLOUGH	18 - Elwha-Dungeness		51002
View	71004	17100101000324_001_001	Water	pH	5	BIG RIVER	20 - Soleduck-Hoh		71004
View	71011	17100101000481_001_001	Water	pH	5	LAKE CREEK	20 - Soleduck-Hoh		71011
View	71020	17100101020186_001_002	Water	pH	5	PALMQUIST CREEK	20 - Soleduck-Hoh		71020
View	72100	310N160W36_001	Water	pH	5	UNNAMED CREEK (TRIB TO PACIFIC OCEAN (WRIA 20))	20 - Soleduck-Hoh		72100
View	81389	17110020000020_001_001	Water	pH	5	ELWHA RIVER	18 - Elwha-Dungeness		81389
View	81395	17110020000293_001_001	Water	pH	5	LITTLE RIVER	18 - Elwha-Dungeness		81395
View	81404	17110020003100_001_001	Water	pH	5	LITTLE RIVER	18 - Elwha-Dungeness		81404
View	81406	17110020003654_003_003	Water	pH	5	ELWHA RIVER	18 - Elwha-Dungeness		81406
View	81639	17100101000290_001_002	Water	pH	5	DICKEY RIVER	20 - Soleduck-Hoh		81639
View	81642	17100101000301_001_001	Water	pH	5	DICKEY RIVER, W.F.	20 - Soleduck-Hoh		81642
View	81643	17100101000309_001_001	Water	pH	5	DICKEY RIVER, W.F.	20 - Soleduck-Hoh		81643
View	81644	17100101000363_001_001	Water	pH	5	COAL CREEK	20 - Soleduck-Hoh		81644
View	81645	17100101000367_001_001	Water	pH	5	COLBY CREEK	20 - Soleduck-Hoh		81645
View	81646	17100101000368_002_002	Water	pH	5	COLBY CREEK	20 - Soleduck-Hoh		81646
View	81649	17100101000453_001_001	Water	pH	5	PONDS CREEK	20 - Soleduck-Hoh		81649
View	81652	17100101000476_001_002	Water	pH	5	SQUAW CREEK	20 - Soleduck-Hoh		81652
View	81653	17100101000480_001_001	Water	pH	5	UNNAMED CREEK (TRIB TO DICKEY RIVER, E.F)	20 - Soleduck-Hoh		81653
View	81654	17100101000496_001_002	Water	pH	5	UNNAMED CREEK (TRIB TO DICKEY RIVER, W.F)	20 - Soleduck-Hoh		81654
View	81655	17100101000526_001_001	Water	pH	5	UNNAMED CREEK (TRIB TO COAL CREEK)	20 - Soleduck-Hoh		81655

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[New Search](#) [Modify Search](#) [Export](#)

[To ListingID page](#)

[To Draft Water Quality Atlas page](#)

Search results can be downloaded from the **export listings page**. All exports are downloaded in “.csv” format. Select what fields are included in your export by clicking the check boxes next to field names. You can also download the entire 2018 Draft Water Quality Assessment by clicking the blue “Entire 2018 Draft WQ Assessment” link at the bottom of the page.

Export 61,391 Listings

Select Fields, then click "Download Results"

☒Medium
☒Parameter
☒Waterbody Name
☒Waterbody Types
☒Basis
☒Remarks
☐Sample Collection Date

☒Assessment Unit ID
☐Assessment Unit Size
☐Reach Code
☐Reach From
☐Reach To
☒Grid Cell
☐Draft Report Viewer Hyper-link
☐Draft Map Tool Hyper-link

☒Draft Category
☐2012 Category
☐2010 Category
☐2008 Category
☐2004 Category
☐1998 Listing Status
☐1996 Listing Status

☒WQ Improvement Projects
☐WRIA
☐Counties
☒Study ID
☒Location ID
☒Source Database
☐Designated Use

If you are having difficulty exporting a large number of Listings, split your query into smaller sets and export each one.

Alternatively, you may download the [Entire 2018 Draft WQ Assessment](#) (This includes Sediment and Category 3 Listings).

