

TSK430 – a: Determining if Your Project Will Discharge to an Impaired Water Body

See also: EM Chapter 430.03, Environmental Review Summary (ERS) **Effective December 2014**

[WSDOT's Water Resources Policies & Procedures website](#)

[WSDOT's Erosion Control Policies & Procedures website](#)

[WSDOT's Temporary Erosion and Sediment Control Manual](#)

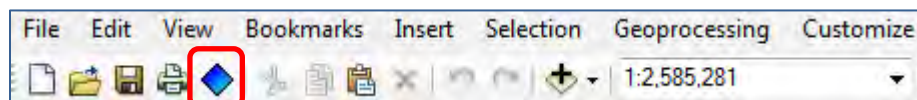
[Department of Ecology's Construction Stormwater General Permit website](#)

[Department of Ecology's Water Quality Improvement website](#)

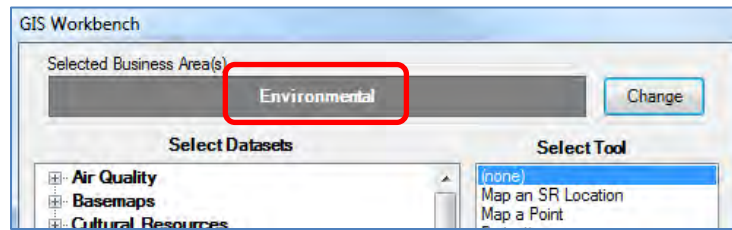
Start task: WSDOT staff or Consultant to determine whether a project has the potential to discharge to an impaired water body (i.e., outfalls in Category 5 303(d) listed waters or within approved TMDL boundaries) and identify the pollutants of concern (pollutants for which the water body is impaired).

End result: A list of all impaired water bodies to which the project has the potential to discharge into, including the pollutant(s) of concern. This information is used to:

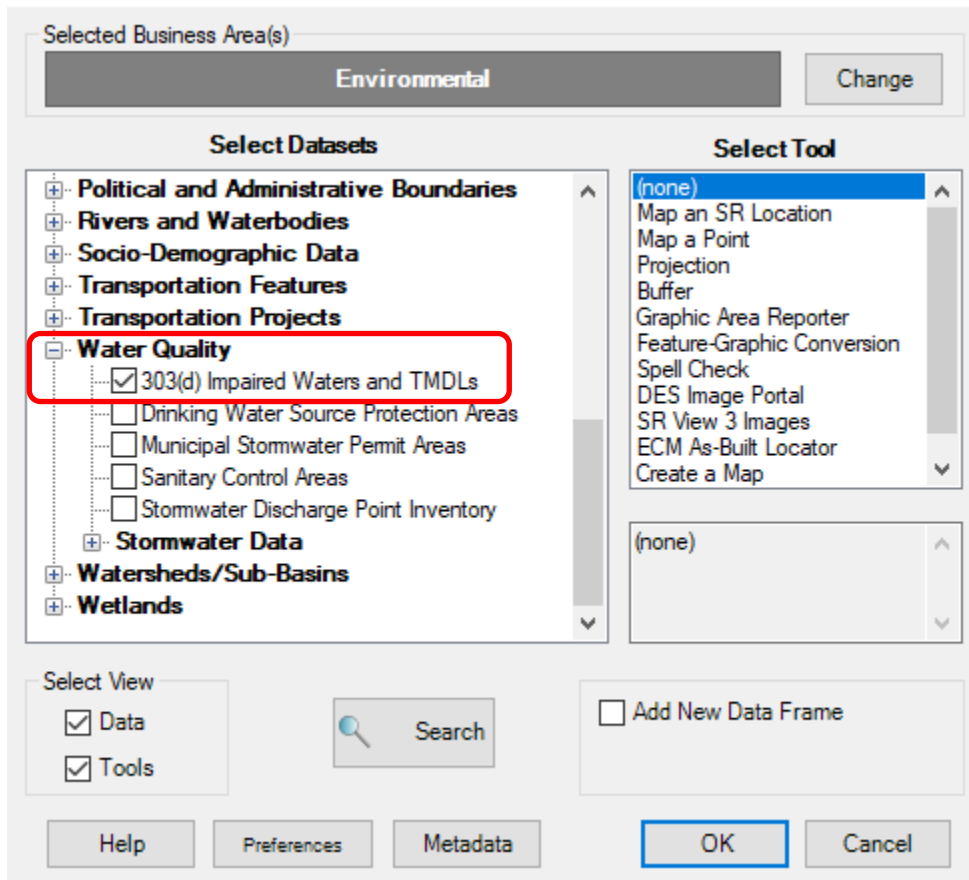
- (Scoping) Answer questions in the Water Quality/Stormwater section of the ERS.
 - (Design) Identify permanent stormwater best management practices that are preferred or should be avoided when possible based on the pollutant of concern per the Highway Runoff Manual.
 - (Planning and Permitting) Determine the need to submit the *Proposed New Discharge to an Impaired Water Body* form to the Department of Ecology (required if project has the potential to discharge to an impaired water) during the NPDES Construction Stormwater General Permit Notice of Intent (NOI) process. Additional Temporary Erosion and Sediment Control (TESC) planning and discharge sampling requirements may be triggered if the pollutants of concern include: turbidity, fine sediment, phosphorus, and/or pH.
1. **Identify** all potential discharge points (i.e., temporary outfalls for construction or permanent outfalls) to surface water bodies. Coordinate with the project hydraulic engineer(s) as needed.
 2. **Open** ArcMap and access WSDOT's GIS Environmental Workbench by selecting the blue diamond icon from the toolbar. **Note:** If you don't have a blue diamond on your toolbar, select the "Customize" tab and then select, "Extensions". When the Extensions window pops up, select the "GIS Workbench" box and then select the "Close" button.



