Advanced ECHO Webinar: Water

August 10th, 2021 | 1:30-2:30 EDT

Good afternoon and welcome to today's presentation. Before we get started, let's review a few housekeeping items.

Audio is available for this presentation through your computer's mic and speakers or by telephone. All attendees have been muted to minimize background noise.

If you have a question during the presentation, please type it in to the questions box located on your toolbar at the bottom of the screen. We will have dedicated time to answer questions during the presentation. If you're experiencing any technical difficulties, please contact us through the questions box and we'll try to troubleshoot the issues.

Closed Captioning for today's Webinar is available by clicking on the Closed Captioning button on your toolbar and selecting Show Subtitles. A recording of the webinar will be available on the ECHO website Training page in the next week. EPA will also post the presentation slides and a transcript.

Lastly, a survey will appear on your web browser at the end of the webinar, so please make sure to provide your comments and feedback to us. And with that, I'll pass it on to our first speaker Amanda Speciale.

Good afternoon, my name is Amanda Speciale and I work for Eastern Research Group supporting the ECHO website. I'd like to welcome you to the Advanced ECHO series of webinars. The purpose of today's training is to demonstrate tools available in ECHO to access and interpret available data about water pollutant discharges and facility compliance with the Clean Water Act.

First, I would like to take a few moments to introduce everyone to ECHO to make sure we are all beginning from the same point. The U.S. Environmental Protection Agency or EPA provides public access to its regulatory compliance and enforcement data through the Enforcement and Compliance History Online website, which we call ECHO.

Data included in ECHO indicate how a facility is regulated, when an inspection occurred, whether violations were found and whether any enforcement actions were taken.

ECHO presents the compliance history for more than one million EPA-regulated facilities. This includes three-year compliance status history and five-year inspection and enforcement history for Clean Air Act stationary sources, Safe Drinking Water Act public water systems, and Resource Conservation and Recovery Act hazardous waste handlers in addition to Clean Water Act permitted dischargers which are the focus of today's webinar.

Data are reported by EPA and state and local agencies.

ECHO itself is not a data system of record. ECHO pulls data weekly from several EPA program data systems, such as the Integrated Compliance Information System, the Resource Conservation and Recovery Act Information System, the Safe Drinking Water Information System, and the Facility Registry System. It also pulls select data from EPA's Envirofacts, including pollutant release data from the Toxics

Release Inventory and Greenhouse Gas Reporting Program. The About the Data page on the ECHO website provides links to the data sources themselves, as well as specific information on when data are refreshed.

The EPA source database for water-related data is ICIS-NPDES. ICIS-NPDES contains permit information, monitoring requirements and pollutant limits, and discharge monitoring data for facilities managed under the Clean Water Act National Pollutant Discharge Elimination System (NPDES) program.

ECHO provides a number of features to help you access and understand environmental data, such as the Facility Search and Enforcement Case Search. You can use these tools to search for facilities that match specific characteristics of interest and then choose specific reports to view detailed environmental information.

The focus of today's webinar is demonstrating the tools in ECHO to access compliance and pollutant discharge data related to the Clean Water Act. We will look at the Water Facility Search, the Water Pollutant Loading Tool, water-related ECHO reports, the State Water Dashboard, and Data Downloads.

We would like to remind you to enter any questions you have into the question box. We will have a question and answer session after the demonstration.

Let's begin…

For our first example, we will use the Water facility search to answer the question, how can I use the Water Facility Search to find facilities that have not been recently inspected?

Case Study 1: How can I use the Water Facility Search to find facilities that have not been recently inspected?

From the ECHO Homepage, the search can be accessed by clicking the Search Options tab. Note that there are specialized Water program area searches, including Biosolids and Industrial Stormwater If you have a need specific to these programs, we recommend exploring these searches and help pages. For this example, we will run a standard Water Facility Search, which searches most broadly for information on NPDES permits in EPA's data system.

The facility search page has six categories of criteria that can be used to refine our search: Geographic Location, Community, Facility Characteristics, Enforcement and Compliance, Environmental Conditions, and Pollutant.

So, let's say that you want to identify water facilities in your state that report wastewater discharges containing mercury and have not had a recent on-site inspection.

In the Geographic Location section, we can select a state.