The **ListingID** page summarizes all relevant information used for making a water quality determination for a parameter on a waterbody. Every page is broken up into multiple sections. A combination of information provided in the Basis Table, Basis Statement, and Remarks fields will justify the category determination. Clicking the “Map Link” towards the bottom of the page will display individual listings on our [Draft Water Quality Atlas](#) mapping tool.

If you have comments or questions on specific listings, please use the comment box at the bottom of the page. You can also click on the “Contact Us” link to submit general comments.

[Back To Results](#)

Listing ID: 5813
Main Listing Information

Listing ID: 5813

Waterbody Name: COAL CREEK

Medium: Water

Parameter: pH

WQI Project: None

Designated Use: Aquatic Life - Core Summer Salmonid Habitat

Candidate Category: 5 5

[View Category History](#)

Assessment Unit

Assessment Unit ID: 17100101000446_001_001

County: Clallam

Size: 0.7 Kilometers

WRIA: 20 - Soleduck-Hoh

Associated Component(s): Reach: 17100101000446 0% - 100%, Type: Rivers/Streams

Basis Table

Sampling Year	Excursion Count	Sample Count	Criterion/Threshold	Aggregate	Calculated Value
2007	3	19	6.5 - 8.5 pH	Daily Extreme	6.1
2009	9	17	6.5 - 8.5 pH	Daily Extreme	5.7

Basis Statement

HISTORICAL INFORMATION

Location ID [MKWQ COAL.1/MKWQ EDUC.1] -- In 2005, 6 of 28 sample values (21%) showed an excursion of the criteria for this waterbody; (External Data Source: EPA STORET Database)

Location ID [MKWQ EDUC.1/MKWQ COAL.1] -- In 2004, 10 of 25 sample values (40%) showed an excursion of the criteria for this waterbody; (External Data Source: EPA STORET Database)

National Park Service data from the STORET database station OLYM_NPS_COC (COAL CREEK UPSTREAM FROM LAKE OZETTE) shows 6 excursions beyond the criterion out of 14 samples collected between 01/93 - 12/97.

Remarks

Assessment Cycle 2018 - During two calendar years (2007 and 2009), the hypergeometric test failed using discrete data indicating that the standard was not met.

At least 10 percent of samples were excursion of the criteria in at least one year and at least 3 excursions exist from all data considered.

Low pH Excursions

Data Sources

Study Id	Location Id	Source Database
MKWQ	MAKAH-COAL.1	Water Quality Portal
OZETTERIVER	MAKAH_WQX-coal.1	Water Quality Portal

[Map Link](#)

[Back To Results](#)

Submit questions or comments about this specific Listing:

***Your Name:**

Your Email:


***Comment/Question:**

[Submit](#)

If you wish to comment about something unrelated to this listing, please [Contact Us](#).

Navigating the Listing ID page

Main Listing Information: the general water quality determination information. Clicking the “View Category History” button on the right displays a drop-down box with past category determinations for this parameter/waterbody combination.

Main Listing Information																	
Listing ID: 5813	Candidate Category: 5 																
Waterbody Name: COAL CREEK	Hide Category History																
Medium: Water																	
Parameter: pH																	
WQI Project: None																	
Designated Use: Aquatic Life - Core Summer Salmonid Habitat	<table><thead><tr><th>Year</th><th>Category</th></tr></thead><tbody><tr><td>2018</td><td>5</td></tr><tr><td>2012</td><td>5</td></tr><tr><td>2010</td><td>5</td></tr><tr><td>2008</td><td>5</td></tr><tr><td>2004</td><td>5</td></tr><tr><td>1998</td><td>N</td></tr><tr><td>1996</td><td>N</td></tr></tbody></table>	Year	Category	2018	5	2012	5	2010	5	2008	5	2004	5	1998	N	1996	N
Year	Category																
2018	5																
2012	5																
2010	5																
2008	5																
2004	5																
1998	N																
1996	N																

Assessment Unit: waterbody information, including geographic, NHD, and waterbody type information.