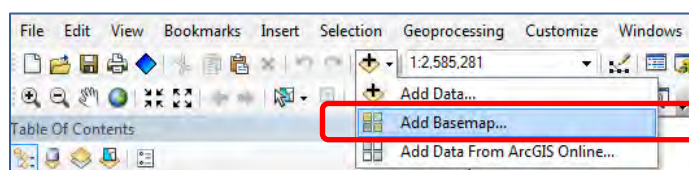
- a. Once you have selected the blue diamond icon, make sure “Environmental” is the selected business area on the GIS workbench window. Select the “Change” button to set the business area if needed.



- b. Under “Select Datasets”, expand the “Water Quality” dataset. Select “303(d) Impaired Waters and TMDLs” and then select “OK”.



- c. You may want to add a layer of local streets or aerial imagery to show orienting details on the map. Various basemaps can be added by selecting the down arrow next to “Add Data” (yellow diamond with a black +) from the toolbar and select “Add Basemap” from the dropdown menu.



- d. Make sure the box for “303(d) Impaired Waters and TMDLs” is selected and the top layer in the Table of Contents (click and drag layer names to reorder if needed).

Turn on and off layers to see features that are stacked on top of each other.

Make sure the imagery is not covering the data by moving base maps to the bottom of the Table of Contents.

Turn on the Rivers & Streams layer from the base map to identify nearby water bodies.

- e. Zoom into the project area using the Zoom tools from the toolbar.



- f. Turn on both layers by checking each box (the layers will overlap but should both remain visible):

- Category 5 Impaired Waters
- TMDL Boundaries (includes approved and developing TMDL boundaries)

Note: Category 5 303(d) listings are made for water body reaches (e.g., a segment of a stream) while TMDLs cover geographic boundaries (e.g., a watershed) and often overlap. This is because, in many cases, not all of the pollutants for which a water body is impaired will be addressed in one TMDL (impairment remains on the Category 5 303(d) list). Additionally, different TMDL boundaries may overlap for different pollutants. For example, it is possible that one discharge point (i.e., outfall) in a water body may be covered by:

- An approved TMDL for one or multiple pollutant(s), and
- Another approved TMDL for other pollutant(s), as well as,
- 303(d) listing(s) for other pollutant(s).

