

USDA ReConnect Webinar

Mapping Overview

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Presenter: Rebecca Fairchild-Lewis

Transcript

Slide 1 - Cover Slide

Rebecca Fairchild-Lewis: Good afternoon and welcome to the second Mapping presentation for the ReConnect Program. This presentation will provide a high-level overview of different mapping tools available from the ReConnect website and within the ReConnect application portal. My name is Rebecca Fairchild-Lewis, and I am a member of the USDA RUS ReConnect support team and I will be your presenter for this session.

This session will include a live demo. I know that the last time we did this we had some issues with some buffering, so, I will keep speaking. Depending on your internet connection—connectivity—you may see some buffering when we go into the live demo portion. I want to encourage you to submit questions throughout the presentation. Q and A will be at the bottom left—that functionality—is that the bottom left of your screen.

Slide 2 - Presentation Overview

Rebecca Fairchild-Lewis: As I just mentioned, this presentation will provide a high-level overview of the Eligibility Area Map, Service Area Mapping Tool, and Construction Map for the ReConnect program. Once I talk about each one of these sections, I will do a live demo, and then at the very end I will cover tips for each map and available resources along with doing Q and A.

Slide 3 - Introduction- Eligibility Area Map Cover Slide

Rebecca Fairchild-Lewis: First, I'll talk about Eligibility Area Map.

Slide 4 - Exploring Potential Service Areas

Rebecca Fairchild-Lewis: USDA has created the Eligibility Area Map to assist potential applicants in determining service area eligibility across the United States. This map is located on the ReConnect website under the "Mapping Tool"—where you see the gold arrow on the screen. And the layers of this map show ineligible areas along with information used to calculate the evaluation criteria for the 100% Grant and Loan/Grant combination products. I want to stress—and I'll say this a couple of times—this map does not show where there is or is not 10/1 service. This map shows areas that are considered ineligible based on the Funding Opportunity Announcement.

Slide 5 - Eligibility Area Map Layers Cover Slide

Rebecca Fairchild-Lewis: Now I'll talk about the Eligibility Area Map Layers.

Slide 6 - Eligibility Area Map Layers

Rebecca Fairchild-Lewis: Before we go to the live map, I want to talk through these. The data used to create these layers is the same as the data that is used within the application system itself. The Eligibility Area Map includes four categories of data that indicate the potential eligibility of rural areas:

- The first category is Non-Rural Areas. This layer identifies all areas that are considered non-rural under the ReConnect Program. USDA is defining non-rural areas as any city, town, or incorporated area that has a population of greater than 20,000, or an urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000.
- The second layer, or category, is the Connect America Fund II (CAF II) Auction 903 Winners. ReConnect funds cannot be used to build out service areas that fall within the Census block group(s) of CAF II Auction 903 recipients. There are a couple of exceptions here: The first exception is: CAF II Auction 903 winners can seek additional funding to build out service where there is not sufficient access, however, they may only apply for funds under the 100% Loan offering. The second exception is: if a Protected RUS Broadband Borrower's Service Area overlaps with a CAF II Winner area, only the RUS Broadband Borrower is eligible to apply in that area.
- The third category is Pending Applications. All service areas that are included as part of a Farm Bill Broadband or Infrastructure loan application currently under review will appear as part of the Pending Applications layer. Additionally, all ReConnect Round One applications still under review will appear within the Pending Applications layer at the time of the application window opening. Any service area in the "Pending" status will be protected if subsequent applications are submitted to RUS requesting funding in that service area.
- And finally, the fourth category is the Protected Broadband Borrower Service Areas. All RUS Broadband Borrower's service areas that are protected under the ReConnect Program make up this layer. The providers that are already serving the protected areas are the only entities eligible to apply for ReConnect funds to serve these areas and only to upgrade service.

For the purposes of the ReConnect program, a Broadband Borrower means any entity that has received a loan any time after the beginning of Fiscal Year 2000. Eligible loan types include: Telecommunications Infrastructure loan, Farm Bill Broadband loan or Broadband Initiatives Program (BIP), loans or grant/loan combos. Additionally, Community Connect Grantees still under buildout are included in this layer

A final note on the layers, is that the map also includes the six evaluation criteria layers. These are the same layers that will be used in the intake system Service Area Mapping Tool to auto-generate scores under the Evaluation Criteria section for the 50/50 loan/grant combo and the 100% grant applications.