Assessment Unit	
Assessment Unit ID: 17100101000446_001_001	County: Clallam
Size: 0.7 Kilometers	WRIA: 20 - Soleduck-Hoh
Associated Component(s): Reach: 17100101000446 0% - 100%, Type: Rivers/Streams	

Basis Table: summary of data analyzed this assessment cycle (2006-2017). All basis tables will have the six columns displayed in the example below. Some listings will have basis tables with additional columns of information. Basis tables are new this assessment cycle and were built as a result of our new Water Quality Automated Assessment application. As a result of the new application, **only data from the most recent years driving the category determination will be displayed in the basis table, not all data considered**. Referring to the example below, data from 2007 and 2009 are displayed because these data drive the category determination. There may have been data collected more recently, but it is data from these years that results in draft category.

For definitions of Basis Table columns, see section [Basis Table Columns Key](#) below.

Basis Table						
	Sampling Year	Excursion Count	Sample Count	Criterion/Threshold	Aggregate	Calculated Value
	2007	3	19	6.5 - 8.5 pH	Daily Extreme	6.1
	2009	9	17	6.5 - 8.5 pH	Daily Extreme	5.7

Basis Statement: summary of data analyzed in past assessment cycles and/or non-number based data analysis. Data analyzed in past assessment cycles will be found within the Basis Statement textbox under the header “HISTORICAL INFORMATION”. Examples of listing types with non-number based data that utilize the Basis Statement field include: Non-native aquatic plants and in-stream flow modifications.

Basis Statement

HISTORICAL INFORMATION

Location ID [MKWQ_COAL.1/MKWQ_EDUC.1] -- In 2005, 6 of 28 sample values (21%) showed an excursion of the criteria for this waterbody; (External Data Source: EPA STORET Database)

Location ID [MKWQ_EDUC.1/MKWQ_COAL.1] -- In 2004, 10 of 25 sample values (40%) showed an excursion of the criteria for this waterbody; (External Data Source: EPA STORET Database)

National Park Service data from the STORET database station OLYM_NPS_COC (COAL CREEK UPSTREAM FROM LAKE OZETTE) shows 6 excursions beyond the criterion out of 14 samples collected between 01/93 - 12/97.

Remarks: reasoning for category determination and other important information about this listing.

Remarks

Assessment Cycle 2018 - During two calendar years (2007 and 2009), the hypergeometric test failed using discrete data indicating that the standard was not met.

At least 10 percent of samples were excursion of the criteria in at least one year and at least 3 excursions exist from all data considered.

Low pH Excursions

Data Sources: summary of data used to make water quality determination. Clicking the links in EIM "Study Id" or "Location Id" columns will take you to the Study or Location information within Ecology's Environment Information Management database. Clicking on "Water Quality Portal" links will take you to the homepage of the federal Water Quality Portal, where data can be directly downloaded.

While not all data analyzed this assessment cycle is presented in the Basis Table, all study and locations with data used in the assessment will be displayed in the Data Sources section.

Data Sources

Study Id	Location Id	Source Database
MKWQ	MAKAH-COAL.1	Water Quality Portal
OZETTERIVER	MAKAH_WQX-coal.1	Water Quality Portal

Basis Table Columns Key

Basis Tables summarize data used to determine WQA categories and are found on Listing ID page. Below are definitions of columns that may be found in basis statement columns.

