>> Madeline Lapatra: Hi, everyone! Welcome to today's training on the PFAS analytic tools. We're going to be getting started now that it's 1:00 eastern time. My name is Madeline and I work at the EPA headquarters conducting training and outreach and we're going to begin with some housekeeping items while people continue to join in. So, we are using Zoom gov for today's training. All attendees are in listen-only mode. You can turn on closed captioning for the webinar clicking on the closed caption icon and clicking on show subtitle. And for your awareness, this training is being recorded and the slides and recordings will be posted on the echo training page after today's training. If you do not see the slides with the housekeeping items on your screen, you can go to the top right, control panel of Zoom, and press view and that will give you options to switch the layout to make sure that you are seeing the slides ok. Finally, because attendee are in listen mode, we'll monitor and answering the questions through the webinar and so please submit your questions and comments there. And with that, I'm going to turn it over to Mike Barrette to get us started. Do you want to introduce yourself? >> Mike Barrette: Thank you, Madeline. This is Mike Barrette the chief of integration target target in the office of compliance and welcome everybody today to our webinar on the PFAS analytic tools. So as we go through today, I'm going to be joined by Nick Spalt, who will be doing most of the demonstration work for the tool. And we also have a team of folks that are on-line that are going to help answer any Q&A chat that arises as we go through. We'll do the best we can to answer the questions as they come but we do have quite a few participants on this webinar so if we are not able to get to all the questions today, we will be pointing out frequently asked questions documents which is posted on the website and we're going to be updating that based on things that we get at the webinar today. So, just a quick bit of background before we jump into the PFAS analytic tools, PFAS has many facets of our direction we're going to address PFAS. The roadmap includes three primary goals, research, which is investing, development and innovation incorporate the best science and work to go prevent PFAS from getting into the environment, and then remediate which is accelerating the clean up of PFAS contamination and we're not going to be addressing all aspects of the roadmap but I want today give a little bit of context because the release of the PFAS analytic tools by EPA is one component providing the public with more transparency about detections in the environment so we can go to the next slide. So, just some background on the goals of the PFAS analytic tools. We want a resource to understand where we see detections especially since these are emerging contaminants which haven't necessarily been looked at closely in the past in terms of an integrative view. We wanted to see if we can find as much national data as possible and figure out a way to integrate that into a tool that is automatically refreshed.

We also wanted to develop standard methods to extract the PFAS chemical data from national data systems and develop the best practices for partners that would like to contribute information. Many of the datasets you will see today, are datasets cop contributed by our state partners, other federal agencies, and what we wanted do with this product is to have a model where that information can be displayed. We also wanted to support EPA investigations into PFAS contamination and further the collaboration with our federal state local tribal partners, as we note in the PFAS strategic roadmap that I mentioned before. Let's go ahead to the next slide. So, is some background on the project itself. When we first started working on the idea that we wanted to integrate this information, we worked with the group of 14 states to try to conceptualize this and in 2019, we developed the first version based on that feedback from the states. When we first started, we had a fairly small number of datasets coming in, which I'll explain in a second. And then, as we grew the tool out, we added more information, we extended it it for federal agencies, state tribal local Governments to use and then in 2022, we released the PFAS analytic tools datasets in excel download format welcome back our public-facing enforcement and compliance history on-line website. So, what you are going to see today is contained within our echo website for those of you that are not familiar with echo, it's an integrated search platform that focuses on looking at data for regulated facilities, particularly under hazardous waste, clean air act, clean water act, and safe drinking water act. Those are the four primary statues that are covered in echo and we do have data for other statues as well. As part of our development of echo, we are also developing what we call a data visualization gallery which is is a set of tools using data visualization software that make it it easier to do mapping, to do analysis, and to do graphing in historic trends. That's what you are going to see today, which is our PFAS analytic tools. So, let's go to the next slide. As I mentioned before, when we start inside project, we came up with a construct of data that we would like to see. We see would like to integrate, we would like to put on a map. So, initially, we had only a couple of these ovals filled in meaning that they're actually pointing into our software. Over time, working with the states, we've been able to gradually fill those in. The ones with black arrows going to the middle are once that are automatically refreshed and the ones with the gray arrows or once where we're taking datasets every so often and adding them into the tools and then the ones that are gray ovals are once that were in our conceptual model but we either did not have national data to put into it, or we didn't have the resources to bring that information in. So, a little bit of information on these four quadrants. The first, on the top-left, would be areas where there are sites potentially impacted by PFAS. And we were able to get information on federal sites, primarily DOD but other information as well.