Slide 7 - Map Datasets Cover Slide

Rebecca Fairchild-Lewis: Now I'm going to move to the map datasets.

Slide 8 - Map Datasets

Rebecca Fairchild-Lewis: USDA has made the datasets used in developing the Eligibility Area Map available to the public to download. Potential applicants are able to use these datasets to explore and draw their proposed service areas in their own software prior to entering the ReConnect Application.

The eligibility area map layers I just covered are all available to download. You can find the description of the source, of what is included in these datasets, and the date they were last updated on the website.

While these datasets will help applicants develop their proposed funded service areas, USDA will conduct a final evaluation of service area eligibility following the application window deadline.

USDA has also made the datasets that are used to determine special evaluation criteria available to download. These datasets represent a specific moment in time and will not be modified over the course of the current FOA.

The Special Evaluation Criteria Datasets available for download include:

- **Essential Community Facilities:** This dataset includes: fire stations, local law enforcement, prisons, state emergency operations centers, post offices, and town halls. To develop this dataset, USDA merged Homeland Infrastructure Foundation-Level Data updated as of October 2018 and the USGS National Structures Dataset as of August 2018.
- **Next, Educational Facilities:** This dataset includes any public or private educational institutions that offer college, professional, preparatory, high school, middle school, junior high school, elementary, or kindergarten instruction, or any combination thereof, along with daycare centers, museums, and libraries. To develop this dataset, USDA merged Homeland Infrastructure Foundation-Level Data and the Institute of Museum and Library Services data as of October 2018.
- **Next, we have Healthcare Facilities:** This dataset includes hospitals, nursing homes, pharmacies, urgent care facilities, and Veteran's Health Administration medical facilities. This dataset also came from Homeland Infrastructure Foundation-Level Data updated as of October 2018. All of these datasets were merged into a single spatial dataset for the ReConnect program.
- **The next dataset is the Number of Farms by County:** This dataset contains the number of farms by county as defined by the 2017 Census of Agriculture. Once again, this dataset came from the 2017 Census of Agriculture, United States Summary and State Data Report that was updated as of April 2019. If you need additional information on agricultural activity for the United States, this is available on USDA's National Agriculture Statistics Service 2017 Publications webpage.
 - A quick overview of how USDA will use this layer in calculating a score for evaluation criteria: USDA will take the total county area in square miles that is covered by the PFSA. The mapping tool will calculate that analysis area in square miles as a percentage of the total county area in square miles. And then multiply the total number of farms within that county . This number will then be used to develop the applicant's score, with applicants getting 1 point for each 10

farms served for a maximum of twenty points. If more than one county is covered the sum of the analysis areas will be used to determine the total number of farms PFSA.

- The next dataset is Opportunity Zones: An opportunity zone is an economically distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment. Localities qualify as opportunity zones if they have been nominated for that designation by the state and that nomination has been certified by the Secretary of the U.S. Treasury via his delegation of authority to the Internal Revenue Service. This dataset contains all population census tracts designated as Qualified Opportunity Zones as of December 14, 2018. You can find additional information about Qualified Opportunity Zones on the U.S. Department of Treasury, CDFI Fund, Opportunity Zones Resource page.
- Next, we have Rurality – 100 Miles from Urbanized Areas: So, there are two ways that an applicant can gain points for rurality. One, is through the density calculation detailed in the Funding Opportunity Announcement. The second is by having all PFSAs in areas that are at least 100 miles from an urbanized area. The USDA has developed a shapefile that contains multipart features for all 2010 Census urbanized areas surrounded by a 100-mile buffer. As a reminder, urbanized areas are areas of 50,000 or more people. You can find more information of how the Census defines urbanized areas on the Census webpage.
- There is one additional layer, or dataset available on the eligibility area map. This is a reference layer for tribal areas. This dataset came from the calendar year 2017 U.S. Census data. The zipped shapefile includes cartographic boundary spatial data for American Indian, Alaska Native Areas, and Hawaiian Homelands.

I know I just went over a lot of information. The description for each dataset is available on the Eligibility Area Map Datasets page on the ReConnect website. And when I go into the live demo, I'll show you how you can find that page.

Slide 9 - Eligibility Area Map Considerations

Rebecca Fairchild-Lewis: So, a couple of considerations when using the Eligibility Area Map: The datasets I just discussed can be used to help plan and project your application's score. I also want to note that the protected borrower and pending application layers may be updated during the funding window. If this is the case, the website will be updated with a new dataset and the date of the last update will be clearly visible. I mentioned this before, but all of the evaluation criteria datasets are locked, and these will not change during the funding window.

