

00:00 **Christine:** Just to minimize the strain on technology we asked that you put yourself on mute and turn your videos off. I would like to welcome you today to our training today. I'm Christine Mazzarella. Ellen, can you hear me?

00:29 **Ellen:** Sorry, Christine. Yes, I can hear you. The sound is good and we can see your face as well.

00:46 **Christine:** Thank you. I'm Christine Mazzarella. I work at EPA Region 3. I'm the Wetlands Branch Team Lead. The Wetlands Branch has the WRR Team, the Watershed Resources Registry Team as most of you know. Ellen Bryson, she's been our WRR champion for quite some time. So, what I would like to do is welcome everybody. We have roughly 85 people in attendance today. We've invited all of our WRR teams, which includes all of our states in Region 3, Delaware, Maryland, Pennsylvania, Virginia, and West Virginia. In Region 2, New Jersey. In Region 4, South Carolina, and we've also invited folks from Alaska, though I'm pretty sure it's pretty early for them.

01:40 **Christine:** Today's training will be led by Emily Gentry, our ORISE participant. Most of you have met Emily. She's been attending a lot of the WRR meetings, or possibly some other training that she's had. She has become, what we call, our resident expert in using the WRR interactive maps. She's also great with demos so we're happy to have her. She'll provide roughly a 30-minute demonstration with the WRR interactive map. We ask that you mute yourself during the presentation. If you have questions, please post them in the chat area. If you have problems with the chat, send us an email, we'll try to answer as many as we can during the training today, and we'll send out answers to attendees that are unanswered today.

02:35 **Christine:** Also, just a plug, Delaware is planning to build on this training session today by having a Delaware specific training session in August. If you think your state would like to do something similar, you can bring that up at your next WRR meeting. And lastly, the training will be recorded and posted within a week. So relax, and enjoy, and I'm gonna turn it over to Emily.

03:01 **Emily:** Thank you, Christine. Can everybody hear me?

03:05 **Ellen:** Yes, loud and clear, Emily.

03:07 **Emily:** Ok. Cool. I'm gonna share my screen. Ellen, can you let me know when you see my screen or if you see it?

03:14 **Ellen:** We can see your screen.

03:16 **Emily:** Perfect. Ok. You can tell I'm a millennial, I have a lot of tabs open. Hello, everyone, my name is Emily Gentry. I am an ORISE Research Participant, and this is Part 1 of our two-part training. So, we're going to do this presentation, take a little break, and then come back for the Advanced, which we hope you join us for. Like Christine mentioned, this presentation and the next one are being recorded and we're going to post them within a week. I want to show you where those are going to be posted before we dive in to the demonstration itself.

03:51 **Emily:** So, if you're looking at your screen right now, you should see the Watershed Resources Registry homepage. This can be found at watershedresourcesregistry.org. And in the upper right-hand corner of this page, there is a 'More Info' drop-down menu. If you select 'Additional Resources', this will take you to the page where we post all of our presentations. And then, like Christine mentioned, time might be a little bit hard to answer all of the questions that people have, so if you can post them in the

chat as much as possible, I know Ellen is going to try to collect all of them, and the ones that we can't answer, we'll compile in a pdf and post underneath these presentations. So, the 'More Info' 'Additional Resources', that's where you're going to find all of the recordings and answers to the questions.

04:41 **Emily:** We also have a new page I just want to shout out really quickly, which is our 'Updates' page. So now at the end of every single month we are compiling a list of any changes we make to WRRs and we're posting them here. We're hoping this improves transparency and gives you a better understanding of what is going on behind the scenes and how it might help you.

05:07 **Emily:** Alright, since this is the beginning, introductory training session, I do want to make sure that we're on the same page as far as what WRRs are. So, the definition we like to use is that these are state-specific, interactive online mapping tools. They host a series of original, consensus-based restoration and preservation spatial analyses, along with other publicly available datasets and these are all compiled together to aid in predominantly in environmental planning and regulatory work, but they are very adaptable and can be adapted to meet different needs.

05:50 **Emily:** So that's our bread-and-butter definition, but it can be hard sometimes to understand what a definition like that means in practice. So, I'm going to try to break down the different parts of the definition in the hope that it helps you understand a little bit about why our website is set up the way it is, and then when you get into a WRR and you look at that, how it is distinct and whether that distinction is going to be beneficial to you.