We were able to mine through spill reporting data to find constituents that were spilled that have PFAS in it and we also have a list of super fun sites that have PFAS detections. For environmental sampling, we're using the water quality portal, which is a joint effort between EPA and USGS. It allows users to enter information on air sediment, soil, fish, tissue, groundwater and surface water. As Nick will explain as we go through, this information is not required but there a top of information in this system you just have to be careful about how you use it because in the certain states, you will see quite a bit and other states you are not going to see as much. Most of the data you will see are going to be in the fish tissue and the surface water area. We also have information on PFAS handlers. The production that import information is coming from our task information toxic substance control act. We have Rick ra waste management manifest information. We have information coming from other places within echo, such as industries that may be using PFAS and then we also have the toxic release inventory as information in that bottom-light quadrant and on the bottomleft side we also have drinking water information. We have historic nationally consistent data from the unregulated contaminant monitoring rule. That information is primarily for larger drinking water sources and it is starting to get a bit out-of-date of. To supplement that, we've gone to state web sites and we've been scraping information off their sites in order to put together a national file that shores more recent water testing results within states where we find the data. The most interesting part of this webinar is going to be the demonstrations so I'm going to put my remarks off here and just say, that as we go through it, we love to take your questions as we go through and we also are very open and willing to take suggestions on how to improve the tools going forward whether that is is the functionality, the data that's coming in it, and the quality of the information, and we would love to hear your comments and we would like to continue growing this tool out to make sure it's a resource that communities can use. With that, I'm going to turn it it over to Nick Spalt. >> Nick Spalt: Thank you, Mike. My name is Nick. I work on Mike's team. I'm a integration targeting access branch of U.S. EPA. Today, I will show you a live demonstration of the analytic tools but I wanted to finish with one other view of our application from the data side within the PFAS analytic tools web page that I will show you shortly, we do have a table that shows that the data that supports the application, so for some users that might be on the presentation today, on the webinar, they would like to just kind of grab the available data, some of you may be aware that we -- in March of 2022, we published the national PFAS datasets page on echo and this is essentially that same type of data just in's year to grab format so this will be embedded into the web page where users can go and quickly download the data. They can also find out information about when the data was last many

accessed from its data source and the range of records temperly within

each dataset so some datasets we have going back to to 2012 and we have some going back further than that, 1990 even. So, you can find out a lot of information about the data in this metadata table. It it also links to non EPA web pages in the cases where external links are being provided for like the spills dataset, some of the state drinking water sets, those are external brinks that bring you to the public repositories. I wanted to go into examples of potential uses for the PFAS analytic tools from the Government perspective. Of course, there's plenty of public use cases as well. As mentioned in the PFAS strategic roadmap update, using this to assist Government agencies in investigations related to PFAS detections, identification of a prioritization approach for drinking water monitoring, so, we know there's predictive analytic models in the works for trying to prioritize where to do more frequent monitoring related to PFAS and then also looking into other research methods as well like disposable and destruction research and assisting programs in the identification of facilities for data quality checks so we know that as there's more regulations related to PFAS reporting, T.R.I. is an example, toxes release inventory and we can cross-check some of the data across data systems to look for any potential data quality issues related to PFAS reporting. I did include one reference of the PFAS analytic tools data being used in a peer-reviewed article that was authored by in part USGS related to PFAS monitoring and drinking water and you have have access top these slides as Madeline mentioned earlier if you wanted to look this up. So, now we're going to jump into the live demonstration. I may use some Government jargon here so I did include key terms. Echo is referring to the enforcement and compliance history on-line web page. The home page refers to not the application but a actual web page on echo that gives background and the caveats as well as where you can find more information related to PFAS on the EPA website as a whole. The PFAS analytic tools referred to the actual application itself. A detailed facility report is a facility-specific report on echo that speaks to a lot of that compliance information for the statues that Mike mentioned earlier. EJ screen is an application developed by our office of environmental justice and external civil rights that we link to in the PFAS analytic tools that really helps understand potential environmental justice concerns. Then there's key performance and indicators on different comb upon apartments the PFAS analytic tools that give everyone to high level summary data and trends and you will see those and how they dynamically change as we use the application. This is the home screen. When you get to the home screen, to get the to PFAS analytic tools it's part of the analyzed trends tab. So each one of these tabs on the left, you can navigate to and see different components of the enforcement and compliance history on-line website. After on the trends tab, PFAS analytic tools is listed as a bulleted idea.

