Better Public Access to Point Source Wastewater Pollutant Discharge Information

http://www.epa.gov/pollutantdischarges

Thailand Environment Institute &
Indonesian Center for Environmental Law
World Resources Institute (Washington, DC)
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Office of Enforcement and Compliance Assurance

Wastewater Pollution Data

This presentation reviews new online access to wastewater pollutant discharge data that allows for:

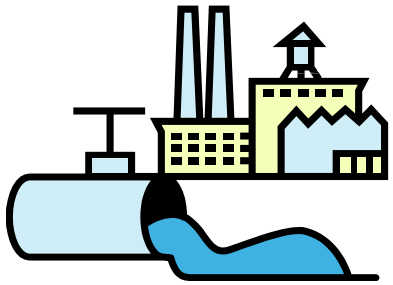
- better transparency of wastewater pollutant discharges;
- enhanced utility of these data; and
- improved data quality.

The information is being rolled out as part of the President's transparency initiative and the Agency's Clean Water Act Action Plan, which seeks to improve transparency of information and public knowledge about pollutant releases that may cause water impairments.

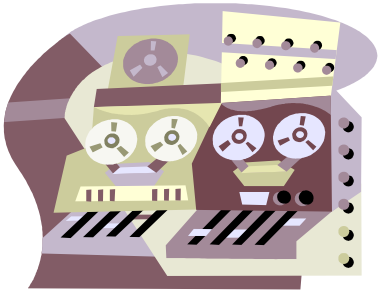
http://www.epa.gov/compliance/civil/cwa/cwaenfplan.html

Current Management of DMR Data and Public Access

NPDES regulated facility samples wastewater and reports results on Discharge Monitoring Reports (DMRs) to State or EPA Region



EPA or State enter these DMR data into PCS/ICIS-NPDES *



DMR data are made available to public via EPA's website

* EPA policy currently only requires States and Regions to enter permit and DMR data on facilities identified as "Majors."

- EPA manages two separate databases for storing and managing NPDES data (including DMR data):
  - Permit Compliance System (PCS): Legacy system (15 States, phasing out in 12/2012); and
  - ICIS-NPDES: New system started in June 2006 (remaining States, Territories, & Tribes).

- EPA provides public access to data in PCS & ICIS-NPDES through ECHO (see URL below) and the new DMR Pollutant Loading Tool (see next slide).
  - http://www.epa-echo.gov/echo/compliance_report_water.html

New EPA Web Tool for Access to Wastewater Data

- In January 2012 EPA released a new web tool, DMR Pollutant Loading Tool, www.epa.gov/pollutantdischarges, for easier access to DMR data. This tool contains facility data for over 150,000 facilities with additional permit and DMR data for approximately 40,000 of these facilities for the years 2007 through 2010.

- Constructed to answer questions in an easy to use interface:
  - Who is the discharger of interest: [All, POTW, Industry (Type of Industry)]
  - What is the pollutant of interest: [All, Specific Pollutant, Pollutant Group]
  - Where is the discharge of interest: [Nationwide, Specific Location, Specific Watershed]
  - How much point source pollution is discharged?

- Displays or calculates pollutant loads (pounds) from DMR data.
  - Pollutant Discharge Concentration (mg/L) X Flow (Million Gallons per Day) X 8.34 (conversion factor).

- Significant implications for:
  - Better data for watershed modeling and pollution budgets (TMDLs),
  - Public access,
  - Enforcement targeting and compliance assistance (providing better sense of the importance of effluent discharges and permit limit violations), and
  - Developing effluent limits.

New EPA Web Tool for Access to Wastewater Data

The Loading Tool also allows users to search and review wastewater pollutant discharge data (annual amounts) reported by industrial facilities to EPA under EPA's Toxics Release Inventory (TRI) program.

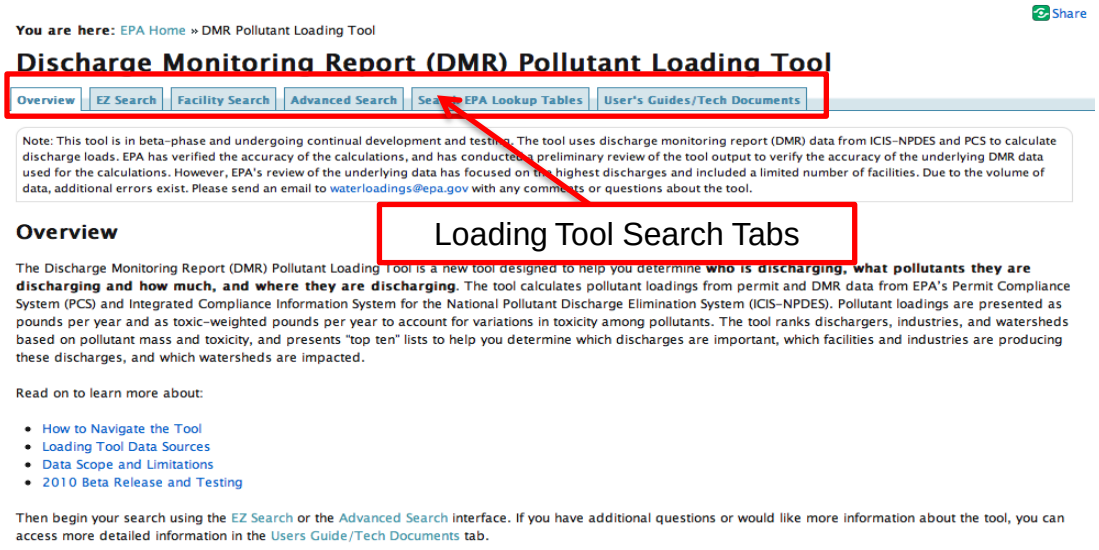
The current TRI toxic chemical list contains 593 individually listed chemicals and 30 chemical categories.

