Moderator: Courtney Chambers
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12:29 pm CT

Courtney Chambers: Let's go ahead and begin at this time. Hello, everyone. My name is
Courtney Chambers and I work at the ERDC Environmental Laboratory and
Technology Transfer for Ecosystem Restoration and I'd like to welcome you
today's meeting updating us on NatureServe and SimSuite. It's going to be
presented by Erin Rooks, Paul Wagner and Chad Markin.

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the Ecosystem Restoration Planning Center of Expertise is designed to address
a variety of topics including training, lessons learned, research and
development and emerging issue.

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click on the link in order to register for the webinar and that enables you to
add it to your Outlook calendar. Then you'll also be sent a reminder the day
before the presentation itself.

Okay. Just a few notes before we begin today's session. We will have 10 to 15
minutes following the presentation for questions and answers. Please
remember that before asking your question verbally that you take you phone
off of mute or you can utilize the chat feature in the lower right hand corner of
your screen that acts us an instant messenger type of tool and we will cover as

many questions as time allows but if we do run out of time I'm sure that you can contact Erin and Paul or Chad via email for any remaining items. Please remember to keep your phones on mute while you're listening in and please do not put us on hold with background music to minimize distraction and then lastly here, in order to have more comprehensive list of attendees I ask you to take up just a minute and write the names of your attendees in your group in the chat box and you can send those privately to me and that is one more aspect about the chat feature I want to inform you of. You can select who you send that message too. So if it's a question regarding the presentation you can send that to all so that we can all see your question. However, if you have a question regarding a technical component of the meeting, you're welcome to just send that to me privately.

Okay. At this time, I'll give today's speakers on NatureServe. Erin Rooks is an economist and project manager for the US Army Corps of Engineers Institute for Water Resources in Alexandria, Virginia. Ms. Rooks has worked extensively with the planning and economics community. Some of her current activities include IWR Planning Suite, the National Economic Development Manuals and Web site, the Corps Risk Analysis Gateway and the Planning Web site. Prior to coming to IWR, she worked in Omaha and Jacksonville districts on Ecosystem Restoration, flood risk management, and navigation activities.

Paul Wagner currently serves as an ecologist and a group manager at the US Army Corps of Engineers Institute for Water Resources. His work at IWR is varied and has included developing decision support tools, working on domestic and international wetland issues, project and program management, climate change and collaboration with other federal agencies and NGOs.

Prior to coming to the Army Corps of Engineers he was a research ecologist in EPA's Office of Research and Development. He also served as a senior aquatic ecologist for The Nature Conservancy's South Central division. While at the Nature Conservancy, he worked in conservation planning and in a State natural heritage program. His experience in a natural heritage program is what prompted him to initiate a collaboration with NatureServe.

Chad Markin is a Senior Geospatial Data and Systems Manager at Army Corps of Engineers Institute for Water Resources and serves as the Project Manager for SimSuite. Chad's work focuses primarily on Emergency Management and Flood Risk Management Communities of Practice throughout the Corps of Engineers in the development of analytical and geospatial decision support tools. Chad also provides GIS support for several of the Corps national planning and response teams, USACE Headquarters Operations Center, and Emergency Support Functions 3 Cadre. Chad has also deployed to numerous natural disasters providing GIS support and guidance to FEMA during response and recovery missions. Additionally, Chad is a member of the Federal Geographic Data Committees, Iowa Geographic Information Council, the National Historical Geospatial Data for Reservation Committee, and was a modeling team member in developing the geospatial data standards for the Department of Defense.

More information about Erin, Paul and Chad can all be found in their bios posted on the learning exchange with the rest of today's meeting documents and we're very thankful for their willingness to share with us today. Okay. At this time I'm going to give the presenter right to Erin and Paul and we can begin.

Erin Rooks: This is Erin Rooks from IWR, I want to thank everybody for joining us today. I think that what we're about to show you today is very relevant to a lot of

works that we do across the Corps of Engineers and working with other agencies as well. Personally, I'm a planner and also an economist and when I saw the materials that are going to be presented today I thought that this should be shared with the community because it would be helpful. I think planners and aquatic ecosystem restoration specialist, those in environmental stewardship and elsewhere in the Corps made fine use of this.

