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Courtney Chambers: Okay at this time I'm going to give you today's speakers on using the environmental data system in the new version of SimSuite. Janet Cushing has over 15 years of federal government experience and is currently an Enterprise Group Manager at the U.S. Army Corps of Engineers Institute for Water Resources where she's been since 2009. As a group manager, Janet supervises an interdisciplinary group of scientists, economists, engineers and policy analysts. As an environmental planner, Janet has worked on a number of issues including ecosystem goods and services, considerations and planning, managing the prospect course, planning for environment ecosystem restoration, investigating the implications of climate change effects on Corps programs especially ecosystem restoration, incorporating environmental justice analysis into the Corps planning process and coastal resilience through the system's approach to geomorphic engineering programs. Janet is a 2011 Fellow of the National Conservation Leadership Institute which focuses on leadership development within the context of natural resources management. Janet's prior experience includes time with the Corps' Jacksonville district and the regulatory and then planning division where she gained field experience and worked on the comprehensive Everglades restoration plan projects. Following her Jacksonville work and prior to coming to IWR, Janet worked at USGS headquarters in biological resources managing the fisheries program research and acting as a tribal liaison.

> Our additional speaker today is David Shaeffer. David worked as a Project Manager for the U.S. Army Corps of Engineers regulatory program since 2006. His primary duties include implementing federal regulations, protecting navigation, interstate commerce and water quality. Dave also served as a GIS

subject matter expert for USACE's Wilmington district regulatory division. He has worked for USACE in Southeast Alaska, Western Washington State and North Carolina. Additionally Dave has been a GIS subject matter expert for the Corps of Engineers GIS cadre since 2006. The cadre provides support to FEMA and the Corps of Engineers emergency operations during emergency declarations. David is a GIS subject matter expert with the Corps' civil and the military emergency preparedness programs since 2011 and has participated as an instructor and lead instructor during four GIS training events worldwide. Dave is also an active member of the USACE Wilmington district's emergency commodities team and has been deployed numerous times.

Now additional information about Janet and Dave can be found in their bios posted on the learning exchange along with today's PowerPoint and recorded meeting. We're very happy to have you with us today Janet and Dave. At this time I'm going to give you the presenter rights and enter listen-only mode and then we can begin.

Operator: All participants are now in listen-only mode.

Janet Cushing: Hi everyone, this is Janet Cushing and hopefully you can hear me.

Courtney Chambers: Yes, thank you Janet.

Janet Cushing: So great, great, so again I just wanted to welcome you to this presentation. I'm really glad to see the list of folks who are on this call today and what I'm going to do is I'm going to just very briefly give an overview of the environmental data system and how it came about and then switch it over to Dave who will give you the actual demo. So like I mentioned, what I'm going to do is just give you some context about the environmental data system very, very briefly because there's a lot that Dave has to show you about all the features and then at the end what we'd like to do is get some feedback, you know, if not here then hopefully through emails or phone calls.

So I'll just state right out about the benefits of this data system. The main reason that we had thought about developing this was because of the planning modernization and with smart planning and the need to really condense the time that we might take for planning studies.

And I remember when I was in Jacksonville district - of course this was a while ago - but I remember when I was there I had to go to quite a few different sources to get the information I needed to do the NEPA analyses and documentation and also to assess the current project conditions. And so what came to mind was that if there was kind of a one-stop shopping place for folks to access at least the nationally-available data, then this could save a whole lot of time. We also wanted to make more efficient use of Corps funds and so for example for the NatureServe data, it costs quite a bit of money to go to NatureServe individually and to have them process the report on the species and so one of the things that we've done here is get an annual subscription to the National NatureServe data. And so that data is available to any Corps employee whether you use it through the SimSuite server or going directly to Nature Surveyor but that subscription is available to all Corps employees.

Also getting to the third bullet here, this environmental data system is not a database per se and Dave will go and explain this in more detail but basically the data is kept at the original or primary source and SimSuite basically goes out and queries it so you have the most current data available and you know, this is also meant to support Goal 2 of the Corps' campaign plan.

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So like I said, I wanted to keep this context fairly brief because Dave has quite a bit to show to you on the environmental data system and Courtney at this point if you can give Dave the presenter rights, he can start with the demo.

Courtney Chambers: Yes, he should be set.

