

**U.S. Fish and Wildlife Service: Nashville Crayfish Proposed
Delisting Public Meeting Transcript**

October 8, 2020 6:00-8:30pm CT

Closed Captioning provided by Alternative Communication Services, LLC

00:00:12.780 --> 00:00:22.230

EMPSi - Amanda Biedermann: Hello everyone, I'd like to welcome you all to the public meeting for the proposal to remove the Nashville Crayfish from the Federal list of endangered and threatened wildlife.

00:00:22.710 --> 00:00:29.550

EMPSi - Amanda Biedermann: We're going to give folks a few minutes here to join the meeting, and then we will begin the PowerPoint presentation shortly. So please stay tuned.

00:00:30.090 --> 00:00:41.040

EMPSi - Amanda Biedermann: I do want to note that closed captioning is available by selecting the closed caption icon at the bottom of your zoom screen if you're using the zoom web portal or zoom app on your computer.

00:00:41.550 --> 00:00:46.290

EMPSi - Amanda Biedermann: Thanks, everyone. And again, we'll give folks a few minutes here to join the meeting. So please stay tuned.

00:01:32.760 --> 00:01:45.540

EMPSi - Amanda Biedermann: Again, welcome everyone to today's meeting for those of you who have just joined us. We're going to get folks a few more minutes here to join the meeting. So please stay tuned and we will start the PowerPoint presentation shortly. Thank you.

00:02:58.950 --> 00:03:08.430

EMPSi - Amanda Biedermann: Hello everyone, we're going to go ahead and get started with our public meeting today. Again, I would like to thank you all for joining us today. We appreciate your time and participation.

00:03:09.030 --> 00:03:16.620

EMPSi - Amanda Biedermann: My name is Amanda Biedermann, and I'm going to be one of your meeting facilitators today. I'm now going to go over some ground rules for the meeting today.

00:03:17.160 --> 00:03:28.830

EMPSi - Amanda Biedermann: First, your microphones and videos will be turned off for the duration of the presentation. You will only be unmuted if and when I unmute you during the Q and A or public comment portion of the meeting today.

00:03:29.760 --> 00:03:38.640

EMPSi - Amanda Biedermann: Second, this meeting is being recorded as part of the project record, and all materials presented today will be provided online through the website.

00:03:39.660 --> 00:03:44.580

EMPSi - Amanda Biedermann: Questions will be addressed during the Question and Answer session at the end of the presentation.

00:03:45.060 --> 00:03:52.710

EMPSi - Amanda Biedermann: We will do our best to address questions in the order they come in and to allow everyone on the meeting today an opportunity to voice their questions.

00:03:53.490 --> 00:04:04.380

EMPSi - Amanda Biedermann: Finally, after we have answered questions submitted during the Q and A portion, we will then move on to the public comment portion of the meeting, during which participants can offer public comments verbally.

00:04:05.160 --> 00:04:12.330

EMPSi - Amanda Biedermann: Public comments can also be submitted online via regulations.gov, and I've included the web link on the screen as you can see.

00:04:13.590 --> 00:04:18.210

EMPSi - Amanda Biedermann: We will provide further information on how to submit your written comments after the presentation.

00:04:19.110 --> 00:04:30.780

EMPSi - Amanda Biedermann: And I do want to note that comments may be limited during the public comment portion of the meeting today, depending on the number of participants in order to allow everyone on the meeting today and opportunity to offer their comments.

00:04:31.590 --> 00:04:37.440

EMPSi - Amanda Biedermann: I'm now going to turn it over to Lee Andrews to lead us through the main part of the presentation for today's meeting.

00:04:48.600 --> 00:04:56.700

USFWS - Lee Andrews: Good evening, everyone. My name is Lee Andrews, and I will be overseeing tonight's virtual public information meeting and public hearing.

00:04:57.900 --> 00:05:08.730

USFWS - Lee Andrews: We appreciate your participation in these events, and we are looking forward to providing you information on the Fish and Wildlife Service proposal to delist the Nashville Crayfish.

00:05:09.870 --> 00:05:17.580

USFWS - Lee Andrews: If you plan to stay with us until the public hearing later, we also look forward to receiving your comments on the delisting proposal.

00:05:18.990 --> 00:05:27.930

USFWS - Lee Andrews: Please remember the ground rules that, Amanda, provided we will do our best to accommodate everyone that wants to ask questions or provide comments tonight.

00:05:29.040 --> 00:05:43.920

USFWS - Lee Andrews: Please remember that you also have the option to provide written comments to us before the comment period closes. We will accept comments received or postmarked on before October 23, 2020.

00:05:45.300 --> 00:05:47.250

USFWS - Lee Andrews: Next slide please. Amanda

00:05:56.220 --> 00:06:10.500

USFWS - Lee Andrews: During this time tonight, we will offer information about the Nashville Crayfish, the Service's proposal to remove it from the list of federally endangered species under the Endangered Species Act, and explain how the public can comment on this proposal.

00:06:11.730 --> 00:06:15.060

USFWS - Lee Andrews: Let's begin with some information about the Nashville crayfish.

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USFWS - Lee Andrews: Next slide please.

00:06:25.590 --> 00:06:32.130

USFWS - Lee Andrews: The Nashville crayfish was described *Oconectes shoupi* in 1948 by Horton Hobbs junior

00:06:32.940 --> 00:06:53.310

USFWS - Lee Andrews: Hobbs was a noted aquatic biologist who described 286 species, including 168 crayfish, current accepted Latin name for the Nashville Crayfish is *Faxonius Shoupi*. However when the Fish and Wildlife Service listed the species it was listed as *Ocanectes shoupi*.

00:06:54.570 --> 00:06:55.650

USFWS - Lee Andrews: Next slide please.

00:07:03.870 --> 00:07:14.940

USFWS - Lee Andrews: The Nashville crayfish is an aquatic crayfish that can reach about seven inches in length, it has four pairs of walking legs and two elongated pincers called chelae.

00:07:16.050 --> 00:07:23.250

USFWS - Lee Andrews: Species coloration can vary, but the pincers have a distinctive orange and black color that is evident in the photograph on this slide.

00:07:24.300 --> 00:07:25.350

USFWS - Lee Andrews: Next slide please.

00:07:35.430 --> 00:07:44.130

USFWS - Lee Andrews: The species was believed to be endemic to the Mill Creek watershed in metropolitan Davidson and Williamson counties Tennessee.

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USFWS - Lee Andrews: The Mill Creek Watershed flows north from Williamson County into Davidson County before ultimately draining into the Cumberland River in Nashville.

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USFWS - Lee Andrews: However, specimens of this species were collected in 2019 by the Tennessee Wildlife Resources Agency from the Tennessee River below Pickwick Landing Dam.

00:08:03.990 --> 00:08:16.620

USFWS - Lee Andrews: Preliminary genetic analysis of those specimens by Tennessee Technological University verify that they were Nashville Crayfish and that they were unlikely to be transplants

00:08:17.160 --> 00:08:29.760

USFWS - Lee Andrews: From the Mill Creek population. The Tennessee River population expands the range of this species significantly and increases its genetic representation and population redundancy. Next slide please.

00:08:37.200 --> 00:08:46.230

USFWS - Lee Andrews: The red dots on this map show all the locations in the Mill Creek Watershed where the Nashville Crayfish has been documented to occur since 1985.

00:08:47.310 --> 00:08:55.890

USFWS - Lee Andrews: This is well over 100 locations in the watershed. It is important to note, however, that all potential habitats in the watershed have not been surveyed

00:08:56.610 --> 00:09:06.990

USFWS - Lee Andrews: So we believe the species may be more widespread in the watershed than this map shows. This map also shows that the species persists in both relatively undeveloped

00:09:07.500 --> 00:09:21.180

USFWS - Lee Andrews: And highly developed portions of the watershed. The highly developed portions of the watershed are the yellow and brown colors in this figure, while the green shows the relatively undeveloped areas. Next slide please.