06:20 **Emily:** So the first part is that WRRs are state-specific interactive online mapping tools. If you have ever worked with other online mapping tools, what you may have noticed is that they try to post a link or a portal, some kind of access to the mapping application right on their homepage. And we don't do that with WRRs because they are state-specific.

06:46 **Emily:** So, instead what we have is this 'State Registries' drop-down menu. If you click on that you'll see a list of all states that have active or in development WRRs. Today, I'm going to select Virginia. That's where we're going to be working. And that will take you to a state-specific page.

07:06 **Emily:** If your state has an active WRR, you'll see this grey 'View Map' button. If it doesn't, you'll see some explanatory text that says 'Coming Soon' or something like that. This is your access point to Virginia's interactive map.

07:23 **Emily:** Below this you'll see some state-specific resources. And these are posted on the state-specific page, because, for the most part, they are state-specific. So, the first one says 'Spatial Analyses'. The definition says that WRRs host original, consensus-based restoration and preservation spatial analyses, which is just a whole mouthful.

07:47 **Emily:** But the short answer to a very long story, is that because WRRs are state-specific, these are collaborative tools, most state WRRs are supported by a TAC or Technical Advisory Committee. These committees are comprised predominantly of state and federal employees that work for agencies in that state and every single month they come together to talk about the changing nature of their work and the ways that WRRs can be adapted to meet those needs.

08:21 **Emily:** One of their core responsibilities is creating a consistent set of metrics which they can use to identify and score different potential restoration and preservation sites across a state and then those

metrics are used to build spatial analyses. Every state is different and so what goes in to building those spatial analyses is different and we want you to have access to what went into Virginia's spatial analyses.

08:54 **Emily:** Below that we have a 'Listing of Map Services'. So, WRRs we recognize that the original spatial analyses are not the only information people need to do the work that they're doing, and so we try to host other high-quality available datasets as much as possible. This is where you'll find what is available in Virginia. It can be really, really helpful if you're trying to learn what is available in your state to look at this pdf quite frequently and it contains hyperlinks so you can investigate those more on your own time.

09:33 **Emily:** The last thing is the 'WRR User Manual'. That's not state specific. It does work for all WRRs and it's just posted on every single state because we want to make it as accessible as possible.

09:46 **Emily:** Now I'm going to jump into Virginia's interactive map. This is what you'll see when you jump into Virginia's interactive map. Sometimes, if a data layer does not add successfully, you'll get a little disclaimer. It's important to check that out in case you wanted to look at the RIBITs layer.

10:09 **Emily:** The next thing that you will definitely see is this disclaimer, and if you're anything like me, you might have the tendency to just ignore it, but the one thing I really want to draw your attention to is this blue text at the top. It says, *'Please clear your cache if you are looking for updates'*. So, you saw the Updates page and the list of updates we had just for June. We've made more for July.

10:34 **Emily:** This is really just a friendly reminder that if you're not clearing your cache, you're not going to be getting the latest and greatest version of the WRR. So, if you can make that a part of your practice, clearing your cache once a month, maybe twice a month, that would be really helpful. If you don't know how to do that, we have a link that breaks down how to do that for every browser and certainly we're always happy to help you ourselves.

11:02 **Emily:** So now we're in the interactive map. This basic set up is what you'll see for every single state. There is a green toolbar in the upper left-hand corner. This expanded tool panel on the left and this interactive map on the right. And for this introductory presentation today, I want to break this presentation down into three basic sections. The first is 'Help'. The second is the interactive map, and the third is the expanded tool panel.

11:33 **Emily:** So, let's dive in to the first, which is 'Help'. Certainly, we're not going to be able to cover everything today. We don't want you to have to remember everything today, so we've created a really great Help section for all WRRs. If you go to the green tool bar in the upper left-hand corner, click on the 'More' icon. There is a 'Tutorials' option, and this is our 'Tutorials' panel. It has two tabs, 'Videos' and 'Fact Sheets'.

12:02 **Emily:** With the videos, we have different videos arranged by topic. So here, you can see one that's on the Find Opportunity Tool. Every single video has a transcript and a table of contents breaking down the topics that are covered. There are these really great hyperlink timestamps so if you click on that, it will take you right to that portion in the video.