There is not a challenge process for missing facilities in these datasets, unless the missing facility is on tribal land. If this is the case, an applicant can submit documentation from the tribal leader stating what the missing facility is and that it is currently being used for the indicated purpose. And submit that with the application to gain those points. This information is further outlined in the Fiscal Year 2020 Funding Opportunity announcement.

While USDA is providing the ReConnect Program Eligibility Area Map and the datasets that make up the map, it is still going to be the applicant's responsibility to ensure that its PFSAs, or

Proposed Funded Service Areas, do not already have sufficient access to broadband service. Once again, this map does not show where there is or there is not 10/1 service.

Slide 10 - Using the Eligibility Area Map Cover Slide

Rebecca Fairchild-Lewis: Ok. So now I'm going to go into a live demo, so bear with me while I get this set up to do the appropriate screenshare.

Slide 11 - Using the Eligibility Area Map—LIVE DEMO

Rebecca Fairchild-Lewis: Alright, so here we have the ReConnect webpage. If I scroll down, I do want to point out that there is a map of proposed and approved projects from round 1 if you want to explore applications that were submitted in round 1. Additionally, if I continue to scroll down, you'll see that we have a couple of tiles here. First, I'm going to click in the Eligible Service Area. This page provides an overview of what makes an eligible service area. And if you scroll to the bottom of this page, you'll be able to see the eligibility area mapping datasets. You'll see this page has all of the information that I just went over about all of the different datasets that are available, and this is also where you can download these datasets from.

I'm going to navigate back to the ReConnect homepage. Next I'm going to go into the Mapping Tool. Once again, you will always get this prompt that you are going into the map. You'll also get this splash page which is another way that you can link to see if it's different eligibility evaluation criteria and those datasets. So here we have the Eligibility Area Map. This map is—you'll get very familiar with this basic map is what you're going to see in all three tools.

In the top right corner, I've got a couple of different items. First, I have the legend. This legend is going to tell you what each color means so you can see it on the map. So basically, on this level that I'm looking at I can see four different layers. I can see a dark blue-purple color that is the CAF II Auction 903 winners. Also, we're able to see an orange color that represents non-rural areas, yellow for pending applications, and the grey color that's the protected broadband borrowers. I'll talk about this a little bit later but depending on the level at which you're zoomed in, you'll be able to see different layers.

Next to that, is the layer list. But this layer—this is what you'll be able to see with all the layers turned on. You'll see that some of the layers do not automatically default to be on, and I would encourage you to not have all of the layers on at once, in order to make sure that you are able to see the maps rendered correctly. At this layer, you're also able to adjust the different transparency of each layer and based on whether it's transparent or not. You'll be able to zoom in and out which will make it whether or not you can see through those layers.

The last option here is going to be a base map gallery. Here, you are going to have a lot of variety of choices on different base map galleries that you'll be able to see. I'm going to just leave it on the default but if you want to see different versions you are able to do that.

On the top left-hand corner of the screen you're going to see your search functionality. So here on your search—I'm being told that I need to slow down a little bit. I will try to make sure—so on your top left-hand corner you're going to see your search functionality.

On this you are able to search location, coordinates, or providers. So, if I chose a provider ViaSat for example, ViaSat is an existing CAF II Auction 903 winner. I can select that particular

one, and it will go in and select that and zoom in to that location. You can see it has zoomed into a CAF II Auction 903 winner located in Alabama.

Additionally—with this view, I will zoom out so we can see a little bit—explore what my different options are here. So, if I were to go to Madison County, Arkansas. At this place I can see that I have a number of different resources. I have this grey option here. And this represents a protected broadband borrower. I've selected it in the middle of the screen. You can see this is the Madison County Telephone Company as a protected broadband borrower. Additionally, I have these dark blue, and this is going to be my CAF II Auction 903 winner. You can see that I've selected this. On here it is Rural Electric Cooperative Consortium and the type is a Gigabit-Low.

You will also see I have over here near Fayetteville a non-rural area. And if I zoom out a little bit you will see I have a pending application up here in the top left-hand corner and that is going to be an application that is currently under review.

You will notice that I cannot see at this level any of those layers of my evaluation criteria layers. So, my essential community facilities, my educational facilities, or my healthcare facilities. As I zoom in—let me put this location here by Prairie Grove—you will see these start to render on the map. They are also no longer grayed out on the right-hand layers list that I have because I have zoomed in far enough to see those.