Clicking that, we're going to be opening the PFAS analytic home page. There's a table of content under the introduction that is going to allow you to quickly navigate to certain topics of interest like how the PFAS analytic tools connected to PFAS data the diagram that Mike was explaining earlier. The data refresh dates, that's the metadata table that I was just showing and where you can get to the links to the external information. There's also a related information box so frequently asked questions that you all can navigate to if you have specific questions we've already put together a list of questions that we anticipated users having and so, I highly encourage folks that do have questions first to visit this web page so that they can see if their answers are already there. And then there's also some more information about PFAS on the EPA website and as well as the strategic roadmap listed here and other additional resources like PFAS data tools and information regarding research and things like that. To open the actual application, you can click on the hyper link on the image itself. We'll do that after we scroll through this page and give minor explanation so the background we already went over in the slides so I'm not going to cover that. You can contact me with questions. It might take a little while in the begin to go get back to you because we're just releasing this and we are going to be following up with all comments, questions, related to tools. So feel free to send us an e-mail. There's also a analytic user guide, a PDF that shows the introduction, how to use filters, how to filter the data and the application, and it links to the metadata document, click that really quick. This is a 48-page article that explains each one of the data fields in detail and it gives a lot more background on the datasets that are provided in the application and once again this is another information source if you have a question, related to ok, what is this data field actually showing and this is where I would encourage you to look and the fields to find as and how we're producing these query that's can be found in this technical documentation that is very thorough. More than the average many user would probably need. Going back to the user guide, there's also sections that include troubleshooting, how to export data from the application itself whether it's as a table, or an image and export images, graphs, and tabular data. And then in terms of troubleshooting, what you guys can do if you find yourselves experiencing an error with the application, some best practices to try and resolve those so that's the quick layer guide for the application. Here is how the application connects to PFAS data explained before. How we're identifying PFAS in the PFAS analytic tools. It it links to two com tox chemicals dashboards and the explicit structure list of PFAS and PFAS without explicit structures and you can navigate to these two lists that links to the application not that goes more into the Chemistry. And then there's detailed explanations of each one of the datasets that is included welcome back the tools and important caveats and limitations associated with each one of those datasets so it's important that you