12:26 **Emily:** If you go to the lower right-hand corner of the video, there are these vertical three dots. If you click on that, there's an option for picture-in-picture. You can drag that wherever you want. You can

resize the video so that you can see it, and the best thing about this option, this picture-in-picture, is that it allows you to play the video in the map while working in a different panel. So, for the Find Opportunity Tool, this tool is actually on the map, so you could play the video and work side-by-side. When you're done, you can 'x' out of that and then move on.

13:12 **Emily:** If we scroll up, not everyone loves videos, so we also have written instructions available for you as well. We have the comprehensive user manual that available for you here. And this has a hyperlinked table of contents that hyperlinked within the document, so you don't have endlessly scroll. You can just go to the table of contents and go to your topic of interest.

13:37 **Emily:** Then, by topic, we have smaller pdfs. All of these are going to have step-by-step instructions, pictures with arrows, lots of tips and tricks, everything to really help you learn how to use a tool and make the most of it. The other thing that's really great about these fact sheets is that whenever we make a new feature or report available, we try to make sure when that goes live, we have a fact sheet right here accompanying it.

14:06 **Emily:** So, one of the things we just did was a Water Resources Report. Let's say you were working in the WRR and you clicked on that 'More' icon and you saw 'Water Resources Report' and you were like *Hey, I don't know what that is*. As long as you know where the 'Tutorials' panel is and this 'Fact Sheets' tab, you can go here and find a pdf on what it is and how to use it.

14:35 **Emily:** And so that is the end of section one. We've made it through one section and we're going to move on to the next which is the interactive map and all of these grey buttons, the search bar, all of that fun stuff.

14:48 **Emily:** So, the first that we want to talk about is the search bar and I specifically want to talk about it, because it's a little bit evil. It's not fully evil. It's a little bit good too, but it is a little bit evil, and I want to talk about that. Let's start with the good.

15:06 **Emily:** This search bar, if you enter in the street address for a place, it will find your location no problem. If you enter in the common name for a place, it will, depending on the common name and how large the place, it will for the most part find your location just like you want it to. But a lot of us, in the work that we do, use latitude and longitude and that's where this search bar is just a little bit evil.

15:34 **Emily:** So, if you're using Google Earth or a lot of other platforms, you enter in latitude first and then longitude. And this search bar just wants to be different, so it wants you to enter in longitude first and then latitude. We have entered in some reminder text on this search bar but that's really easy to miss or forget, so if there's only one thing you remember today, please remember on the search bar it's longitude first and then latitude. You also want to make sure you're not forgetting the negative sign on the longitude.

16:18 **Emily:** Once you have your longitude and latitude sign, you have that negative sign, you can click 'Enter'. It will find your location on the map. And then this next thing that I want you to remember, it's going to seem super silly and very stupid but when you get this pop-up box, there are these ellipses or three small dots in the lower right-hand corner. Click on that and choose, 'Add a marker'.

16:44 **Emily:** This saves your location on the map. That way if you have to navigate away for any reason, intentional or otherwise or if you just want to zoom out to where you are in the surrounding area,

you're never to going to lose sight of where this is. This is really, really important if you're working with multiple sites. But even if you're just working with one, I think it can save a lot of time and headache if you remember to add a placemaker.

17:12 **Emily:** Now we're going to jump up and talk about some of these grey widgets. The first one is the one that sort of looks like a four paned window. This is our basemap gallery. Esri provides every single WRR with a default series of basemaps. There is a lot of information that can be gleaned just by using these basemaps.

17:33 **Emily:** Some states, depending on which one you're working in, like Delaware and Maryland, have state-specific basemaps. So, it really is worth investigating this gallery and seeing what your state has to offer you. I think Delaware has historic basemaps that go all the way back to the 1920s. Maryland, I think, has some LiDAR imagery. It is really worth exploring and maximizing the information you can get from there.

18:05 **Emily:** The next tool, it looks like a ruler, it is the 'Measurement Tool'. I'm going to talk about this just really quickly because I want to contrast it with another tool, I'm going to show you. This tool allows you to measure area, distance, or location, so your coordinates on the map. Select the one you're interested in. You'll get a drop-down menu allowing you to choose your desired measurement units, and then go ahead and click on the map.

18:35 **Emily:** For this area, I'm going to click every vertice on the map and then double click when I'm done. Now I see a polygon appear on my map and the measurement appear in the panel. But if I close out of this, the polygon that I just drew will disappear, and if I go back to the 'Measurement Tool', I don't have a record of the measurement that I just took. So, it's really important if you're using this tool that you're writing down or capturing your measurements in some way.