00:09:27.810 --> 00:09:39.690

USFWS - Lee Andrews: The habitats used by the species can vary. Adults appear to prefer imbedded slab rocks which are large, flat rocks with spaces underneath where they can hide from predators.

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USFWS - Lee Andrews: An example of this type of habitat is shown in the photograph on the top left of this slide.

00:09:47.340 --> 00:10:00.120

USFWS - Lee Andrews: The surveyors in this photograph are lifting a large flat rock to determine if Nashville crayfish are present

underneath it. A large adult crayfish would need a large space to use as shelter.

00:10:01.590 --> 00:10:09.630

USFWS - Lee Andrews: Juveniles can be found in a variety of habitats. But seem to prefer vegetative aquatic habitats, such as the one shown in the lower left of this slide

00:10:10.560 --> 00:10:15.720

USFWS - Lee Andrews: Where they can be more easily where they can more easily find forage and shelter from predators.

00:10:16.710 --> 00:10:33.540

USFWS - Lee Andrews: The smaller size of juveniles allows them to occupy smaller available habitats within the stream. The species has also been found in stormwater retention ponds, demonstrating that it has ability to adapt to a variety of habitats. Next slide please.

00:10:39.270 --> 00:10:50.100

USFWS - Lee Andrews: Some of the relevant life history characteristics of the species are shown on the next two slides. The species tends to be solitary, although it can occur at relatively high densities in good habitat.

00:10:51.060 --> 00:11:09.120

USFWS - Lee Andrews: It tends to avoid daylight, while preferring to remain undercover or in cover during daylight hours. This is likely a predator avoidance measure. The Nashville Crayfish's predators can include raccoons, fish, wading birds, otters, and aquatic snakes. Next slide please.

00:11:13.260 --> 00:11:19.830

USFWS - Lee Andrews: Males began to be ready to mate in late summer, but most mating probably occurs in the fall and early winter months.

00:11:20.730 --> 00:11:27.840

USFWS - Lee Andrews: Females begin laying and carrying eggs in winter but eggs and young can be found on females into the spring months.

00:11:28.770 --> 00:11:45.810

USFWS - Lee Andrews: The Nashville crayfish is an omnivore that eats a variety of plant and animal material. Food items likely include algae, other aquatic invertebrates that it finds on the streambed, fish, eggs and decaying animal matter. Next slide please.

00:11:51.840 --> 00:12:03.660

USFWS - Lee Andrews: The Fish and Wildlife Service listed the Nashville Crayfish as an endangered species on September 26, 1986 and the listing became effective on October 27, 1986.

00:12:04.740 --> 00:12:12.960

USFWS - Lee Andrews: At the time the species was listed, we identified a number of habitat related threats to the species. These included siltation,

00:12:13.470 --> 00:12:29.220

USFWS - Lee Andrews: Stream alterations, and water quality deterioration resulting from urban development pressures. We also found that its limited distribution by the species vulnerable to stochastic events like toxic chemical spills. Next slide please.

00:12:37.650 --> 00:12:49.590

USFWS - Lee Andrews: To address the recovery of the Nashville crayfish, the Fish and Wildlife Service published recovery plans for the species on August 12, 1987 and February 8, 1989.

00:12:50.550 --> 00:12:57.570

USFWS - Lee Andrews: Since its listing, the Fish and Wildlife Service has compiled the available data on the species and reported that information to Congress.

00:12:58.740 --> 00:13:10.320

USFWS - Lee Andrews: Proactive recovery actions implemented by the Fish and Wildlife Service and its local partners include numerous surveys for the species, developing monitoring protocols for the species,

00:13:10.860 --> 00:13:19.140

USFWS - Lee Andrews: Improvements to the Nashville International Airport stormwater collection system, and the removal of five in-stream barriers in the watershed.

00:13:20.280 --> 00:13:26.040

USFWS - Lee Andrews: The photograph on this slide was taken during one of those cooperative barrier removal actions.

00:13:27.420 --> 00:13:42.600

USFWS - Lee Andrews: Notable partners include the Nashville Zoo, the Tennessee Wildlife Resources Agency, the Tennessee Department of

Environment and Conservation, the Cumberland River Compact, the Mill Creek Watershed Association, and numerous private landowners and developers.

00:13:43.860 --> 00:13:44.940

USFWS - Lee Andrews: Next slide please.

00:13:50.310 --> 00:14:07.290

USFWS - Lee Andrews: Now let's transition to the Fish and Wildlife Service's proposal to remove the Nashville Crayfish from the Federal list of endangered and threatened species. And I want to give you some background and timeline on the Service's actions that led to the proposal to delist the Nashville Crayfish.

00:14:08.850 --> 00:14:14.100

USFWS - Lee Andrews: In early 2017, the Service completed a five-year review for the Nashville Crayfish.

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USFWS - Lee Andrews: This review of the species' status is required by the Endangered Species Act and it resulted in the determination that the species should be downlisted to threatened.

00:14:26.250 --> 00:14:43.260

USFWS - Lee Andrews: To arrive at that downlisting determination, the Service relied on information showing that the species can be found in large numbers at some locations within the watershed and the Nashville Crayfish are typically the most abundant crayfish species found in surveys in the Mill Creek Watershed.

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USFWS - Lee Andrews: We also rely on survey data that showed the species had been found in several other tributaries within the watershed and that local partners were implementing measures to conserve and improve habitat conditions in the watershed.

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USFWS - Lee Andrews: Finally, we noted that the species had continued to persist widely in the watershed in spite of the water and habitat alterations that had occurred over the more than 30 years that the species had been listed.

00:15:16.890 --> 00:15:30.960

USFWS - Lee Andrews: These types of alterations were the primary threats identified when the species was listed, but the species

appears to be more resilient to these habitat loss and degradation threats than we expected when we listed the species in 1986.

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USFWS - Lee Andrews: Collectively this information led us to believe that the species was not in danger of extinction in the foreseeable future, and that listing the species as threatened was likely more appropriate. Next slide please.

00:15:52.920 --> 00:16:01.860

USFWS - Lee Andrews: The next step in the process was for the Service to develop a species status assessment, or SSA, to support the proposed delisting rule.

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USFWS - Lee Andrews: Excuse me. That should be the proposed downlisting rule for the species.

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USFWS - Lee Andrews: An SSA is a detailed scientific analysis of a species' viability in terms of the conservation biology principles of resiliency, redundancy, and representation.

00:16:23.040 --> 00:16:34.530

USFWS - Lee Andrews: The SSA for the Nashville crayfish was developed by Texas A&M University for the Service. It modeled predictions of future species viability to changes in its environment.

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USFWS - Lee Andrews: The SSA was finalized on July 25, 2018 and it was peer reviewed.

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USFWS - Lee Andrews: Resiliency describes the ability of a species to withstand stochastic disturbance.

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USFWS - Lee Andrews: Redundancy describes the ability of a species to withstand catastrophic events, and representation describes the ability of a species to adapt to changing environmental conditions over time.

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USFWS - Lee Andrews: Next slide please.

00:17:10.260 --> 00:17:26.430

USFWS - Lee Andrews: The SSA made resiliency predictions for three likely future scenarios. In each of these scenarios, the SSA found that the species would have more than one highly resilient population and that all populations would persist.

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USFWS - Lee Andrews: Under the status quo scenario, the species would have five highly resilient population segments, two moderately resilient populations segments, and three population segments with low risk resiliency.

00:17:44.100 --> 00:17:58.590

USFWS - Lee Andrews: With increased conservation in the watershed, the species would have seven highly resilient population segments, two moderately resilient population segments, and one population segment with low resiliency.