Now, if I was an applicant who was considering applying in this area, I would be able to use this map to see areas that are considered ineligible. So, I know that the areas that are orange around Fayetteville are ineligible because they are nonrural. Additionally, unless I was the CAF II Auction 903 winners, for these blue blocks in the middle of the screen, I would not be eligible to apply over those areas.

I want to point out there is this grey arrow at the bottom of the screen. It's called the attribute table. If you open that attribute table, which I've done now, it is going to show me all of the different things that I am able to see in my current map view. So, it is automatically opening to the evaluation criteria "essential community facilities". Here it is showing me a list of all of the essential community facilities that are available within my current map view. You will also see that you have the option to look through educational facilities, healthcare facilities, and can see your Auction 903 winners, and all of your other layers as well that would be visible in the current frame.

The other evaluation criteria layers that you can see, as I can on and off, include my auction 903 winners. I can also toggle on my opportunity zone. But now when I turn this on you will see there is now rendering onto the map a teal green view that goes over a portion of Fayetteville. This is--if you are proposing a service area that intercepts with an opportunity zone, you'd be able to get those points for the opportunity zone. However, I would note that this opportunity zone does also intersect heavily with your nonrural area.

I am also turning on the tribal lands, to see if I happen to be intersecting or proposing an area that may overlap tribal lands. In order to see that, I am zoomed out one time and you can see that I have a tribal land, which is Cherokee over to the west of the location that I'm looking at.

If I turn on numbers of farms by county, and I do not suggest turning on both numbers of farms by county and opportunity zones at the same time as their colors are very similar—you'll see that the map has now filled out with different colors of green and gradations of green. If I click on a county -- which is what I will select now -- I have selected Washington County, Arkansas. By selecting my different entity, I am able to see different components and different data sources from this particular data set. Most specifically I'm looking for a county area in square miles and the number of the number of farms by county. Which are the last two options within this attribute table that pops up. You are able to see this is the number that will be used to calculate the number of farms for those competitive applications. If I was curious as to what those numbers mean, and I wanted to navigate to my layers list, it's now giving me a key that the different numbers green mean. So, the darkest green is 1,500-6,000 farms by county. The slightly lighter green is 1800 to 1,500. And so forth.

Lastly, I want to talk about the rurality. I've turned on the rurality and you will see that most of the map has gone pink. I'm going to see my further so we can see where this differentiates. So, the pink layer here, those are those 100-mile buffer zones from urbanized areas. You will see that around the Madison County where I was, that falls within the 100-mile buffer zone of urbanized areas. However, if I go further west you will see there is an area in the slightly left of the middle part of your screen that does not fall within 100-mile buffers. If an applicant was proposing Proposed Funded Service Areas that all fell outside of this 100-mile buffer zone, but did not necessarily meet that density rurality calculation, then they would be able to get those rurality points. You can only get those points once, so either via the density score, or via the locations outside the urbanized areas—but USDA has done the work for you to be able to indicate the areas that could be potential based on the 100-mile buffer.

So, a couple of things about this map. First of all, you can't draw on this map. This is why USDA has made all of these existing data sets available for you to download. That will allow you to, if you have a separate mapping tool to kind of plan and look at your PFSAs. And I want to stress one more time that this map does not include areas that have 10/1 service. This is showing areas that are considered ineligible based on the criteria laid out in the Funding Opportunity Announcement and it's up to the applicant to do their due diligence to make sure any areas they are proposing meets all of the eligibility criteria laid out in the FOA.

END LIVE DEMO

Ok. And with that, I'm going to go back to the slides for a minute.

Slide 12 - Introduction- Service Area Map Cover Slide

Rebecca Fairchild-Lewis: Now I want to talk a little bit about the service area map. Once you log into the ReConnect application you have access to two different maps. You have access to the Service Area Map and the Construction Map.

Slide 13 - Introduction to Service Area Mapping in ReConnect Application Portal

Rebecca Fairchild-Lewis: First, I'm going to cover the service area map. Applicants will be required to use the Service Area Mapping Tool at the beginning of the application. Applicants will use the tool to draw or upload shape files of their Proposed Funded Service Areas and Non-Funded Service Areas.