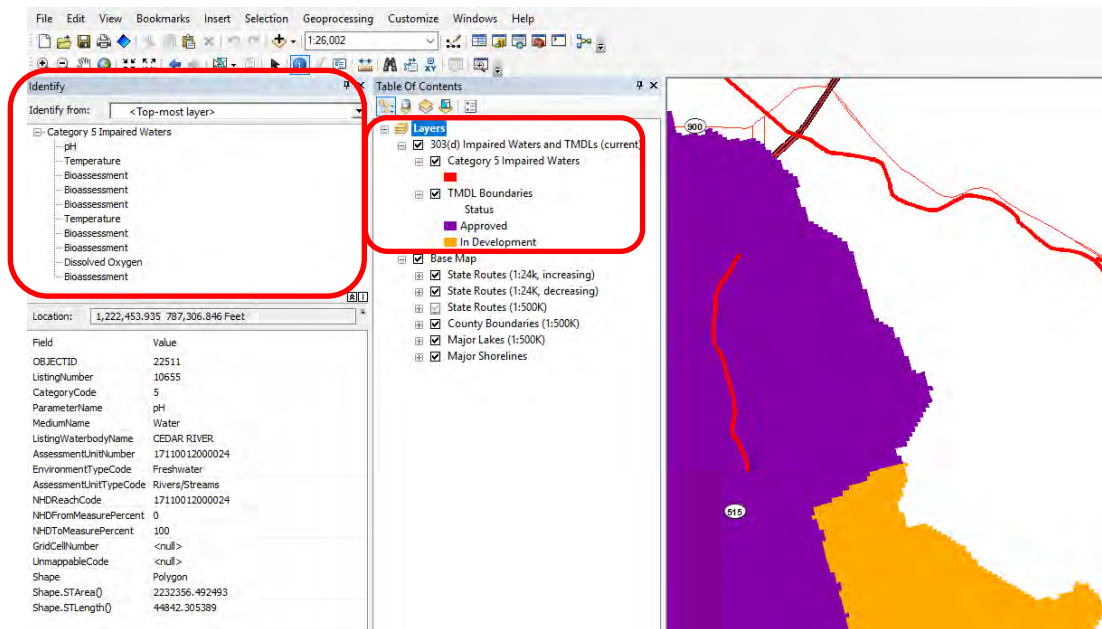
3. **Identify** water body impairments within the project boundaries or areas where there is potential for the project to discharge to an impaired water body outside of the project boundary:

a. Select the “Identify” icon (blue circle with a white “i” in the middle) from the toolbar.

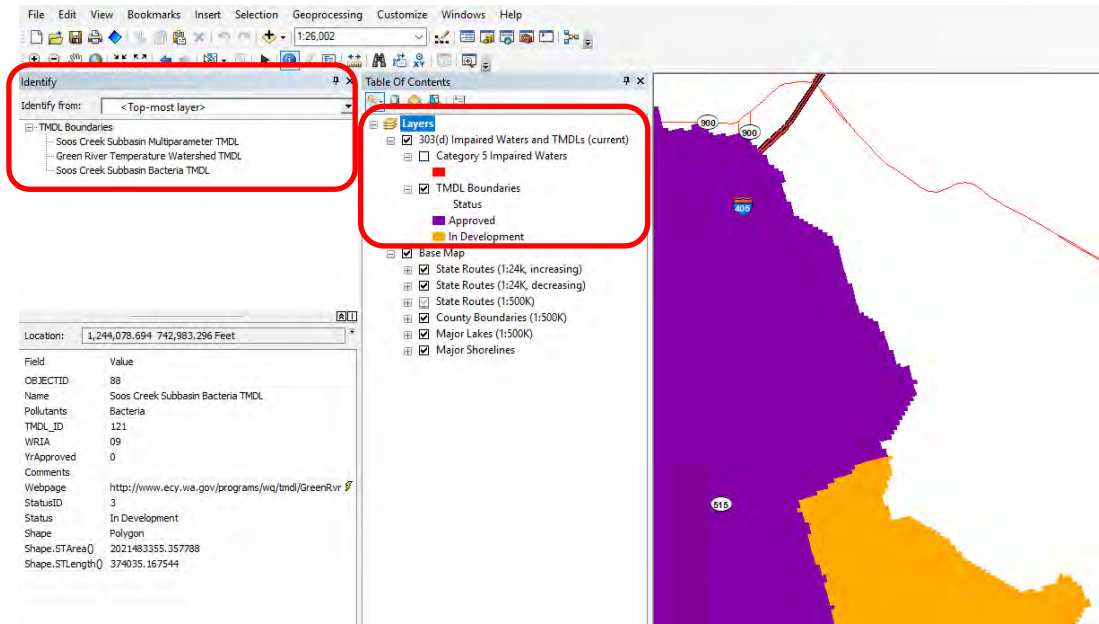


Use the “Identify” cursor to select the point, line or polygon representing each impairment feature on the map. Selecting impairments this way may be tedious for projects in areas with multiple discharge points to surface waters (outfalls) and overlapping impairments.