00:18:00.150 --> 00:18:02.610

USFWS - Lee Andrews: And even under the predicted worst-case scenario,

00:18:03.720 --> 00:18:14.610

USFWS - Lee Andrews: The Nashville Crayfish would have two highly resilient population segments, five moderately resilient population segments, and three population segments with low resiliency.

00:18:16.200 --> 00:18:17.310

USFWS - Lee Andrews: Next slide please.

00:18:26.460 --> 00:18:30.630

USFWS - Lee Andrews: The information was then provided to the Service's regional management to make a decision.

00:18:31.800 --> 00:18:36.360

USFWS - Lee Andrews: On relative to the listing status of the Nashville Crayfish.

00:18:38.310 --> 00:18:45.240

USFWS - Lee Andrews: Using these data that show that the Nashville Crayfish is likely to persist under a range of likely future conditions,

00:18:45.780 --> 00:18:57.570

USFWS - Lee Andrews: Service Management decided that the species should be delisted because the best available data show that the species does not meet the definition of either an endangered or threatened species.

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USFWS - Lee Andrews: Next slide please.

00:19:04.470 --> 00:19:17.190

USFWS - Lee Andrews: As a result of this decision, the proposed delisting rule for the Nashville Crayfish was developed, which published on October, excuse me, November 26, 2019.

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USFWS - Lee Andrews: The proposed rule opened the 60-day comment period. However, the Service inadvertently did not post a copy of the SSA, the post-delisting monitoring plan and other supporting documentation to regulations.gov.

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USFWS - Lee Andrews: Next slide please.

00:19:40.020 --> 00:19:49.110

USFWS - Lee Andrews: Because we did not provide the public with all the information we needed to provide, the groups listed on this slide requested that we extend the public comment period

00:19:49.530 --> 00:20:06.750

USFWS - Lee Andrews: And hold a public hearing on the proposed delisting rule. We have now reopened the public comment period. The reopened 30-day public comment period began on September 23, 2020 and ends on October 23, 2020

00:20:08.820 --> 00:20:09.930

USFWS - Lee Andrews: Next slide please.

00:20:14.130 --> 00:20:22.680

USFWS - Lee Andrews: We will hold a public hearing on the Fish and Wildlife Service's proposal to delist the Nashville Crayfish later tonight after this virtual information meeting.

00:20:23.430 --> 00:20:36.810

USFWS - Lee Andrews: The public is welcome to provide comments on the Service's proposal to delist the Nashville crayfish, and we are

particularly interested in receiving any new scientific or commercial data about the Nashville crayfish.

00:20:38.880 --> 00:20:43.950

USFWS - Lee Andrews: That's the end of my presentation up, excuse me, or next slide please.

00:20:52.920 --> 00:21:17.820

USFWS - Lee Andrews: As a reminder to everyone that may be listening tonight, all of the documents related to this proposal to delist the Nashville Crayfish can be found at www.regulations.gov under docket number FWS-R4-ES-2018-0062.

00:21:18.900 --> 00:21:33.990

USFWS - Lee Andrews: The documents are also available on the website for the Service's Tennessee Ecological Services Field Office at www.fws.gov/Cookeville.

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USFWS - Lee Andrews: We will accept comments until October 23, 2020 at the www.regulations.gov website under docket number FWS-R4-ES-2018-0062.

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USFWS - Lee Andrews: Next slide please.

00:22:04.410 --> 00:22:09.000

USFWS - Lee Andrews: We will now open the webinar and phones for questions about the information we have provided.

00:22:09.960 --> 00:22:17.550

USFWS - Lee Andrews: Please note that comments on the proposed rule to delist the Nashville crayfish can be made during the public hearing that follows this informational meeting.

00:22:18.540 --> 00:22:22.950

USFWS - Lee Andrews: Comments made during this informational meeting will not be included in the record.

00:22:23.910 --> 00:22:34.380

USFWS - Lee Andrews: Comments for the record on this proposed rule must be made during the public hearing that follows or they must be made in writing, or as otherwise specified, in the proposed rule.

00:22:35.340 --> 00:22:48.750

USFWS - Lee Andrews: If you have previously submitted written comments, there is no need to resubmit those comments. They have already been received and will be considered. Thank you for this, for your time this evening, and now I will turn control of the meeting back to Amanda.

00:22:53.520 --> 00:23:01.230

EMPSi - Amanda Biedermann: Thank you Lee. Hello everyone. Again, my name is Amanda Biedermann, and I'm going to be the moderator for the Q and A session today

00:23:01.530 --> 00:23:07.530

EMPSi - Amanda Biedermann: As well as the public comment portion of the meeting, which, as we said, we will get to after this Q and A session.

00:23:08.160 --> 00:23:20.220

EMPSi - Amanda Biedermann: So we're now going to begin the Q and A portion of this meeting. The intent of this Question and Answer session is to answer any process-related questions you have for Fish and Wildlife service stuff on the proposal.

00:23:22.020 --> 00:23:28.170

EMPSi - Amanda Biedermann: And as Lee said, if you would like to submit a comment verbally please wait until after the Q and A session today.

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EMPSi - Amanda Biedermann: I will first go over instructions for how to submit a question using the chat function if you are using the zoom web platform or as new app.

00:23:38.070 --> 00:23:43.290

EMPSi - Amanda Biedermann: After we have gone through questions submitted via the zoom web platform or zoom app chat feature,

00:23:43.680 --> 00:23:50.700

EMPSi - Amanda Biedermann: We will move on to participants calling in over the phone who would like to ask a question. So please stay tuned for those instructions.

00:23:51.690 --> 00:24:01.110

EMPSi - Amanda Biedermann: At this time if you have a question and you are using the zoom web platform or zoom app, please go ahead and click on the chat icon at the bottom of your zoom screen.

00:24:03.000 --> 00:24:14.730

EMPSi - Amanda Biedermann: If you hover your mouse over the bottom of your zoom screen, that chat icon should appear for you, and you can type your question into the chat box and please send it to the host of today's meeting Amy Lewis.

00:24:15.210 --> 00:24:22.380

EMPSi - Amanda Biedermann: I will then read your question aloud for all participants to hear and a Fish and Wildlife Service staff member will respond to your question aloud.

00:24:22.980 --> 00:24:33.300

EMPSi - Amanda Biedermann: We will try to answer your questions in the order that they are received. So, please note that there may be a pause between you asking your questions and a Fish and Wildlife Service member answering your question.

00:24:34.020 --> 00:24:38.730

EMPSi - Amanda Biedermann: So at this time, if you do have a question, please go ahead and send that over to Amy Lewis.

00:24:40.950 --> 00:24:45.210

EMPSi - Amanda Biedermann: And it looks like we have our first question already. So as I said, I'll read that aloud,

00:24:45.660 --> 00:24:54.090

EMPSi - Amanda Biedermann: And I will then unmute Lee Andrews and he will respond to that question, or will designate another Fish and Wildlife service member to answer that question.

00:24:54.840 --> 00:25:05.520

EMPSi - Amanda Biedermann: So our first question is, "Do you all have an anticipated timeline for making a decision and issuing a final rule?" So Lee, I'm going to go ahead and unmute you if you'd like to answer that.

00:25:11.400 --> 00:25:21.030

USFWS - Lee Andrews: We don't have a specific timeline. Someone else on the phone, may be better to give an answer to that based on previous experience getting these rules,

00:25:22.230 --> 00:25:26.670

USFWS - Lee Andrews: Through the review and approval process, possibly Kristi maybe.

00:25:28.620 --> 00:25:31.110

EMPSi - Amanda Biedermann: Sure, I'll go ahead and unmute Kristi Young.

