

13. Ask WATERS

EPA's Watershed Assessment and Tracking Environmental Results (WATERS) tool offers reports that integrate data from multiple, independent databases.

Waters Simple Query Tool

- 13.1 WATERS can be accessed through the **AskWaters** link in the Frequent Questions in ATTAINS (see below). An alternative method to reach this page is to open the [Watershed Assessment and Tracking Environmental Results](#) page. On the left sidebar, select **Tools**. Select **Ask WATERS**. Within the light blue box, click **Simply Query**. A green and blue table of questions appears.

- 13.2 Click **What causes of impairments for an impaired water have been de-listed and what were their reasons for de-listing?**
- 13.3 Select **Michigan** from the list of states and regions.
- 13.4 Type in a date range: **01-01-2007 to 01-01-2009**.

- 13.5 Click **Run Report**. For each waterbody listed in the report, the state’s waterbody identifier code, the reporting cycle when the water was listed, the cause of impairment, the date the waterbody was de-listed, and the basis for the de-listing is provided.

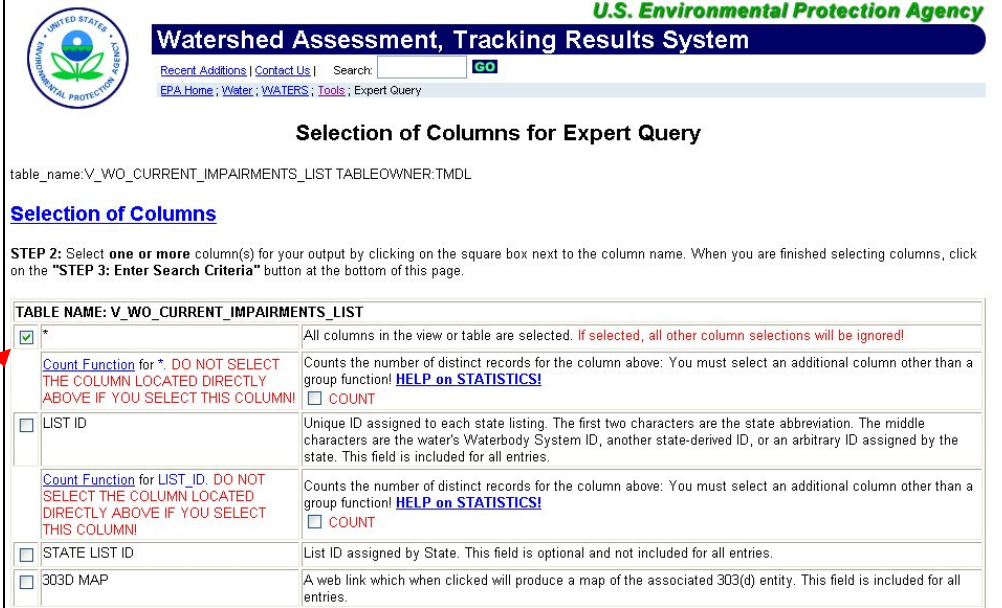
WATERS Expert Query Tool

- 13.6 Open [WATERS](#).
- 13.7 Click **Tools** (on the left-hand sidebar).
- 13.8 Click the fifth bullet [WATERS Expert Query Tool](#).

Notice the [Expert Query User Manual \(PDF\)](#) link. This manual provides a detailed explanation of the databases available to query through this tool, as well as how to operate and execute effective searches. For example, the manual explains how to run **statistical summary operations** like average, maximum, sum or standard deviation on **numeric database fields**, such as **ACRES 303D** and **MILES 303D**.

This exercise covers the three steps for an **Expert Query**: (1) select a preset view, (2) filter fields, and (3) enter search criteria. All impaired or 303(d) listed waters in the Catawba River Basin in North Carolina will be queried.

- 13.9 Click the second link under the 303(d) Listing & TMDL Information section - **Current 303(d) Listed Impaired Waters and their Causes of Impairment**.
- 13.10 Select all available columns to be viewed by selecting the **asterisk checkbox** at the top.



