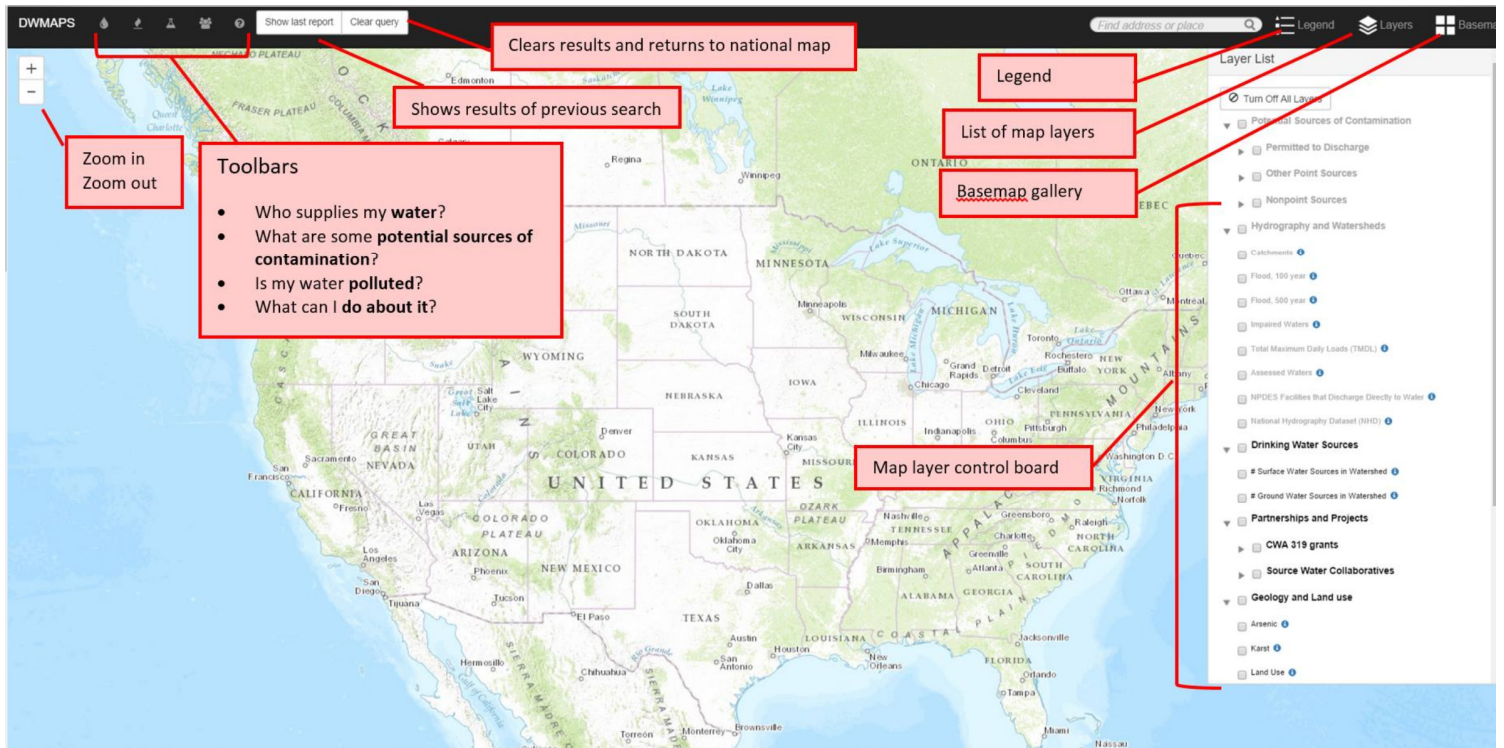


Welcome to DWMAPS! This tool is designed to map and identify

- Watersheds important to drinking water supply and public water suppliers for your area
- Potential sources of contamination
- Status of waters under the Clean Water Act (e.g., waters listed as impaired for a given pollutant)
- Partnerships and watershed projects in your area

The homepage of DWMAPS describes the search functions available in the map. Each question in the “Where Do I Start?” window corresponds with a toolbar (upper left symbols) you can use to search the map for data. Browse Sections 1 through 4 below for more information on how to use these toolbars.

# Map Anatomy



## Basic elements of DWMAPS are outlined here.

- The map contains analytic toolbars (upper left) as well as a layer control board for activating water-related and other data overlays. See the map Glossary and Metadata for additional information on layers.
- Use the location search bar in the upper right corner to zoom to a specific location of interest.
- Click the legend to the right of the location search bar to define map symbols.
- To home the home map setting, select the basemap icon and choose between 12 different options in the basemap gallery (e.g., topographic, satellite, streetmaps)
- The button “clear query” clears all search terms the user has input
- The button “show last report” allows you to more easily see map results. Map results are both mapped data and report summaries of those data. You may close out of a summary report to view mapped results more easily; to retrieve the report, click “show last report.”