00:25:34.890 --> 00:25:38.850

USFWS - Kristi Young: Hello everybody. My best estimate would be probably early next year.

00:25:44.730 --> 00:26:01.830

EMPSi - Amanda Biedermann: Okay, great. Thank you, Kristi and Lee, and we'll move on to our next question, as I see that somebody has already submitted another question. And so the question is if the Fish and Wildlife Service could please speak more about the two dash seven, three dash seven, etc. measurements.

00:26:04.560 --> 00:26:18.690

EMPSi - Amanda Biedermann: And if that question or participant would like to offer any more detail on that question, they're welcome to go ahead if you want to also provide any detail you can on that question, go ahead. Or I can unmute another Fish and Wildlife Service member.

00:26:19.590 --> 00:26:23.370

USFWS - Lee Andrews: Yeah, I'm not, I'm not sure what that question is, is asking exactly.

00:26:24.600 --> 00:26:35.910

EMPSi - Amanda Biedermann: Sure. We'll wait and see if perhaps the participant has some follow up detail to that question. For now we'll move on to our third question. We'll loop back around to our second question

00:26:36.480 --> 00:26:44.580

EMPSi - Amanda Biedermann: If they provide more detail, but our third question is "Is there evidence that the population segments you referenced are reproducing?"

00:26:49.740 --> 00:26:52.740

USFWS - Lee Andrews: We'll need to defer to one of our biologists on that.

00:26:55.650 --> 00:27:00.660

EMPSi - Amanda Biedermann: Okay, we'll wait and see which Fish and Wildlife service member would like to take that question.

00:27:03.390 --> 00:27:09.780

EMPSi - Amanda Biedermann: And it looks like I'll go ahead and unmute Steve Alexander if you would like to offer some more insight to that question.

00:27:12.780 --> 00:27:13.740

USFWS - Steve Alexander: Based on the

00:27:14.970 --> 00:27:19.320

USFWS - Steve Alexander: Various removal projects and most of the projects

00:27:20.340 --> 00:27:31.530

USFWS - Steve Alexander: That developers get permitted for in the watershed, typically a sweep is before is performed within the project area and 100 meters downstream.

00:27:32.040 --> 00:27:36.930

USFWS - Steve Alexander: And most of those sweeps and most of those surveys, depending on the time of year that they're done

00:27:37.890 --> 00:27:55.590

USFWS - Steve Alexander: would yield juvenile specimens, especially in those gestitia habitats where they seek additional cover and they're not subject to predation as much by possibly other species occurring within that reach.

00:28:01.200 --> 00:28:03.300

EMPSi - Amanda Biedermann: Great. Thank you, Steve for providing that response.

00:28:05.280 --> 00:28:14.430

EMPSi - Amanda Biedermann: I'll go ahead and put you back on mute. And it looks like we do have some follow up to question two. And so the follow up to that question

00:28:15.390 --> 00:28:32.040

EMPSi - Amanda Biedermann: Is they would just like more detail on the slide that you went over that talked about the two populations, three populations, etc. and what is considered appropriate for that. And looks like maybe we can get some more input from a Fish and Wildlife service staffer.

00:28:36.360 --> 00:28:41.430

EMPSi - Amanda Biedermann: I'll go ahead and unmute Steve again if he wants to add more detail to that response.

00:28:48.090 --> 00:28:50.070

USFWS - Lee Andrews: Yeah, I think the question is about

00:28:50.100 --> 00:28:54.540

USFWS - Lee Andrews: The three scenarios and where

00:28:55.740 --> 00:29:04.110

USFWS - Lee Andrews: the predictions were made, were they were under the status quo scenario. There were estimated to be

00:29:05.130 --> 00:29:13.110

USFWS - Lee Andrews: Under that scenario, five highly resilient populations, two moderately resilient, and three low resiliency populations.

00:29:14.580 --> 00:29:17.820

USFWS - Lee Andrews: The SS A describes how those

00:29:19.770 --> 00:29:29.250

USFWS - Lee Andrews: Predictions were made and what the criteria were for what constituted high, moderate and low and

00:29:30.480 --> 00:29:36.510

USFWS - Lee Andrews: And I think that maybe Mike Marshall might have a little more information to provide on that.

00:29:38.100 --> 00:29:39.930

EMPSi - Amanda Biedermann: Sure, I'll go ahead and unmute Mike.

00:29:45.750 --> 00:29:53.400

Texas A&M - Mike Marshall: Yeah. So if I'm understanding the question correctly it notes, what is considered appropriate

00:29:54.660 --> 00:30:05.670

Texas A&M - Mike Marshall: From an SSA perspective. We don't denote how many populations of high resilience is appropriate in terms of viability. We just

00:30:06.600 --> 00:30:19.830

Texas A&M - Mike Marshall: Suggest that what the data is telling us, there are X number now, we anticipate X amount in the future. So I think that what is considered appropriate is sort of separate from the SSA and more of a recommendation question.

00:30:25.530 --> 00:30:39.330

EMPSi - Amanda Biedermann: Great. Thank you, Mike for that input and we'll go ahead and move on to our next question. So that question is, "Is there information on whether there is significant harvesting of species by people to eat?"

00:30:45.570 --> 00:30:48.870

USFWS - Lee Andrews: I am not aware of any information related to

00:30:48.870 --> 00:30:50.760

USFWS - Lee Andrews: That. But some of the other staff might.

00:30:54.150 --> 00:30:55.680

EMPSi - Amanda Biedermann: Okay, we'll pause for a second

00:30:57.030 --> 00:31:06.420

EMPSi - Amanda Biedermann: And see if another Fish and Wildlife Service member would like to answer this, and it looks like Steve Alexander may again have some info. So I'll go ahead and unmute him.

00:31:08.850 --> 00:31:11.370

USFWS - Steve Alexander: There was a news article that

00:31:13.980 --> 00:31:19.170

USFWS - Steve Alexander: Got a lot of circulation probably 10 to 15 years ago.

00:31:20.460 --> 00:31:34.290

USFWS - Steve Alexander: There had been some suggestions that perhaps a certain ethnic population in Nashville was harvesting crayfish for food and perhaps serving them at local restaurants.

00:31:35.310 --> 00:31:39.030

USFWS - Steve Alexander: But we never found any evidence that that was the case.

00:31:40.140 --> 00:31:43.440

USFWS - Steve Alexander: So I'm not aware there's any specific

00:31:44.670 --> 00:31:48.030

USFWS - Steve Alexander: information or evidence that suggests otherwise.

00:31:50.160 --> 00:31:58.860

USFWS - Lee Andrews: Yeah, I'd like to add to that if folks have that sort of information, we would certainly like to receive that during the public comment period.

00:32:04.080 --> 00:32:25.560

EMPSi - Amanda Biedermann: Great. Thank you, Steve and Lee for your response to that question. We'll move on to the next question. And that question is "Under resiliency model projections, where are the areas of low resiliency located?" And I'm going to go ahead and unmute Mike again so that he can respond to that question.

00:32:28.170 --> 00:32:41.580

Texas A&M - Mike Marshall: Sure. So a little difficult to do without a map, but they were essentially the smaller tributaries, so not even tributary systems but single small tributaries that were located

00:32:42.150 --> 00:32:54.120

Texas A&M - Mike Marshall: Both in the northern portion of the range so near to the airport and also some of the smaller single streams that are in sort of the middle section of the watershed. So I hope that helps.

00:32:59.250 --> 00:33:09.150

EMPSi - Amanda Biedermann: Great. Thank you, Mike for that response. We'll go ahead and move on to our next question. We are getting quite a lot of questions but if you do have a follow up to a question

00:33:09.480 --> 00:33:20.190

EMPSi - Amanda Biedermann: Feel free to send that in and we will try to address that once we get to the end of all the questions that we currently have coming up next. So our next question that we have

00:33:21.210 --> 00:33:34.770

EMPSi - Amanda Biedermann: The participants said "You refer to population segments and the number that would be stable or weak under various modeling scenarios. Can you explain how you're defining populations segments and how you arrived at that designation?"