understand those caveats and limitations if you are planning to use these datasets for some purpose to use them appropriately. And then finally, towards the bottom, in the data refresh dates section, this links to an application. Soon that table will be embedded into this web page itself but it it looks like this. These are the links that download the 11 dataset data. There's actually three sets for the toxics release inventory data for on site, off site, waste manage that's why there's 13 files for 11 datasets and you can scroll for the table through the individual data that is supporting these 13 download files. Going back to the PFAS analytic tools home page there's going to be a "what's new" section but right now the January 5th release is the only thing listed here but if we establish new data connections, we automated data connection and things like that are going to be posted in this" what's new" section as we enhance the tool. Of course, there's additional resources for you all. Whether it's EPA resources or other federal agency resources you can access to learn more about PFAS, encourage you to check those out as well. Sorry too make you dizzy. I'm going up to the top and open the application while clicking this link. So, after the load screen, you are going to be hit with a disclaimer and this disclaimer gives general caveats and limitations at the top. Of course, Mike already mentioned this but some of the data collections provide so far so not have mandatory requirements so there's areas that show a lot more PFAS data and detections but that's not because there's more, , detections of PFAS there, it could be because there's more testing done so that's a really important calf' ut to consider when you are looking at some of these national datasets and like I said earlier, for each individual dataset, those caveats are mentioned and then also, they've been compiled on not different dates and show PFAS whether at facilities, public drinking waters systems, sites, as of those dates. It might not reflect the current situation at that facility or site or system so it's important to keep that in mind and with that, look at the most local information that you can get your hands on. I'm going to show you guys how to do that inform some of these datasets as an example. And then there's some more related to software, considerations from a disclaimer perspective data licensing and the accuracy and utility of the data and hosting the datasets outside of EPA and those are important legal disclaimers that are all will have to acknowledge before proceeding to many access the application. So we're going to click acknowledge there and that's going to open up the PFAS analytic tools application itself. And we'll see, I'll give a general overview how to navigate the application before going into the data. Up at the top here we have each one of the datasets and integrated map. By default, when you load the application, you are going to see the integrated map and that's bringing the 11 datasets together into up with application and one map. Now, looking at this integrated map it's not showing all the data from datasets because it would render this map within the application right

now and for example, non detects are not shown in the map and for the drinking water data, only the most recent samples at public water system are shown and then also, for the industry sectors dataset that shows the facilities that may be involved in PFAS handling, as identified by their north American industry classification system codes. Those are not shown at national level either. You will have to drill down into a state before you can see some of those datasets. And this just allows the map to render more quickly. Before I dive into specific examples on the integrated map, I'd like to show the individual datasets. You can find a lot of the summary information about the individual datasets in the integrated map but to find the complete details related to a point on this map, you are going to have to navigate if I over over this federal site, that's telling me that I'll find more information about this site and the federal sites tab so that's a good way and tip to use the pop ups in the integrated map to find out where can you find more information related to the point on the map. Also, each one of these pages that you are going to navigate or tab, is going to have a more information box. By default, it's not expanded to save real estate on the application web page but you can expand this and learn more about each one of the tabs in this case on the integrated map and for each one of the individual datasets, it's going to provide more information about that datasets. Also, in terms it of Navigating the tools, each one of these filters on the left you will see these not change as you navigate to the different datasets but they all work the same. When you make a filter selection, it's going to filter the data in all of the visualizations and maps to those selections so if I just selected one state, Arizona for example, it's going to shows all data related to Arizona. Finally, there's a legend on most of these dataset tabs and you can turn the individual layers on and off and maybe if the data is looking too busy and you want to focus on a particular dataset in integrated map you can do it by using the legends. Export images here. Can expand the map here. And that goes for all tiles or visualizations within the tool and they have this expand button to make them bigger, you would use that. Ok, so now we're going to -- well, I should show these. You can look at more filters. This is just quickly going to that guide that I showed earlier and then to bring back up the disclaimers, you would hit this button here so I've showed you these resources, but you can get back to them using these buttons. Finally in the top-right there's a contact us button and if you have suggestions, concerns, questions, that you can use that to get in touch with us. So now, we'll start with the drinking water data for UCMR. Right now, this is just showing six PFAS that were monitored as part of UCMR3 done from January 2013 to December 2015. And it's important to note that a lot of these systems have addressed their PFAS detections since this monitoring was conducted and I'm going to show you an example of that and the way that these public water