We can go to the Enforcement and Compliance section to add search criteria related to inspections.

Under the Time Since Last Inspection criterion, select "None Within" and set the slider bar at one year.

Finally, in the Pollutant Section, we can search for a Pollutant by typing in the name. The search box automatically updates as you type. We are interested in facilities that have reported mercury discharges.

Note that if we do not specify a date range, this will return facilities that had discharge monitoring requirements for mercury in their permit at any time during the last five years.

As we select search criteria, they are added to the yellow panel to the right. Since we have completed our selections, let's click Search.

The search results page returns facilities that match our selected criteria. In this case, these are facilities in California that have monitoring requirements for reported discharges of mercury and have not been inspected in the last year, according to the data entered into EPA's source database.

The search results table and map are dynamically linked. If you click a facility row in the table, the facility icon will be highlighted in the map, and vice versa.

One of the most useful features of this page is the ability to customize table columns and download data.

The Customize Columns button allows us to choose what columns are displayed in the results table. Let's say that I am only interested in the dates that the facilities were last inspected by either EPA or the State agency. Let's add "Date of Last On-Site Inspection".

Note that the columns in the results table can be sorted by clicking on the headers. We can sort this to see which facilities have not been inspected recently. Note that these inspections are not necessarily related to mercury, and we will look at pollutant-specific data in a later example.

Looking to the right of the results table, there are additional dynamic filters that you can apply on this page to narrow down the list of facilities, without returning to the search form. These are found within the Filter Facilities panel. For example, if we were only interested in Major facilities, we could check the corresponding box. EPA classifies NPDES permits as "major" based on considerations like toxic pollutant potential, flow, and potential public health and water quality factors. All permittees that do not meet the definition of "major" are referred to as "non-major" or "minor".

Once you have the list of results and table columns that you are interested in, click the Download Data button to generate a CSV, Excel, or GEOJSON file with the data.

If there is a specific facility that you would like to learn more about, we recommend first opening the Detailed Facility Report, or DFR. The DFR can be accessed by clicking on the hyperlinked facility name or the red "C" report icon. The DFR presents detailed enforcement and compliance information for a facility. Let's look at an example facility that was last inspected in 2014.

At the top of the report, there are options to customize by Environmental Media and the timeframe to view compliance data.

The DFR is organized into six sections: Facility Summary, Facility/System Characteristics, Enforcement and Compliance, Environmental Conditions, Pollutants, and Community. You can jump to each of these sections by using the navigation bar at the top of the page.

Generally, when reading the report from top to bottom, information will flow from overall summaries to more detailed information, split out by each environmental program.

The first section, Facility Summary, gives the full address and identifying information for the facility. It also includes an Enforcement and Compliance summary for each applicable statute.

For a history of compliance information for the facility, we can jump to the Enforcement and Compliance section using the navigation bar. The compliance monitoring history table displays compliance monitoring activities, including inspections over the last five years. Since this facility was inspected under the Clean Water Act in 2014, it is outside the five-year time range of the report.

The Three-Year Compliance History table presents summary compliance data for individual quarters, which are three-month periods. The quarter is used because it is the shortest measurement period across all four statutes for which EPA receives noncompliance data from states. We can see that this facility had several CWA pollutant exceedances for Coliform, Copper, Dibenzanthracene, Indenopyrene, and Turbidity.

Additionally, you can expand the row in the quarterly view to see which month the percent exceedance occurred. The exceedances are based on data reported on discharge monitoring reports (DMRs).

Now, let's look at this table in the monthly view to see compliance data on a more granular level. Let's jump back up to Customize Report using the Navigation menu. The report defaults to a quarterly view, but let's switch to a monthly view. Additionally, let's select "Water" under Environmental Media to display only the information related to water programs. As you can see, the table now shows periods listed as month 1 through 39. You can use the scroll bar next to "Select Timeframe" to adjust which months you would like to view.

Under the color-coded facility-level statuses, you can see rows with exceedances for Total Coliform measurements in Months 2 and 10. The values in these months represent the percent exceedance of a permit limit.