David Shaeffer: Can everyone hear me?

Courtney Chambers: Yes, sir.

Janet Cushing: Yes.

David Shaeffer: Great. I'm David Shaeffer. I'm a bit of a SimSuite groupie. I'm not the original developer. Chad Markin with IWR is and he's got some contractors that work with him and help him with the software development. I've been doing a detail with Chad for the past four months and he asked me to give this presentation. You know, SimSuite is a Website. Now let me switch over to my desktop so you can see my desktop. Hopefully everybody can see that.

So you know, it's basically a Website so I provide to our project managers here in Wilmington a link, a shortcut to the Website so that they can just, you know, open it pretty easily like they would any other application.

So when you go into SimSuite it's going to take - for the first time you come in - it's going to take a second to load and you're going to get, you know, a Website that looks like pretty much any other Website. And I'll go briefly over kind of what you're seeing here. There's a Home tab. It kind of gives you the different Corps business lines and I'll talk a little bit about that more in just a second. There's a Data tab. This Data tab allows you to add data to SimSuite and to the viewers within SimSuite.

SimSuite like Janet mentioned is not necessarily a data provider. It's a data viewer so essentially what you're doing is you're linking-in to other datasets. Many of these datasets are located on the servers of the primary source which can be very valuable.

Nice thing about SimSuite is you're getting live source data and it's coming relatively quickly so you don't have to manage the GIS data on your servers. Also there's a My Favorites tab. If you see add bookmark, you can basically select that button and you'll get a list of your favorite viewers will populate in that tab.

There's also an Activity tab. That'll tell you about, you know, who's added what, layers, you know, what viewers have been updated lately. There's a lot of kind of current news that will populate there. There is also a Resource tab that'll give you a little bit of information about FAQs for SimSuite, CorpsMap, ImageLink, IWR links, things like that.

So I want to go back into the Home tab and talk about that a little bit more. There are basically like I said you're looking at various different business lines within the Corps and these are launching points to various viewers that have been setup by Corps staff throughout the country for various reasons.

There's two options when you go into any of these business lines. You can either browse existing viewers or you can create a new viewer so for example if I click browse existing viewers, I'm going to see pretty much all of the EM common ops viewers that have been created for this particular business line. It allows me to open the viewer or I can add a bookmark so it'll populate in my Favorites tab so let's go into the create a viewer so if I wanted to create a new viewer, I would first contact Janet or Chad at IWR and get an administrative login because you do need that to be able to create a viewer. So once I have that I can type that in to SimSuite or into the login interface and you're going to get this dialogue that tells you do you want to create a blank viewer or do you want to create from a template? And what the templates are essentially someone has gone in and found a number of datasets - data layers that would be useful for a particular business line and you can go in there and instead of having a blank viewer and having to add all the layers into your viewer, you can have a template to start from.

And this asks you to create a title, subtitle, summary and once you hit the submit button, you're going to essentially get - and I won't do it, I already set one up - but you're going to get a viewer like this.

So you're going to launch into your brand new viewer and I won't get into too much about adding layers via the administrative interface. I want to get into more of the features of it. I'll point your attention to the top of this. This bar at the top is common to pretty much all the SimSuite Websites so I can return to the portal by clicking on this button. It's going to take me back to the last screen I've seen. I can go back into the current viewer.

If I want to navigate between viewers that I've viewed recently, I can do that. I can go to a regulatory viewer, I can go back to our demo viewer for the environmental data systems so that's useful. You can go to a previous version. There was another previous version of SimSuite if you care to do that, you can do that. There's a contact us which is going to get you to Chad Markin's email and also (Doug Logsdon) who is the - he's the primary software developer - he's a contractor. If you have any bugs or any issues that are coming up with SimSuite, that's what you want to use to send and let Chad know there's a bug and they're really great about getting in there and fixing it really quickly.

So I guess first I want to talk about the interface in general. This is a Web mapping application. You've probably seen these before, you know, municipalities manage them for their parcel data and their county-level data.

You know, the CorpsMap is an example of a viewer, you know, this viewer is special in my opinion It has more than just the common functionality than just a regular viewer and we'll go into that a little bit more in a minute.