systems are rendered on this map, are based on the zip codes served by the system and that data is also in the data table below but that doesn't necessarily mean that public water systems serves entire population of the zip code and some might be served by multiple systems as well. So those are all important caveats when using the data related to UCMR. By default, we're looking at the most resent sample at public water systems and those are the key performance indicators I mentioned before. So within UCMR3, see 221,831 samples at 4,920 systems and actually in selection right now, we're only looking at 51,113 and 187 detections. So, if you wanted to look at the entire dataset in UCMR3, you would have to toggle to water systems and now you see them match. You can see, just from reportable detections, at any point, to the most recent sample, we've gone from 1,152 down to 187. Kind of demonstrating that a lot of these systems have taken actions to address PFAS detections at their systems. Each one of these tabs is going to have a map and then a tile for certain charts that are going to have many different options here. There's going to be a lot of times summary tables and summary bar graphs and these speak to the six PFAS that were measured as part of UCMR3 and related to final health advisories and that's how it's plotted on the map right now and if a system had a detection above one of those health advisories that were released, or detection above the minimum reporting level for UCMR3. You with download information, in this case, since I have samples selected I would download all the information for most recent samples collected at public waters systems for UCMR3 and so it it's clicking that will download in excel file and here you will see all the pertinent information associated with a UCMR standpoint. So, maybe I'll do an example to transition to the supplemental drinking water that I am includes state provided data and I think let's see, maybe we'll start with looking at all samples at a public water system here and maybe we'll look into New Jersey. So, we do have a lot of information from New Jersey in state supplemental drinking water so that's why I will use this as an example. I will select one system on the map so you can make selections on the map itself and then all the data in the table below is going to be relate today that specific system. And you can see information related to what Anna lights were detected and we can see in what amount. So most of these, like I said, were measured between 2013 and 2015 and you can sort by clicking the header. To see when the most resent sample was collected. So September 18th of 2015 for this system in New Jersey. Now we can look at if the system has any data, in the state supplemental drinking water tab, and we can clear our selections in the top here as well. So if we wanted to clear all selections, we would click this button. And we'll navigate over to the state drinking water data. -- we also have tribal PFAS sampling data in here as well. And you can see that additional information here in the more information tab. But I'm going to search for that system that I just showed in the UCMR table and you can click that magnifying glass and search for a system and select it and then see that there information more recent with a new

detection method so again we can sort by sample date now and the most recent sample that we have in PFAS analytic tools, is from August 318th, 2021. Much more recent but there could be newer information available and we haven't extracted it from the estate data source yet. You can see the New Jersey drinking water and the currency in which we he can tracted it and an external extracted it from and that's the New Jersey drinking water watch website and to save time, I've pulled up the samples and we can see that that 8-21 analytic tools and since then, since our extraction, there's been samplings sips then and you can see them in the drinking water watch website and our next expected trends extraction for February in which we'll expect to see all of these new samples in the PFAS analytic tools so another thing to note, that it might not be the latest information in PFAS analytic tools and you might want to look at the metadata application to go to more information sources. Going back to the application. We can do one other example on this tab. >> One person was asking about, if you wanted to look at the analytic method and filter on those, is that possible to do? Using the tools? >> Nick Spalt: Sure, in both tabs, there's a method field I just have to find it here. It's for all the ones shown visible but there are other detection methods that are shown so 537 is there and there's probably 533 and unfittered to Illinois but you can filter on it and basically what we're showing here is whatever is on the information dataset we've extracted it from so -->> Thank you. >> Nick Spalt: Ok, well, when you drill into a statement, that you can see more information related to detections, if you pulled down the ledge here you will see that there's a color chart for what we're displaying in the map and the health advisory for one PFAS and at one public water system in that county and if there's a detection of at least one PFAS at a public water system in a county that it wasn't exceeding a health advisory those are shown in yellow. So you can hover over and get more information in the pop up and you can select that county and then all the records in the table below will filter to that. You can also see different charts related to the make up of sample. How much of it might be PFAS versus PFOA and it's showing total concentration and respective concentration of a individual Anna lights and there's a future other charts that I won't get into it because I don't think we have time in an hour meeting today. And there's also production data and so you -->> Can I break in for one second. >> Go ahead. >> Back on your last screen, there was a question that came in asked about a particular state and why they weren't showing up on the map and why we don't have data for them? So, do you want to reiterate why some of the dates for this particular tab are not filled in and why others are? >> Sure, so, there's no national requirement to report sampling data and to EPA for PFAS at this time other than UCMR and this is supplemental drinking water data and it was collected as part of state sampling