You may notice that some percent exceedance values are formatted differently, like for the exceedances of indenopyrene in months 9 and 11. Percent values in bold red print indicate a Significant/Category I Noncompliance effluent violation. The percent shown in the cell is the highest value within the selected timeframe. We can also see in the Frequency column that this is an exceedance of a Non- "Monthly Average" Limit, indicated by "NMth". This means the limit applies to something other than a monthly average, like a daily maximum or quarterly average.

Clicking on a hyperlinked pollutant name will take you to an Effluent Chart, an ECHO report which displays discharge monitoring data graphically. The Effluent charts will give us the most detailed information about the reported pollutant measurements and permit limits. We will show an example of Effluent Charts later in this webinar.

If you have questions about any of the data in the Detailed Facility Report, please click the book icon at the top right of each section. This will bring you to a data dictionary that defines all the data fields in the report.

The bottom of this section also includes tables that summarize formal and informal enforcement actions for the last five years. For this facility, there was a CWA Informal and Formal Enforcement Action issued. The State Agency, California, issued an informal enforcement action, in the form of a letter to the regulated entity in 2019. As a note, in the formal enforcement actions table, you can select the

hyperlinked case number to open the enforcement case report, where you can learn more information about the specific case.

Scrolling down further, we can take a quick look at the environmental conditions section of the report. The Watersheds and Assessed Waters from Latest State Submissions sections give more information about the receiving water body, and its uses and impairment status.

The Pollutant section presents Toxics Release Inventory, or TRI, data when applicable. Only facilities that meet specific requirements and pollutant thresholds are required to report to the TRI, so we do not expect facilities, like this example, to have TRI data.

Finally, the Community section presents EJSCREEN EJ Indexes and the demographic profile of the surrounding areas. EJSCREEN is EPA's screening tool for Environmental Justice (EJ) concerns. The EJSCREEN EJ Indexes provide information on eleven Environmental Justice Indexes for the Census block group in which the facility is located. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns.

The next section provides demographic information about the community surrounding the facility. These data are derived based on the facility's geographic coordinates and U.S. Census and American Community Survey statistics. Note that ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment.

In this example, we reviewed how to use the Water Facility Search to search for facilities that have not been recently inspected. We also explored sections of the Detailed Facility Report (DFR) and how data are presented.

Now, let's continue to use the Water Facility Search to answer another question.

Case Study 2: How can I search for wastewater treatment plants, also known as publicly owned treatment works (POTWs)?

How can I search for wastewater treatment plants, also known as publicly owned treatment works (POTWs)?

We often receive questions about how to search for wastewater treatment plants and we wanted to share a few strategies, since users may define this universe of facilities differently.

One way to search is to use industry classification codes. For example, Standard Industrial Classification or SIC Code 4952 represents sewerage systems (establishments primarily engaged in the collection and disposal of wastes through a sewer system). Let's do a search for facilities in Maryland with this SIC code.

Here, we can use the Customize columns feature again. We'll add SIC Code, Facility Type, and Permit Components.

The Facility Type field gives you additional information about the sewerage system. It indicates the ownership type in EPA's source database. Facilities can be classified as publicly owned treatment works (POTWs), non-POTW, federal, or state. POTWs are sewerage systems owned by state, tribal, or municipal governments. Non-POTWs that have SIC code 4952 are typically smaller, privately-owned

systems, serving schools, campgrounds, etc. Permit Component is the third field that can identify POTWs, which indicates the permit is associated with one or more NPDES permit program areas.

Furthermore, we get a lot of questions about flow information. We do offer two flow fields in Customize Columns: Facility Design Flow and Actual Average Facility Flow. These are flows that were included on the facility's NPDES permit application.

If you would like to find definitions for the data fields on the results page, please visit the Results Guide.

If you are interested in seeing charts of flow data for a facility, or pollutant release data from NPDES discharge monitoring reports, we recommend viewing the Effluent Charts by clicking on the blue "E" icon.

The Effluent Charts report presents dynamic charts and tables of permitted effluent limits, releases, and violations over time. We can select a specific pollutant and outfall combination to generate the charts we are interested in.

Note that charts are generated for each outfall location where permit or discharge data exists in the selected timeframe. In this example, we will look at the last three years.

You can change the date range to display the last five years of data.