Per the FOA, a Proposed Funded Service Area, or PFSA, is defined as the area, whether all or part of an existing or new service area, where the applicant is requesting funds to provide broadband service. More than one non-contiguous service areas will be treated as a separate stand-alone service area for the purposes of determining how much of the proposed funded service area does not have sufficient access to broadband. Each service area must meet the minimum requirements 90% of households not having access to 10/1.

I want to note that you do not need to draw a Proposed Funded Service Area for common network facilities, as these costs are captured in the Capital Investment Workbook- Common Network Facilities section of the application.

Per the FOA, a Non-Funded Service Area (NFSA) is defined as any area in which the applicant offers service or intends to offer service during the forecast period but is not a part of the Proposed Funded Service Areas. Applicants must draw all components of their projects, even non-funded portions. It is important to include your NFSA map--in your maps and in your project plans. Once again, you do not need to draw your Common Network Facilities for your NFSAs.

Slide 14 - PFSA Map Linkages in the Application Cover Slide

Rebecca Fairchild-Lewis: Before I go into the live demo I want to talk about a couple of linkages in the Application.

Slide 15 - PFSA Map Linkages in the Application

Rebecca Fairchild-Lewis: Your PFSA map informs multiple sections of your application. And it's really critical that you add PFSA's at the beginning of your application because that's how you're going to fill out additional information as you move through the process.

So, applicants are going to complete the Capital Investment Workbook by PFSA, NFSA, or Unadvanced Prior Loan Funds. Assets included in this workbook should match descriptions on your maps. Another thing that is important to remember is that if your application is proposing that you're going to provide last mile services in Sandersville, GA, or other locations, then your PFSA must cover those locations.

Additionally, in the Local Network Service Revenue section under Service Offerings, you are associating different service offerings to each PFSA or NFSA. Your map should accurately encompass areas that support your Subscriber Projections which is located under the Financials section in the application system.

How you draw your PFSA's are going to drive the automatic calculation of the six evaluation criteria that I just covered for the 50/50 Loan/Grant combo and 100% grant applications. And then lastly, your PFSA's are linked to the Construction Map, which is in the Environmental component of the applications, which I will cover later.

I think it's important to note that changes to your PFSA's and NFSAs may have downstream effects on components of the application. This is why it is necessary to map your service areas before going on to other parts of the application. And I want to note that if you do need to change the boundaries of your PFSA's, you are able to do that. I will show you when I go into the live demo. You're encouraged to delete the shape and add or upload a new shape, but not to delete the service area itself. If you delete the service area --- PFSA or NFSA—you will lose

all downstream data that you have associated with that PFSA. So do not delete the PFSA name under the service area table—which I will show you—just go ahead and alter your shape.

Slide 16 - Tips Cover Slide

Rebecca Fairchild-Lewis: So, some quick tips before I go into the live demo.

Slide 17 - What to include in your Service Area Map?

Rebecca Fairchild-Lewis: What to include in your service area? We talked about this a little bit already, but it's important to consider when you're drawing your service area, what you should include in your service area and what is included in other components of your application.

Your PFSAs and NFSAs must be mapped in the application system. Applicants will need to map areas where ReConnect funds are being utilized along with non-funded service areas where applicants are already providing or plan to provide service. As a reminder, you are going to be required to provide service to all premises within your PFSAs, so you want to make sure you draw them accurately to reflect the capabilities of your network. Common Network Facilities do not need to be mapped.

So, in this example on the slide, you can see that PFSA 1, that's where I'm mapping. You'll see outside of PFSA 1 there is some backhaul in my example. That cost, because its only serving PFSA 1 is captured within the PFSA 1 CIW, but you do not need to draw that backhaul. Same thing with the CIW 2 component going into PFSA 2. In the middle you can see that there is a CIW with Common Network Facility PFSA. Once again, you do not have to draw that. That will be captured in the Common Network Facility component of your PFSA.

As I continue to move right across the screen you are going to see that we have the same situation for NFSAs. For both NFSAs, and then a small portion that's a Common Network Facility for your NFSAs. Lastly, I have Common Network Facility that is serving both PFSAs and NFSAs. That Common Network Facility should be prorated; only the costs that are going to be serving the PFSA are going to be eligible cost under the ReConnect program. It's up to the applicant to decide how to do that proration, and make sure when you're doing that proration to include justification for your decisions within the assumptions component.

Ok, bear with me. I'm going to open up the application system.

LIVE DEMO

Ok. this is what the application will look like when you enter. And I'm going to focus on the service area component. If I select service area you will see service area information, and this will open up my service area map. As you'll see, this looks very familiar to what we just looked at on the eligibility area map.