19:08 **Emily:** Let's contrast that with, we're going to jump over some of these and go to the 'Draw Tool'. I'm going to click and drag this panel over to the side of my map a little bit. This tool allows you to make modifications to the map by adding points, lines, different shapes of polygons and text. I'm going to pick polygon again so we can kind of look at the same thing.

19:34 **Emily:** I can choose different styles, different colors. I'm going to adjust the transparency here. And if I scroll down, I can see there's a measurement tool built into the draw tool and that by default it's turned on. So, if I draw a polygon again, I'll see the area and the distance, which I believe in this case is the perimeter, appear on the map. If I close out of this tool, my polygon remains, as do the measurement units.

20:09 **Emily:** If I click this again, I can go back. If I decide that the measurement units are confusing or I'd like to adjust the color or the transparency here, the thing to understand is that I can't do that retroactively. I'll need to click 'Undo' and draw it again.

20:31 **Emily:** I'd also like to show you the point function. With the 'Draw Tool' there's lots of things that we could talk about for a very long time. We have a Fact Sheet and a video on them, so if this is something you're interested in, it's definitely worth exploring further. But with the point tool, one of the things I want to show you is that we have all of these different styles of points that you can use, which is great. But if you look at this drop-down menu, we actually have different classes.

21:01 **Emily:** Two of them I'd like to show you. One is this, 'A-Z'. So, this can be really great if you're going out in the field and maybe you have several different areas that you would like to visit. Then you can drop a point. Whoops. You have to select one first. You can drop a point...well...normally you can drop a point. This was just working earlier; I don't know why it's not now. Let's give it one more try.

21:37 **Emily:** Well, I don't know what's happening. Normally what you can do is drop a point. Because, by default the measurement units are turned on, you'll get the latitude and longitude which can be really great if you're going out with a GPS or your phone. It's going to help you find those points and these points can be easily labelled without have to add additional text.

22:01 **Emily:** The other thing is that there is this great class called 'Arrows' which can be really awesome if you want to highlight something on the map. If you're sharing this map with a coworker and you really want them to pay attention to a certain area, adding these arrows is really, really great.

22:18 **Emily:** And so all of this leads into the next tool which is the 'Print Map Tool'. This tool was designed to allow you to create easy maps of the work that you're doing to share them with colleagues or include them in reports. I'm going to turn a data layer on really quick so that you can see all of the features with this.

22:43 **Emily:** The only thing you really have to decide is what you want the title to be. I'm going to call this 'Wetland Restoration'. Then by default it's set to an 8.5"x11" piece of paper in a landscape orientation and the format is a pdf. You can click on this drop-down and choose something else. We just thought these would be the best defaults. There are advanced settings, but if you'd just like to know what the default map looks like if you don't mess with anything, you can go ahead and click 'Print'. It takes a minute to create that map.

23:21 **Emily:** And then you can go ahead and click the file. You'll see the title. Data appears on the map. There's that polygon we drew. There's a legend that corresponds with the data we have turned on and a scale. So, in five seconds you can create a map without having to be a GIS professional and then you can easily download it or print it to share it with others.

23:52 **Emily:** I'm going to close out of that and go back to the 'Draw Tool'. I want to reset our map for us. At the bottom of the 'Draw Tool' you'll see there's 'Undo' and 'Clear'. The difference between these is that 'Undo' will undo the last action and 'Clear' will clear everything. So, I'll clear that. I'm going to turn the data layer off, and we can start anew. But notice we still have the placemaker. So just another reminder to save your place on the map. It's really, really helpful.

24:26 **Emily:** Now that is the end of section two, we're headed into section three. We are rolling through this presentation and we're almost done. If you look at the expanded tool panel on your left, where we are right now is the WRR Layer List and specifically the map layers tab. This is where you'll find all pre-loaded data layers in a WRR.

24:50 **Emily:** These layers are sorted into expandable and collapsible folders. Like I mentioned before, all WRRs are all a little bit different, so the data layers you'll find, and the folder structure is all going to differ state-by-state. It is worth taking some time to learn them.

25:11 **Emily:** But I'm all about sort cuts. How can I help you learn the WRR more quickly and how can I help you get your work done? So, one of the tricks that I have—I love that list of map services I showed at the beginning of the presentation. That is a really great resource to have by your side.