But as you can see there's common features like a scale bar, you have your map window, you can pan around, you've got a rotation where you can rotate the display. You've got some different navigation tools. We'll go into that in a minute, some different tabs that do various functionalities, print, PowerPoint share. There's lots of different things I'll go into that.

I guess first I want to talk about this layer - excuse me, this tab bar here which you can expand and close using this button. This is where all of your base maps and your operational layer, your legends are going to be found so if I don't want this Bing map roadmap, you know, I can select from all of these different base maps to view.

So let's go and we want to zoom to a particular location. I picked for example a project - for example I have a project - near Wilmington. I'm going to enter the coordinates. There's also if you look up there where on this bar there's a Web search where you can do a Web search and XY coordinate and then also a location geocode. So you can put like, you know, Wilmington, North Carolina and that will come up. I usually use the XY coordinates because I usually have them so I'll do that. I got to get my cursor on there so it's going to take me to my project location in Southport, North Carolina.

Like I said I can change my base maps to whatever I want. The second tab and I'm going to spend a good deal of time right now on this because this is one of the areas you'll use most frequently so you have this little interface, it's basically if you've used ArcMap or any other Web mapping application, you have a list of layers.

You can turn them off and on to view different data sources. That's what this is. You can clear all layers that are enabled, currently enabled. You can filter layers based on geographic region. You can add different data sources if you'd like and those'll go away after you close and reopen the browser unless you're an administrator. You can save them in there.

If you find a data source, it can be added through that or through the main portal interface. Also if you need to reorder the layers, if you have a base map, an image and you want to see parcels drawn over it and it's currently under it, you can move up the different layers by, you know, using that interface.

So a little bit about these layers and I'll talk a little bit about the data. I told you about templates before. Templates have a lot of layers already added to them and in terms of the environmental template, they tried to put in layers that they thought the environmental community would need for NEPA analysis and that type of things. So you can see there's these groupings and then there's subgroupings with various topics and various data so for example, you know, I want to look at some habitat data, here's some of the data sources that are available, you know, critical habitat, from U.S. Fish and Wildlife and that's a direct link to U.S. Fish and Wildlife.

So if you left-click on it, you're going to get a source, a minimum. Sometimes you can get more. It depends on the type of layer that it is but there's a source link which'll take you to the actual source. You see that's coming from Fish and Wild - of course that doesn't work when I try to use it - let me try to find another example of something that's working.

So here's the NOAA Website for marine mammals and sea turtles so, you know, we're linking-in directly from that database and we're getting, you know, here's the data there and you can query it.

We'll go into this a little bit more later but there's an identify feature button like there are in most other Web mapping applications where you can click on it and depending on your Internet connection, I happen to have a very slow Internet connection.

It's faster for some people but you can essentially drill down into the actual attribution of that data and that's probably not the greatest example. There's, you know, I'm in North Carolina so even though this is a templates, you know, I know that David Shaeffer, you know, he's really into SimSuite so he adds data all the time in North Carolina.

So maybe Dave has added some natural heritage data or something like that and maybe he updates that so nice little feature of this, the Layer tab is to be able to do a search so if I want to search for NC natural heritage data, I can do that and basically the really cool thing about his is you're not just searching, you know, a couple layers.

You're searching, you know, hundreds of layers that have been added by dozens and dozens of people throughout the Corps throughout the country so the more people use SimSuite, the more useful it becomes because more datasets are added to it.

So if I add this natural heritage data, I'm going to get it and it's pretty quick. You can see that's coming directly from our servers in Wilmington because we serve this data because it's proprietary kind of sensitive data that they don't serve out to the public.

Nice thing you can do you can change the transparency of the layer so if you want to do that, you can change the transparency. Nice thing, something we do pretty frequently to document our permit actions here and is basically pull up the critical habitat and the natural heritage data and see what's there.

If there's something there, what you can do from there is you can use this print dialogue and the print dialogue is going to give you - let's see - it's going to give you a number of options.

You can print to your printer. You can save it as a PDF. You can change the size of it and the orientation of it. Let's see. No, that's what I want. Sometimes you can change the title of it so if you wanted to say this is your ESA report or something like that, let's see, my legend's not popping up the way it should.

Sometimes this doesn't always work but what we should be getting - there it is - so you see there's a legend that gives you the different indicator statuses and

you can go and save that as a PDF, stick it in your file for documentation so that's a nice feature.