Field	Definition
Aggregate	How data are aggregated to produce the Calculated Value (e.g. daily minimum, tissue median concentration, etc...)
Calculated Value	Most extreme value compared against Criterion/Threshold. Represented in the same units as the Criterion/Threshold.
Calculated Value For 10x TECc	Value compared against 10 times the Tissue Exposure Concentration – Carcinogenic calculated threshold
Criterion/Threshold	Water quality standard or threshold samples are compared against
Excursion %	Percentage of samples exceeding Criterion/Threshold
Excursion Count	Number of samples exceeding Criterion/Threshold
Median exceed criterion	Does the median value exceed the Criterion/Threshold? (Y/N)
Median exceed TEC	Does the median value exceed the Tissue Exposure Concentration – Non-carcinogenic calculated threshold? (Y/N)
Median exceed 10x TECc	Does the median value exceed the 10 times the Tissue Exposure Concentration – Carcinogenic calculated threshold? (Y/N)
Median For 10x TECc Is Non-Detect	Does the median value compared against 10 times the Tissue Exposure Concentration – Carcinogenic calculated threshold represent a non-detect? (Y/N)
Median Is Non-Detect	Does the median value represent a non-detect value? (Y/N)
Sample Count	Number of samples collected within the Sampling Year
Sampling Year	Year(s) data were collected
Species	Species of fish/shellfish tissue analyzed
Supplemental Spawning Aggregate	How data collected within the Supplemental Spawning Period are aggregated to produce the Calculated Value (e.g. 7DAD-Max, Daily Max)
Supplemental Spawning Calculated Value	Most extreme value compared against the Supplemental Spawning Criterion. Represented in the same units as the Supplemental Spawning Criterion
Supplemental Spawning Criterion	Water quality threshold data are compared against during the Supplemental Spawning Period
Supplemental Spawning Period	Date range in which Supplemental Spawning Criterion apply

Draft Water Quality Atlas Basics

The [Draft Water Quality Atlas](#) displays the draft WQA results in a map format, alongside layers of other environmental data that may be useful for reviewers. The draft data can be filtered by geographic location, search fields found in the Draft WQA Search Tool, and other useful parameters. Users can also download search results or print their map for future use. Click the **Add/Remove Map Data** button on the left to begin viewing draft results.



The draft water quality assessment is color coded by Category Determination. While a waterbody can be placed in multiple categories, the color assigned to the waterbody is prioritized based on the order of categories in the legend box on the left. **Clicking on a colored listing** on the map will bring up a call-out box displaying a summary of all category determinations found on that waterbody. By **clicking the more button** on the right side of the callout box, you can learn more about each listing. Finally, **clicking the view button** within each listing's drop down will take you to the Listing ID page on the Draft WQA Search Tool if you'd like to see all information for that listing.



Draft 2018 Water Quality Assessment Internal Review

Legend

Filter

Zoom

Tools

Add/Remove Map Data

Assessed Water/Sediment

Filter

Water

Category 5 - 303d

Category 4C

Category 4B

Category 4A

Category 2

Category 1

Sediment

Category 5 - 303d

Category 4C

Category 4B

Category 4A

Category 2

Category 1

Color display priority

Find address or place

Map Layers

Geographic

Demographic

Category 5 water:

1 listing found

less ▲

Parameter:

Total Phosphorus

Medium:

Water

Listing ID:

21573 [View](#)

Assessment Unit ID:

17110010000000

Waterbody Name:

Dolloff Lake

Category 4C water:

1 listing found

more ▼

Navigate to the **Filter** tab on the left window to filter down draft WQA results. Under the **Spatial Filter Tools** section you can filter by assessment results by location specific or geographic boundaries. Once you've applied a filter, clicking the **Zoom to selection** button in the bottom right corner will zoom into the extent of your search area to display the results. Below is an example of searching for listings within the City of Pullman, WA and clicking the Zoom to selection button.

Draft 2018 Water Quality Assessment Internal Review

Legend **Filter** Zoom Tools Add/Remove Map Data My Maps Print Share Info

Spatial Filter Tools Filter Applied

City County Leg District WRIA Project PSAA

Pullman

- OR -

Box Select Polygon Select Buffer Point Buffer Feature Spatial filter applied (remove filter)

Water Quality Assessment

Water Quality Standards

Permitted Outfalls

Water Quality Improvement Projects

Wasteload Allocation Points

Load Allocation Points

Assessed Water/Sediment Filter Applied Clear filters


Find Listing ID Assessment Unit ID Category Medium Parameter Details

	66746	170200011202_01_01	5	Water	Dissolved Oxygen	View
	11253	170200050203_01_01	5	Water	Temperature	View
	42784	170200050203_01_01	5	Water	Dissolved Oxygen	View

Zoom to selection Table to CSV

Filter results are also displayed in a table at the bottom of the page. This table can be downloaded by clicking the **Table to CSV** button. The table is downloaded in .csv format and can be viewed in MS Excel. Clicking the **binoculars icon** next to individual listings will zoom the view extent to that listing. Clicking the **view button** on the far right will take you to the Listing ID page on the Draft WQA Search Tool.