00:33:37.200 --> 00:33:43.020

EMPSi - Amanda Biedermann: And I'll go ahead and unmute both Mike and Steve, if they would like to contribute to this response.

00:33:56.340 --> 00:33:58.890

USFWS - Lee Andrews: Amanda, it might be good to repeat the question real quick.

00:34:00.060 --> 00:34:15.540

EMPSi - Amanda Biedermann: Of course. So the question is, "You refer to population segments and the number that would be stable under various modeling scenarios. Can you explain how you are defining populations segment and how you arrived at that designation?"

00:34:17.880 --> 00:34:27.120

Texas A&M - Mike Marshall: Okay, this is Mike I was having a hard time unmuting. Um yeah so that's a little bit complicated, and can be found in the SSA, but

00:34:27.990 --> 00:34:44.550

Texas A&M - Mike Marshall: In general, we turn them population segments, because we don't really have enough information to designate biological populations, but to assess resiliency, we needed to have some sort of unit that we could compare and that's based off of hydrology.

00:34:46.050 --> 00:34:56.730

Texas A&M - Mike Marshall: And that's also based off of sort of the surveys and whether they were in within a tributary system or a main stem or single tributary. So all of that went into

00:34:57.450 --> 00:35:08.730

Texas A&M - Mike Marshall: delineating what we call population segments which is not to say that that's particularly a biological population, but a unit that was useful to compare across the entire watershed.

00:35:09.750 --> 00:35:13.020

Texas A&M - Mike Marshall: And Steve, I don't know if you wanted to add anything else to that.

00:35:17.070 --> 00:35:18.300

USFWS - Steve Alexander: No, I think that's good.

00:35:23.070 --> 00:35:28.920

EMPSi - Amanda Biedermann: Great. Thank you, Steve and Mike for those responses. We'll go ahead and move on to our next question.

00:35:29.550 --> 00:35:43.680

EMPSi - Amanda Biedermann: And that question is "Would a potential administration change have a bearing on a decision to delist the Nashville Crayfish from the endangered species list?" And it looks

like Kristi Young is going to weigh in on this question. So I'll go ahead and unmute her.

00:35:53.280 --> 00:36:03.960

USFWS - Kristi Young: So the decision to either add a species to the list of threatened or endangered species or to remove it from that list is based solely on the best scientific or commercial information.

00:36:04.800 --> 00:36:12.960

USFWS - Kristi Young: So, you know, we will be securing the information that we have in any new information that has been obtained in making that decision.

00:36:16.890 --> 00:36:30.690

EMPSi - Amanda Biedermann: Great, thank you. Kristi and we'll go ahead and move on to our next question, and that question is "What is the status of the population found at Paris landing? Does this mean the distribution is not just in the Mill Creek Watershed?"

00:36:35.460 --> 00:36:35.850

USFWS - Lee Andrews: Okay.

00:36:38.010 --> 00:36:47.400

USFWS - Lee Andrews: Yeah, the newly identified Tennessee River population, you know, is separate and

00:36:49.170 --> 00:36:55.290

USFWS - Lee Andrews: You know, the information data appeared to support that it is the Nashville Crayfish.

00:37:00.900 --> 00:37:14.130

EMPSi - Amanda Biedermann: Great, thank you Lee for that response. We'll go ahead and move on to our next question, and that question is "Is there evidence of harvesting of the crayfish and what are your thoughts on the impact of this harvesting on the crayfish resilience?"

00:37:18.120 --> 00:37:26.100

USFWS - Lee Andrews: Well, I think we essentially answered that question before. You know, we don't have any data as Steve summarized, suggesting

00:37:27.120 --> 00:37:36.090

USFWS - Lee Andrews: That harvesting or whatever purpose is affecting the species. If folks have that information, please provide it to us.

00:37:39.690 --> 00:37:54.000

EMPSi - Amanda Biedermann: Great, thank you for that clarification. We'll move into our next question, and that question is, "Do the scenarios take into consideration changes in the watershed that would take place under reduced ESA protections?"

00:37:59.070 --> 00:37:59.880

USFWS - Lee Andrews: I'll take that one.

00:38:01.350 --> 00:38:09.210

USFWS - Lee Andrews: The, the scenarios are the scenarios, whenever the SSA was developed so

00:38:11.250 --> 00:38:24.150

USFWS - Lee Andrews: You know that there's, there's the ESA ramifications of it are basically silent in all those scenarios. We're looking entirely at know what information we have about the species.

00:38:25.650 --> 00:38:35.760

USFWS - Lee Andrews: You know and what we predict will happen within those watersheds, you know, over a certain period of time, and I believe that that was 40 years or Steve or Mike might be able to

00:38:37.260 --> 00:38:38.670

USFWS - Lee Andrews: Verify that for me, but

00:38:41.070 --> 00:38:51.900

USFWS - Lee Andrews: Yeah, I mean, we're not you know, the listing status is not part - is not one of the factors that goes into us developing these scenarios.

00:38:57.990 --> 00:39:03.930

EMPSi - Amanda Biedermann: Great, thank you for that input. So we'll go ahead and move on to our next question.

00:39:04.650 --> 00:39:20.790

EMPSi - Amanda Biedermann: And that question is "What would be the reason for the tributaries near the airport not supporting a resilient segment? Could this be due to predators or development" And I'll go ahead and again unmute Steve and Mike and see if they have any input on this.

00:39:23.190 --> 00:39:36.870

Texas A&M - Mike Marshall: Sure I'll start. This is my, um, so it. It's not that it does not support a resilient segment. It's that the resilience is considered to be low and

00:39:37.320 --> 00:39:46.470

Texas A&M - Mike Marshall: We think that has to do with the impact earlier on, from the airport and that the Nashville crayfish did come back into that area, but the data suggests that they

00:39:47.160 --> 00:39:56.880

Texas A&M - Mike Marshall: Are occupying that area at a lower density than other areas of the watershed. So it's more that there just aren't as many of them. They're not that they're not resilient.

00:39:57.960 --> 00:39:59.610

Texas A&M - Mike Marshall: Steve, do you have anything else.

00:40:00.360 --> 00:40:14.220

USFWS - Steve Alexander: Yeah, there's, there's a long, there's a large record for surveys conducted in Sims branch and that area, as it has undergone a lot of development over the last 10 to 20 years

00:40:15.270 --> 00:40:31.590

USFWS - Steve Alexander: But, you know, we found Nashville crayfish in large numbers there at Century Center when they were dredging a storm water pond out to basically get their adequate water storage volumes back.

00:40:32.910 --> 00:40:55.080

USFWS - Steve Alexander: So it's really a function of how often that system is surveyed, and we don't have data that suggests that population is in significant decline. Of course, the major release back in 2010, winter of 2010, did have a

00:40:56.250 --> 00:41:14.940

USFWS - Steve Alexander: Pertinent effect on the system. But as we've mentioned, this species is very resilient and quite likely once the water quality conditions improved and as long as there weren't continuing habitat disturbances, this species very rapidly recolonizes.

00:41:19.770 --> 00:41:29.160

EMPSi - Amanda Biedermann: Great. Thank you, Steve and Mike and I will just go ahead and keep you unmuted as we move into the next question, as you might be able to weigh in again on this question.

00:41:29.730 --> 00:41:40.170

EMPSi - Amanda Biedermann: And so the question is, "Can you define population resiliency, which sounds like a population's ability to survive some impact rather than the species ability to thrive?"