So with that said, we're going to cover several topics today. The first is what is the NatureServe data and how do we access it. At the Corps, we have a subscription so how do we register in order to get access to this information. Additionally, we provide some example searches and how to use the features within the NatureServe viewer itself, then we'll move on to talk about SimSuite and how this data has been incorporated into this Corps application among other tools.

So with that said, I'd like to turn this over to Paul Wagner.

Paul Wagner: Thank you for your time everybody. So the reason we're talking about NatureServe today is because NatureServe manages the most comprehensive database and scientific information about rare and threatened plants, animals and ecosystems in not only the US but also Canada. They, in fact, have detailed records on more than 900,000 maps locations of at-risk species and they also keep extensive arrays of information on more than 66,000 species and almost 6,700 habitat.

Now, the data that they have really comes from a network of member programs operating throughout much of the western hemisphere and either things like state heritage programs, department of natural resources and other programs that employ natural heritage biologist to collect, analyze and distribute detailed scientific information about natural heritage.

One important thing to remember is that the information - this information is built on the rigorous scientific method in quality control developed collaboratively through natural heritage programs over the last 35 years. So there is a formal methodology in place for collecting the data, so this is not only the most complete set of data out there. It is also pretty rigorous.

So in addition to collecting this data and acting as an umbrella organization for the state natural heritage program, NatureServe also develops tools and when we spoke last at the seminar, we had presented with NatureServe on a tool that was going to be coming out to which we were subscribing. That tool is now available and that tool is called NatureServe surveyor and so that's what I'm going to demonstrate to you. What I want you to understand is this tool is available today. It's not something that's coming. It's here now and it's only a matter of you getting a subscription and getting trained for you to gain access to that information.

So the first thing I want to show you and can everybody see my desktop?

Courtney Chambers: No. Actually, we're not there just yet, Paul, I've had a few questions about that. If you can go back to the meeting interface...

Paul Wagner: Yes.

Courtney Chambers: And go up to the top menu bar. And if you'll go under share and click desktop...

Paul Wagner: Okay.

Courtney Chambers: Then we'll see what you're seeing.

Paul Wagner: Okay. So you should see the desktop now.

Courtney Chambers: Yes. We do. Yes.

Paul Wagner: Okay. So I can send this out later to everybody. We'll make it available as widely as appropriate but if you look at the underscore at the top, this is the Corps of Engineers' subscription to NatureServe data and it's simply a matter of going through this page and registering. Now, to get a username and password, you have to go through about 10 minutes of training and this training is particularly important because this is a paid subscription that we currently have covered for the Corps of Engineers but because it's a paid subscription, it's not for us to give to anybody. This is for the use within the Corps of Engineers and one of the things you'll have to do is agree to the terms and conditions.

So when you go to the training, it tells you a little bit about how to interpret the data but then also what the terms and conditions are. So please be aware of these when you sign up that you can't simply give away all the data that you want, that there are limits to sharing. Another thing that is available on the registration page is a pretty good guide on how to interpret the data. A lot of people don't exactly understand what they're looking at. What you're seeing are element occurrences - their data that has been embedded through a system and represents particular aspects about biodiversity and ecosystems.

So this guide helps you to understanding exactly what you're seeing. Now if you have questions -- any of you are free to ask or free to send me an email or call me and ask me about data and data interpretation because I did work for state heritage program at one point; however, much of what you need to know

might be in this guide so please be aware that that's available that you can download it once you get your subscription.

One thing we're going to talk about are ranks - global ranks and subnational ranks, and through NatureServe, you can get a guide on how to interpret what this ranks need.

So I don't want to go into too much detail. All of this is readily available. And again if you have a question, you're free to ask. What I want to talk about now is -- a lot of you are probably on the phone for and that is how you access this data. So once you go to the registration process and go to training, you will have a subscription and that subscription could be accessed through surveyor at NatureServe.org, okay. And as you can see, this is my subscription and it's as easy as clicking on survey the map which will take you to a very familiar sort of Google Earth type interface and - so what we have is our geography in the main tunnel and on the side we have a number of tabs and so with the tabs what you do is select the layers that you look at including the ability to add a layer and then here where it says species you can survey U.S. threatened and endangered species, all species with status, candidate species. You can look at all - what are called at-risk species.

So this will include states and federally listed threatened and endangered species and then species that are at peril based on NatureServe ranking. So those are typically things like G1 level species, G2 species, some G3 species and sometimes there are even more broadly distributed in that but there is a reason to be concerned.