Another cool layer that we have at least in North Carolina and I encourage, you know, folks that are interested in these areas to go figure out what data sources are available. Let's see, for Section 106 compliance we have a direct - we work with the State Historic Preservation Office here in North Carolina - and we link directly in to their historic properties database.

So we're getting - if we got a source - and we go in here you're going to see that this goes directly to the State of North Carolina's data source so I'm getting all the National Register, study list, determine eligible local landmarks, all that stuff is right here.

You know, if I have a project right there and I need to consult with the SHPO, then I want to be able to, you know, print this out, put it in my file and then document it from there. If you want to know about information about this again about this particular property, you can use the identify tool again.

And that's going to go back to that SHPO database and say I want to see the attribution or the data that's behind that particular feature and like I said, it depends on your Internet connection how fast you get that back.

I have a particularly slow one so mine doesn't come back as quickly so other things you can do with the layer. Depending on the type of layer if it's for example if it's blue like this, there's more options. You can actually label it based on features on the attributes so if, you know, if you want to name it based on the name, you could do that for the critical habitat. You can look at some of the attributes tables so there's a lot of things you can do. I don't want to get too much in the weeds there. I encourage you to play with it and if you have questions, you can certainly either contact Chad. His email is there from the contact button or you can always call me too so that's kind of the Layer tab in a nutshell.

Here's also this is the legend button which'll essentially allow you to see a lot of the symbology and tells you exactly what these symbols mean. The final thing we have here it's a real time layers button.

It's not probably particularly useful for doing any type of NEPA analysis or environmental review but you can if you need to look at the weather radar satellite for the day that you can go there. It's animated.

Some of the other layers that you get into, we have wetlands so if you want NWI, let's clear it out. If you want to look at NWI data, that's available in there. You can change the transparency of that. We've got let's see watershed data, surface waters, there's the NHD dataset and sometimes these layers are going to have sublayers that you can enable or disable.

If you notice there's a little icon that tells you that it's loading and it's thinking. You know, I guess depending on how fast your connection is and depending on how fast the servers are that you're acquiring the data from, how big the area is that you're asking for data from, you know, is going to depend on how long it takes.

This NHD dataset comes from EPA so sometimes it can take quite a while depending on the day and the time of day so usually it's quicker than that but, you know, it's going to vary like anything else. Other datasets in here you may be interested in coastal flood zone data so you can see where the flood zones are.

Let's see, there's a ton of different layers. It's hard to go through all of them, soil data, we do have our ORM regulatory data loaded in here. It works sometimes. It's a little bit - we're working on improving that feature - but most of the time you're going to be able to get the ORM data.

You can't really query it yet but you can view where regulatory projects are. Let's see, there's some water quality monitoring different types of layers, land classification, national land cover dataset, the Fish and Wildlife some of the conservation boundaries and there's a ton of other things.

You can just do a search and find, you know, Congressional districts, you can find lots of different types of layers and if you're administering a viewer you can add those layers - you can search for them and add them - as you like.

You can also go back to the portal and you can add the data from here to your viewer or you can add a new layer so if we go back into there so let's talk a little bit about some of the other the standard toolbar.

You have some of your standard features, the home button so you can go to your original extent. I'm the administrator of this viewer so I set it at whenever you first load it, it's always going to be viewed to this particular location. If you change that, you can hit the home button to get back to that particular location.

There's also some buttons that allow you to go back and forth between extents so if you accidentally pan over here and you want to go back to where you were before, you can just hit the back button, the forward button, pan and pan of course I think a lot of people are familiar with, zoom, this allows you to zoom in and zoom out.

Okay, I'm going to go over a couple of these, not all of them. There's the draw which can be really handy so if we have - oops, let's go back to the pan - also I should note that if you use your scroller on your mouse, you can zoom in and out. That's what I've been doing most of the time so the draw toolbar.

The draw toolbar allows you to create graphics within the map so if I am - if my project area - is located here and I want to put a point here and I want to know if there are any species listed in the natural heritage database within two miles of this point, I can use this buffer tool in the drawing toolbar to specify two miles.

I'll click on my point that I just created and it will create a buffer for me. I can click on this graphic and I can edit it. It'll tell me the perimeter and the area. I can edit the symbol so I can edit how it looks if I want to change the color, if I want to change the transparency of it.