The discrete data points show the reported DMR values, while the lines show the permit limits. In this example, we can see two series – maximum monthly average and maximum weekly average – and there were no exceedances of the maximum weekly and monthly average limits.

Note that not all discharge monitoring report (DMR) requirements have limits, and there are monitoring only values that need to be reported. In these situations, the effluent charts will display the reported DMR value, but not a limit.

Note that if you scroll to the second chart, which displays nitrogen releases in kilograms per day, we see monthly average quantity limits in place for the entire timeframe.

The shape of the symbols identifies the measurement's general statistical basis, for example maximum measurements are upward triangles,

while totals are diamonds.

The symbols change color if the measurement is in violation of the effluent limit (which is not shown in this example).

You can view the chart legend by selecting the Chart Legend link above the charts. Additionally, you may view the data in a table format, by clicking the "Show/Hide Table" button.

If you want to download the data from an effluent chart report, you can do so by using the Download Data button for one chart

or, the Download All Data button at the top of the page, to download all data within the date range for this permit.

If you are interested in learning more about Effluent Charts, we suggest viewing the Effluent Charts Tutorial linked at the top of the page, or selecting the Help button.

Okay, let's pivot from the Water Facility Search to a complementary tool to evaluate wastewater discharges, the Water Pollutant Loading Tool.

Case Study 3: Water Pollutant Loading Tool

We just looked at discharge monitoring data reported in concentrations over time, but how can we tell which are the largest discharges at a facility or compare the magnitude of discharges from one facility to another's? The Loading Tool is a web-based tool that calculates pollutant discharges in pounds per year or by monitoring period based on these DMR data. With this tool, you can compare facilities and pollutants by total amount of each pollutant released each year.

Water Pollution Search

This Water Pollution search is the flagship tool within the suite of tools built for working with pollutant discharge data. It allows you to search by Location, Pollutant, and Industry criteria and provides top ten lists of surface water discharges. It prioritizes discharges based on total mass and toxicity and allows you to search for the discharges that may have the biggest impact on aquatic life or human health. In this example, let's examine selenium discharges in California.

I want to look at a full year of discharge data, so let's pick 2020 from the year menu and search for selenium in the state of California.

To further narrow our results, I am going to look at facilities that are discharging to impaired waterbodies and discharge pollutants that may contribute to the impairment.

Click Search to display the results. Note that discharges of pollutants potentially contributing to waterbody impairment is based on an association between the cause of impairment and name of the pollutant monitored, and not necessarily a causal relationship. Selenium is associated with three impairment causes: metals, total toxics, and toxic inorganics.

Search Results

The search statistics at the top of the results page show us that the tool found 208 NPDES permits in CA in 2020 that discharge pollutants potentially contributing to a waterbody impairment – and that 137 of these permits have requirements to monitor and report selenium discharges.

Of these 137 permits, 101 are required only to monitor selenium in their effluent, while 36 have effluent limitations for selenium.

The View All Facilities button is provided to allow users to view the full list of facilities that met their search criteria and see which facilities fall into each category. Some users may want to focus on facilities with Selenium limits, while others may be more interested in reviewing the facilities that do not have effluent limits or monitoring requirements for selenium – to see if they possibly should have limits. Let's go back to the search results.

The next table shows us the top ten industries in the state for selenium discharges. It is not surprising to see Petroleum Refining and Electrical Services on the list as these industries are known sources of selenium.

The last table on this page, Top Facility Discharges, ranks the facilities with the ten highest discharges of selenium to impaired waters in California. It is important to note that these facilities are on the list based on the magnitude of their discharges – these include both discharges that are in compliance with permit limits and discharges that exceed permit limits. So, being in the top ten list is not necessarily a reflection of compliance issues.

On the right, we display the average and maximum concentrations, the total pounds, total toxic weighted pounds, and the average facility flow. These are calculated in the loading tool based on discharge monitoring data.

For each facility, four report icons are displayed in the table. We've already introduced the "C" icon for the Detailed Facility Report and the "E" icon for the Effluent Charts, so let's look at the other two report types. The "L" icon is for the Facility's Loading Report, and the "P" icon is for more information on the Facility's permit limits and monitoring requirements. Note that these reports are also available in the Water Facility search results, and throughout related pages in ECHO.