initiatives where they made that data public so as part of this project, we've reviewed state datasets that have been posted publicly and extracted them from reports as well as data systems like New Jersey's drinking water watch that I showed earlier and just because it's not shown now doesn't mean they don't have sampling information and it could have happened since the last time we accessed this data or it could have happened in that state was provided to the consumers and the public water systems themselves and it wasn't made publicly available. Those are options or things that could relate to why it's not shop here with you we're hoping that as more sampling initiatives are put in place, we'll expand the completeness of this dataset that you see. >> If you are aware of datasets that have been posted that we should be taking a look at to try to have the tool, Nick will show you how you can contact us via the website. >> Sure. >> Earlier, you might have noticed when I switched to the production dataset it was still showing Illinois and that's because if you make a selection, it's going to persist when you go across the tabs so you might need to deselect something if approximate you are only seeing a subset of data. So, this is from the Tosca chemical data reporting rule. You can learn more information about how this data was ex extracted from the quad rin y'all reporting cycle and we're using the PFAS list to identify where there was a record of in manufacturer or importation of PFAS. So, the one exception there where there was a of of claim for confidential business information and which case, those records are not going to show up here and in if some cases, the manufacturer amounts or specific data fields are going to be claimed as CBI so it's important not to CBI confidential business information so it's important not to do like numerical comparisons about where the most PFAS is being manufactured or something like that because some of that information might not be disclosed in this public application. So, here, we can see basically that information relate today manufacturing and importation as well as some other important data elements like workers exposed at the facilities where their manufacturing imported and as well as some other related information so maybe we'll just select a state here and let's do Georgia this time and it update that stable to manufacturers and imported specific to gentleman gentleman upstate the table and I want to show a feature the screen report and this is the facility from the facility registry service and it puts into the EJ screen application and it gives you information about the scio demographics around that facility and it also compares it to environmental justice I am dexes that have been introduced by the office of environmental justice and external civil rights and it will help you identify if this facility is located in an area that might have potential environmental justice concerns and so I encourage you to check that report out as well when you are using the application now we'll move over to the environmental media tab and -- it still shows Georgia is selected but I'll remove that selection so we see a national dataset for data that is coming from the water quality portal. So Um see we have, even number of water and tissue samples at around 36,000 and there's also a bin cop Sen station category that will help you

look at the highest concentrations but that is going to be different

depend Ong what media you look at so we suggest for users to normally focus on a specific media and maybe we can focus on tissue for the example in this presentation today and so now the entire application is going to update relative to tissue samples and look some of the other plots that we have here so one of the plots we have in the drop down is concentration and we're showing a box plot of the inter quarterILE range and outliers and media concentration for the samples selected for that species and we can also drill in specifically to let's say an outlier. Maybe we want to identify where the highest PFAS concentration in rainbow trout is in the water qualities portal and maybe about what PFAS that is. So first, let's select rainbow trout and we'll select that outlier concentration. And then we can -- the map will Zoom to where that is. We can Zoom out here. It's in Maryland on the PATOMIC river. It's the EPA office of water can technology and it was PFAS. At 89.7 nano gram per gram and we can look at what detection method or analytical method was used for concentration and other information there. So, in the interest of time, I need to move onto the discharge monitoring report data that comes from the national pollutant discharge elimination system. Ex data system, nipTIES and we expect to see the number of permits that have PFAS monitoring requirements increased as we've recently sent out a memo to the states and to EPA for hangment for monitoring PFAS. We're seeing 161 facilities with PFAS related to 71 chemicals. Looks like the application might be slowing down a bit. And maybe due to traffic or something like that. So, maybe I is should try refreshing it here. >> Nick, there were a few questions about the heath advisory level and whether the tool is referencing the health advisory levels that were in place when that data was selected or is it just referencing what is in place now? >> Nick Spalt: It's referencing the latest health at vice res released by EPA. The interim and final health advisories for FFOA and PFAS and actual low in that more information tab on the PFAS analytic home page you can get to the EPA web page for those heath advisories. Ok, so, we're back on the discharged monitoring report web page now. Or tab of the PFAS analytic tools. The map might be having rendering, if we select a specific facility it might catch up to us so let's go over and select a non POTW. So that's a non-publicly-owned treatment works so this is looking at app individually permitted facility that's not a publicly-owned treatment works. And what I'm trying to get us to here, is showing that you can actually look at the discharge monitoring report loadings of PFAS over time in a chart here. Maybe if we just select a facility that this might render a little bit quicker. Well, in the interest of time, I think I'm going to continue on. We'll come back to this one we can. I want to show you Navigating the other tabs so you can use it later on. So, then there's the super fund site we're pulling from the superfund management system and work closely with lands and emergency management to