The next tab is how we survey. You can survey by county. You can survey by watershed. We can look at the current map extent, one of the nice tools is the radius tool so if you have a project that you're concerned about, you can

survey a radius around that. You also have the ability to draw a polygon around an area and you can also upload a file. So if you want to upload the boundaries of your project, you can upload that. If you want to upload a 12-digit you can upload that. So you have a lot of flexibility in how you survey the map. The one thing I will say is the importance of things like getting this into SimSuite and something like Corp Map is that what you're seeing here does not have the Corps of Engineers context. It's built without that added information.

So let's go ahead and look a little finer detail. Now, when I was with the Nature Conservancy, I worked in - what was the South Central regions and one of the locations I worked in was Texas. So here, you can see the map showing Texas and you could see that we can look at any part of the nation with different types of imagery so if you want to look at the land covering Texas, you can look at a picture of the land imagery. You can look at topographic maps. If you want to know where the nearest Starbucks is in relationship with endangered species, you can look at something like a Bing Maps but the opening view you will get is the National Geographic Map.

A couple other things there are some tools built in. They're fairly basic but they can be useful. There's a measuring tool. So you can go to the measuring tool and draw a line from your polygon of interest to some feature like a major city. There is an inquiry tool -- zoom in, zoom out -- so a lot of the very basic standard tools you see in these types of interfaces. So let's go ahead and do a query. Now, I will say that we have an unlimited number of queries, it says surveys remaining. It's always going to be a high number, it's unlimited so use this as you see fit. You're not going to wear out our subscription. But let's go ahead and make a query at the (unintelligible) scale and we do that by simply clicking on the map and telling it the selection of the map and what it does is it goes in and it queries the database.

Now depending on your area of interest, that will determine sort of the time it takes to get a return. This one might be too big to do quickly. Let's go ahead and try a smaller area. So we'll use the radius and do a 5-kilometer query. Okay. So what it's done is it's drawn a 5 kilometer radius around my area of interest and so I'm interested in this little slow here and - so I pulled the query at a 5-kilometer radius and it asks you if you want to run the report so you tell - and what it does is it looks at all the element occurrences in that area.

Now one important thing to understand is that the amount of information, the detail of the information you get back varies by spatial scale. So if it's a relatively coarse scale of inquiry you get what you see here which is all the possible information, you get the scientific name, of course all the legal listings, major taxonomic groups. So this is the most detailed information that you can get on the return. These are hyperlinks so if you want to know more about the species something like this Leon Springs pupfish which is a federally listed endangered fish, you simply click on the species and what it will do is it will take you to NatureServe Explorer.

At NatureServe Explorer, you can get a lot of information, taxonomic information, information on the conservation status, information on the broader known distribution so you can see this thing is not widely distributed and you can a get a lot of other information on life history, natural history and other things that might need to go onto some sort of report or assessment.

The other thing that you can do from here is tell it to print a report with the map. So if I do that, what I get back is a little bit more detailed report that provides me a map of the area that I query, X, Y coordinates. More detailed information on the element occurrence so it tells me when it was last observed, and what the population viability was.

One very important thing is that it tells me who the data steward is. So there's a limit to the amount of information you can get from the subscription but the state heritage program might have more detailed information that's important to you. So you're not prevented from getting that, you just can't get it through the subscription. So what they do allow is for you to contact the data steward so that if you need to know an exact X, Y location of where the species is you can. If you want to know more about the record you can get that information. If you have some sort of management issues, you can contact the data steward.

So while there are limits to the information that you can get back, they do provide a lot of connections to more detailed information. Now as I said there is a limit to the information that you get and it changes by scale. So here we had a 5-kilometer radius. If I change that to say a 2-kilometer radius and I do this - a query on the same area, you'll see that the information return is different. So instead of telling me geos and species, what it tells me is that there is a G1 species, a G2 species, there's a federally listed threatened species and other information without telling me exactly what the species is. And that has to do with agreements with the state heritage programs and how they're funded and the authority over those data. Again, NatureServe is sort of an umbrella organization. It's the state heritage programs that are going out and sending out biologists to confirm the species are there or not.