00:41:42.990 --> 00:41:56.640

Texas A&M - Mike Marshall: Sure, I can start on that one. I think it's important to understand the difference between resiliency and redundancy. So with resiliency, we're talking about the normal variation that a population would experience.

00:41:57.240 --> 00:42:04.980

Texas A&M - Mike Marshall: Whereas, for example, we're not talking about catastrophes, for example, which was more about redundancy. So

00:42:05.430 --> 00:42:13.620

Texas A&M - Mike Marshall: We think that a population would be resilient if it had a lot more individuals in it than very few individuals and also if it had

00:42:14.070 --> 00:42:30.330

Texas A&M - Mike Marshall: High quality habitat, as opposed to low quality habitat. So it would be able to better deal with the normal variation from year to year and predators and whatnot but doesn't necessarily take into account these pulse catastrophes; that's more function of redundancy. So I'll stop there.

00:42:35.610 --> 00:42:40.620

EMPSi - Amanda Biedermann: Great, thank you Mike for your input. We'll go ahead and move into the next question.

00:42:41.130 --> 00:42:42.570

USFWS - Lee Andrews: Amanda, let me add one extra

00:42:43.890 --> 00:42:44.940

USFWS - Lee Andrews: Little thing there.

00:42:46.080 --> 00:42:49.980

USFWS - Lee Andrews: You know folks have access to the SSA on our website.

00:42:51.120 --> 00:43:10.320

USFWS - Lee Andrews: Some of the language of the SSA, I think, does a really good job of helping folks understand what those terms mean and

how we evaluate them. So I would encourage folks to, you know, download that document and take a good look at it.

00:43:14.340 --> 00:43:20.730

EMPSi - Amanda Biedermann: Great, thank you Lee for that additional input on that question. We'll go ahead and move into our next question.

00:43:21.420 --> 00:43:38.040

EMPSi - Amanda Biedermann: And that question is early in the presentation, you mentioned a broad partnership contributing to species recovery that included numerous private landowners and developers. And the question is "Who are these developers and what have they done to contribute to the species recovery?"

00:43:49.980 --> 00:43:53.790

USFWS - Lee Andrews: Steve you may need to take that one since you are more familiar with what's going on in the watershed.

00:43:54.540 --> 00:44:01.950

USFWS - Steve Alexander: Well, from a standpoint of development that occurs in the watershed all of the developers, if they're going to impact

00:44:03.000 --> 00:44:22.410

USFWS - Steve Alexander: Mill Creek, or the associated tributaries that support the species, they go through a permitting process and the Service work cooperatively with the Corps of Engineers, TDEC, and other permitting entities in developing special conditions for those developers to follow.

00:44:23.460 --> 00:44:32.340

USFWS - Steve Alexander: The conservation projects that we've implemented with partners primarily involved private landowners and nonprofits and nongovernmental organizations

00:44:32.670 --> 00:44:43.170

USFWS - Steve Alexander: Like the Colorado River compact and Mill Creek Watershed association in removing the old mill dams, if you will, the old barriers and road crossings

00:44:44.190 --> 00:45:04.500

USFWS - Steve Alexander: In the watershed. So it's been a mix. The Nashville Zoo has been a tremendous partner in working with the Service and developing the monitoring, long-term monitoring protocols

where we could go and take some of the older studies that documented actual populations

00:45:05.880 --> 00:45:22.320

USFWS - Steve Alexander: For the species back in the 1980s, 1990s. And so we would have a date to compare how the species was doing in the present tense. So it's, it's been a mix of the cooperative effort,

00:45:23.220 --> 00:45:33.120

USFWS - Steve Alexander: The developers and the agencies, pertinent agencies, the nongovernmental organizations and private landowners. I'd also have to say that the

00:45:34.230 --> 00:45:46.200

USFWS - Steve Alexander: Metropolitan Nashville government, their stormwater control program, have been tremendous partners as well and we do benefit from having a somewhat progressive

00:45:46.920 --> 00:46:04.830

USFWS - Steve Alexander: zoning ordinances in the watershed that has increased buffer zones along those streams that essentially are not to be disturbed during projects that are occurring adjacent to the stream so it's, it's a mix. It's a mix of a lot of cooperative efforts.

00:46:09.330 --> 00:46:18.360

EMPSi - Amanda Biedermann: Great, thank you see for that input. We do have quite a few questions that are up next to be answered. But because we do have

00:46:18.750 --> 00:46:23.100

EMPSi - Amanda Biedermann: About 15 minutes left before we move on to the public comment portion of the meeting

00:46:23.460 --> 00:46:36.240

EMPSi - Amanda Biedermann: I do just want to let our phone callers, know that we will accept questions from them. So you can see on the screen the instructions for if you are calling in just over your phone and you have a question that you would like to ask.

00:46:36.750 --> 00:46:43.920

EMPSi - Amanda Biedermann: Please press star nine on your keypad to use the raise hand function to let me know that you have a question.

00:46:44.370 --> 00:46:52.710

EMPSi - Amanda Biedermann: I can then unmute you so that you can ask your question verbally, and again a Fish and Wildlife Service staff member will respond to that question.

00:46:53.010 --> 00:47:03.360

EMPSi - Amanda Biedermann: So we'll continue to go through our questions received through the chat function, but I do just want to let our two phone callers know that they are welcome to ask questions at this time if they would like.

00:47:05.490 --> 00:47:12.750

EMPSi - Amanda Biedermann: And so we're going to go ahead in the meantime, and move on to our next question. And that question. Let's see here.

00:47:14.130 --> 00:47:24.960

EMPSi - Amanda Biedermann: Okay, so that question is "How is the preliminary information relating to potential existence of the species at Paris landing being incorporated into the decision to delist the species?"

00:47:33.810 --> 00:47:35.400

USFWS - Lee Andrews: I'll take that one, Amanda.

00:47:36.810 --> 00:47:46.980

USFWS - Lee Andrews: So, so in preparing any rule or any sort of decision that the Fish and Wildlife Service made and as Kristi mentioned early on

00:47:47.640 --> 00:47:59.730

USFWS - Lee Andrews: We, we can only consider the best available scientific or commercial data. And so while this particular population wasn't known at the time that we had originally proposed the rule back

00:48:00.960 --> 00:48:04.830

USFWS - Lee Andrews: November of last year, it has come to light since then.

00:48:06.450 --> 00:48:17.310

USFWS - Lee Andrews: We are in the process of evaluating, you know, the data that, that's surrounding that occurrence down there so that we can make a

00:48:17.850 --> 00:48:29.520

USFWS - Lee Andrews: determination as to whether or not that data is accurate, first of all, and then how we would then ultimately use it or not use it in making our decision to the list of species.

00:48:34.680 --> 00:48:43.140

EMPSi - Amanda Biedermann: Great, thank you Lee for that response. We'll go ahead and move into our next question, received through the zoom chat feature.

00:48:43.710 --> 00:48:58.890

EMPSi - Amanda Biedermann: And that question is "Have the effects of climate change, including increased flooding, temperature rise, or droughts, been incorporated into the scenarios?" And I'll go ahead and unmute Mike so that he can offer some input on that question.

00:49:01.770 --> 00:49:19.290

Texas A&M - Mike Marshall: Sure. So climate change models of temperature and precipitation were not included in the future scenarios. We had so much uncertainty in terms of temperature tolerance and then the precipitation models that are currently available are

00:49:20.700 --> 00:49:35.370

Texas A&M - Mike Marshall: Pretty all over the place for the southeast right now. Although every year they're improving so we focused our future conditions analysis on urbanization models and impervious cover projections in the future.

00:49:41.010 --> 00:49:46.260

EMPSi - Amanda Biedermann: Great. Thank you, Mike for that input. We'll go ahead and move on to our next question.