Users can compare DMR and TRI wastewater pollution data for selected facilities.

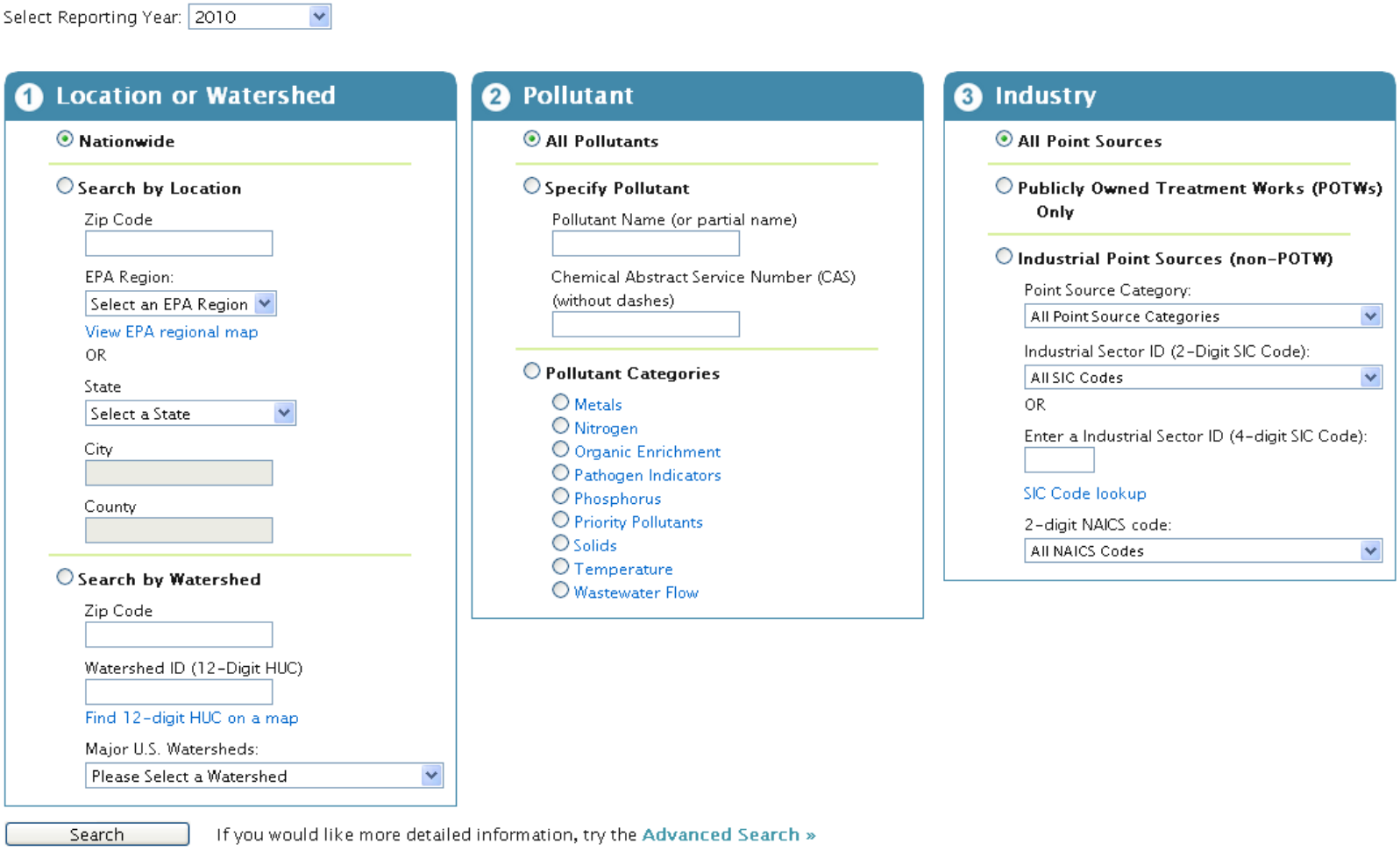
New EPA Web Tool for Access to Wastewater Data

- There are two main audiences for the Loading Tool:
  - General Public (Concerned Citizens, Researchers) - Anyone who would like quick access to DMR data based on simple queries (who is discharging what pollutant and where and how much); and
  - Technical Users (NPDES Permit Writers, Watershed Modelers, Regulatory Agencies, Researchers, Enforcement Targeting).

- EPA designed the Loading Tool with different tabs (search interfaces) and result formats (webpage, CSV downloads) to best match the needs of these two audiences.