get the data that we can from that system on superfund sites that have detections of PFAS. So, on that, we have 200 sites that have PFAS detections at them and they're at various stages of the process they might be on the national priorities list, they might be on the final list, for example. And I would show you that information but it looks like we might be hitting some technical limitations on the webinar right now. Maybe Mike, did you want to try switching over and seeing if sharing your screen is happening a little bit quicker? >> Mike Barrette: Yeah. Sure Just give me minute to log in here. As we wait, there were a couple questions that I can kind of throw out there. One was, is is there a way to download all of the EJ data like say in an excel file for all the data points at once rather than one at a time. >> Nick Spalt: That's a good question. At this time, for certain datasets, the answer would be yes, for example, the industry sector tab that I haven't gotten to yet. It does have EJ screen data I am corporated directly into the table. So in this case, you would be able to but that functionsality is not currently there for some of the other datasets. So, happy to take that as a suggestion. >> Mike Barrette: Is there a way to enter an address and Zoom into that location on the map? >> Nick Spalt: That's one of the items that we've been asked previously, that we're working in seeing that the capability of this soft wear specifically. To enter in address information and have it Zoom into the map and that's not current lease in the can't version of it so we'll take that up with as a session as well. >> We have a question whether the DMA I am includes discharges to POTWs? So pre treatment. >> Nick Spalt: Not at this time. With the reporting rule, we'll get more of that information but that is not available in a national data system at this time. But, we're aware of that issue and the E reporting rule associated with national pollutant discharge elimination system should help with getting pre treatment information and non direct dischargers. >> We did have another comment which is one I was going to make anyway which is a lot of people that are on the webinar, are probably following along and trying to do it at the same time which is probably bogging the demonstrations down a little bit. I was able to get mine up and working. If I want me to share my screen, Nick, you have to stop sharing first. You can tell me where you want me to go. >> Nick Spalt: Sure. >> Mike Barrette: Let me try that. Hang on one second. >> Or tribe or state territory or federal or private and there's an actual external link to the superfund enterprise management system where you can read more about that superfund site that had a PFAS detection and in the table below it's just noted as link. Now we can go to the federal sites tab.