25:36 **Emily:** You can say, *Hey, I'm really interested in this data layer. I just don't know what folder it's sorted into.* What you can do then is 'Expand all folders', and you do have to expand all folders. That's important. Then you can hit Control + F on your keyboard. This will pull up a search bar, and depending on the browser, where that search bar is may be slightly different. I think Mozilla Firefox is down here. But either way, it will pull search bar and allow you to search for specific text.

26:08 **Emily:** So, if I'm looking at that list of map services in Virginia and I say, *Hey, I really want to look at the 303d layer.* I can type in '303' and it will take me right to my location on the panel. If I'd like to turn this layer on, I can check the box right next to the data layer, and I'll see data appear on my screen.

26:35 **Emily:** If I'd like to understand the difference in symbology that I see from here to here, I can go up to the 'Legend' icon. This will take me to a living legend panel. This means that any time I turn on a data layer, a corresponding legend with appear here. If I turn a data layer off, it will disappear. So, I don't have to worry about cluttering up my legend by turning on a lot of data layers. If I go back to the WRR Layer List, you can see that it returns me to the top of the list. I'm going to go over to search bar, click 'Enter' and it will take me right back there again.

27:16 **Emily:** Now, for your convenience, all the data layers in this Map Layers tab, we have tried to enable pop-ups by default. So, I'd just like to encourage you, if you're looking at the map and you see data on the map, click away. You're not going to break anything. You're just going to get more information that will hopefully help you.

27:41 **Emily:** Sometimes when you click a data layer, you'll get a pop-up that includes a hyperlink to additional resources. In this case, with the 303d layer, it's going to connect you with the EPA's How's My Waterway Tool. And not only will it connect you with the tool, but it's going to take you to the specific report...or specific reports, because How's My Waterway has a lot of information...specific reports for the impaired water that you selected. So, a really, really great resource.

28:15 **Emily:** But this is not the only data layer that works that way. There are so many data layers in different WRRs that contain links to additional tools, additional reports. It is worth learning what those are for the state that you work in.

28:33 **Emily:** One of the ways that you can start to learn that process is through Location Details tool. So, this tool will allow you to define an Area of Interest on your map and then run a series of internal and external reports on that area.

28:52 **Emily:** And I specifically wanted to show you the Location Details Report for Virginia, because Virginia's report we have just finished kind of workshopping it a little bit. We have a lot of really awesome innovation in Virginia's report that hasn't been implemented in other states, but if you're interested in seeing that in other states, we're happy to help you. I'll show you what I mean.

29:18 **Emily:** So, what I want to do, I'm going to draw a very, very basic rectangle. And it might take just a minute for the map to register that I drew an area. There we go. I'm going to implement a buffer of 50 feet. So, I'm just going to type 50 and hit 'Enter'.

29:39 **Emily:** From here there's this NEPAAssist widget. Unfortunately, the widget itself is working but the EPA's NEPAAssist tool is currently down, so I'm just going to describe to you what you would get access to if you clicked on this button. It will open a new tab and it's going to give you a National Report from the EPA's NEPAAssist tool. There's lots of information you can dig into with this National Report.

30:12 **Emily:** Then it would also include Demographic Reports with census information taken from the EPA's EJ Screen tool. Those are compiled in pdfs for you that are again, very easy to save or download.

30:25 **Emily:** And then you get access to the USFWS IPaC Report. So, it takes you to the IPac website and if you're not familiar website, it's going to give you a map of your area and it's going to tell you any endangered species, any migratory birds, or wetlands that are in your Area of Interest.

30:45 **Emily:** So, there's lots of reports that you can get access to just by clicking this NEPAAssist widget. Again, I wish I could show it to you, but we do have a great fact sheet and video tutorial on it as well, so just remember where the 'Tutorials' panel is.

31:00 **Emily:** This next button, if you've seen presentations before, if you've worked in WRRs before, you may remember that this used to say 'WRR Report'. We've added some new reports where that was suddenly becoming confusing. So now it says, 'LD Report'. It stands for Location Details Report. So, it matches the panel that it's in.

31:21 **Emily:** If I click on this, this report is going to take many of the data layers from within a WRR and survey them for results—any results that occur in your Area of Interest. Now, I mentioned that Virginia's is different from other WRRs and that's because, what we learned when we were creating a different report, was that one of the things that you can do is, for this like 303d layer, if I expand the results, you can include hyperlinks in the results.