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Selection of Columns for Expert Query

table_name: V_WO_CURRENT_IMPAIRMENTS_LIST TABLEOWNER: TMDL

Selection of Columns

STEP 2: Select **one or more** column(s) for your output by clicking on the square box next to the column name. When you are finished selecting columns, click on the **"STEP 3: Enter Search Criteria"** button at the bottom of this page.

TABLE NAME: V_WO_CURRENT_IMPAIRMENTS_LIST	
<input checked="" type="checkbox"/> *	All columns in the view or table are selected. If selected, all other column selections will be ignored!
<input type="checkbox"/> Count Function for *. DO NOT SELECT THE COLUMN LOCATED DIRECTLY ABOVE IF YOU SELECT THIS COLUMN!	Counts the number of distinct records for the column above: You must select an additional column other than a group function! HELP on STATISTICS! <input type="checkbox"/> COUNT
<input type="checkbox"/> LIST ID	Unique ID assigned to each state listing. The first two characters are the state abbreviation. The middle characters are the water's Waterbody System ID, another state-derived ID, or an arbitrary ID assigned by the state. This field is included for all entries.
<input type="checkbox"/> Count Function for LIST_ID. DO NOT SELECT THE COLUMN LOCATED DIRECTLY ABOVE IF YOU SELECT THIS COLUMN!	Counts the number of distinct records for the column above: You must select an additional column other than a group function! HELP on STATISTICS! <input type="checkbox"/> COUNT
<input type="checkbox"/> STATE LIST ID	List ID assigned by State. This field is optional and not included for all entries.
<input type="checkbox"/> 303D MAP	A web link which when clicked will produce a map of the associated 303(d) entity. This field is included for all entries.

- 13.11 Scroll down and click the **STEP 3** button.

If no selection is made within Step 3, the entire national database will be called up.

- 13.12 Scroll down to **STATE** (not STATE LIST ID). Type **NC** in the textbox.

- 13.13 Scroll all the way down to **State Basin Name**. Click the dropdown arrow next to Equal To and select a new search operator: **Containing**. Type **Neuse**.

- 13.14 Now click the **Search Database** button. Do not click the button twice; it takes a minute to load.

- 13.15 In the resulting table, click the hyperlinked column header, **List_ID**.

What does the field List_ID mean? _____

- 13.16 Close the metadata popup window.

- 13.17 Scroll down to the bottom to find the total number of unique impairments for waterbodies listed on the state's 303(d) list in this river basin. You might have to scroll horizontally to find the number.

A waterbody is listed by individual segments, and each has its own data record in the impaired waters database. Each segment can be listed for one or multiple impairments.

What is the total number of unique impairments in the Neuse River Basin?

Note: This file can be downloaded into a comma separated file and displayed as a Web page.

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Expert Query
Page No. 1
 STATE Equal to NC
 STATE BASIN NAME Containing Neuse

LIST ID	STATE LIST ID	303D MAP	303D REPORT	CAUSE ID	CAUSE DESCRIPTION	CYCLE	STATE	STATE FIPS CODE	STATE NAME	REGION	ASSESSMENT METHOD	PRIORITY	RANKING	TARGETED FLAG	ANTICIPATED TMDL SUBMITTAL DATE	LISTING CRITERIA	EPA DELISTED COMMENTS	EF DELI DA
NC_27-(118)B	NC_27-(118)B	No Spatial Data	303(d) REPORT	259	FECAL COLIFORM	2004	NC	37	NORTH CAROLINA	4		HIGH						
NC_27-(118)C	NC_27-(118)C	No Spatial Data	303(d) REPORT	259	FECAL COLIFORM	2004	NC	37	NORTH CAROLINA	4		HIGH						
NC_27-(118)D	NC_27-(118)D	No Spatial Data	303(d) REPORT	259	FECAL COLIFORM	2004	NC	37	NORTH CAROLINA	4		HIGH						

13.18 Scroll up to the top. (Drag the vertical sidebar to the top of the page.)

It is possible to summarize this information more succinctly. The following examples illustrate how to create tables that can be easily inserted into a watershed plan using Expert Query.

13.19 Return to the **Selection of Columns for Expert Query** clicking twice on the **Back** button.

13.20 Select the fields below to limit the number of fields that will appear in the final output:

CAUSE DESCRIPTION

STATE

WATERBODY NAME

STATE BASIN NAME

MILES 303(d)—select the **SUM** checkbox to the right (*in red type*). Do not select the main box.