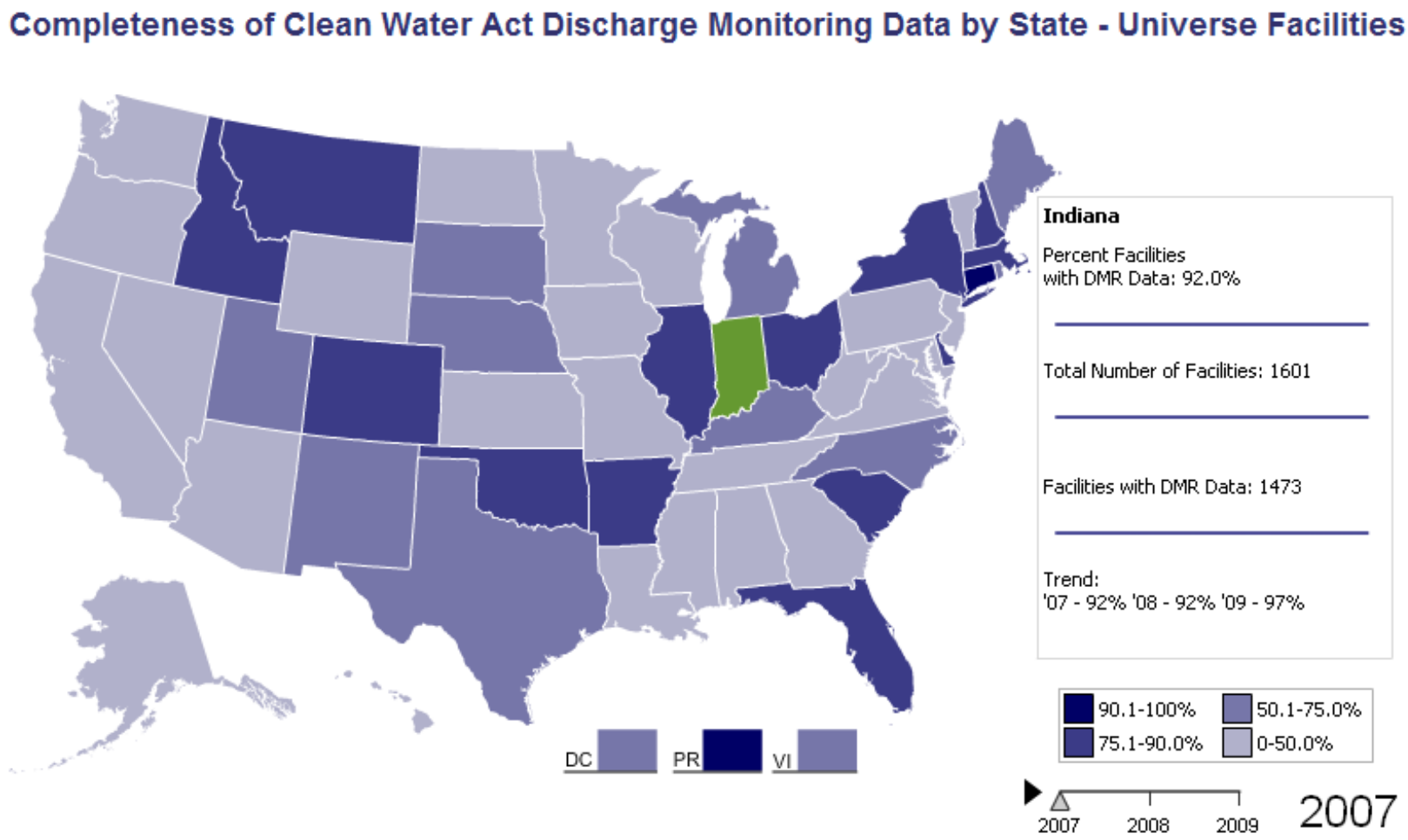


DMR Pollutant Loading Tool – EZ Search



Loading Tool's Example Questions	Selection Criteria for EZ Search and TRI Search		
	Box 1: Location	Box 2: Pollutant	Box 3: Discharger Type
What facilities discharge the most wastewater pollution in Ohio? What are the top pollutants (pounds and toxic-pounds) discharged by facilities in Ohio? What industrial sectors discharge the largest amount of wastewater pollution in Ohio?	X		
What facilities nationwide discharge the most selenium in their wastewater discharge? What U.S. watersheds receive the largest amount of selenium from wastewater pollution? What industrial sectors discharge the largest amount of selenium in their wastewater pollution?		X	
What petroleum refineries discharge the most wastewater pollution nationwide? What are the top pollutants (pounds and toxic-pounds) discharged by petroleum refineries nationwide? What U.S. watersheds receive the largest amount of wastewater pollution from petroleum refineries nationwide?			X
What facilities in Ohio discharge the most selenium in their wastewater discharge? What industrial sectors in Ohio discharge the most selenium in their wastewater discharge?	X	X	
What petroleum refineries nationwide discharge the most selenium in their wastewater discharge? What U.S. watersheds receive the largest amount of selenium from petroleum refineries?		X	X
What petroleum refineries in Ohio discharge the most wastewater pollution? What are the top pollutants (pounds and toxic-pounds) discharged by petroleum refineries in Ohio?	X		X
What petroleum refineries in Ohio discharge the most selenium in their wastewater discharge?	X	X	X

Loading Tool – Contextual Information Provided



Enough talk...let's see a demonstration of the tool!

VALERO REFINING CO, PAULSBORO, NJ, 08066-

NPDES ID: NJ0005029
FRS ID: 110022294569
TRI ID(s): 08066MBLLCBILLI
Click a TRI ID to view that facility's detail page.
Facility Type: NON-POTW
Permit Type: NPDES Individual Permit
Major/Minor Indicator: Major
Permit Issuance: STATE OF NEW JERSEY
Approved Pretreatment Program: N/A
Combined Sewer Overflow (CSO) Outfall: N/A
County: GLOUCESTER
Congressional District: New jersey's 1st District

Latitude: 39.838229
Longitude: -75.24947
Facility Design Flow (MGD):
Actual Average Facility Flow (MGD): 11.3
4-Digit SIC Code: 2911 - PETROLEUM REFINING
NAICS Code: 032411 -
Likely Point Source Category: 419 - Petroleum refining
View Enforcement Compliance Report
View Effluent Discharge Charts
View Permit Limits

Values highlighted in blue contain loads calculated using data that has been flagged as potential outliers or data errors.

View Facility Loading Calculations for this facility and reporting year. Examining these calculations will show you how the Loading Tool calculates annual pollutant discharges. These calculations can also help identify errors in the underlying discharge monitoring data.