# 1 “Who supplies my water?” toolbar

## Summary

- *Use this toolbar to learn about water systems serving your county. Which systems serve your home or workplace? Have any of these systems violated health-based standards for contaminants under the Safe Drinking Water Act?*
- *You can also use this toolbar to identify watersheds that are important to drinking water supply. Locate watersheds in your area where restoration activities can help safeguard drinking water.*

## Step-by-Step

1. To Enter the tool, select the water drop icon, or click on the question, “Who supplies my water?” in the DWMAPS homepage.
2. The map will display a dropdown menu asking you to choose a location:
  - a. “Select a location”: enter a map coordinate in the search window, or select “click on the map” (you will be asked to pick a point on the map after completing the search window)
  - b. “Draw an area”: draw a polygon on the map. Click on map to draw polygon edges.
  - c. “Select a county”: select a state and county of search (dropdown menu).
3. Select either “Watershed<sup>1</sup> Information” or “Public Water Systems” within search window to find the following information:

	“Watershed Information”	“Public Water Systems”
“Select a location”	Information about <b>the WATERSHED surrounding</b> point selected	Information about PWSs <b>serving the COUNTY surrounding</b> point selected
“Draw an area”	Information about <b>ALL WATERSHEDS intersecting</b> the polygon selected	Information about PWSs <b>serving ANY COUNTY intersecting</b> the polygon selected
“Select a county”	Results for <b>ALL WATERSHEDS intersecting</b> county selected	Information about PWSs <b>serving the COUNTY</b> you selected

### If you selected “Watershed information”

DWMAPS will provide a results table with the following information about selected watersheds

- Watershed name
- % of watershed covered by a source water protection area
- Surface water intake density: number of intakes (surface water facilities) withdrawing drinking water in the watershed
- Ground water well density: number of wells (ground water facilities withdrawing drinking water from an aquifer) per watershed. Note: this information does not reflect aquifer well density.

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<sup>1</sup> “Watershed” as used in DWMAPS and this User Guide is a shorthand term for HUC12, a hydrologic unit designating a smaller drainage area within a watershed.

### Quick Tips

- ! Click on column headings in the results table to sort results by column value (e.g., rank watersheds by % covered by source water protection area)
- ! Each watershed link contains a link to a full watershed profile under EPA's "Surf Your Watershed" database. The link shows:
  - The larger hydrologic area (HUC8) containing your watershed
  - Water quality monitoring information from USGS and state program data
  - Watershed restoration groups working in the watershed
  - Watershed impairments, stream flow statistics, relevant scientific studies, and much more.
- ! Watershed names in the links and DWMAPS table may not match. Don't worry! The watersheds identified in DWMAPS are smaller subdivisions of the larger hydrologic units reflected in "Surf Your Watershed" links. Names may differ.

### If you selected "Public Water Systems"

EPA's Safe Drinking Water Information System (SDWIS) keeps track of the counties served by Public Water Systems. Choosing a location and selecting "Public Water Systems" provides a list of Public Water Systems serving your county. **Please note: DWMAPS lists water system serving your county, but these are not necessarily located near you. Water systems often do not serve the same county where they are located. For example, much of Los Angeles' water comes from Northern CA and the Sierra Nevada.**

DWMAPS will provide a results table with the following information about water systems **servicing your county(ies) of search:**

- Public water system name and database ID for EPA SDWIS
- County served by Public Water System

### Quick Tips

- ! Click on column headings in the results table to sort results by system attributes (system size, name, etc.)
- ! Each system link contains a link to a full system profile under EPA'S Envirofacts site. The profile shows:
  - Any recent health-based violations of the Safe Drinking Water Act
  - Dates when system active
  - Permitting, enforcement, and legal compliance information
  - Much more!
- ! Data is not available at a finer scale than the county level

## 2 “Where are potential sources of contamination?” toolbar

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### Summary

- *Use this toolbar to learn about potential sources of contamination upstream of your area of interest.* How many Superfund sites are within 3 miles of a well? Are there any wastewater treatment plants located upstream of your local lake? Where are the industries discharging pollutants within 24 hours travel time of a municipal water supply?