ACRES 303(d)—select the **SUM** checkbox (*in red type*). Do not select the main box.

13.21 Click **STEP 3** to Enter Search Criteria.

13.22 For State, type **NC**.

13.23 For State Basin Name, type **Neuse**. The Search Option can remain Equal to.

13.24 In the **Column Display Order** column, enter the following in the fields from the top to the bottom: 2, 6, 1, 5, 3, 4. (See the figure below.)

- 13.25 Under the **Sort Column**, type a **2** and in the Cause Description row, type a **1** in the Water Body Name row.

Selection Criteria for Expert Query

STEP 3: Enter Search Criteria and Organize the Output

[Output Options for Selected Columns](#)

Column Name	Search Option Help!	Search Value	Column Display Order	Sort Column	Sort Order	Where Only
Cause Description	Equal to <input type="checkbox"/>	<input type="text" value="List Impairment_Description Values"/>	<input type="text" value="2"/>	<input type="text" value="2"/>	Ascending <input type="checkbox"/>	<input type="checkbox"/>
State	Equal to <input type="checkbox"/>	<input type="text" value="NC"/> <input type="text" value="List State Values"/>	<input type="text" value="6"/>	<input type="text"/>	Ascending <input type="checkbox"/>	<input type="checkbox"/>
Water Body Name	Equal to <input type="checkbox"/>	<input type="text"/>	<input type="text" value="1"/>	<input type="text" value="1 "/>	Ascending <input type="checkbox"/>	<input type="checkbox"/>
State Basin Name	Equal to <input type="checkbox"/>	<input type="text" value="Neuse"/>	<input type="text" value="5"/>	<input type="text"/>	Ascending <input type="checkbox"/>	<input type="checkbox"/>
Sum(Miles 303d)	Equal to <input type="checkbox"/>	<input type="text"/>	<input type="text" value="3"/>	<input type="text"/>	Ascending <input type="checkbox"/>	<input type="checkbox"/>
Sum(Acres 303d)	Equal to <input type="checkbox"/>	<input type="text"/>	<input type="text" value="4"/>	<input type="text"/>	Ascending <input type="checkbox"/>	<input type="checkbox"/>

Comma Separated
 Tab Delimited

- 13.26 Click the **Search Database** button.

It displays an alphabetically sorted table of the 303(d) listed waterbodies in North Carolina's Neuse River Basin, including the impairment cause and the total miles and total acres listed, for the individual cause.

For Little Contentnea Creek, how many total miles are impaired for Low Dissolved Oxygen? _____

- 13.27 Return to the Selection of Columns for Expert Query by clicking the browser's **Back** button.

13.28 Select the **asterisk** checkbox at the top to select all columns.

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Selection of Columns for Expert Query

table_name:V_WO_CURRENT_IMPAIRMENTS_LIST TABLEOWNER:TMDL

Selection of Columns

STEP 2: Select **one or more** column(s) for your output by clicking on the square box next to the column name. When you are finished selecting columns, click on the **"STEP 3: Enter Search Criteria"** button at the bottom of this page.

TABLE NAME: V_WO_CURRENT_IMPAIRMENTS_LIST	
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<input type="checkbox"/> LIST ID	Unique ID assigned to each state listing. The first two characters are the state abbreviation. The middle characters are the water's Waterbody System ID, another state-derived ID, or an arbitrary ID assigned by the state. This field is included for all entries.
<input type="checkbox"/> Count Function for LIST_ID. DO NOT SELECT THE COLUMN LOCATED DIRECTLY ABOVE IF YOU SELECT THIS COLUMN!	Counts the number of distinct records for the column above: You must select an additional column other than a group function! HELP on STATISTICS! <input type="checkbox"/> COUNT
<input type="checkbox"/> STATE LIST ID	List ID assigned by State. This field is optional and not included for all entries.
<input type="checkbox"/> 303D MAP	A web link which when clicked will produce a map of the associated 303(d) entity. This field is included for all entries.