Select Reporting Year: 2010

Top Pollutants by Pounds (DMR, 2010)

Pollutant Name	Total Pounds (lbs/yr)	Max Allowable Load (lbs/yr)
Solids, total dissolved	28,981,867	49,021,086
Chemical oxygen demand (COD)	2,772,303	
Solids, total suspended	597,519	1,589,506
BOD, 5-day, 20 deg. C	246,856	
Oil and grease per production	133,722	373,075
Phosphorus	59,945	
Ammonia as N	34,808	447,483

Top Pollutants by Toxic-Weighted Pounds (TWPE) (DMR, 2010)

Pollutant Name	Total TWPE (lbs-eq/yr)	Max Allowable Load (lbs-eq/yr)
Sulfide	2,407	17,465
Ammonia as N	38.6	497
Phosphorus	0	
Chromium	0	
Chromium, Hexavalent	0	1,512

Download All Data Compare to TRI

You have questions when you see a discharge….

…and the Loading Tool can provide answers!

Additional Slides

- Questions, comments, training requests on the Loading Tool should be directed to:

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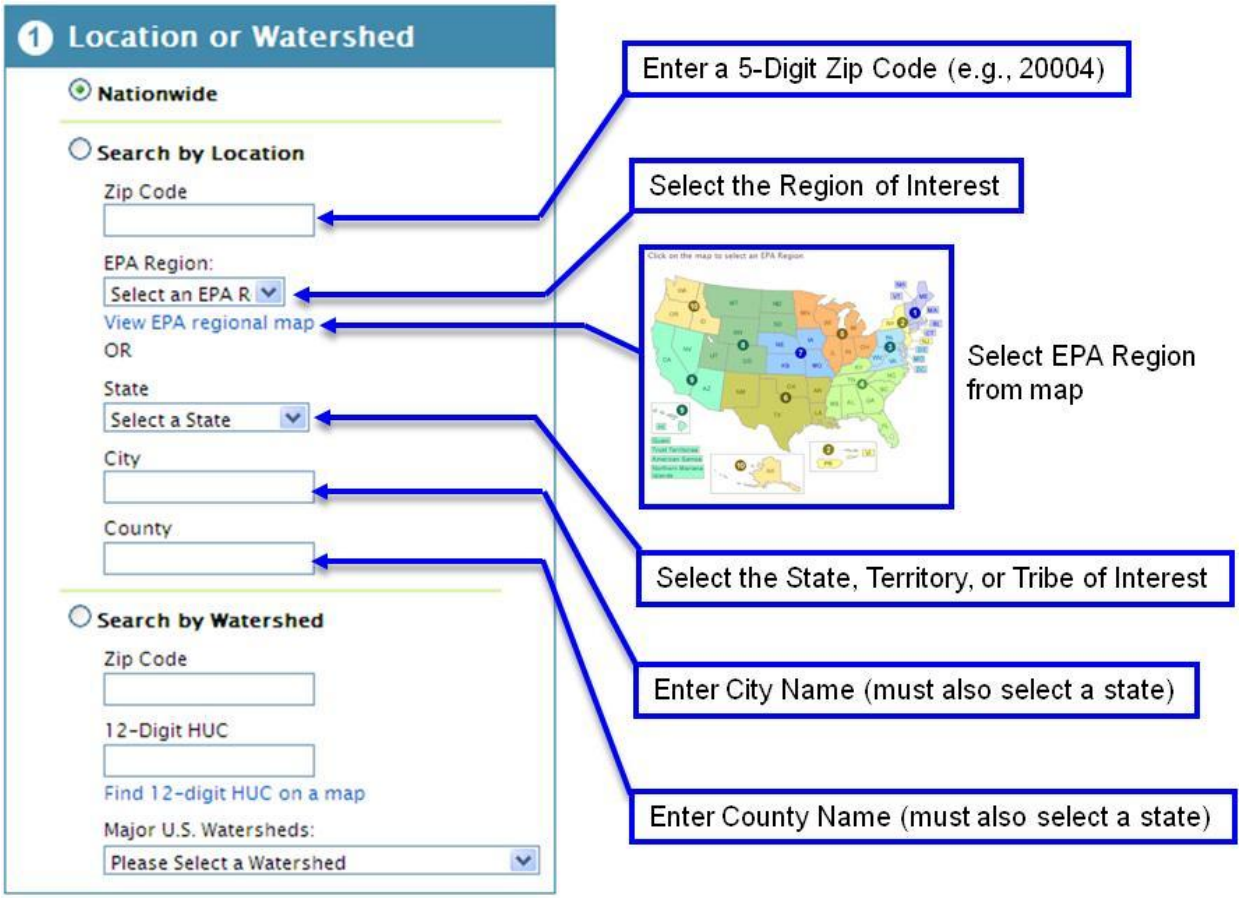
U.S. EPA, Office of Compliance
ph: (202) 566 1014
johnston.carey@epa.gov