Okay so, you know, for example if I'm looking to do a let's see natural heritage or a ESA looking for ESA species within that two-mile buffer, I can load-up my natural heritage data or my critical habitat data, change the transparency.

Looks all right I guess. You could probably make it prettier but and then you can go to the print function and sometimes this doesn't work. That's a bug they're working out - there it is - so if you play around with it usually you can get it to work but this'll give you your, you know, 11-by-17 landscape and then you can stick that in your file, change the title, do what you need to do.

Let's see, let's clear that out. Also under the draw tool you can do poly lines, polygons, labels so if you need to label something, you can label it. Also a cool feature is if you want to save the graphic that you've created, you know, maybe in a folder on your desktop you can save that and then at a later time - use the save button here - and at a later time you can go back to that location and then open your graphic back up.

So also the measuring toolbar. If you've used a Web mapping application, you've probably seen these before. It allows you use poly lines, freehand poly line, extent polygon to do different types of area and linear measurements so it's pretty standard.

You can change your units to whatever you want and, you know, do the measurement and it's going to give you the length or the area or whatever you're asking for. The other thing I showed you this a couple of times, this is the identify tool so if you have, you know, a layer loaded-up you can just go and see what it is.

So if I want to know this is red and red means it means E so I go into my source and then I look at the source data and I find out that E means endangered species so I want to know what that species is so in theory you're supposed to be able to click on it but like I said my Internet's pretty slow.

You'll probably get a better result from it. It'll eventually come up but sometimes it can take, you know, 30 at most 30 seconds so usually it's quicker than that if you're not in a field office like me.

I won't go too much into select by location. That selects features - layer features - within a certain area of interest. Like I said, I won't go too much into that so here's what we came up with, the species that we came up - shortnosed sturgeon - endangered there so that's what I get with the identify tool button.

Swipe, I won't get into that but, you know, if you have questions about some of these other functionality I can certainly I'm happy to talk to you on the phone. Okay, so next I guess we talked about the search, PowerPoint. We haven't talked about PowerPoint.

So if you have a presentation you need to give, this is a nifty little feature that allows you to capture different views so if we want to do a capture there, it gives you a little snapshot noise, I don't know if you heard that and then you can keep doing that.

It's going to copy the legend, it's going to copy the image for each time you press that capture button, then you can, you know, you can download it. It's going to basically give you a Zip file. It's going to have the legend symbology and the images that you can use to insert into a PowerPoint presentation.

So this is my favorite part, the application library. I think I've covered - oh, one more - the share button. The share is really useful. I use this a lot because I don't always want to start from the portal. I want to go right into my application, I don't want to have to click into the portal and open a view every time.

So or maybe I want to share what I'm looking at with another project manager so what it does is it creates this custom link to that particular viewer so if I'm to open this - hopefully it'll open up in a browser, it's loading - or maybe I'll copy it. So what it should do is it should take me to the exact location where I was zoomed with the layers that I have loaded though it's we're resuming and it looks like the layer's enabled. It just takes a second for it to come back up so transparency's not there but you can fix that so that's a way you can share your current view with someone else.

So to the applications. Now the applications are pretty cool because essentially we've got this application library and there's a handful of different applications that the SimSuite team has developed for various purposes.

I came to Chad at IWR about, you know, saying I want a SimSuite viewer about a year and a half ago and he set me up within five minutes and I said well, you know, what'd be really cool? He showed me this application library.

I said it'd be really, really cool if we could have something that, you know, when we clicked on a particular property, it would give us a list of what water bodies if a water droplet dropped at a particular location, where that flow route and what are the named water bodies.

So when we're filling-out some of our forms, we can more easily get to that information so what I'm doing here is I'm selecting our application - it's the downstream route application - and this uses the NEPA USGS EPA well excuse me, the USGS EPA NHD waters lines and well that wasn't a very good example, was it? Here, let me clear that out.

I probably should go further inland to make it more useful so basically what you're going to get is - let's see here - it's going to ask you to click a starting point so if my project's here and I want to know where that water's flowing, it uses NHD catchment and NHD flowline data to - let me try this again - this is in beta so of course it's not going to work for me today. Let's try a different area so basically I clicked the point where I want to figure out exactly where that water droplet's flowing from and to and it should give me a numbered list of named water bodies and then you can click on those water bodies to navigate from one point to the other.