So having said that, this surveyor shows you most of the data that's available. There are a few states that don't yet have the agreements in place and you can see those here. So a couple of states they're still working on getting the agreements in place and there are a few of the Indian Tribes that don't yet have agreements in place. Aside from that, it is nationwide with the exception of the grayed out areas you're seeing here. Now for a lot of you, this is going

to be useful for others you're going to need to know the Corps context and what NatureServe has done has made this available not only in this form but as a web service that can be pulled into other geospatial tools. So things that sit behind the Corps' firewall can pull these types of data in and display by making linkages with the web services and the tools that NatureServe provides.

And so one of the things that we've done is started to make this available in SimSuite and we're working with (Nancy Blyler) in Corps Map to do the same. How exactly that's going to happen, I'll let Chad talk about it because I'm a biologist and I'm going to quickly get beyond my area of expertise as Chad will attest. So with that, I'll ask Chad to come online on the phone and I'll pass back control to...

Chad Markin: Okay. Thanks, Courtney. Thanks, Paul. So, yes, as Paul explained I think it's been a couple of months ago now when I was out at the (IWR) at Paul's office, you know, he informed about this great subscription I didn't really know a whole lot about it at the time but I definitely saw the usage throughout, you know, not only planning community and environmental community but also within flood risk management and emergency management. So what Paul has kind of - requested of me was to, you know, he knew it could be done as far as incorporating NatureServe data to sort of internal, you know, USACE context sort of application.

So we've actually done it a couple of different ways. We've done that in Corps Map through several web browser base search utilities. And then I also developed a tool that allows users to interact, you know, form queries that sort of thing and SimSuite (unintelligible) their data and be able to see, you know, the returns as well from their queries in the specific areas of interest against,

you know, Corps specific data so whether it's projects or the (unintelligible) projects or you got regulatory from that location that sort of thing.

So I'm going to sort of walk you through. So if you want you can access SimSuite at simsuite.usace.army.mil and what you'll see when that page loads is sort of a flash screen interface. There are several different portals within SimSuite now.

So when you see in the screen, each one of this (unintelligible) it's kind of a portal if you will or a grouping of different viewers specific for that (unintelligible) community. Well, you'll see on the right is, you know, kind of (unintelligible) viewer that sort of thing. Kind of (unintelligible) perhaps in, you know, a linked format (unintelligible) that sort of stuff so and I should say within SimSuite I think we're about 75 viewers right now. They're all user based sort of configuration but the NatureServe tool and all the originals (unintelligible) SimSuite are available within to the viewers so you don't have to go to a specific viewer to execute a particular tool. All those tools are available throughout all the viewers.

So I'll just go over the emergency management (unintelligible) and what you'll see is each one of these icons in the little box is a viewer. So whether it's a district's emergency management viewer or something else, each one of these is a viewer and then if you want to switch between, you know, emergency management viewer, flood risk management viewers, we have a couple of viewers.

So I'll go and demonstrate. So once you select the viewer that you want to open, that will actually launch you in the map. (Unintelligible) I'm going to go through all the tools. I'll hit some of the highlights that, you know, probably most (unintelligible) this demonstration to actually, you know,

launch the NatureServe tool. Up here at the upper left hand corner, you'll see kind of file stretcher menu. We have file and do things like share a map if you want to create a map and share that map with a unique url, you can you know copy the url page send in the email. Send to somebody you know who can open up SimSuite and look at exactly where you were looking at. You can also, you know, create your own maps within SimSuite but they're just stored locally in your browser and so add whatever layers you want and you can kind of create this library of maps and that's what this tool here is.

So I've created five in this particular viewer just for demonstration purposes there and it's a demo. Also in the file, you can print any of the maps if you want to create a PDF map and I'll kind of explain this a little too as we go into the NatureServe tool a little bit more.

You know, you can title catalog or map, whatever you want to change or anything (unintelligible) PDF attachment on PowerPoint presentation. Do whatever you like with it. Really that's about it on file. Tools, there's a lot of just kind of general tools that might be of an interest if you're, you know, working with the NatureServe utility, you can do things like draw. You can identify features if I launch the draw it will, you know, I could put it on the map. I can, you know, come up (unintelligible) and stuff.

I can also get information. We identified pieces that will then allow you click on any feature on the map on (unintelligible) about that feature that you selected. If I click on this it gets me all the information associated with it, the Omaha districts and our office location.

(Unintelligible) the tools you can do the similar things (unintelligible) so, you know, what general area you don't really know where you are or where you

want to go. Are you trying to find the - you know, what (unintelligible) you're in or what level of (unintelligible) you can select this location queries tool.