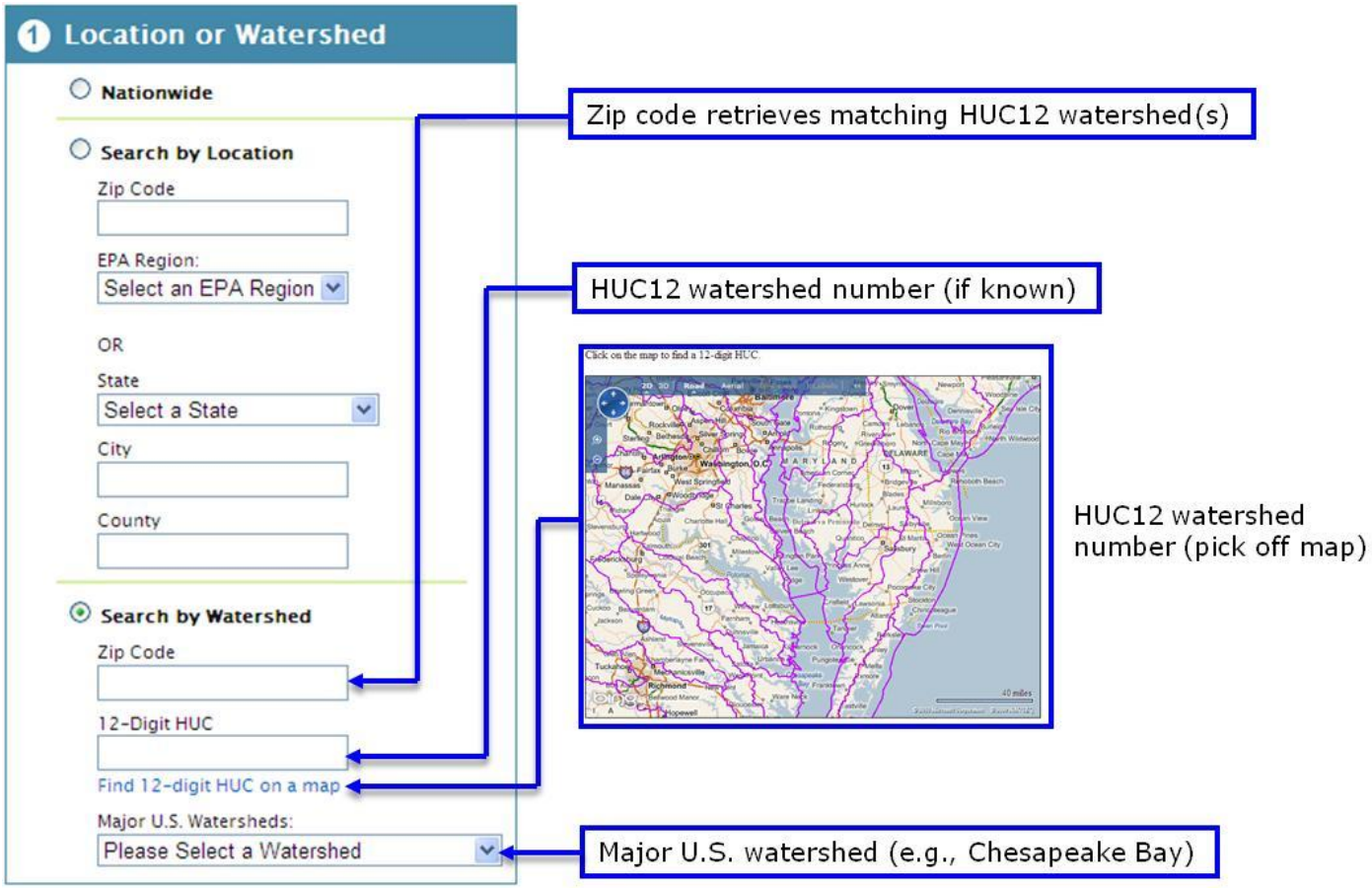
DMR Pollutant Loading Tool – EZ Search

Specifying Location (Standard)



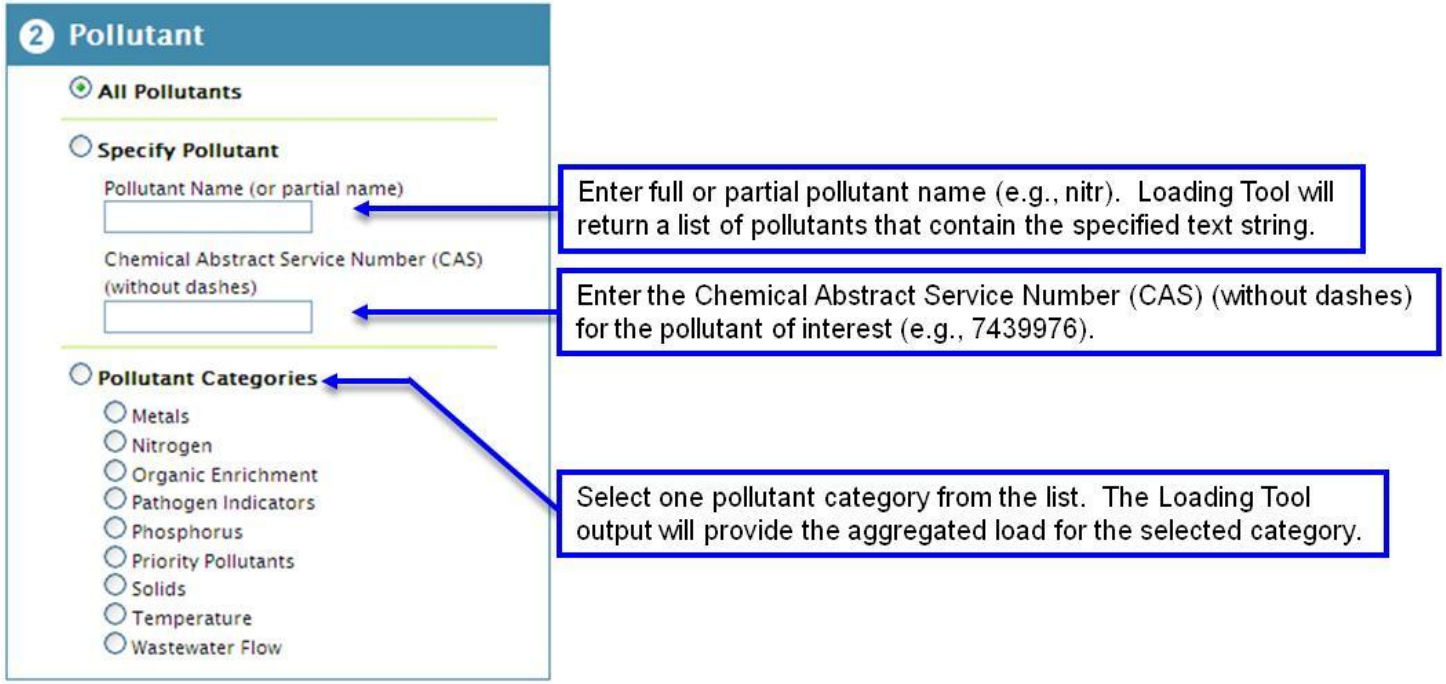
DMR Pollutant Loading Tool – EZ Search

Specifying Location (by watershed)