So here you go, you can see it's telling me that it goes from Moore's Creek, Black River to the Cape Fear River and then to the ocean so that's a handy application that you might find useful.

Also another application that we asked them to develop was the NHD-plus catchment report which is neat because essentially you're looking at the NHD line data right here and the question that this asks is if I click on a particular point online, I want to know all the (catchments) that flow to that particular point.

So if I click on this point on this stream, it's going to essentially automatically identify all the catchments that drain to that particular point and then it's going to highlight and as you scroll over them here on the left, it's going to tell you which catchment and the catchment number.

And then you can go in and click on it and you're going to be able to view the EPA watershed characterization reports. It's going to tell you a little bit about that particular area.

Janet Cushing: Hey Dave, this is Janet. I'm just keeping an eye on the time so we just might want to make sure we have time to hit the environmental app and the NatureServe app. David Shaeffer: Okay, let's do the environmental app - I appreciate that Janet - so the environmental app, this is a cool one too. Essentially let's go to Raleigh and I'll do this quickly. Easy to get out of hand with this application.

> You can play with it all day so if I want to know essentially, what type of environmental data layers are available to me for a particular area, I can specify a particular extent or point or buffered area and basically it's going to go out and do a query and identify all these different layers that you might be interested in in terms of environmental analysis or documentation. So impaired water lines, impaired water areas and gives you just what you've specified so you can then go in and if you want to export it to a shape file, you can do that. You can look at the attributes so that can be a nifty feature if you're trying to extract certain datasets or data for a particular project area and let's see so that's kind of what that does.

> The - do you want to go planning kick-start - let's do that so the planning kick-start tool is a way to essentially create so it's similar to the environmental data but, you know, you're essentially identifying an extent.

So if we say this is our project area, it's going to go and do a similar query and give me - find us some information - about that particular area that I can use for my NEPA documentation. I can then once it's done querying - it's querying now - I can export that information out in the form of a PDF report.

Give it just a second and then it also allows you to use that as kind of a launching point to create a viewer. Janet, maybe you can discuss since I know you had some involvement with this but basically you can generate a report.

It's going to give you some demographic information, you know, the district, division, the Congressional district, the state, county, what watershed it's in and then you can save it as a report to a PDF.

- Janet Cushing: Yes, actually (Aaron Rooks) is the one that has been instrumental in developing this so I was more involved in the environmental app and the NatureServe app.
- David Shaeffer: Okay, so it gives you a little bit of information about that particular extent and allows you to turn layers off and on. You can also create a viewer based on that as well. I won't get too much into that.

The other feature is the NatureServe which Janet mentioned and I'll be quick but you have to get setup on a login and Chad Markin also approves that. Who uses that? Well, I'll do a quick demo of this. You can either select by a custom extent, a county or a watershed area.

So if want to select Raleigh - the county that Raleigh is in - basically what this is doing is it's reaching out to the NatureServe database and it's going to give you a species list for all that - for this particular - county and you can see where it says querying report.

It takes a little bit of time but you're going to get essentially a list which you can export of species and their global health status as well some other information that you can export and use as you need. I'm going to let that do its thing. There's also Google Street View which is kind of nice - I'm trying to think - the elevation profile.

This is a tool I've developed. It allows you to do elevation transects for various areas. You can save the profile. This is most of the U.S. you're going

to find 10 meter resolution. You can save it as an image or you can export it to an Excel spreadsheet so you can also rescale the axes and things like that so you might find that useful. One other thing I want to note before I stop.

There's also if you right-click on any location on the map, you can copy the coordinates if you wish for that location. That's a handy feature. Also the location query feature is going to for that particular location it's going to give you various information depending on Congressional district, Corps district, FEMA region, Corps division.

There's also watershed info so if you need to know information on what the HUC is and the different levels of the HUCs you can get that pretty quickly, demographic information and it's doing a query out to various data sources every time you're asking for this information so and then there's an elevation data where you can get some information about the elevation at that particular location so here's the result we got back, the three listed endangered species.

You can go and say more information, I want to know about what that species is and I want to see an image of it. There's also some partial statuses which is probably like a federal species of concern or a proposed listing I would assume and then that gives you the rest of them that don't have any type of federal status.