### Step-by-Step

1. To Enter the tool, select the pollution plume icon, or the question, “Where are potential sources of contamination?” in the DWMAPS homepage.
2. Select “find potential sources of contamination”
3. Enter a known coordinate in the “latitude” and “longitude” fields. If a coordinate is not known, select “Click on the map.” Before clicking on the map, select the following search commands:
4. Specify your area of search. The map will display the following information based on your selection:

	<b>“Find potential sources of contamination”</b>
“within_ hours upstream”	Information about potential sources of contamination within <b>the catchments (small drainage area) that are located within _ hours of your point</b> , by average streamflow <sup>2</sup>
“within_miles upstream”	Information about potential sources of contamination within <b>the catchments (small drainage area) that are located within _ miles of your point</b> , along the stream network
“within_mile buffer”	Information about potential sources of contamination within a _mile radius of your point

5. Specify your point sources of interest. Search “any facility” (results show facilities of any type) or choose any combination of the following (see glossary for more detail).
  - CERCLA
  - CSO
  - NPDES
  - RCRA
  - TRI
  - TSCA
6. Press “OK”

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<sup>2</sup> Time of contaminant travel estimations are based on average streamflow rates. Uses service from the National Hydrography Dataset (NHDPlus)

## Quick Tips

! Choose your layers.

While running your search, the map will automatically activate all point source layers. In order to improve visibility of point sources, deactivate/activate layers one at a time.

! There's more than meets the eye!

Click on any point or shape in any layer to find more information on that features. Click on point source features to view a full profile for each facility through EPA's Enforcement and Compliance History Online (ECHO) database, which shows:

- Satellite image of facility
- Address and permits for that facility
- Any recent violation/noncompliance of permit limits
- Pollutants discharged from facility\*
- Demographic information about nearby census tracts (age, education level, average income, household size)
- Much more!

\* If the facility is registered under EPA's Toxics Release Inventory (TRI). TRI facilities

## Additional notes

**Getting downstream results?** Some map results for "hours upstream" searches will show point sources slightly downstream of your selected location. This is because "hours upstream" results are based on catchments, or small drainage areas, tied to the stream network. The map will identify all point sources within catchments upstream of, and surrounding, your location. Some results may lie within the downstream portion of the catchment surrounding your location.

**24 hours not enough?** The maximum search range in the map is set at 24 hours (time of travel), 15 miles (distance upstream), and 25 miles (radius). Increasing the search range would compromise map performance. If you wish to query, for example, 30 hours upstream of a given point, run two separate searches for 1) 24 hours upstream and 2) 6 hours upstream of the point furthest upstream from search (1).

**What about nonpoint and other data?** Only certain point sources are searchable through the "Where are potential sources of contamination?" toolbar. Use the layer menu to learn more about nonpoint sources of contamination (e.g., manure and fertilizer loading per county) and linear data like pipelines and hazardous material transport routes.

# 3 “Is my waterway polluted?” toolbar

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## Summary

*The Clean Water Act (CWA) requires states to identify rivers, streams, and lakes that are “impaired,” or too polluted to support activities like recreation, fishing, and public water supply. Which water bodies in your state are considered “impaired”? Are these waters used for public water supply? What pollution issues are causing these impairments?*

*The CWA also requires facilities like industries discharging pollutants into water bodies to obtain permits under the National Pollutant Discharge Elimination System (NPDES). DWMAPS can help you locate these facilities and find out what pollutants—and how much—they discharge.*

This tool is designed to help you use the CWA to protect your source of drinking water. Refer to the [Clean Water Act-Safe Drinking Water Act Coordination toolkit](#) for more information.

## Step-by-Step

1. Select “Clean Water Act”
2. Decide what type of CWA information you’re looking for
  - i. **Select “Assessed waters”** to highlight all rivers, streams, and other water bodies that have been assessed by states.
  - ii. **Select “Designated uses”** to highlight all rivers, streams, and other water bodies that are designated to support an activity/use you’re interested in (e.g., public water supply, recreation, aesthetic value, etc.). Select uses from dropdown menu.<sup>3</sup>
  - iii. **Select “Impaired waters”** to highlight all rivers, streams, and other water bodies that a state has listed as “impaired.” Select a pollution issue from the dropdown menu to show impairments caused by that issue. For example, choosing “nutrients” from the dropdown menu will show only water bodies that are impaired due to high nutrient levels.
  - iv. **Select “TMDLs”** to highlight all rivers, streams, and other water bodies that have [Total Maximum Daily Loads](#) for a given pollutant. Select a pollutant from the dropdown menu.
  - v. **Select NPDES permitted dischargers** to highlight point sources discharging a specific pollutant. Select your pollutant of interest from dropdown menu—the map will return facilities permitted to discharge that substance.
3. Press “OK”

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<sup>3</sup> Don’t see your designated use? EPA maintains a standardized list of designated use categories, but states often individually develop their own designated use categories. If your state applies specific designated use definitions, you may not find those uses in the DWMAPS dropdown menu for designated uses. They will be contained in the “Other” category in DWMAPS.