And I want to mention that the application system is designed for you to work from left to right and then down each section so the service area section will be something you will need to complete early when starting your application.

Service areas do not need to be contiguous and they can include donut holes if necessary. Donut holes are areas that are cut out of the PFSA in areas that you do not intend to provide service with ReConnect project funds.

I am going to zoom into a location where I have been making some service areas in this application. I'm in Pierre, South Dakota. To add a service area, what I want to do, is on the top left-hand corner you will see that there is three-line menu. You are able to make that menu a drop-down and I would go ahead and select add service area. Here you can see that I have a number of service areas added, but if I want to add a service area, I would click add service area.

Here, you are going to name your service area. Please do not use symbols such as the number symbol or ampersand within your service area name, but we do strongly suggest that you use descriptive names.

Then you'll need to select your service area funding. I'm going to select "proposed funded". And then you select your service type, so, whether new, or existing. You'll see that there is this question here, on the middle of the screen, which is "Is the service area located in any of the following territories or possessions of the United States?" The question automatically defaults to "No". Please leave it as "No" unless you are serving one of these areas. Now that I have added my service area, we have highlighted down here on the bottom of my screen. I am now able to either upload a service area shapefile, or I'm able to draw them.

A note about uploading shapefiles. In order to upload shapefiles, you would select the upload button here on the right-hand side of the screen. It is a circle with an upward pointing arrow. Shapefiles use an un-projected WGS84 geographic coordinate system. Shapefiles may only contain one feature in service area. It must be a single contiguous shape. So, you are not able to upload shapefiles that have multiple different PFSA's or non-contiguous shapes in them. Each shapefile must be uploaded individually.

Another thing to note is you cannot download the shapefiles from the system. If you are uploading a shapefile and then need to make an adjustment to your service area within the system, it is suggested that you make that adjustment in your own mapping tool and reupload the shapefile so that you have the most accurate record of what you submitted with your application.

For demo purposes I am just going to draw a quick service area here. I have drawn a square. I cannot save the service area, yet. In order to save the service area, I must mark the service area. I must mark that I've done my due diligence that at least 90% of the households within the service area do not have sufficient access to broadband.

In order to do that, I draw a second shape and overlap, and then I hit the marking tool. So, this was the tool that marks your—ok I will go ahead and mark it. It has now snapped to my shape, and then I am able to save my service area. You'll see that I got this error. I have not marked at least 90% of my households without sufficient access to broadband which is a requirement for this application. When you get this error, it will require you to re-mark your service areas because that is a requirement of the application.

And, I'll show a warning later, but you are not able to submit your applications. When you have an error message you must come back and re-mark. In order to do that, I've marked the whole shape. And I have clicked "save." And this will take a second. Please be patient and--as you

are—it takes a second. And, you will see this because I am in the demo it will give me this and I will hit ok and hit save and it will do this for me. It has now saved my shape. Please be patient with all of the layers as you go through them. My layers have been saved. You can see my service area that I just drew here.

Quickly to show a warning that you may get which is an ineligible area encroachment, I am going to add a new service area. And you'll see on this map here that I do have a protected broadband borrower service area over here on the left. Golden West Telecommunications. For demo purposes I am going to draw the service area here. I'm going to go ahead and mark that service area. And then I am going to save. You will see this service area—the system is letting me know it's a warning. That I am potentially proposing a service area that will be over in an ineligible area.

You are able to submit applications with warnings. It may know, maybe I am Golden West, and I'm eligible to apply in that area. So, the system is asking you to acknowledge that you understand this warning and you can either cancel and redraw or upload the service area or you can proceed. And then once again you should not get that warning because you are not in a demo. If you do need to make adjustments to your service area, you have different tools. Draw your polygon, square, circle. And you can also adjust to cut out areas for example.

I recognize we are getting close to the end of the hour, so I want to actually go straight into the construction map while I am in the live demo. In order to save some time. I will talk through some of the slides as we go through, but I will just show the live demo.

So, with the environmental section, if I select that, which is in the top middle of your screen, and then construction map, it's going to open up the Construction Map. The construction Map consists of 14 different resource layers. And those layers include floodplain management wetlands protection, historical and cultural resources, land use, and formally classified land, biological resources, and miscellaneous resources. The data sets that are associated with this map are not available for download. And I also want to mention that this map, because its pulling information from a variety of differently located datasets—will take significantly longer to load than the service area mapping tool that we just talked about.