31:59 **Emily:** And so now, rather than initially having to manually turn on all of these data layers, instead what you can do is run a Location Details Report and for Virginia every single data layer that has links to external resources, state, federal, or otherwise, is included in this Location Details Report. So, you can go through and expand all of these different layers and if there is access to an external resource, it will be included right here at your fingertips. You can click it and then get access to all of that additional information.

32:40 **Emily:** The other thing is that if I click Print. Sorry, I clicked the Document icon, I can show it to you again, and then I clicked 'Print'. This is going to give me a printable report, and some of this should look familiar to all other Location Details Reports in all other WRRs. You're always going to get this map. You're always going to have a legend, a scale. All Location Details Reports have a summary of the fields surveyed and the number of results in each field.

33:14 **Emily:** For Virginia this is very long. So, we're going to scroll past these spatial analyses. And what we learned was that for the layers we survey, we can pull out pertinent attribute information, like, multiple fields. So, now, if you run a report you can get the 12-digit HUC you're in. The eight digit. The counties, the ecoregions, the physiographic regions, any TMDL watersheds, etc, etc.

33:41 **Emily:** So, there's a lot of information that we are pulling out for you so that you don't have to do all the manual labor of turning data layers on and off. You can get it right at your fingertips just by defining your Area of Interest on the map. And then, if there is information that you want to explore,

you already have the name of the data layer, so you can just enter it in the search bar when you're in the WRR Layer List, go to it, turn it on, and begin exploring.

34:11 **Emily:** And so with that, I think that I'm about out of time. I'm going to stop talking and open it up for questions I think, if we still have time, Ellen?

34:23 **Ellen:** Yes, thank you Emily. That was wonderful. We did get some great questions and I think we can jump in to start covering them. Let's see. Emily, super job. Emily just really has become so expert at using the WRR and also wonderful at demoing the WRR so we really appreciate her. She oftentimes is able to do things even with a lot of strikes against her, so thank you, Emily. We did have some great questions that came in.

35:00 **Ellen:** One of the first ones was that one of the audience members went and loaded the WRR to try to follow along as Emily was working and didn't see the widgets, so that elicited the concern. And that's a really good comment, just to let you all know. What happens behind the scenes is that the WRRs are trying to pull up a lot of background layers. They basically just go to different servers and try to load them. If they aren't getting a good response from a server, they will wait, and sometimes that can slow things down. Eventually if they can't get a response at all, the WRR interactive map will move on, but what was happening was, some of the servers that the WRR was trying to load were a little bit slow and so that person waited and did get the tools to come up, but one of the takeaways from that is that is a good cue. If you're loading a WRR and you don't see the list of the layers or the widgets, you just see the map, you want to wait until you do get them. So, good question.

36:10 **Emily:** Can I jump in really quick here?

36:11 **Ellen:** Sure.

36:12 **Emily:** The other thing is that some browsers work better with WRRs than others. So, I've worked with some people that really liked Internet Explorer and WRRs just do not work very well with Internet Explore and so they were just never able to see those widgets and as soon as they used Google Chrome or Mozilla Firefox, immediately, they were able to see those widgets. So sometimes the browser makes a difference as well. Maybe not in that case, but sometimes.

36:41 **Ellen:** That's a good point, too, Emily. Thanks. I think Chrome is supposed to be one of the best. I like Firefox, so those are great ones to use as Emily mentioned. Great. One of the questions that came in, somebody asked, "Can you label that marker?" And I think they meant that great marker when you put in your lat/long and it finds it. I don't believe you can label that marker—

37:10 **Emily:** Label in what way?

37:12 **Ellen:** Like if you could put a name on that marker?

37:16 **Emily:** I mean you certainly can through the 'Draw Tool'. You can select text and then if you wanted to call it 'Place A' not a good name obviously, but you can click and if it's not exactly where you want it to be, you can try to click again.

37:36 **Ellen:** Great. And then the last question we had was, "When will NEPAassist be back up?" So, of course, Murphey's Law, it's not working today. We're having some problems with the EPA servers and the NEPAassist tool actually works off of the EPA servers and so we apologize. We just got the email

about 30 minutes before the presentation was to begin. We expect the EPA servers to be fixed fairly quickly because they're so central to our work, and I would guess there's a good chance if we come back this afternoon they'll be fixed, worst case, tomorrow. So that answers that question.