Then we'll do things like - you can click anywhere on the map. It will give you an address and give you other information as far as, you know, what congressional district you're in, what Corps district you're in range -- all those sort of things. You can do that as well with water shed info like, you know, anywhere in the map. It will query the water shed information and give me all the information associated with the point from the (unintelligible).

Demographic information is another option or elevation if you want to get a spot elevation on a particular point and click a feature on the map. We do that as well. So that might be a handy tool.

And then of course, you can operate (unintelligible) if you'd like. Looks like Paul demonstrated you can have different options for base players if you want to see, you know, (unintelligible) area (unintelligible), you know, map west or (unintelligible). You have different map options if you want.

Over in the right in this panel that's also where you can search (unintelligible) so if you want to, you know, search for projects like in (unintelligible) and here are the project locations on water in the US. That will give me, you know, county office, (unintelligible) offices (unintelligible) so really it's just a key word based search utility within that, you know, base players.

I'll go back here to the top menu bar another apps, and apps is where - you know, there sort of (unintelligible) edition of (unintelligible) to be executed within the SimSuite application. That's where NatureServe is located. As Paul kind of demonstrated and explained, you know, the registration project about this on NatureServe once you get setup and, you know, it takes a required

conformation emails, you'll setup your own password and that username, your NatureServe email and then the password that you set up in the NatureServe is what you're going to actually use to start SimSuite.

So when you actually gain access to this tool, you're using your own credential that you setup in NatureServe. I'll logon under my credentials. Paul everything (unintelligible) there's a link from that first screen that I just logged into. If you don't have a registration - if you haven't registered yet, you can click on that link it will take you the NatureServ subscription page and you can get signed up through that link. Where - if you find out and you forgot your password or something like that there's also a link on that first screen. That will take you to the password screen in NatureServe.

So much like Paul kind of demonstrated I'm going to open my maps so that I actually setup for this demonstration. So I set up state of Iowa viewer. There are couple other viewers or maps that I've set up. This is a project for all the locations. There's an zoomed out location if you look in the lower right hand corner, you kind of get an idea of where we're at in the overview map.

There's a like (unintelligible). (Unintelligible) area map. And there's (unintelligible) projects map. So with anyone of these areas you can setup, these views in these saved maps if you want to create and where you can get access to them.

I'm going to go back to the state of Iowa map and if this lags or anything on your end, you let me know. Go back to the state of Iowa map. One of the things, you know, I want to do is maybe I want to add a layer or something like that and I want to add counties. And here the county boundaries I can turn on that layer and then actually there are all of the boundaries so I can actually

filter those out just to the state of Iowa which I've done and to get an idea of where I'm at, where I want to go I can apply it.

I want to do a county search on Marshall. I'll click on Marshall County and it does take a couple of minutes. Depending on, you know, the search area that you're querying against the response that you're getting back from NatureServe is, you know, pretty in-depth.

The fact that the return of (unintelligible) think about 62,000 lines of code that was the largest I've seen. There's a lot of data transmission going on that will take some time. So I clicked on Marshall County where you see the (unintelligible) is rendering the county boundary for Marshall County. And then my results here are rendered over here in this panel. So for this particular county, there is one federally listed species which (unintelligible) a total of nine species and other species of consideration I guess.

I looked at the endangered species (unintelligible) I can click on an image of that particular species. It will give me a picture of what it is, right. Yes, that's what I'm looking for.

And then I can also click on this more information button and what that will do is take me - direct me to that species page within NatureServe where I can, you know, look in that particular species a little bit more whether I want to look at distribution or additional distribution that you know, conformation status sort of things.

And then back from the NatureServe tools within SimSuite based on whatever query you performed or that county or something like that, you get results. (Unintelligible) exports of results and (unintelligible) spreadsheet. We can

insert those - into that print map make sure that (unintelligible) a couple of minutes ago. It's kind of an (unintelligible) table within your map as well.

You can do those sorts of things. I think at the point of expanding the capabilities within SimSuite.

So some of the capabilities that are available within NatureServe are available within SimSuite that is, you know, executed in different ways. So, you know, one of the things that Paul talks about, you know, creating a proper tool - you know, we have a capability within SimSuite location, see those types of things. So really it's just a matter of trying some of the capabilities in the NatureServe utility tools.