This is the Permit Limits and Monitoring Requirements report. This table provides summarized effluent limitations and monitoring requirements at the facility by calendar year. For each pollutant, we can view the date range for the permit covering that time period (according to the Monitoring Period Date Range), how frequently the facility is required to monitor, and the concentration and quantity-based limits – including whether the limitation is based on maximum, average, total, or minimum values.

Now let's go to the loading report to see more information about the pollutant loads for this facility by clicking the "L" icon.

The Pollutant Loading Report shows the top ten pollutants reported as discharged by the facility ranked by total mass and by toxic weighted load.

Other information on this page includes a map of the facility location, information about the receiving water and impairments, and information about wastewater treatment technologies used at this facility.

Let's scroll back up to look at the selenium discharges. In the Top Pollutants by Toxic-Weighted Pounds (TWPE) table, we see the total pounds of selenium and we also see the "Max Allowable Selenium Load" in the next column. The "Max Allowable Load" is a calculated value based on the NPDES permit limit and the facility's wastewater flow – It is a theoretical amount of selenium this facility could discharge and still comply with their permit limits. Permit writers could use this information to try to identify limits that are set too high and could be made more stringent.

Additionally, you may select the Facility Loading Calculations button to learn how the Loading Tool calculates annual pollutant discharges. These calculations can also help identify errors in the underlying discharge monitoring data.

As we can see, the total pollutant pounds is 205 and discharged from outfall 002. Let's select "View Details" to see how that number was calculated.

On the Monitoring Period Loads page, we can see how the pollutant loads for selenium varied during each Monitoring Period of 2020.

If we scroll down, we can see a corresponding table that shows by Monitoring Period, the discharge and limit information used to calculate the pollutant load. At the bottom of the table, we can see the Annual Load from Monitoring Data was calculated by taking the sum of the Monitoring Period Loads, which equals 205.

You may also refer to the Effluent Charts to visualize the underlying discharge monitoring data.

Okay, that's the end of our Water Pollutant Loading Tool demonstration. Now, let's take a look at visual depictions of data that track Clean Water Act facility and regulatory agency performances.

Case Study 4: Water Dashboard

Now let's take a look at the State Water Dashboard. We can navigate to the dashboard by selecting Analyze Trends from the homepage.

The State Water Dashboard provides an overview of Clean Water Act (CWA) regulatory oversight activities of authorized agencies and EPA. Like the other tools we've covered today, data are refreshed on a weekly basis.

The water dashboard is one of ECHO's newly redesigned dashboard layouts. The dashboard displays six interactive charts describing Facilities, Compliance Monitoring Activities, Violations, SNC or Category I Noncompliance, Enforcement Actions, and Penalties. You may filter your search by geographic, agency, and facility characteristics.

Let's set our permitting state as California, and our Facility Type as Major. NPDES permitting authorities classify "major" facilities as NPDES permits that cover discharges from Publicly Owned Treatment Works (POTW) facilities with designed discharge flows of greater than 1 million gallons per day, as well as industrial facilities based on considerations of pollutant loadings, flow, and potential water quality and public health impacts.

Now let's scroll down to the Enforcement Actions chart. We can see by scrolling over the bar, that in fiscal year 2020, there were 43 formal and 33 informal enforcement actions taken. Informal enforcement actions are notices of violation and warning letters, whereas formal enforcement actions are civil judicial actions and administrative orders.

Some formal enforcement actions result in penalties. Now let's look at the penalties chart to see how many penalties were issued for formal enforcement actions in FY2020. A penalty is a monetary sanction, if deemed appropriate by the lead agency, incorporated into a settlement of civil administrative (Consent Agreements/Final Orders) or judicial actions (Consent Decrees) that might recover the economic benefit of noncompliance plus some appreciable amount reflecting the gravity of the violation. As we can see on the chart, in fiscal year 2020, there was 1 penalty assessed for a formal enforcement action.

Now, let's view the underlying data for the Penalties chart. Under the dropdown menu, select "Details". We can now see the data in a table view, with the Detailed Facility Reports linked. Additionally, we can sort to descending on the Fiscal Year column in order to view the penalty assessed in fiscal year 2020.