38:26 **Ellen:** So, we still have about five minutes. If you would like to post additional questions in the chat, we have time for that. We're getting a couple of comments. I don't know if you can see them Emily. *Very helpful. Great presentation.* Of course, I concur totally. Emily probably doesn't want this reputation but she's gaining one that she works really well under pressure. Things breaking right before she starts a presentation.

39:09 **Emily:** What doesn't kill you makes you stronger. That's what Kelly Clarkson taught me.

39:17 **Ellen:** That's right. Go ahead, Christine.

39:18 **Emily:** Oh, I was just calling her a millennial for that comment.

39:23 **Emily:** Look, I have a brand and I'm determined to be consistent.

39:29 **Ellen:** So, this one is definitely for you, Emily. "Will the hyperlinks be available in the report?"

39:36 **Emily:** Unfortunately, right now, in the printable report, you don't get access to the hyperlinks. For the 303d streams, you can see that you have the code, so if you shared this with a colleague, they could just copy this code and enter it in to How's My Waterway and it would take them right to that report, but it isn't hyperlinked. Unfortunately, right now, all of those hyperlinks, at least in the Location Details Report, you do have to go through and expand the different fields to look at them. That's not one that has one. I think 319 had some, but there's no result there. 303d of course has them. I think Virginia had a fair amount I just don't remember which ones they are. If you're working in a state and you learn what resources...you're working with a smaller list, I guess. We only included data layers that we thought had valuable attribute information, so this isn't even all of the data layers in Virginia itself and a lot of these have zero results, so it just makes the list of data layers you have to sort through to look for those external resources much, much smaller.

41:15 **Ellen:** There's one question I definitely want to take before we stop today. "Do you have any hyperlinks directly to a state's mapping or spatial resources?" Couple things, if you stay around for the Advanced, I believe that Emily is going to cover ways that you can, in some states, directly link to a state's mapping. But, more generally, yes. We do have layers in all the WRRs that go directly to a state's mapping and spatial resources. As Emily mentioned, we work with our Technical Advisory Committees which are comprised of Army Corps of Engineer folks, EPA, and a lot of state folks, like state DEP, state DNR, state DOT and to the greatest degree possible we try to include links to a state's data layer. And so, yes, if your state has a great wetlands layer, it should be on here. If there are state layers that you're aware of that you think should be on here, you know go explore, go look at that Map Listings page that Emily mentioned. If there are layers that you think should be on here, that would be useful, we want to hear about that. The way to move that forward is go to your state's WRR. Find, on the main page, a contact from your agency and you can just reach out to them and say, "*Hey listen, this layer would be great or that layer.*" Or join our team. We're happy to have folks on those teams. So yes, absolutely we want to have state data layers on there.

42:45 **Emily:** And I would say, can I jump in Ellen?

42:46 **Ellen:** Absolutely

42:47 **Emily:** I would say that one of the ways that we conceive of the WRR is one point in a web of different mapping applications and resources. There are so many resources available online. We are not trying to steal anybody's thunder or make other state tools or federal tools irrelevant. We really just want to be—if we are the place that you begin your desktop analysis, we want to make the process as easy as possible. So, the more that we can build links either to other mapping applications themselves or including hyperlinks to additional resources, we just want to be a point where you can start at the WRR but you can go everywhere and you're going to get access to this whole ecosystem of resources.

43:40 **Ellen:** Thanks, Emily. So, another great question, "Can you analyze multiple data layers at one time?" Absolutely. You can turn on as many data layers as you want. Zoom in, zoom out, change your basemap so that you can really focus on layers or change your basemap to an image so that you can see how they lay in space. Lots of possibilities.

44:06 **Ellen:** So, I think we're about at time where we promised we're going to stop and have a 15 minute break. We hope you will come back and join us for our Advanced. Emily has designed both of these sessions so they work really nicely together. There will be a little bit of overlap in the beginning but not too much, so I think, Christine, would you like say anything before we close? I saw some more questions. I'm sorry. We'll try to get to them later in an email response. Christine?

44:38 **Christine:** Thank you everybody for your participation and we look forward to seeing you at the advanced training.

44:46 **Ellen:** Excellent. Thanks everybody. See you in a couple minutes.