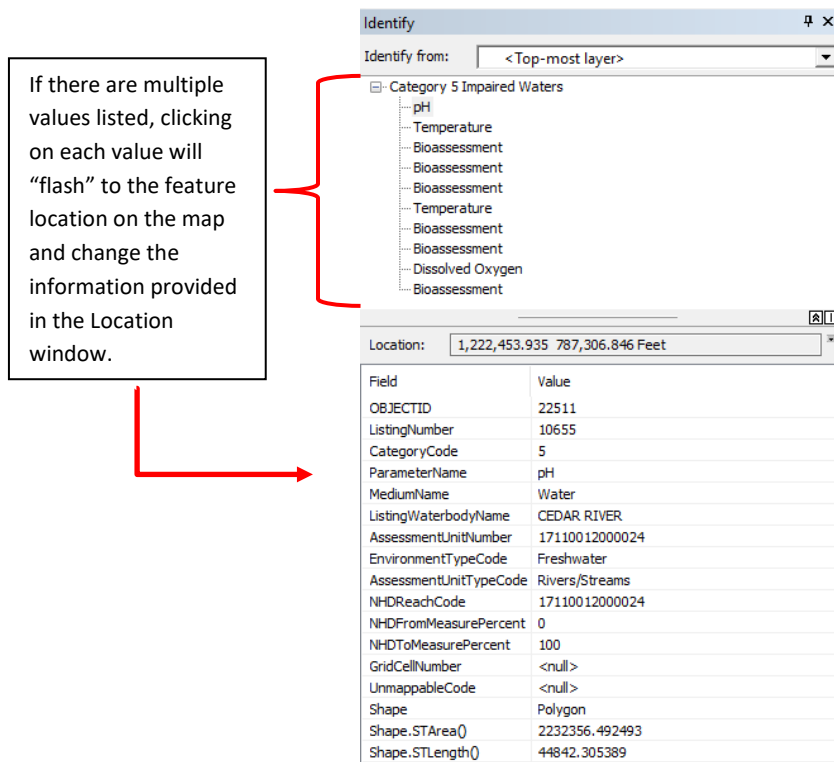
ProTip: to identify multiple/overlapping impairments in a wider area – use the “Identify” cursor to click (and hold) while dragging to select the area of interest (then release). This will automatically bring up the “Identify” window showing all of the impairment features in the selected area. **Note:** the “Identify from” window defaults to the “Top-most layer” which in the below example is the Category 5 Impaired Waters (303(d) List). However, if both layers were selected (step 2f), you can still use the “Identify” cursor to click inside the TMDL boundaries for information (the information in the “Identify” window will change).



Another way of seeing the TMDL information in the “Identify” window is to unselect the “Category 5 Impaired Waters” layer (TMDL Boundaries layer should remain selected) and then reselect the area of interest.



- b. **Document** relevant information shown in the “Identify” window. Remember, each value represents a separate impairment and the “Identify” window will only display the corresponding information for one layer at a time (Category 5 Impaired Waters or TMDL boundaries).



Document impairment information for scoping, design, planning and permitting needs:

- Category 5 Impaired Waters (303(d) listings):

Field	Value
WaterbodyName	Water body name
ParameterName	Pollutant of concern

- TMDL Boundaries (only document information for *approved* TMDLs):

Field	Value
Name	Approved TMDL name
Pollutants	Pollutant(s) of concern

4. **Print** copies of the map showing all impairments identified or export the map as a pdf (as needed). To export, select the “File” tab and then select “Export Map.” Select “.pdf” as the file type.
5. **Include** relevant information in the ERS. If no impaired waters are identified as having the potential to receive a discharge, include that detail in ERS. Additional guidance is available within ERS for this step.

ALTERNATIVE OPTION OR VERIFICATION OF WORKBENCH DATA: The Department of Ecology’s Water Quality (WQ) Atlas

- + **PROS:** Most up to date impairment data (Category 5 303(d) listings change biannually and TMDL development status can change anytime).
- **CONS:** Will not show mile post information or other features in WSDOT’s GIS Workbench

1. **Identify** all potential discharge points (i.e., temporary outfalls for construction or permanent outfalls) to surface water bodies. Coordinate with the project hydraulic engineer(s) as needed.
2. **Open** Microsoft Edge (the WQAtlas will not work in other browsers) and enter <https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx> in the search box.
3. **Identify** 303(d) listed impairments by choosing topic “Assessed waters/sediment”, search by “303(d) list of impaired waters” leave the “all pollutants” default selection in the dropdown menu. Enter some orientation information in the “Go To” box, such as the waterbody name. Then select “Map”.