Below is a new example of a spatial filter. Here we've used the Buffer Point tool to select all listings within a 1 mile radius of a point on the map.



DEPARTMENT OF ECOLOGY
State of Washington

Draft 2018 Water Quality Assessment

Internal Review

Legend

Filter

Zoom

Tools

Add/Remove Map Data

My Maps

Print

Share

About

Spatial Filter Tools

Filter Applied

City

County

Leg District

WRIA

Project

PSAA

Box Select

Polygon Select

Buffer Point

Buffer Feature

Spatial filter applied

(remove filter)

Usage:

1) Choose buffer distance.

1/4 Mile

1/2 Mile

1 Mile

5 Miles

2) Click desired location on map.

Water Quality Assessment

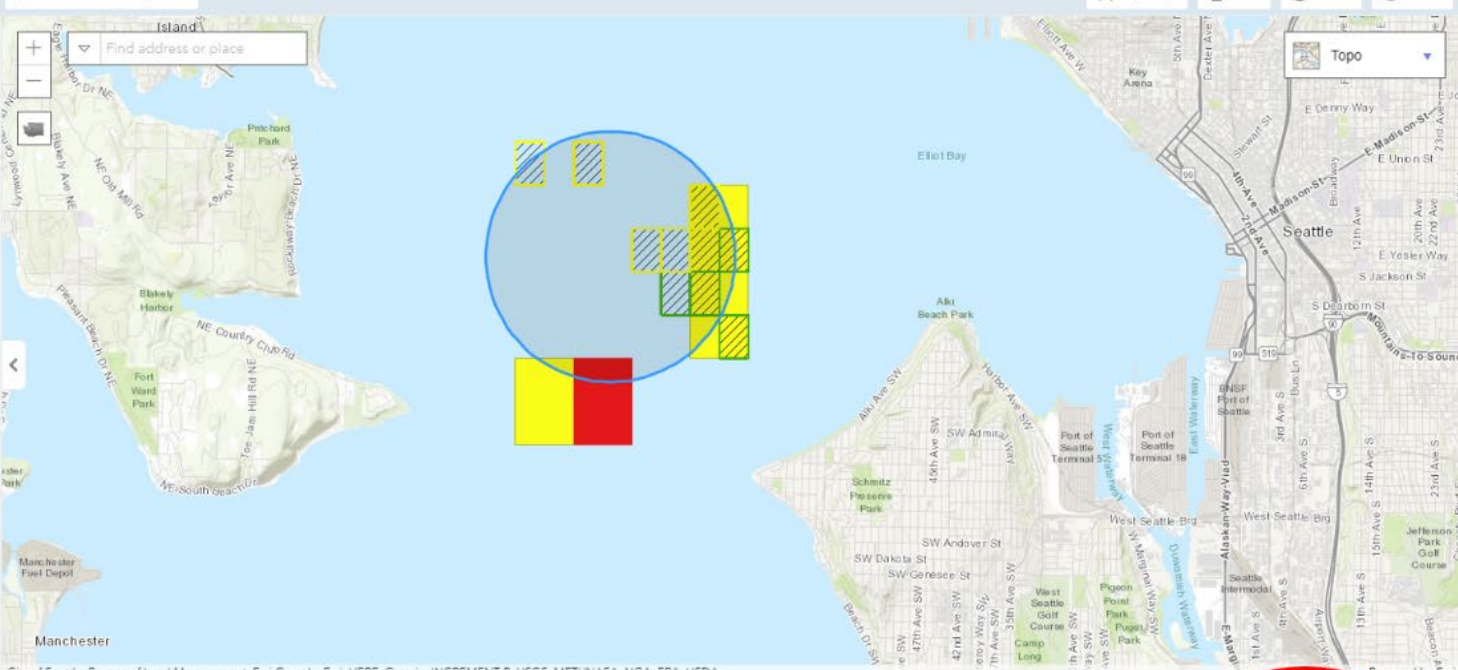
Water Quality Standards

Permitted Outfalls

Water Quality Improvement Projects

Wasteload Allocation Points

Load Allocation Points



City of Seattle, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA, USDA

Assessed Water/Sediment

Filter Applied

Clear filters

Zoom to selection

Table to CSV

Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
	6746	170200011202_01_01	5	Water	Dissolved Oxygen	View
	11253	170200050203_01_01	5	Water	Temperature	View
	42784	170200050203_01_01	5	Water	Dissolved Oxygen	View

You can filter by listing specific fields under the **Water Quality Assessment** section on the left. Spatial and listing specific filters can also be combined. Below is an example of searching for all Category 4A/4B/5 temperature listings within WRIA 33 – Lower snake.

DEPARTMENT OF ECOLOGY
State of Washington

Draft 2018 Water Quality Assessment Internal Review

Legend **Filter** Zoom Tools Add/Remove Map Data My Maps Print Share

▼ Spatial Filter Tools Filter Applied

^ **Water Quality Assessment** Filter Applied