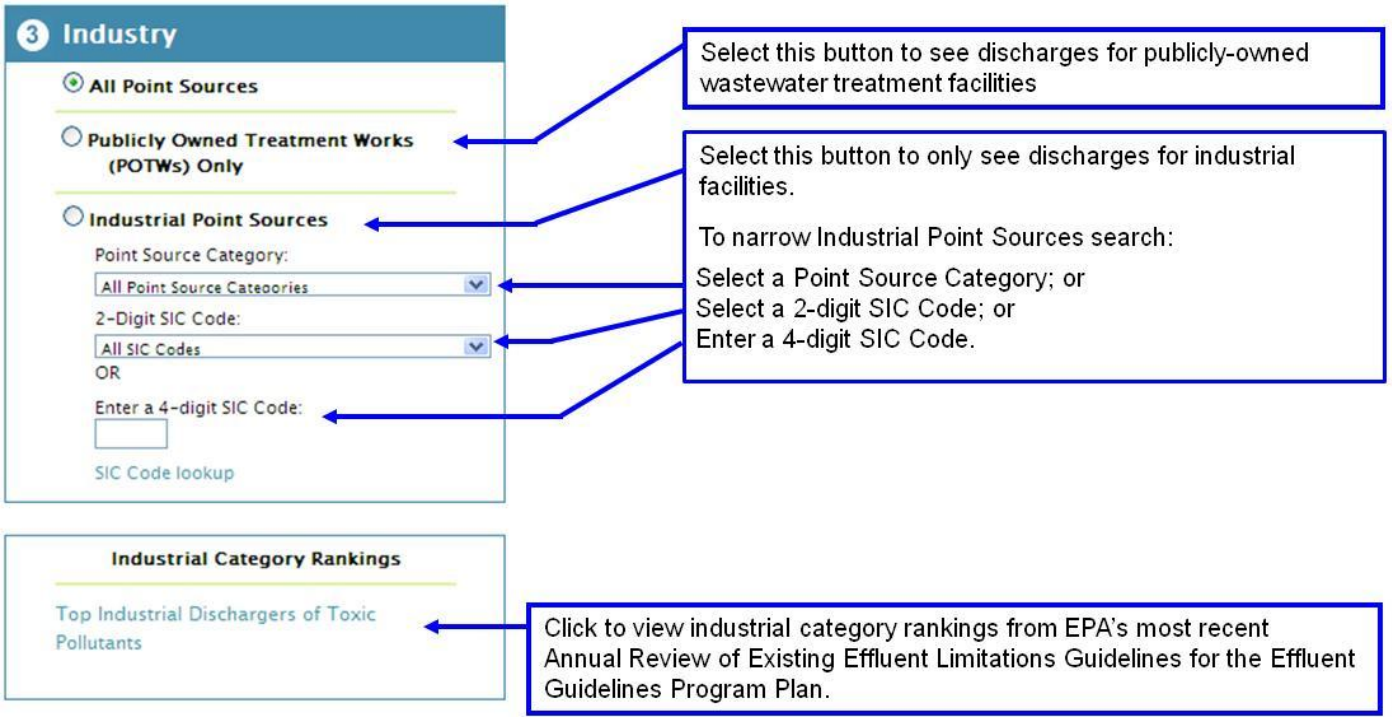
DMR Pollutant Loading Tool – EZ Search

Specifying Pollutant

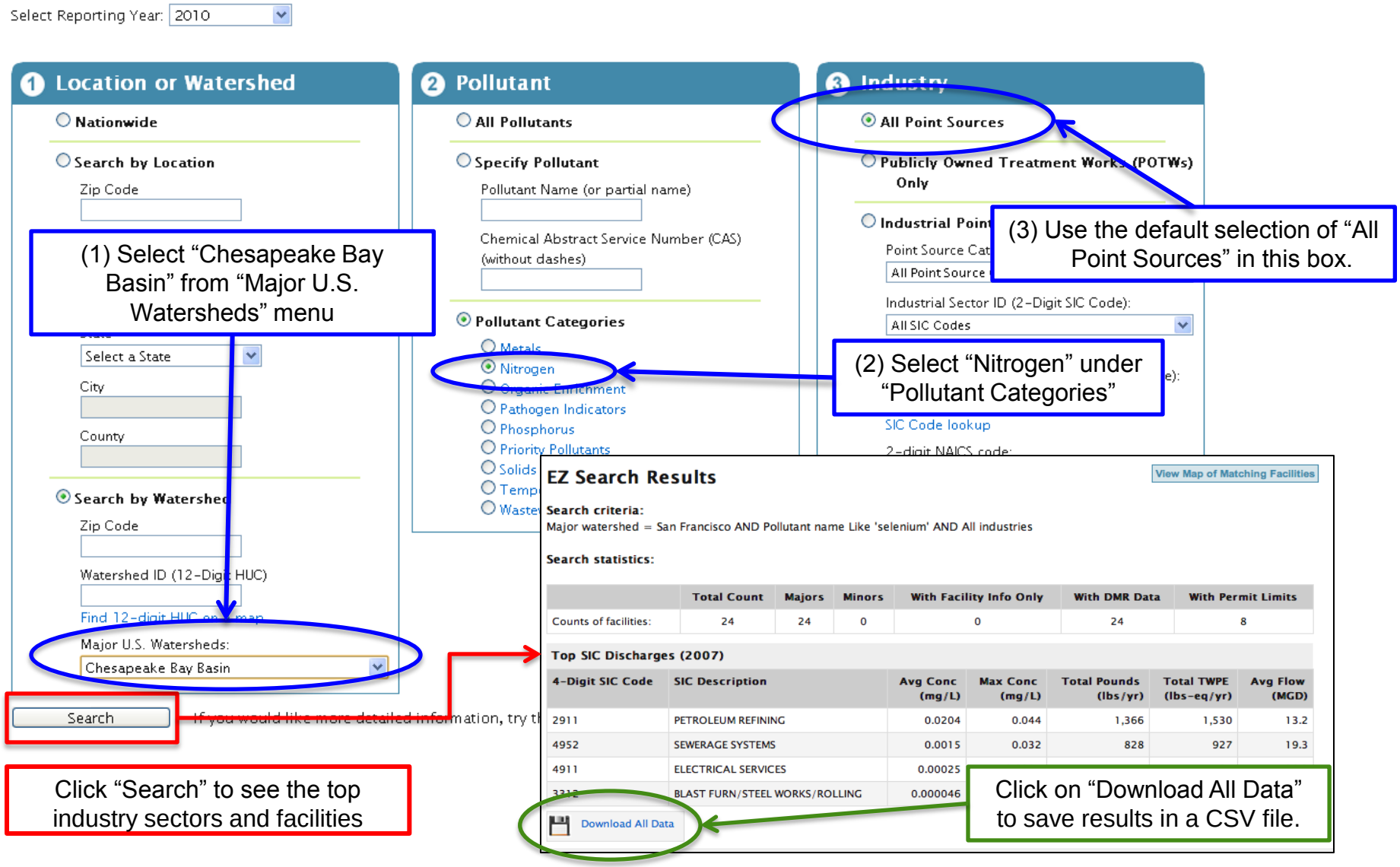


DMR Pollutant Loading Tool – EZ Search

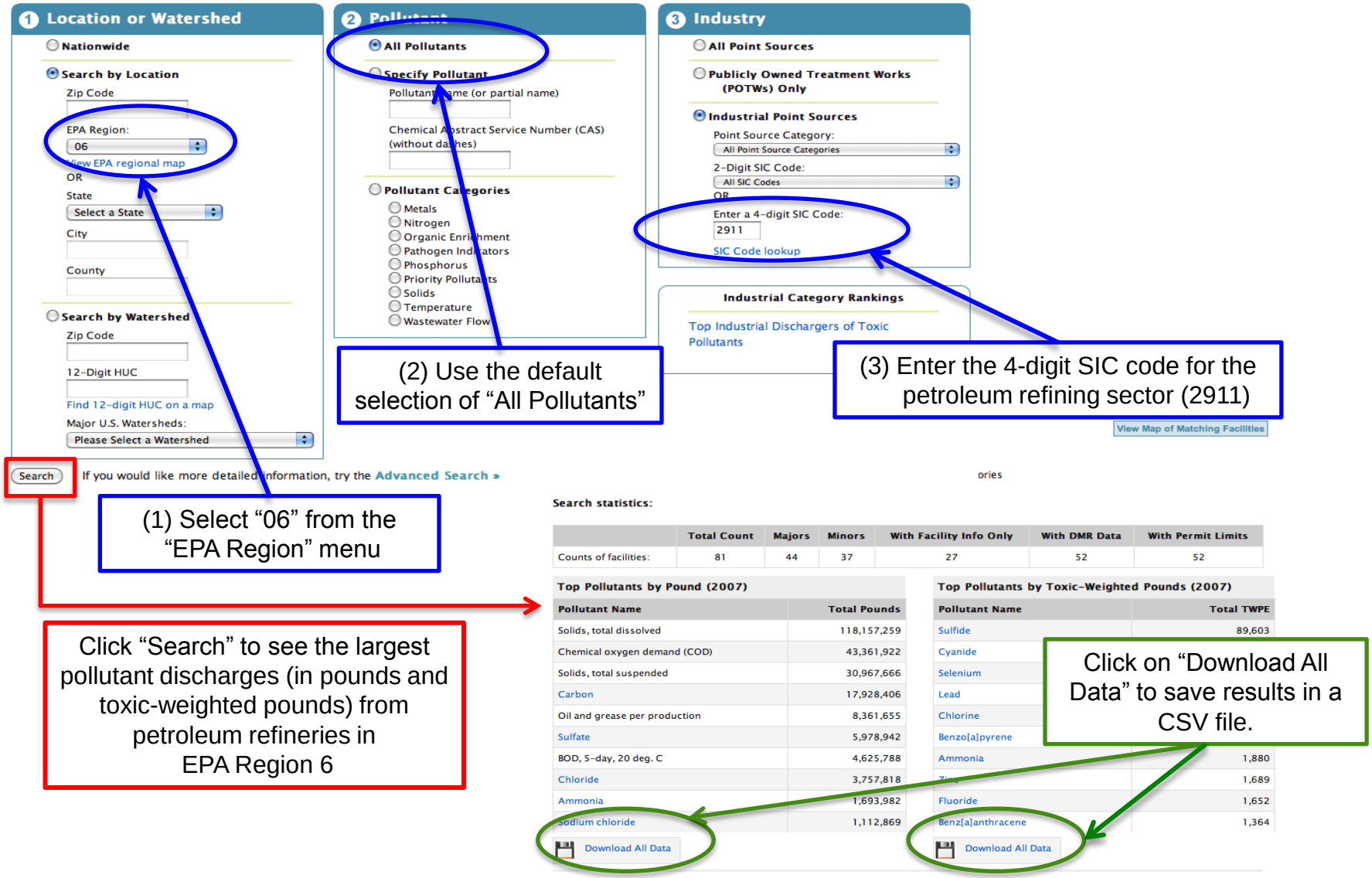