One useful feature that the redesigned dashboards have is called "Tour Dashboard". The tour shows, step-by-step, the location of and how to use the dynamic components within the page. You can go through the tour at your own pace to learn more about how to interact with the dashboard. For example, this step explains how to select and apply values from a filter dropdown menu.

If you have any questions about the dashboards, you may click on the "Documentation" button to view more detailed documentation. The page goes into more detail about data sources, using the dashboards, and chart types.

Case Study 5: Water Downloads

For users who want larger datasets that cannot be easily queried through a facility search, or for those who need data that is over 5 years old, ECHO makes data sets available on the Data Downloads page.

The Data Downloads page contains links to download nationwide data sets that may be of particular use to developers, programmers, academics, and analysts.

If you scroll down on the page, you will see downloads for specific EPA programs. For example, there is a section specifically for Clean Water Act-related data downloads.

All of these are also updated weekly as a part of the ECHO refresh.

Let's open up one of these files as an example. We downloaded the Part 1 of the ICIS-NPDES Dataset before the webinar, so we can show you that. Notice that there are many CSV files included in this download. There are separate files for permits, violations, enforcement actions, and other information. Let's open the Formal Enforcement Action file. In this table, you can see fields such as NPDES ID, Enforcement Action Types, and Settlement entered date. Usually, these files contain some overlapping key data fields, so it is possible to join them together to perform analyses.

Help documentation is available which provides descriptions of the CSV files, defines the data fields, and identifies the key fields to appropriately join the tables in a relational database. For example, the ICIS-NPDES Data Summary page has information about the files we just downloaded. The help pages will also tell you which fields are included in all files, which can help you join datasets together. If you have any questions about the data that are not answered in this documentation, you can use the Contact Us link to send us a question.

Note that these are large files, so you may need database software to handle the complete files. However, we have broken a few of the popular data sets down by EPA region and state. You can look for the links that say, "download by jurisdiction." Then select a state or territory.

Also note that the downloads on this page do not contain the pollutant loadings data from the Loading Tool. If you want to download water pollutant loading data, we recommend reviewing the other links available on the data services tab on the homepage.

If you are interested in Discharge Monitoring Report (DMR) data for one NPDES permit, we recommend referring back to the Effluent Chart Report or using the NPDES Monitoring Data Download Tool. The NPDES Monitoring Data Download provides easy-to-read, simplified layout for permit limit and

discharge data in a downloadable Excel spreadsheet format. The spreadsheet organizes NPDES pollutant permit limits and associated discharge monitoring data in tables by outfall for one facility within a selected date range. We have linked to this tool in today's slides.

That's the end of our live demonstration.

To recap, during this presentation we demonstrated some tools available in ECHO to access and interpret EPA data about water pollutant discharges and facility compliance with the Clean Water Act. This slide contains links to resources and help pages for several water tools.

Additionally, we have included links to general resources for ECHO. To become familiar with more ECHO tools, we recommend watching the short video tutorials or the recorded advanced ECHO webinars. The FAQ page also presents concise background information and answers to common questions about ECHO. If you want to receive email updates about the ECHO website, we recommend joining the ECHO Listserv.

Alright, let's move into the question and answer session.

Q&A Session

Great, thank you. And this is a friendly reminder, if you have any questions feel free to send them to us using the Q&A feature on the bottom of your toolbar. The first audience question we have—an audience member asked, "Is there a way to search for a compliance time period of longer than a five-year period?"

Thanks, Colby. Currently, you can only search up to five years back for compliance data. But you can download compliance data from the ECHO Data Downloads page back to the inception of the EPA program datasets. So, we showed the NPDES data sets here, but there are also data sets on this page for other statutes. And EPA is looking into providing up to ten years of compliance data in the future.

Great, thank you, Eva. Similar audience question: "Are there any plans to expand the available DMR data beyond five years?"

Yes, the same applies. So, when you go to the effluent chart - if you're looking at the effluent charts, you're looking at three years of data and then you can adjust the calendar to go back to five years. On this screen, on the Data Downloads, you can download all DMR data. We have annual datasets, for the last about ten years, if you can scroll back down just a little bit. So, these zip files that say DMR dataset for FY2010. This is a nation-wide dataset of all DMR data by fiscal year. These datasets are pretty large though, so, like we showed in the demo, if you're looking for something by a jurisdiction, we recommend using that search and downloading all the DMR data for a state, et. cetera. The last kind of date range I want to mention is that in the Water Pollutant Loading Tool, we have data back to 2007, calendar year 2007.