Environment: Freshwater and Marine

Parameter (Limit 5): Temperature

Medium (Water): ☒ Water ☒ Habitat ☒ Tissue ☒ Other

Medium (Sediment): ☒ Sediment

Category: ☐ 1 ☐ 2 ☒ 4A ☒ 4B ☐ 4C ☒ 5

Listing ID: Enter listing id

Assessment Unit ID: Enter assessment unit id

Apply Filter Reset Filter

▼ Water Quality Standards

▼ Permitted Outfalls

▼ Water Quality Improvement Projects

Find address or place

Map showing WRIA 33 – Lower snake with a red line indicating the assessment area.

Assessed Water/Sediment Filter Applied Clear filters

Zoom to selection Table to CSV

Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
	11253	170200050203_01_01	5	Water	Temperature	View
	66749	170200050404_01_01	5	Water	Temperature	View
	6310	170200050405_01_01	5	Water	Temperature	View

Under the **Zoom tab**, you can pan to a specific location or area, without filtering results. The extent of the area you are zooming to will be highlighted in yellow. Below we have zoomed to Lake Chelan.

DEPARTMENT OF ECOLOGY
State of Washington

Draft 2018 Water Quality Assessment Internal Review

Legend Filter **Zoom** Tools

▼ Address

▼ Coordinates

▲ Map Area

Area Type:

☐ Assessed Water/Sediment ☒ Lake/Pond

☐ City ☐ River/Stream

☐ County ☐ Marine Region

☐ Highway Milepost ☐ River Mile

☐ T/R/S ☐ Watershed (WRIA)

☐ Parcel

Lake/Pond:

Lake Chelan (Chelan)

Go **Clear**

Find address or place

Esri, Caneda, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Assessed Water/Sediment

Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
	66746	170200011202_01_01	5	Water	Dissolved Oxygen	View
	11253	170200050203_01_01	5	Water	Temperature	View
	42784	170200050203_01_01	5	Water	Dissolved Oxygen	View