Specifying Type of Discharger



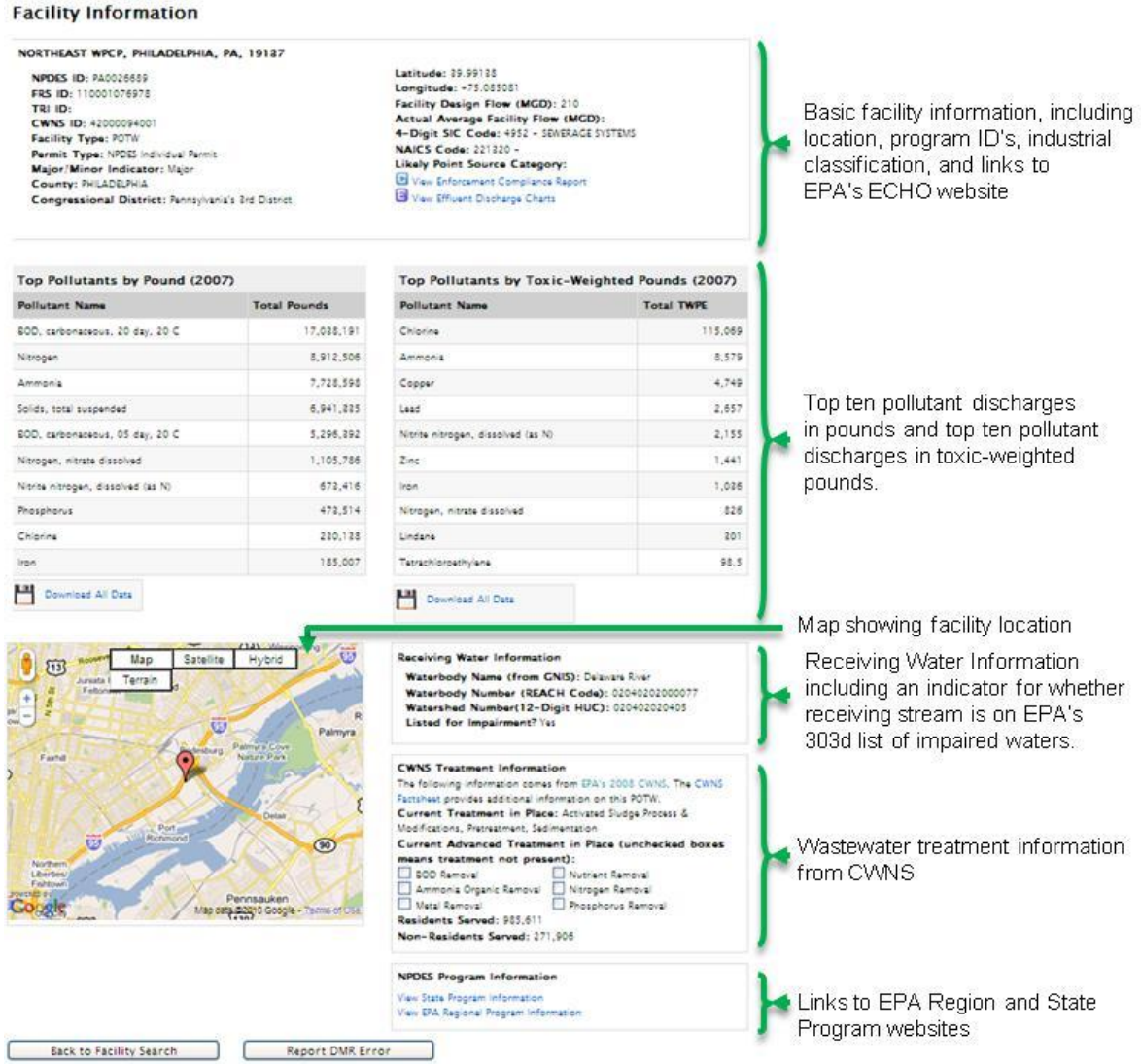
EZ Search: "Who discharges the most nitrogen in Chesapeake Bay watershed?"



EZ Search: "What petroleum refinery discharges