This is the information that we've gathered from some mandatory reporting requirements in the national defense reauthorization act. Mostly relate today department of defense sites where we have notifications to agricultural operations and whether or not there's a noon detection of PFAS at that site. As well as certain PFAS grouped water concentrations for some of the DOD sites. So there's some filter pains off to the left that you can filter to that NDAA required data for maximum concentration of FPFOA or PFAS detected in groundwater and sort on NDAA agricultural notifications and the table below. Or you can just filter based on the actual federal agencies that is reporting data and you will see that there are some non DOD-related federal agencies reporting PFAS data and we're working to expand that list as agencies and departments are investigating PFAS related to their agencies and putting that information out to the public. There's also a field for the clean up status related to circLA so if there's a preliminary or site investigation underway or remedial investigation there's a field to be that as well. I think we'll move on to the industry sector tab now, if you don't mind. So, this is the tab for facilities that are in north American industry classification system and codes that in the literature have within known to be associated with PFAS and one way or another. So, maybe they used it as a processing aid or ingredient as part of the products in that industry. Or like for in of these, they might be related to ak wous film forming foam usage like the airports and or national defense sites. Can you filter the specific areas or specific industries within the application and hover over them to see the names of them and or click to record specifically in the table below. >> Mike Barrette: There were questions about how this data links back to echo. So you if if did want to let's say, for example, find out more about whether something in particular was inspected, you could select and then down at the bottom of the table, you will see a link to the echo detailed facility report and then you will be able to go in and see what the records are in the various media. It it looks like we're pushing up to the last few minutes. Let's see if We can extend a few more minutes to cover the last few tabs, Nick. >> Nick Spalt: Ok, sure. Yeah, sorry for the technical difficulties earlier. Right now we're looking at E-manifest data in the Rick ra information system and showing transfers of E-manifest data and so we can look at the management method for that transfer and we can look at transfers -- Mike, you still have Delaware select sod we're only seeing transfers specific to Delaware. >> Mike Barrette: Sorry, I'm moving it out. I was trying to turn off my notifications here. >> Nick Spalt: No worries. We see can see with the national dataset, that there are over 1,000 generators and 100 destination facilities for manifests related to PFAS.

And we're looking in certain free text fields for the mentions of PFAS.

So, you will to look at the metadata document to find all the information on how we're querying RickRA informs for mentions of PFAS because at this time there's no hazardous waste coast for PFAS specifically because it's not listed or a characteristic hazardous waste. So with that, we can jump over to spills. >> All right. >> And this is querying the emergency response notifications system that is managed by the U.S. coast guard and specifically looking for mentions of AFFF in the material involved fields and you can see , a lot of pertinent information related to a spill that may contain AFFF, like the amount of material it was spilled if it it reached the water body there's a field for that in the standard ERNS data system and there's also responsible organization types and then a lot of other information relate to how the record was geocoded and shown on the map in this data table. We'll round it out with toxic release information data. And so, , there was an NDA requirement for listing 172 PFAS as CRI reportable and reporting near 2020 and there was just a press release the other day that that number is increasing to 189 reporting near '23. And we're actually tracking some PFAS that meet that definition or that list that we provided in the beginning of presentations that go back all the way to 2011 and that would include some of the ones shown on the chemical name list to the right. So, on the map, we're showing transfers that were reported as part of the toxic release inventory reporting and the management methods again that are listed in the TRI data and in this example, there's actually three different data tables in the tile below. So you will have to click the drop-down and select on site releases and off-site data or waste management data to download those individuals tables for this tab and I think that you know, doing this presentation now it shows that it might warrant another dive with you all and I hope you found the applications really useful and maybe next time we can dive into the internet greated map as well so Mike, I'll turn it over to you to close us out and we'll look forward to answering more of your questions in an e-mail and getting back to you all. >> Mike Barrette: Thank you, Nick. I'm going to go ahead and just move us down to this slide here which discusses where to find help for the tools. Sorry, I'm maximizing here and if we didn't get to your questions today, I apologize. We do have in the presentation, other information. We will post this presentation on the analytic home page and Nick showed information in there. We'll update the FAQs business going through a lot of the questions today that we weren't able to answer and there's also technical documentation or you end us questions. All the metadata are included in this slide and then what we're going to do at the end and I appreciate all of the folks that are giving us thumbs up, we would really love to also have you evaluate the training today. So, I'm going to turn it back to Madeline so she can initiate the next steps of the survey and it will appear on your screen and I really appreciate everybody participating today. I hope you check it it out and give us feedback and let us now how we can improve this going forward. >> Madeline Lapatra: Thank you, Mike and Nick.

Thank you for attending everyone. The slides and recording are going to be posted on the echo training page. When I end this webinar, a survey will appear automatically on your browser and we really appreciate your feedback on it. So with that, have a great rest of your day and thank you again for attending. Bye. >> Mike Barrette: Thank you.