13.29 Click **STEP 3: ENTER SEARCH CRITERIA.**

13.30 All the selection operators are Equal to. For Cause Description, type **Low Dissolved Oxygen.**

13.31 For State, type **NC.**

13.32 For State Basin Name, type **Tar Pamlico.**

13.33 Scroll down and click **Search Database.**

13.34 Click the **303(d) REPORT** link. Maximize this newly opened window.

U.S. ENVIRONMENTAL PROTECTION AGENCY
Total Maximum Daily Loads

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Listed Water Information

CYCLE : 2006
 Click [here](#) to see metadata for this report.

Cycle: 2006 State: NC List ID: NC_28-101
 Waterbody Name: CHICCOD CREEK
 State Basin Name: TAR PAMLICO
 Listed Water Map Link: [Map Impaired Water](#)

Other Impaired Water 303(d) List Information
 The most current report available for this water body is 2006. Data are also available for these years: 2004 2002 2000 1998

Comments:
 CLASS C

State List IDs:

Cycle	State List ID
2004	NC_28-101
2006	NC_28-101

State Impairments:

State Impairment	Parent Impairment	Priority	Rank	Targeted Flag	Anticipated TMDL Submittal
BIOLOGICAL INTEGRITY	CAUSE UNKNOWN - IMPAIRED BIOTA				
LOW DISSOLVED OXYGEN	ORGANIC ENRICHMENT/OXYGEN DEPLETION				

Total Maximum Daily Load (TMDL) Information:

Note: Click on the underlined TMDL Document Name for a detailed TMDL Document Report.

TMDL Document Name	Status	Actual TMDL Establishment Date	TMDL Pollutant Description	TMDL Pollutant Text	Cycles Listed	State Impairment
CHICCOD CREEK FECAL COLIFORM	APPROVED/ESTABLISHED	AUG-13-2004	FECAL COLIFORM	NONPOINT SOURCE	2006, 2004, 2002, 2000, 1998	FECAL COLIFORM

Watershed Information:

Watershed Name	Watershed States
LOWER TAR	NORTH CAROLINA

Which year was this waterbody first listed on the 303(d) Report? _____

Under Comments, how is this creek classified in North Carolina's water quality standards system? _____

Scroll down and note that a TMDL was developed for fecal coliform in Chicod Creek.

- 13.35 Open the Detailed TMDL Report by clicking the link in the **TMDL Information table: [CHICOD CREEK FECAL COLIFORM](#)**.

Detailed TMDL Report					
TMDL Document Information					
TMDL ID: 10698		TMDL Name: CHICOD CREEK FECAL COLIFORM			
TMDL Status: APPROVED/ESTABLISHED		EPA Action: EPA APPROVED			
Lead State: NC		TMDL Date: 08/13/2004			
TMDL Documents					
Click on the underlined Document Type to retrieve the actual document in PDF format.					
Document Type		Upload Date			
TMDL Document		11/18/2004			
TMDL Pollutants					
Pollutant: FECAL COLIFORM		TMDL Type: NONPOINT SOURCE		Total Load Allocation:	
Total Waste Load Allocation:		Margin Of Safety:		Implicit Margin Of Safety: Not Reported	
Units for Total Waste Load Allocation, Total Load Allocation, and Margin of Safety:		TMDL End Point: WITHIN A 30 DAY PERIOD FECAL COLIFORM CONCENTRATION LESS THAN OR EQUAL TO GEO MEAN OF 200#/100ML AND LESS THAN OR EQUAL TO 400#/100ML IN 80% OF SAMPLES.			
Listed Water Causes of Impairment for FECAL COLIFORM					
Click on the underlined List ID for a Listed Water Information Report. Click on the underlined "MAP 303(d)" literal for a map of the Listed Water.					
List ID	State List ID	Waterbody Name	Listed Water Map	Cycles Listed	Cause of Impairment
NC_28-101	NC_28-101	CHICOD CREEK	Map Impaired Water	2004, 2002, 2000	FECAL COLIFORM

What date was the TMDL established/approved? _____

What type of TMDL study is it? Does it include point sources? _____

The TMDL sets an endpoint or a target concentration to bring Chicod Creek back into compliance with water quality standards.

What is the geometric mean? _____