Applicants should use these layers to validate the project construction assets' overlap with environmental resources that are part of the environmental review. Also, on this map you'll see that I don't have my eligibility layers anymore. But I do have my service areas. So, if I look at my legend, right now it's only going to be my service area. So, I know where these are so I'm going to zoom into here. You can see all of my service areas have now rendered—onto this.

You'll see that there's not any other visible layers. In order to see what layers would be visible at what level, and USDA has made sure that all of the layers render at the same time, you would go to your layers list. On your layers list you have the various layers. You'll see in each of those categories that I just went through and then also the subcategories under each. You will see the difference between under floodplains on the screen. The floodplain levels are under subcategories are greyed out. That means that at the level that I have zoomed in I am not able to see those layers. On wetlands, however, you can see that wetlands inventory layer is not greyed out. So, in order to see that layer I would select the "eye", and also the sublayer and you can now see that the wetlands inventory resource layers have rendered and if I want to see

what those different colors mean I can go back to my legend and it's going to tell me, so the dark blue is a lake. The green is a freshwater emergent wetland, et cetera.

Those layers, also if you watch, if I zoom in further and wait for a second you will see now at this level that I have zoomed, the flood hazard zone is going to be a visible layer at that level. I'm not going to turn it on because it won't load and you won't be able to see. However, I can turn off the wetlands and turn this one on, and it will render on in a minute. You can see that I now have the floodway in a hashed color that on the left hand of the screen.

So, on the construction map, what you're using is, you're using this to add sites and routes where you are using ReConnect funds to build. So, this is where you are adding assets that you are using ReConnect funds to build. You can see in my example here, where I have some sites and routes already drawn, that sites and routes are not limited to within the PFSA. So, this is wherever you are using ReConnect funds to build assets.

A site is defined as assets such as building, facilities, towers, parking lots, access roads, and large enclosure cabinets. And a route is a path in which the copper, coaxial, or fiber cable will be installed. Applicants are required to draw or upload polygons that represent "sites" for the proposed project and a polyline or polylines for each "route."

If an applicant chooses to upload a shapefile for a polyline, make sure that the polyline is not self-intersecting. This can cause an error in the system to generate because the polyline is buffered into a polygon on the map.

Once again, USDA encourages you to use descriptive names because once you add a site and route to the construction map you will then fill out the site and route description section of the application.

So, in order to add a site or route, I would go to site or route, and once again, just like I did for service area, I would add the site or route. You will choose which option, its either a site or a route. And go ahead and save. And then the same process. Either upload or draw your shape just like we did last time. And then save. And once again this may take a second for it to render because it's pulling information on whether or not there is any intersection with those resource layers.

Once again, I am going to zoom into where I am and do a quick sample of adding a route. If I am adding a route, here you are going to have options. What we have here is it is going to specify the width of the route. It defaults to 75 feet you can go as low as 25 and up to 200. You are using this to define the area you would need to disturb when laying a route. So, a good suggestion is if you are planning on going down one side of the road, but you may need to switch to the other side of the road, make the route wide enough so you're getting environmental clearance on both sides of the road. This is the way you are deciding on what you are getting environment clearance on and that's why it's giving you a width that has a buffer associated with it.

You can draw routes for each infill type, or you can draw all of your routes and select multiple infill types. That is up to the applicant, with regard to what you want to do for various different layers and how you would potentially get environmental clearances. I'm going to put it down to

25 feet and save. And then similarly to how I did this I am dragging my routes and then double clicking and hitting save and it will do the same process that I just did.

END LIVE DEMO

I'm going to go back to the slides really quickly. I skipped over a number of the slides, however, I did discuss everything that we were talking about.

Slide 27 - Construction Map Layers

Rebecca Fairchild-Lewis: Specifically, here are the resource layers. So, all 14 resource layers. Includes flood hazard flood frequency, national wetland inventory, tribal lands, National Register of Historic Places, farmland, formally classified lands, wild and scenic rivers, coral reef ecosystem, critical habitat, air quality, sole source aquifer, coastal zone, and coastal barriers. Once again, these layers are not available for download. These layers are pulling separately -- and they are for reference layers to see where you may have intersections with the environmental component.