Map water quality data

CHOOSE TOPIC: Water quality standards **Assessed waters / sediments** Permits / outfalls Improvement projects (TMDLs)

SEARCH BY: 305(b) report - includes 303(d) list [What is 303\(d\), 305\(b\)?](#)

303(d) list of impaired waters

GO TO:

Enter city, county, legislative district, watershed, waterbody, or improvement project

Map

3a. The resulting map will show the general area entered. **Note:** ignore the “Assessment” tab because it shows all 303(d) listings statewide – not just the listings for the water body of interest. If Latitude/Longitude coordinates are known for project discharge points/outfalls, use the “Zoom To” tab to enter coordinates. Remember there may be multiple 303(d) impairments listed for each discharge/outfall location. If Lat/Long coordinates are unknown – go to step 3b.

Washington State Water Quality Atlas

Home Add Map Data **Zoom To** Data Tutorial Videos

Legend Filter Data **Zoom To** Tools

Add or remove map data

Assessed Waters/Sediment

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

Change map data transparency 10%

0 0.5 1mi

Assessment Standards Outfalls WQI Projects WLA Points LA Points

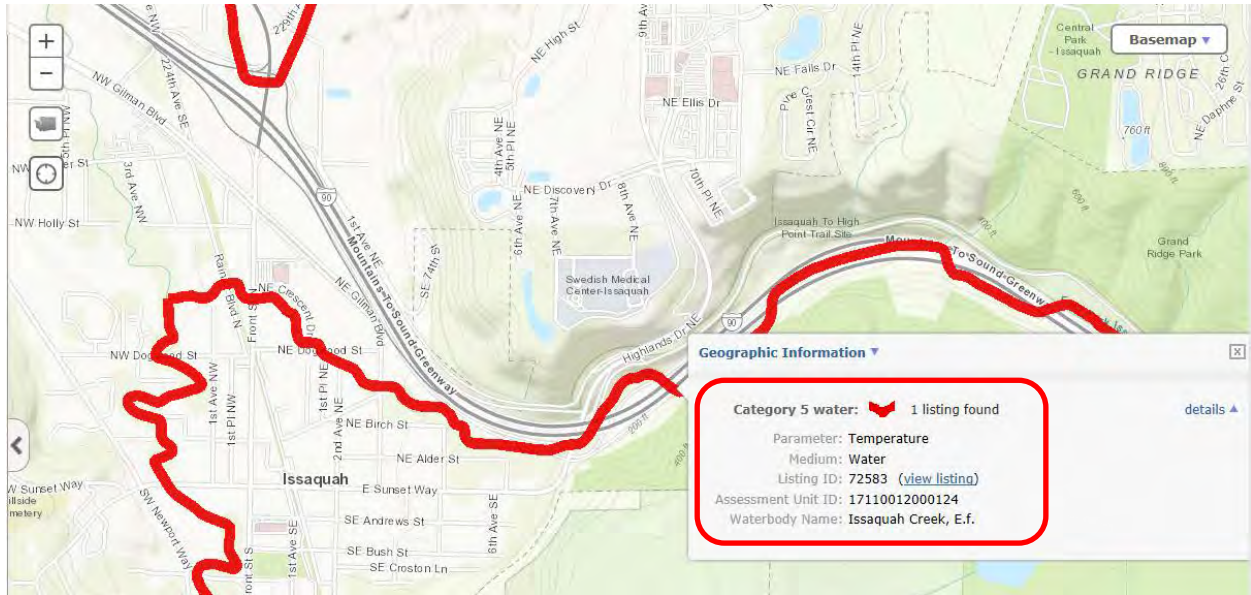
Zoom to selection Export to csv

Find	Listing ID	Assessment Unit ID	Category	Medium	Parameter	Details
	66746	170200011202_01_01	5	Water	Dissolved Oxygen	view
	11253	170200030203_01_01	5	Water	Temperature	view
	42784	170200050203_01_01	5	Water	Dissolved Oxygen	view