the most pollution in EPA Region 6?"

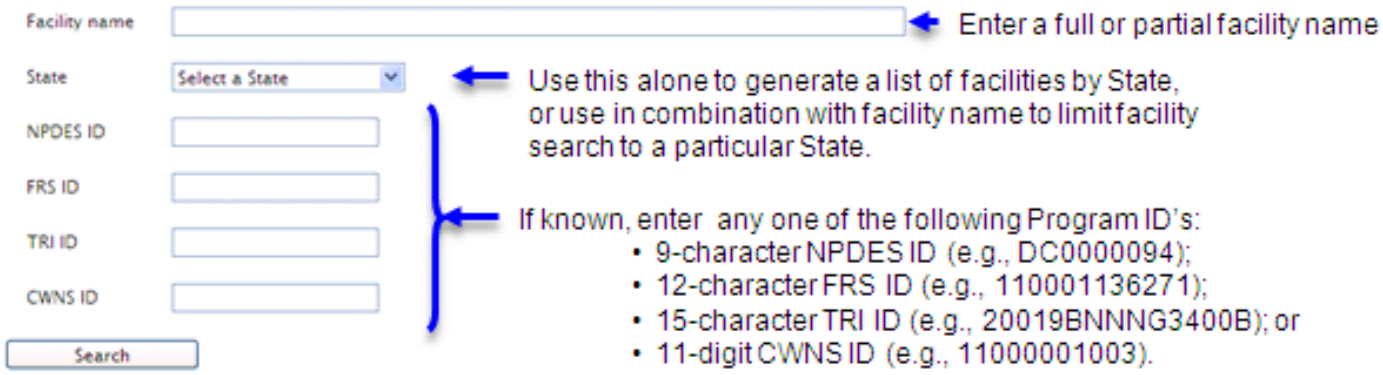


EZ Search – Facility Page



Loading Tool – Other Search Interfaces

Facility Search



Many More Options with the Advanced Search