00:49:46.710 --> 00:49:54.420

EMPSi - Amanda Biedermann: And this question relates to the moving of Donaldson Pike and the construction of the runway on the airport property for a future runway.

00:49:54.810 --> 00:50:08.820

EMPSi - Amanda Biedermann: Or the Harding Place Connector that is planned for this watershed. So it's relating to all of that development. And so the question is "How can we increase the population of the species in this area so that it can withstand this future development?"

00:50:11.970 --> 00:50:17.280

EMPSi - Amanda Biedermann: And I'll go ahead and unmute Steve so that he can offer some input on that question.

00:50:18.870 --> 00:50:21.150

USFWS - Steve Alexander: Well, I think development in general terms.

00:50:22.260 --> 00:50:36.390

USFWS - Steve Alexander: Was considered in development of the SSA. I'm not specifically familiar with that project. I have heard about that project. But I think, as I mentioned earlier

00:50:37.560 --> 00:50:55.890

USFWS - Steve Alexander: Permitting processes - the existing populations that occurred nearly airport in Sim's branch and some of the other tributaries to Sims and above Sims branch in the Mill Creek proper I think will be protected and

00:50:56.940 --> 00:51:16.890

USFWS - Steve Alexander: The airport has implemented a very significant stormwater control system so that should be beneficial for any construction-related activities that occur on the Metropolitan National Airport authority property. So I think going forward, the species is protected from that project.

00:51:19.410 --> 00:51:22.050

USFWS - Lee Andrews: I'd like to add a couple things to that, if I could.

00:51:23.160 --> 00:51:24.930

USFWS - Lee Andrews: You know with

00:51:26.520 --> 00:51:36.810

USFWS - Lee Andrews: These major projects that go in, you know, it's always a good idea to try to figure out, you know, what opportunities that you have. And of course in these

00:51:37.950 --> 00:51:42.930

USFWS - Lee Andrews: Urbanization areas, you know, the things that you're really trying to

00:51:44.160 --> 00:51:48.690

USFWS - Lee Andrews: Combat relative to, you know, species protection

00:51:50.190 --> 00:51:59.040

USFWS - Lee Andrews: Are the flashiness of the streams, you know, fiscal habitat disturbance, those sorts of things. So I would think that that00:51:59.580 --> 00:52:12.420

USFWS - Lee Andrews: You know stormwater retention, you know, extra storm water retention would be a good thing, you know, trying to do some instream habitat work. That would benefit the species would be a good thing.

00:52:13.980 --> 00:52:18.720

USFWS - Lee Andrews: And are certainly plenty of smart folks here in Nashville that can help figure out how to do that.

00:52:24.600 --> 00:52:32.850

EMPSi - Amanda Biedermann: Great, thank you all for that input. And so we have a few minutes still until we move on to the public comment portion of the meeting.

00:52:33.240 --> 00:52:42.120

EMPSi - Amanda Biedermann: Again, I just want to let phone callers know that you are welcome to ask questions if you would like. Just please press star nine on your keypad

00:52:42.510 --> 00:52:49.230

EMPSi - Amanda Biedermann: And I'll see you that you've accessed the raise hand feature and then be able to call on you so that you can ask your question aloud.

00:52:50.010 --> 00:52:55.800

EMPSi - Amanda Biedermann: But in the meantime, we'll move back over to our questions received via the zoom chat feature.

00:52:56.610 --> 00:53:09.480

EMPSi - Amanda Biedermann: And so the question we have is "Will the Fish and Wildlife Service be making the genetic analysis and other data related to the Pickwick landing individuals that have been found available to the public?"

00:53:09.990 --> 00:53:17.010

EMPSi - Amanda Biedermann: And another question on top of that is, "Is there evidence that this is a viable population that will be sustained over time?"

00:53:19.920 --> 00:53:26.850

USFWS - Lee Andrews: I'll answer the first question and yes, the data if it's, if it comes to us, it will be available to the public.

00:53:28.380 --> 00:53:34.200

USFWS - Lee Andrews: Second question, you know, gets back sort of what I was saying earlier about us evaluating the data.

00:53:35.160 --> 00:53:46.770

USFWS - Lee Andrews: We don't, we don't have an idea yet as to whether or not that population is viable. But I will say there were a fair number of individuals that were collected for the genetic analysis. So it appears the

00:53:47.940 --> 00:53:58.740

USFWS - Lee Andrews: You know, some number of crayfish at that location. We don't know exactly how large that actually is yet, but hopefully that'll be something that we can figure out moving forward.

00:54:01.410 --> 00:54:03.750

USFWS - Lee Andrews: And then one final one final thing on that though.

00:54:05.820 --> 00:54:16.230

USFWS - Lee Andrews: You know, it gets back to the point I was trying to make a little bit earlier, it's not necessarily important to this particular question.

00:54:17.370 --> 00:54:28.530

USFWS - Lee Andrews: Relative to the listing because, you know, our current data show that regardless of that population, down in Tennessee River, that the Mill Creek.

00:54:30.420 --> 00:54:42.390

USFWS - Lee Andrews: Nashville crayfish populations should persist and are therefore not, they don't meet the definition of endangered or threatened, so they could be delisted without that that.

00:54:46.980 --> 00:54:54.510

EMPSi - Amanda Biedermann: Great, thank you Lee for that response. So it looks like we have time to address maybe one or two more questions before we move on.

00:54:55.020 --> 00:55:03.870

EMPSi - Amanda Biedermann: And so we do have another question. And that question is "If developers currently have to comply with special permit conditions to protect the crayfish

00:55:04.260 --> 00:55:16.110

EMPSi - Amanda Biedermann: What will happen to that permitting process and those requirements if the species is delisted? And absent those permitting requirements, what regulations exist that will continue to protect habitat for the species?"

00:55:18.870 --> 00:55:25.110

EMPSi - Amanda Biedermann: And I'll go ahead and unmute Steve and Byron Hamilton as well if they want to weigh in on this question.

00:55:28.050 --> 00:55:35.130

USFWS - Steve Alexander: Well, the State will still have regulations in place that would be pertinent to Nashville crayfish.

00:55:36.660 --> 00:55:44.040

USFWS - Steve Alexander: Metropolitan Nashville would still have stormwater regulations in place that should provide adequate buffers

00:55:45.360 --> 00:55:52.320

USFWS - Steve Alexander: On Mill Creek and tributaries and into the system. I assume the same is the case for Williamson County.

00:55:53.940 --> 00:56:00.750

USFWS - Steve Alexander: And hopefully there would be an opportunity for the Service to work within the Corps of Engineers authorities

00:56:02.040 --> 00:56:16.740

USFWS - Steve Alexander: As well because they also have a responsibility for the conservation of species and there might be some potential other actions that the Corps could consider when they're issuing permits related to section 404 of the Clean Water Act.

00:56:17.880 --> 00:56:37.200

USFWS - Steve Alexander: The state of Tennessee through Tennessee Department of Environmental Conservation has ARAP permitting process and they would also be able to address specific permits and apply appropriate conditions to protect that species. So I think there is

00:56:38.250 --> 00:56:45.150

USFWS - Steve Alexander: Significant mechanisms already existing and there may be new mechanisms that could come into play at some point in the future.

00:56:51.660 --> 00:56:53.280

EMPSi - Amanda Biedermann: Great. Thank you, Steve for that

00:56:54.870 --> 00:57:00.180

EMPSi - Amanda Biedermann: And so at this time we're going to go through our last question that we've received. We do have a couple more.