The map results will highlight waters or NPDES facilities that match your search terms within your view extent.<sup>4</sup> The map will also automatically activate the full map layer of interest (impaired waters, TMDLs, etc. across the country) and highlight drinking water layers in the map. This will allow you to identify areas where CWA regulatory measures can better protect drinking water. For more information on using the CWA to protect drinking water, click [HERE](#).

#### Quick Tips

! There's more than meets the eye!

IF SEARCHING FOR A WATER BODY: Click on any stream segment, river, or water body on the map. A pop-up window will show a link to "More info" through EPA's WATERS database, where you'll find a full profile of each water body including,

- Designated use of water body
- Impairments in reporting year 2012
- Follow-up actions taken
- Waterbody history report
- Waterbody size and location

IF SEARCHING FOR NPDES DISCHARGERS: Click on any NPDES facility on the map. A pop-up window will show a link to "More info" through EPA's Enforcement and Compliance History Online (ECHO) database, where you'll find,

- Satellite image of facility
- Address and permits for that facility
- Any recent violation/noncompliance of permit limits
- Pollutants discharged from facility\*
- Demographic information about nearby census tracts (age, education level, average income, household size)
- Much more!

! What about pollution load? To find out the permit limits and annual load of pollution from a NPDES permitted facility, click on the facility in the map and select "show detailed results"

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<sup>4</sup> Search results pertain to your view extent. If you pan your screen to a new view extent, click the bottom right window that reads "Re-run query" for improved results.



# 4 “What can I do about it?” toolbar

## Summary

Through exploring DWMAPS, you can find data to prioritize source water protection activities. The “What can I do about it?” toolbar helps you take the next step and find or contact nearby watershed groups that are working to restore local watersheds.

## Step-by-Step

1. To Enter the tool, select the icon that looks like a group of people or click on the question, “What can I do about it?” in the DWMAPS homepage.
2. The map will display a dropdown menu asking you to choose a location:
  - a. “Select a location”: enter a map coordinate or pick a point on the map (you will be asked to pick a point on the map after completing the search window).
  - b. “Draw an area”
    - i. draw a polygon: click on map to draw polygon edges or
    - ii. draw a circle (a “buffer”): select a mile-radius and click a point on the map to draw a circle (buffer) around that point.
  - c. “Select a county”: select a state and county of search (dropdown menu).
3. Specify your area of search. The map will display the following information based on your selection:

	“What can do about it?”
“look in my watershed”	Information about watershed groups <b>in the watershed surrounding</b> point selected.
“draw an area”	Information about watershed groups <b>in any watershed intersecting</b> the area or buffer selected.
“within_mile buffer”	Information about watershed groups <b>in any watershed intersecting</b> the county selected (includes statewide groups whose scope includes selected county).

4. Press “OK”

The DWMAPS result table will show two types of watershed projects:

**Nonpoint source control projects:** projects to manage nonpoint sources of pollution such as agricultural runoff, funded through EPA’s Clean Water Act Section 319 grant program. The results table shows the following information

- State or watershed: scope of project (statewide or specific to a single watershed)
- Project title
- Project type (e.g., technical assistance, statewide education)
- Start date
- Completion status
- Grant allocation (amount allocated by EPA, not including matching funding by watershed group/grant applicant)

2. Source Water Collaboratives: partnerships of diverse stakeholders who work together to implement source water protection projects and education initiatives in states, regions, or specific watersheds and local communities. The results table shows the following information:
- Collaborative name
  - Collaborative type (scope is local, county-based, or interstate/regional)

To start a new collaborative, or to learn more about actions to protect source water, visit the link at the bottom of the results table: “Actions to protect source water: <http://sourcewatercollaborative.org>”

#### Quick Tips

- ! Click on column headings in the results table to sort results by column value (e.g., rank projects by grant allocation, project type)
  - ! Links in the results table lead to more information on watershed groups, including 319 projects
    - Project manager, phone number
    - Whether/not project has pollutant load data
    - Comments on project schedule
    - Detailed grant budget
    - Project overview
    - HUC12s and HUC8s covered by project
    - Dainage area pollutants
- Source Water Collaboratives
- Contact information
  - Description of collaborative scope and formation
  - Member list
  - Overview of drinking water concerns
  - Past actions (strategies) and results
- ! Watershed groups may not be working at the exact point location you specify. Information on watershed groups is indexed at the watershed level and at the state level.