Another audience question—someone asked, "Is there a function to highlight a geographic area in search for all facilities with ECHO data in that geographic area?"

Okay. So, when you're using a facility search, there's a few things you can do. You can start with, on the Search page, specifying some general geographic location information. So perhaps you want to run a search by a state or a county. And then once you get on the map, on the search results page, there's the option to-- that should work -- they have less than 500 facilities. In the top corner, right where the mouse is, they have the "Search as map moves". So this syncs up your map extent and the search results. So, if you click this and then move the map, zoom it in or out, your results are going to change. So, you can adjust the map extent to an area you're interested in and kind of narrow down your criteria like so.

Thanks, Eva. Another audience question—someone asked, "For total facility discharges, max concentration, and average concentration, are they from actual discharges in the past five years or models?"

This question is referring to the Water Pollutant Loading Tool. So, these are calculated values in a particular calendar year. So, everything in the loading tool is on a year basis. And based on actual DMR data.

Great, thank you. Another audience question—someone asked, "Are there plans to display pollutant loadings by watershed other than the specific impaired water reaches?"

There are other search criteria on the Water Pollutant Loading Tool to search by different watershed extents. So, for example, if we look in the first column for criteria, you can look for "Search by Watershed" that match or overlap within a particular zip code and search by hydrologic unit code. And then we also have the options of different watershed classifications like major U.S. watersheds. So, there's a number of options to narrow down the NPDES permits within a particular type of watershed classification.

Thank you. Another audience question—someone asked, "Does the data in ECHO include data from state authorized programs?"

Yes. Generally, yes. Information that might be reported to state agencies, a lot of that information then flows into EPA's program databases. And ECHO shows the data that EPA, shows the data from EPA systems. So, in most cases, that's a lot of the discharge monitoring data and other compliance information. However, generally speaking, there may be some information that state agencies collect that is not then reported or transferred to EPA.

Thank you. Another audience, and this is a two-part question—someone asked, "Are data present for offshore disposal sites monitored for EPA site monitoring results and the second part and/or are soil disposal sites monitored approved by EPA for those available?"

Okay, uhmm. This may be going outside of the scope of the Clean Water Act, but if these offshore cites have a NPDES permit, or NPDES permit conditions, that information should show up in a water facility search. Soil test results maybe- I'm not familiar with soil test result information.

Okay. Thank you. Another audience question—someone asked, "Can you please discuss facility locations in general? For example, what is the source of locational information? Is it the same as what is in FRS? Are locations for outfalls or stacks available?"

For NPDES permittees, which we're focused on today, the location information is either from EPA's program system, which is ICIS-NPDES, or from FRS, which is the Facility Registry Service, which is another EPA data system. When you look at the address information or location information that we provide on the water search or in the Water Loading Tool, that will be from ICIS-NPDES. If you run a different search option, so for example, if you were—if you could click on Search Options—if you happen to run, like, an All Data Facility Search instead of something specific to water, that location information is from FRS. The Help buttons, everywhere along ECHO, provide information about what the source of that information is. The other thing that you can look at for location information is on the Detailed Facility Report. We list all of the addresses across all of the programs. So, you can compare, you know, does the address in FRS, you know, is that, does that match what's in ICIS-NPDES or another program system for example. Oh, and there is a second part to that: outfall information. We do, where it's available, have location information. It is not available for every permit for outfalls but we do have a data download that provides that information for the permits where that information is populated. You can find that on the Data Download page which we had showed earlier.

Great, thank you so much, Eva. That's all the questions we have for today, so I'm going to turn it over to Madeline for closing remarks.

This is Madeline LaPatra and I conduct training and outreach for ECHO at the EPA. On behalf of all of us involved with this training, we thank you for participating in this webinar. If you think of any additional questions about using ECHO, please feel free to contact us using the contact us link in the top right of any ECHO page. And I also wanted to remind you, that a brief survey will open as soon as this webinar ends. We would really appreciate your feedback. Thank you again and I hope you have a great week.