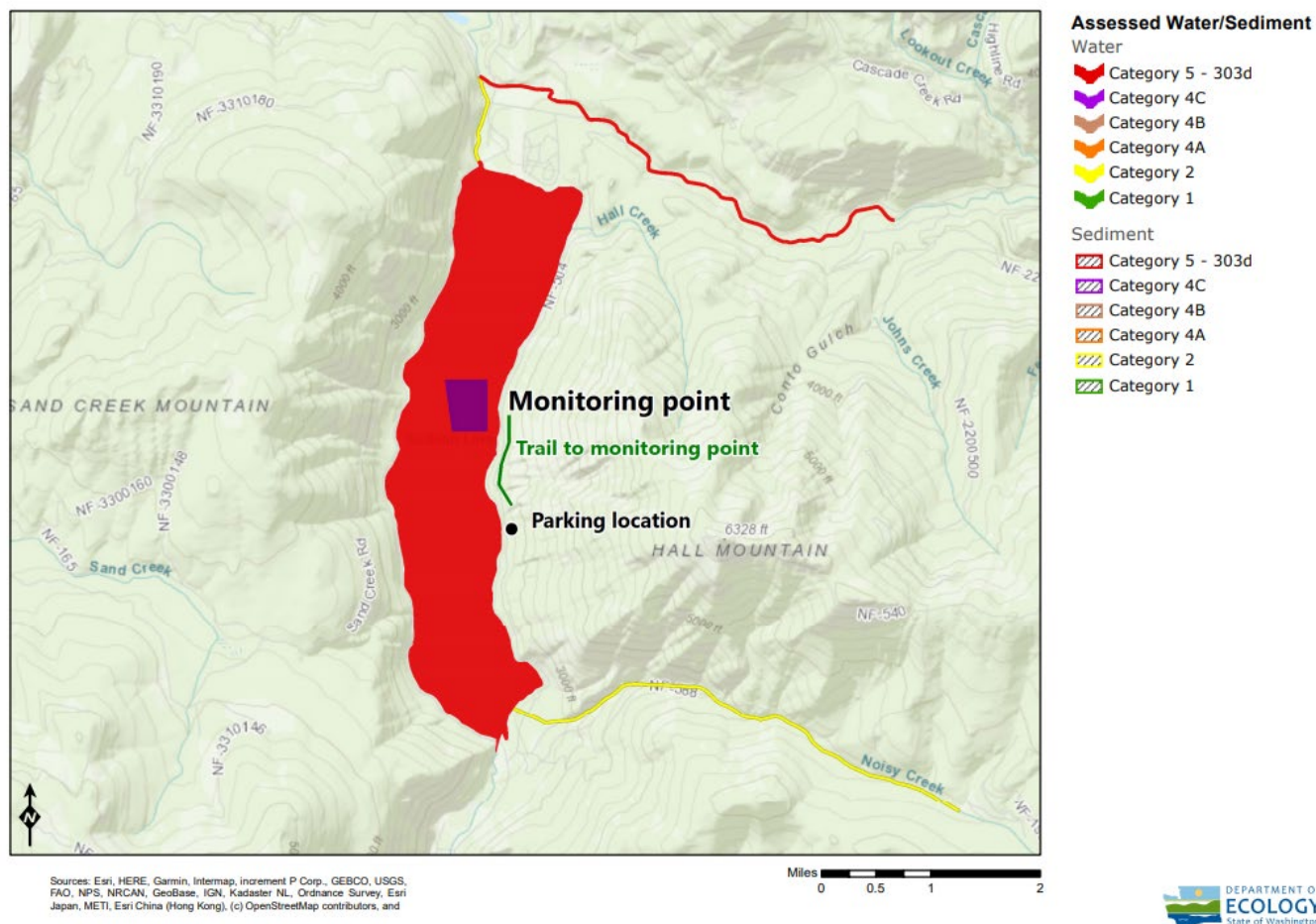
Show 5 entries Showing 1 to 5 of 27,989 entries

First Previous Next Last

The **Tool tab** contains a few features that may help in making maps (for example, drawing polygons/lines/points, adding labels, etc...). If you are interested in printing your map, click the **Print button** in the top right corner of the tool, add a title, and click **Create Printable Map**. The map will be generated in a .pdf pop-up box. Make sure that any pop-up blockers are turned off to view your map. Below is an example of a printed map with some of the tool features applied.