But they may have, you know, they may be listed in NatureServe data as threatened so Janet am I missing anything? It's really hard to cover everything. I tried to cover as much as I could in the brief time but I could go on for days with this. Janet Cushing: No, yes, this has certainly been kind of a whirlwind tour of the environmental viewer and I guess, you know, I just want to make it clear in terms of getting permission to access various systems is let's say for the NatureServe data.

In order to do the query, you have to pretty much sign-up through NatureServe and there's a way to click on a link from here to be able to do that and what happened when you click on it is it takes you to the NatureServe Website and it has you go through this tutorial about the NatureServe data and then, you know, you get registered in NatureServe for being able to access it.

In terms of getting access to the system, I'm just looking at (Ellen)'s note here, you only need admin rights if you want to create a viewer. You do not need admin rights to be able to use this.

You can go, you know, if you have a Corps computer you can go to this Website without any kind of admin rights and just start using it and it's only if you want to create a particular viewer let's say for the district or if you want to upload your own local data where you need to use your name.

David Shaeffer: That's right so in Wilmington we have our own little viewer and all our project managers - I'm the administrator of the viewers - so I add all the layers, I search for the layers.

If somebody says hey, I found this cool data source, you know, I go and add it for them into the viewer so see and if you have somebody that's really good with GIS and, you know, knows about the data sources and stuff, they can administer one. It takes literally a couple of minutes to create a viewer. It's almost instantaneous once you have an admin account so...

- Janet Cushing:Yes, but you can like I know you can still create a map that you export to a
report or to PowerPoint or whatever without having those admin rights.
- David Shaeffer: That's right, that's right, anyone can do it.
- Janet Cushing: So I did just really to make that very, very clear.
- David Shaeffer: You can go into the regulatory viewer that we use and you can go look at, you know, live parcel data, you know, for your house if you live in North Carolina or in Wake County and you can go and get the parcel data.

This is actually a live connection to parcel data in this particular county so, you know, it's up to date all the time which is a nice thing about it. It's a primary source so and that's a lot of the data is like that.

- Janet Cushing: So Dave maybe at this point if you can I guess unshared your desktop and go back to that site.
- David Shaeffer: Absolutely.

Courtney Chambers: Okay, and I'm going to return us to interactive talk mode so at this time if anybody - well Janet - you can continue.

- Operator: All participants are now in interactive talk mode.
- Janet Cushing: Yes, so David can you advance to the last slide?
- David Shaeffer: Oh yes, forgot that, okay, there we go.

Janet Cushing: Yes, so just to kind of close this I guess presentation part, as far as what's next, there's a number of things. One is we hope to hear from you and your colleagues about what other types of data you would like to see in this viewer.

Certainly if there are national-level that's pretty easy to get and we're actually working with USGS still to try and get some of the information that right now is behind some of their firewalls so we're trying to work through that.

We're also working with Jon Lane in Jacksonville district and the person that he's working with - I think at the University of Georgia - to get the invasive species data, you know, as far as being able to view that data in SimSuite.

As well as the national wetlands plans data. That's also out there so, you know, we imagine that this is going to continuously be updated as more data becomes available so certainly if there's particular data that you can recommend we try and gain access to, we will do that.

Also if there are other apps or capabilities similar to, you know, what Dave showed you with the environmental app or NatureServe or the water droplet app, if you have any other apps again we'd like to hear from you on what would be most useful to you as well as in general what would make this more user-friendly and useful to the field.

And one of the things that we do plan on doing - two things really - is one a more formal beta testing of the system and Jae Chung who is now the Project Manager for this environmental data system and he's sitting right here next to me, he will be sending-out a survey to folks who are interested in being beta testers. And if you are so interested in being a beta tester, just I guess you can just send me an e-mail and I'll just - I'm in the Outlook box - but just in case you can't access that for some reason, I'm just putting it here in the chat box so you could send it to me or Jae Chung and we will get you hooked-up for being a beta tester and there is some funding for you to do that.

And then we also want to do more detailed or in-depth user training because, you know, with what was shown here it's kind of a whirlwind and we just kind of threw all this information at you.

I know when I first saw all the capabilities, it took a while for me to digest everything and play around with it and get used to how to do certain things and so we'd like to do more capacity-building and training for this because it's like I said it's accessible to any Corps employee so Dave or Jae, do you have anything else to add?