Slide 32 - Construction Map Linkages

Rebecca Fairchild-Lewis: And then, one last thing about the construction map linkages. You want to make sure what you are adding to your construction map matches other components of your application. For example, if you said you are going to build six towers, we would expect to see six different sites within your construction map. If you are saying that you need to use submarine cable, we would expect for you to have a route that is going through water, those types of things. We also want to make sure all of those costs and assets are accurately reflected in your Capital Investment Workbook. And I mentioned really briefly, as you draw those sites and routes you're going to have your site/route descriptions which are going to drive the environment questionnaires is which are components you would complete in the environmental section of the application.

Slide 33 - Available Resources

Rebecca Fairchild-Lewis: Really quickly. There is a lot of available resources. There are workshops, there are webinars. We are posting webinars on the website. Also, resources including fact sheets and FAQs, and there is the ReConnect helpdesk. So, Contact Us. You can submit questions through there to people that help provide assistance as you are completing your application. I have a few minutes for Q and A, and I'm going to take a look at some of the questions that were submitted and see if I can address those.

Q&A

Rebecca Fairchild-Lewis: (Q): I have a question. Can a PFSA be altered, either grown or shrunk, after the financials are input?

Rebecca Fairchild-Lewis: (A): So, yes. You can alter your PFSA after you have done this. This is why we talked about this being really important for you to not delete--you can delete your shapes, but not your PFSA name. So, if I am -- (seeing if I can get a screenshot for you). So, on this screenshot that I have of creating a service area polygon, you can use the tools to the right to adjust your PFSA or re-upload a file. But it's really important not to hit -- I know it's hard to see--the red X's here and delete your PFSA. If you delete your PFSA you're going to lose that information you entered in your financial section. So, I would encourage you to use the tools you

have on the side, with your shape. But do not delete the name of your PFSA because you will lose—if you do that you will lose your downstream.

Rebecca Fairchild-Lewis: (Q): Ok, so we have a question around—did I hear you correctly that you can have noncontiguous PFSAs?

Rebecca Fairchild-Lewis: (A): So, each PFSA must be a contiguous shape. You have—if you have multiple areas where you are planning on providing service, and those are noncontiguous, you'll need to have individual PFSAs that you'll upload. So, each shape that you upload will need to be a contiguous shape, but you can have various noncontiguous PFSAs, but you would have to upload each one of those shapes individually to a new PFSA.

Rebecca Fairchild-Lewis: (Q): So, we have a question. Do we have to draw a site or route if you're building in the existing right of way, and not disturbing the environment?

Rebecca Fairchild-Lewis: (A): Yes, you have to draw all of your sites or routes for where you are using ReConnect funds to build or conduct construction. So, that does include, for example, if you're hanging cable on existing poles. You still need to draw that route, and then you would provide that information accurately when you're filling out the site and route descriptions and then that will help drive what you need to do on environmental clearance.

Rebecca Fairchild-Lewis: (Q): I see another follow-up question to how I just talked about: in your PFSA, if you want to upload a new shapefile can you do without deleting your PFSA?

Rebecca Fairchild-Lewis: (A): Yes. You would select the shape that you have in there, delete that, and then upload a new shape. Just don't select that X. So, on the screen I am currently showing -- do not hit this red X. I wish you could see my cursor where I am scrolling. Do not hit the red X and delete the name. But rather use delete in your tools. So, I'm going to switch to the next slide. In the tools, in the red area you can select your shape and delete your shape. But keep your PFSA name.

Ok, I will give a second. One thing I did not show in the live demo, but am going to show really quickly on a slide because I do have the screenshot of it, is your service area data. Once you've drawn your service area, if you select that three-barred menu, you are able to see various data about your service area. So, this would include your square mileage, the number of households, what congressional district that you overlap, and that's available under your Census information on that menu drop. And it's going to give you that information, you are able to see that if that is something that interests you when you are working on your application.

Ok. I will give it a couple more seconds. I do not see any additional questions coming in. All right. Well, I want to thank everybody for taking the time to join us today on this webinar. Once again, I do stress as you are completing your application, to go ahead and use the Contact Us function. There are people who are prepared to help you if you're running into any issues. Especially with regard to mapping or completing your service areas. We do have one question that came in.

Rebecca Fairchild-Lewis: (Q): It's how you get the population data for your PFSA.

Rebecca Fairchild-Lewis: (A): So, this data is coming from the 2010 Census and it's going to pull on any Census block your PFSA intersects. It's going to pull the full population based on the 2010 Census in that Census block.

All right, and with that, thank you and have a good day.

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End of Presentation