So that's kind of a SimSuite overview really fast but I want to leave plenty of time for questions as well. The other thing I want to quickly present on and that is the NatureServe web browser utilities that exist in Corps Maps. If you have the slide, if you want to take down as (unintelligible) you can otherwise we can send out after the meetings. Essentially, what is it is that - now, again, non-geospatial search utility that allows for, you know, tapping or searching of different (unintelligible) and you can apply certain areas of interest based on their status or based on, you know, quality of location.

So in this particular example based on what, you know, threatened species or other (unintelligible) update and these will return results from that data web search.

And then, you know, you can get more information about those species and information that you'll find in NatureServe on the species page. They're in the search utility within NatureServe Explorer and if you're interested in copying this URL like I said I can send it...

Courtney Chambers: That will be great Chad. One other thing we can do to make this readily available is you could copy it right now, and paste it in the chat feature.

Chad Markin: Oh, good idea.

Courtney Chambers: And this will get them specifically to where again, Chad?

Chad Markin: Specifically send to the Core map on NatureServe search tool.

Erin Rooks: This is Erin Rooks again. We're going to also paste in the registration page for NatureServe so that that's available on the chat. Paul is following up on that now. I just wanted to clarify that if people have questions after this webinar, if there's questions on NatureServe, Paul Wagner is your point of contact. For SimSuite, it would be Chad Markin and on this last tool that we're currently showing I believe (Joel Swagel) is the point of contact on that but today, you know, we went an overview of NatureServe data, how to access it and the application within SimSuite and also this Core Map tool.

So with that - I said I think we've concluded our formal presentation unless Chad and Paul has any additional comments. Okay. Courtney, I think we're done with our formal presentation and we'll just get these links loaded up into the chat.

Courtney Chambers: Okay. That sounds great. Thank you all very much for sharing your presentation and also the links. At this time, we're opening up the questions. Please remember if you're going to ask over the phone to take your phone off of mute or feel free to use the chat feature.

(Jeff):   This is Jeff from Seattle. I'm just wondering how often the (ESA) information is updated.

Paul Wagner: So the NatureServe data is variously updated depending on which program. It might be every year, every other year. You'd certainly want to make sure something is still listed. It's something as really a proposed species for listing. Chances are it's tracked in one of the global ranks or one of the sub-national ranks. So it's probably tracked already by NatureServe even though it's not listed, it's threatened or endangered. So if you're worried about something that you knew was recently listed or was going to be listed, then that's why you would do the search on all species of concern because you would be able to find that species in the list of species returned but, you know, the state heritage programs they have a cycle, an update cycle, it varies from state to state but it is routinely updated.

                  Now NatureServe updates the listing probably more regularly than the state programs do.

(Jeff):   I'm sorry if I missed that. Does that include critical habitat, geographic areas as well?

Paul Wagner: It includes important ecosystems and habitat. Some of which are critical habitat but not all the critical habitat out there is currently mapped so they couldn't include all of it even if they wanted to. So it would only be a portion of those habitats.

(Ellen Cummings): This is (Ellen Cummings) and I know we've found when we're looking and thinking about our database it was very difficult to keep the state updated partly from all the things you've just said but we were going to try to get the federal list at least quarterly.

Paul Wagner: These data are as updated as the state heritage programs have because they - you know, they're pulling from them. So it is fair to say that, you know, the states aren't necessarily updating their information the day something happens.

Courtney Chambers: Okay. We had a few questions here in the chat feature. They were sent to me privately and I can repost them publicly. One was, "Does USACE have a subscription to a NatureServe that will let us bring their data into our GIS?"

Paul Wagner: Yes. They do. Now Chad, can you talk a little bit about how people go about - from reaching out to the NatureServe data to bring into their tools?

Courtney Chambers: Chad, you must be on mute. We don't hear you.

Chad Markin: Yes, I was.

Chad Markin: Yes. I was actually replying back to that chat option. There are certain - on my documentations which I'm going to explain further. I don't know specifically for concerning the GIS but somehow you're going to have to be able to establish potential (unintelligible) and I'm not sure how exactly they have that setup. I would guess they probably have something but I'm just not...

Paul Wagner: There is some online documentation though.

Chad Markin: Yes, I just posted a PDF in the chat.

(Paula Cummings):   So the answer is, yes, but we would need to find out more information?

Paul Wagner: Right.

(Jason Smith):   Hi, Paul. This is (Jason Smith) from Rock Island, how are you?

Paul Wagner: Good. Good to hear from you again.