- David Shaeffer: No, thanks everybody for your time and we are working on other applications, you know, for various different environmentally-focused purposes so, you know, this viewer is continually evolving. There's a lot of people that are really engaged in improving it so we do appreciate feedback for sure.
- Courtney Chambers: Great, well at this time let's go ahead and open it up for some questions and we've received a few from the chat feature but if anybody else has a question, you're welcome to unmute your phone line and speak up and we'll try to address that. Okay, Janet I see you have just a few from (Andy) early on. It looks like you've taken care of those.

We had another question from (Ellen) just inquiring that if we have Corpswide access to the data, why is the permission access requested rather than it being available to all USACE e-mail addresses?

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- Janet Cushing: Yes, and I hope I have addressed that. You don't need special permission to access the data viewer. You only need a username and password if you want to become an administrator and be able to create a viewer and to upload data.
- Courtney Chambers: Got it, all right, thank you very much. Okay, and then (Ashley) had a question. Is the overall intent to kind of an easier viewer of ArcMap?
- David Shaeffer: No, I don't think that's the intention but the intention is to duplicate ArcMap because certainly you can actually incorporate in an application pretty much anything that ArcMap can do but it's not always going to be, you know, the best idea to do that.

Really this tool allows you to quickly get at data, you know, in a kind of a dynamic manner. You can add the same datasets and link to them in ArcMap. The problem with a lot of places, you know, various Corps offices is that the infrastructure, the connections to servers and things like that are not good enough to have very quick viewing of the data.

So this is a way that you can much more easily view data and consume data without having to open up ArcMap which is quite a memory-intensive program so, you know, you get it right there quickly in a browser and it's very fast and that's what makes it - one of the things that makes it special - is that it's very fast and you can view data but you can also do custom things with the data but it's not definitely not meant to mimic ArcMap or ArcDesktop.

Janet Cushing: And from my point, me the overall intent was to be able to provide fairly easy and quick access to environmental data for folks like me because I am not GIS-savvy in any stretch of the imagination but I can still use this viewer to get at the environmental information that I would need for at least the desktop research of a project.

Courtney Chambers: Great, thank you guys. Are there any other questions this afternoon? Just a reminder to take your phone off of mute before talking

- (Andy Wishawan): A quick question from (Andy Wishawan) in Jacksonville. Does anyone know how this relates to there used to be a regulatory Internet mapping system that had some of these same layers that was I think organized maybe with headquarters in IWR? I think it was called like G-ORM like geographic and I think operations and regulatory...
- David Shaeffer: I'm not familiar with that (Andy) but we do within ORM currently in regulatory - we actually use CorpsMap and it's a viewer. I mean, it doesn't have the same functionality as SimSuite but there is a CorpsMap viewer within regulatory's ORM entry...
- (Andy Wishawan): Okay.
- David Shaeffer: ...that you can basically digitize points, lines and polygons for project and water locations so, I mean, there is a it's a CorpsMap implementation.
- (Andy Wishawan): Do these two sort of interact at all or...
- David Shaeffer: If you remember I showed you kind of the ORM project location and project waters data, layers so that it interacts in that it can view ORM data within SimSuite.
- (Andy Wishawan): Got you, all right. Thank you.

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David Shaeffer: Sure.

Courtney Chambers: Any other questions? All right, well that sounds good. We're right up at our endpoint here. I want to thank you Janet and Dave for taking your time to present with us today. It's a valuable system and I'm sure it'll have a lot of applications for our planners and such. Do either of you all have any final comments before we wrap up today?

David Shaeffer: I don't.

Janet Cushing: I just want to thank everyone for taking time out to see the presentation and this demo and again if any of you are interested in, you know, being a formal beta tester for this, we are looking for folks and we'll set you up.

Courtney Chambers: Great, that sounds like an exciting opportunity. Thank you very much guys. I would like to remind our participants about our next scheduled meeting. That's going to be Tuesday, March 25th on modeling interactions of flow and riparian vegetation for improve riverine ecosystem management and that'll be by Billy Johnson and his team here at the Environmental Laboratory.

And again thanks for joining us today. That's what makes these Web meetings successful so please watch for future announcements and I hope you all have a wonderful afternoon.

END