January 13, 2021

Lake Sullivan Monitoring



Helpful Links

- [2018 Draft Water Quality Assessment Search Tool](#)³:
- [Draft Water Quality Atlas \(Map Tool\)](#)⁴
- [Water Quality Policy 1-11](#)⁵
- [Water Quality Standards for Washington](#)⁶
- [Current Approved 2012 Assessment Search Tool](#)⁷
- [Current Water Quality Atlas for 2012 Assessment \(Map Tool\)](#)⁸

³ <https://apps.ecology.wa.gov/approvedwqa/CandidatePages/CandidateSearch.aspx>

⁴ <https://apps.ecology.wa.gov/waterqualityatlas/wqa/proposedassessment>

⁵ <https://apps.ecology.wa.gov/publications/documents/1810035.pdf>

⁶ <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

⁷ <https://apps.ecology.wa.gov/ApprovedWQA/ApprovedPages/ApprovedSearch.aspx>

⁸ <https://apps.ecology.wa.gov/waterqualityatlas/map.aspx>

Definitions

Assessment Category: a number assigned (generally 1 through 5) to a Listing in accordance with the water quality impairment status for a specific Parameter in a specific Assessment Unit. See the Dept. of Ecology's [Water Quality Policy 1-11](#) Section 1F. Category Descriptions for more detailed information on Impairment Categories).

Assessment Unit: a marine grid cell, lake, or stream/river segment for which water quality parameters have been individually analyzed. Stream and rivers assessment units are broken up by NHD reaches (i.e. the first 14 digits of the Assessment Unit ID equal the NHD reach code). Marine areas and lakes greater than 1,500 acres are divided into a grid (or a ¼ grid for sediment data). For lakes smaller than 1,500 acres, the assessment unit is the entire lake. Large rivers (Columbia River, Snake River, and a portion of Spokane River) have assessment units defined by the locations of dams and inflows of major basins.

Drinking water exposure concentration (DWECS): a concentration of a pollutant in water that is potentially harmful for human consumption. The DWECS are calculated values based on human health criteria equations and do not directly represent water quality criteria. The DWECS thresholds are based on carcinogenic (DWECS_C) and non-carcinogenic (TEC_N) effects. For more information DWECS, see [Water Quality Policy 1-11](#) Section 2I(3) Domestic Water Supply Use Assessment.

Listing: An assessment record for a combination of an individual parameter and individual assessment unit. Each Listing is assigned a unique Listing ID.

National Hydrography Dataset (NHD): a data system with national coverage that enables digital mapping of hydrologic features at the 1:24,000 spatial scale.

NHD Reach: an individual line segment of a stream/river; each line segment has a unique numeric reach code. For larger streams/rivers, the endpoints of the reach are at inflows of major tributaries. For very small streams, the reach is the entire length of the stream.

Parameter: A pollutant type such as pH, temperature, dissolved oxygen, total phosphorous, bacteria, etc.; or a non-pollutant such as invasive exotic species or habitat alterations.

Policy 1-11: [Water quality policy 1-11](#) is the guiding policy that we use to assess water quality data, determine if water bodies are polluted, and decide if further action is needed. This policy also explains data submittal, and the data quality necessary for inclusion in the water quality assessment. The policy is comprised of two chapters:

- [Chapter 1:](#) *Assessment of Water Quality for the Clean Water Act Sections 303(d) and 305(b) Integrated Report*. Chapter 1 describes how water body segments are assessed to determine attainment with WAC 173-201A (surface water quality standards) and WAC 173-204 (sediment management standards).

- [Chapter 2: Ensuring Credible Data for Water Quality Management](#). Chapter 2 describes the quality assurance measures that help ensure the credibility of data and other information used in agency actions on state surface water quality.

Tissue exposure concentration (TEC): a concentration of a pollutant in fish or shellfish tissue that is potentially harmful for human consumption. The TECs are calculated values based on human health criteria equations and do not directly represent water quality criteria. The TEC thresholds are based on carcinogenic (TEC_c) and non-carcinogenic (TEC_N) effects. For more information TECs, see [Water Quality Policy 1-11](#) Section 2I(2) Fish and Shellfish Harvest Use Assessment.

Water Resource Inventory Area (WRIA): a specific hydrologic region of the state, typically defined by the boundaries of natural watersheds. Washington is divided into 62 WRIs. More information on WRIs can be found on [Ecology's website](#).