(Jason Smith):   (Unintelligible) assistance services that (Annie Neil) is working on has a layer that combines the NatureServe data with the Gap data, you guys have any intent to merge the NatureServe data with Gap data or any other data sets that provides some explanation of not just where there is an endangered species but other habitat or species that are worth knowing about?

Paul Wagner: That could certainly be done. That's not necessarily - I mean that would take a particular interest. So the thing about Gap data, you have to remember, Gap data are about tracking common species and the two together, Gap data and NatureServe data provide a more complete picture of overall biodiversity. However, the Gap data they'll sometimes have some wide ranging endangered species but their less interest to regulators, people that might have to go through some sort of process or some sort of section 7 process.

So it's sort of a different application. Now (Annie)'s Atlas is probably pulling not species information but habitat information from NatureServe -- I'm guessing -- and that's something that we didn't touch on but that NatureServe does track and that's important habitat. So it just had been on a particular interest and that can be done.

Courtney Chambers: Are there any other questions this afternoon?

(Rob Bronson):   It's (Rob Bronson), Jacksonville. I have a question/comment and I'm sure Erin is just cringing when she hears my voice. I just want to clarify and make sure that - I think make sure that I'm understood by everybody that really

NatureServe is a creature unto itself. Whereas Corps Map is more of like an internal tool for ourselves to be using in our planning processes and that SimSuite was the tool that was used to create the Corps Map.

Paul Wagner: Let me handle the NatureServe side. NatureServe is an umbrella organization that represents natural heritage programs across the nation and also in Canada and some other parts of western hemisphere. So they help get natural heritage data out to people that need it for decision making. What I showed NatureServe surveyor is there product for accessing natural heritage data to which we have a subscription.

(Rob Bronson): Understood and so that in itself is a standalone application that if we had a subscription to that we can go in, do what we need to do within that and not ever have to go to the Corps Map application.

Paul Wagner: Correct.

(Rob Bronson): But Corps Maps is able to bring all of that - bring - the NatureServe umbrella and into another umbrella under Corps Maps.

Paul Wagner: And give you the Corps of Engineer's context

(Rob Bronson): Right and I guess this kind of goes back to what was just being discussed a minute ago about being able to bring in Gap data and all of that but to me if it does seem like and I guess that would be the question portion would be, is there any intention not just for Gap data but other types of species and habitat data to be brought in so that the Corps Maps tool provide analysis above and beyond what you can do with NatureServe.

Paul Wagner: And that would be a question for (Nancy), (Joel) and Chad. So Chad...

Chad Markin: Well, I think it's important to note, you know, Corps Map and SimSuite are working from the (unintelligible) backend infrastructure. I think it's also important to note that what Corps Map or SimSuite are which kind of (unintelligible) the same now, we're not, you know, storing that data locally serving that out through Corps Map, you know, we're simply creating tools that will help users to interact with the NatureServe data through web services in an internal applications where, you can, you know, you can look at internal Corps data as well.

So like in the NatureServe software application, we can't bring in internal Corps data sets. We can't bring in (CPN) form projects. We can't bring in national (unintelligible) database features. We can do that within Corps Map and within SimSuite and we can interact with the NatureServe data within those environments. So really what we have developed within Core Map and within SimSuite is ability for the user to work within internal data but still have, you know, interactions with the NatureServe data and databases as well.

Does that make sense?

(Rob Bronson):   Yes. I think that helps clarify the situation now I think.

Chad Markin: Yes. Corps Maps and the Corps of Engineers we're not, you know, we're not the owners or the stewards of this data, you know, simply we're a consumer and a customer of this NatureServe data but NatureServe has provided tools and has allowed us to interact with their databases outside of the environment of the tools that they provide.

Courtney Chambers: All right. We have a few more minutes if there are any other questions.

Man: How about coverage on the coast? Is this all land based or how does it address that?

Paul Wagner: Certainly in things like estuaries but out in the ocean, no.

Man: Thanks.

Paul Wagner: One thing I will say before I let everybody go and we do have time for more questions but NatureServe always emphasizes that absence of evidence is not evidence of absence. That's something to keep in mind.

Courtney Chambers: Okay. Well at this time, we'll begin wrapping up. If you do have any last questions, certainly type them in the in chat feature and we'll get to it but I do want to thank Erin, Paul, and Chad. Thank you guys for sharing with us today.

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