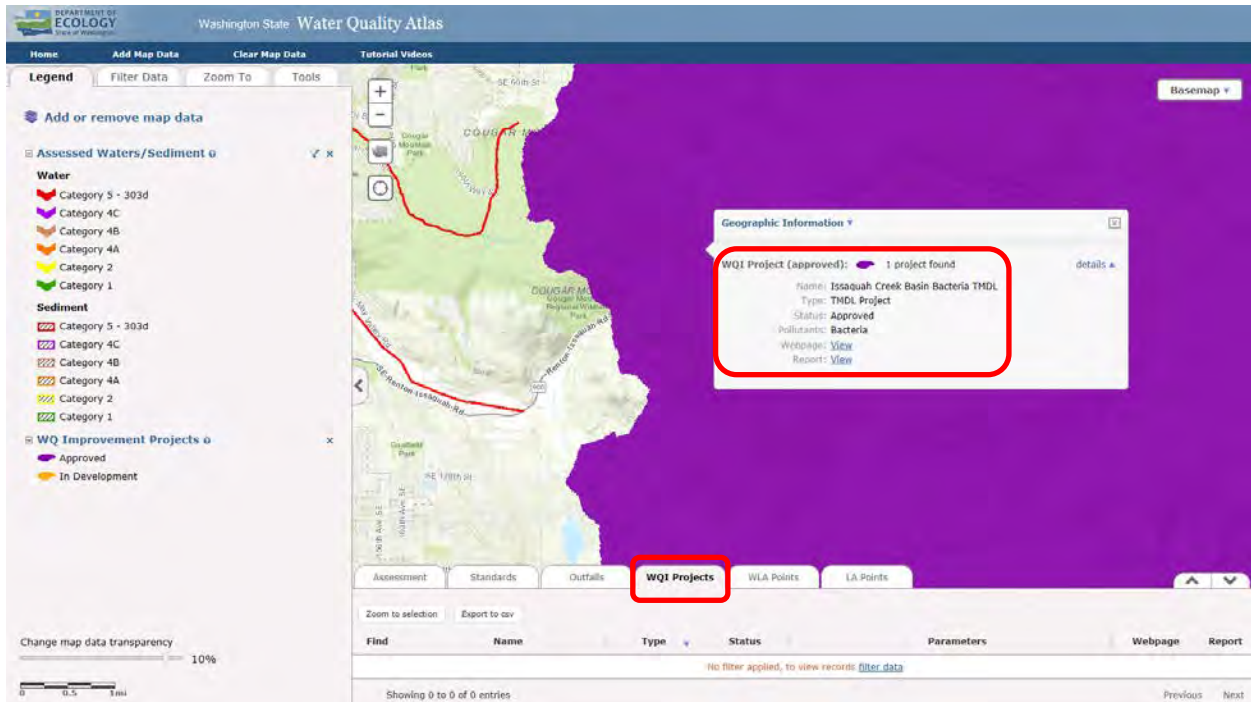
Showing 1 to 5 of 4,548 entries Previous 1 2 3 4 5 910 Next

3b. Use the cursor to pan around (click and drag) the map to find the general area of interest – zoom in or out as needed using the + or - icons. Then use the cursor to select the water body of interest in the general area that has the potential to receive a discharge (i.e., temporary or permanent outfall). A popup box will show the Category 5 303(d) listing information needed

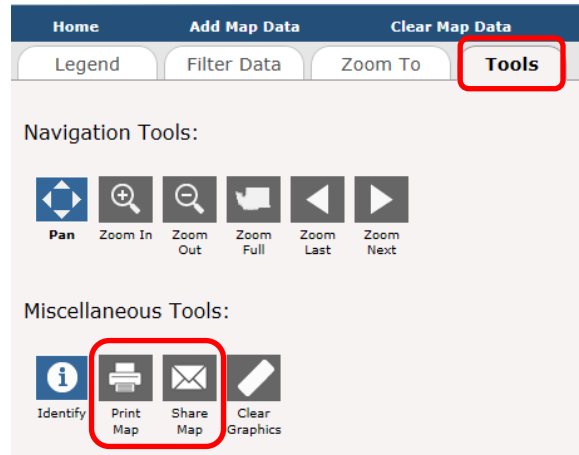
(i.e., waterbody name, parameter). Remember there may be multiple 303(d) impairments listed for each discharge/outfall location.



4. **Identify** the approved TMDL boundaries by selecting the “WQI Projects” tab in the existing map. Clicking within the approved TMDL boundary (purple area) will pop up a box with the information needed (i.e., TMDL name, pollutant(s)). Remember TMDL boundaries may overlap and they may cover one or multiple pollutants so more than one approved TMDL may apply to a discharge/outfall location.



5. **Print** or share copies of the map (as needed) by using the “Tools” tab.



6. **Include** relevant information in the ERS. If no impaired waters are identified as having the potential to receive a discharge, include that detail in ERS