00:57:00.450 --> 00:57:06.840

EMPSi - Amanda Biedermann: But we do also want to make sure that we leave plenty of time for the public comment portion. But I do want to let people know

00:57:07.140 --> 00:57:19.350

EMPSi - Amanda Biedermann: That if we do wrap up with the public comment portion we will come back to these questions and provide input for your question. But for now, we're going to go through one last, final question, and then move on to that public comment portion

00:57:20.160 --> 00:57:35.430

EMPSi - Amanda Biedermann: And so our last question is "What is the evidence for the size and long term viability for the Tennessee River population, and will the Fish and Wildlife Service be providing the chance to review the data and analysis demonstrating that this is a distinct population?"

00:57:38.460 --> 00:57:43.380

USFWS - Lee Andrews: Uh, yeah, I'll take that. I think I answered them in the previous question that was similar.

00:57:44.460 --> 00:57:50.940

USFWS - Lee Andrews: As I said, we don't know if the population is viable there yet, but we will be looking into that and

00:57:51.990 --> 00:57:59.670

USFWS - Lee Andrews: You know, the, the information that we are provided on this piece of the individuals down there, their genetics

00:58:00.900 --> 00:58:03.450

USFWS - Lee Andrews: Will be available for public review.

00:58:05.310 --> 00:58:06.210

USFWS - Lee Andrews: Because it's

00:58:08.250 --> 00:58:09.090

USFWS - Lee Andrews: Public with us.

00:58:12.540 --> 00:58:20.790

EMPSi - Amanda Biedermann: Great, thank you Lee for that response. So we're now going to move on to the public commenting portion, but Lee before we wrap up the Q and A portion

00:58:21.300 --> 00:58:32.580

EMPSi - Amanda Biedermann: Do you just want to introduce the Fish and Wildlife Service staff members who have been responding to these questions just to let everyone know on the meeting today who has been responding to all of their great questions?

00:58:34.020 --> 00:58:46.260

USFWS - Lee Andrews: Sure. Yes. Steve Alexander. He's an ecologist in the Tennessee Field Office. Byron, he was listed at one point, Byron Hamilton. He's with

00:58:47.430 --> 00:59:02.160

USFWS - Lee Andrews: Our species assessment team in the regional office as is Kristi Young. Kristi's the Deputy for a regional group that does that. Mike Marshall, he, he was the person that developed the SSA with Texas A&M University.

00:59:03.540 --> 00:59:05.100

USFWS - Lee Andrews: And I forget anybody?

00:59:08.970 --> 00:59:10.290

EMPSi - Amanda Biedermann: I think you're good.

00:59:12.030 --> 00:59:19.140

EMPSi - Amanda Biedermann: Great. Thank you, Lee. So we're going to move on as I said to the public comment portion. But again, I do just want to stress

00:59:19.440 --> 00:59:28.050

EMPSi - Amanda Biedermann: That we will come back to all the questions that have been submitted that we have not gotten to yet if we have time at the end of the public comment portion.

00:59:28.320 --> 00:59:40.620

EMPSi - Amanda Biedermann: But again, we really want everyone on the meeting today to have the opportunity to submit their comments verbally today. So for now, we're going to close out the Q and A portion and move into the public comment portion.

00:59:45.720 --> 00:59:51.930

EMPSi - Amanda Biedermann: Alright. So as I said, we're going to close out the Q and A portion and move in to the common portion of the meeting.

00:59:52.410 --> 01:00:03.510

EMPSi - Amanda Biedermann: It is about 7pm central time. So we're going to go ahead and get started. Again, this public comment portion of the meeting, along with your comments, is being recorded as part of the official record.

01:00:04.080 --> 01:00:14.250

EMPSi - Amanda Biedermann: As a reminder, your camera and my controls are going to be restricted during this time so you will only be able to talk if and when I unmute you. So please remember to speak once prompted.

01:00:14.970 --> 01:00:19.800

EMPSi - Amanda Biedermann: I will now walk through the order in which we will be accepting public comments from participants today.

01:00:20.310 --> 01:00:28.560

EMPSi - Amanda Biedermann: As you can see on the screen, first we will call on participants who requested to offer a comment when they pre-registered using the registration link.

01:00:29.310 --> 01:00:37.650

EMPSi - Amanda Biedermann: After allowing these participants to offer their comments, we will then open the public comment period to anyone on the meeting today who would like to offer a comment.

01:00:38.280 --> 01:00:51.240

EMPSi - Amanda Biedermann: And again, similar to the Q and A portion, we will first go through participants who request to comment using the zoom web platform or zoom app, and then we'll move on to those participants calling in through the phone today would like to offer a comment.

01:00:55.230 --> 01:01:01.560

EMPSi - Amanda Biedermann: I'm now going to read through instructions for those participants who indicated they wanted to offer a comment when they pre-registered

01:01:02.130 --> 01:01:07.500

EMPSi - Amanda Biedermann: I have a list of these participants and they are ordered in the order that you registered.

01:01:08.400 --> 01:01:16.380

EMPSi - Amanda Biedermann: When it is your turn to comment, I will read your name allow from my list, and I'll display your name on the next screen. When you hear your name called out

01:01:16.710 --> 01:01:24.780

EMPSi - Amanda Biedermann: Please use the raise hand feature so that I know that you are available and ready to off your comment. You can access this raise hand feature.

01:01:25.200 --> 01:01:35.970

EMPSi - Amanda Biedermann: By going to the participants list and then selecting the raise hand feature at the bottom of the participants list. And you can access your participants list at the bottom of your zoom screen.

01:01:36.540 --> 01:01:42.990

EMPSi - Amanda Biedermann: If you wave your mouse back and forth at the bottom of your zoom screen that participants list icon should pop up.

01:01:43.560 --> 01:01:52.680

EMPSi - Amanda Biedermann: Or if you are calling in through the phone today and you're on my pre-registered list, please press star nine when I call out your name so that I know that you are ready to offer your comments.

01:01:53.310 --> 01:01:57.690

EMPSi - Amanda Biedermann: Once you've raised your hand, I will then unmute you so that you can provide your comments.

01:01:58.380 --> 01:02:10.110

EMPSi - Amanda Biedermann: And you may be double muted. If that is the case, I will prompt you to unmute yourself on your end, so that we can hear you. And please spell out your first and last name before providing your comments for the record.

01:02:11.130 --> 01:02:14.580

EMPSi - Amanda Biedermann: And as I mentioned at the beginning of the meeting that we are

01:02:15.120 --> 01:02:22.320

EMPSi - Amanda Biedermann: likely going to be limiting the comments a little bit today just to allow everyone the opportunity to offer their comments who's on the meeting today.

01:02:22.770 --> 01:02:30.990

EMPSi - Amanda Biedermann: So we will generally keep it around five minutes. And when you hit this five-minute mark, I will prompt you and ask that you wrap up your comments.

01:02:31.260 --> 01:02:41.910

EMPSi - Amanda Biedermann: Just so again, we can allow everyone who's on the meeting today an opportunity to offer a comment if they would like to. So please do be respectful of the length of your comment, and this time limit.

01:02:42.660 --> 01:02:49.980

EMPSi - Amanda Biedermann: And again, the Fish and Wildlife Service would like to stress that if you do not feel that you are able to complete your comment within the time frame today

01:02:50.340 --> 01:03:07.470

EMPSi - Amanda Biedermann: Or you have additional follow up on your comment, you can submit the remainder of your comment in writing through regulations.gov as we mentioned earlier. So we're now going to go to our first participant who requested to offer a comment when they pre-registered.

01:03:08.550 --> 01:03:10.800

EMPSi - Amanda Biedermann: Let me switch over my screens quickly.

01:03:23.790 --> 01:03:31.320

EMPSi - Amanda Biedermann: Okay, thank you for your patience, everyone. So our first commenter, as you can see on the screen is Brandon Miller. So Brant

01:03:31.740 --> 01:03:41.370

EMPSi - Amanda Biedermann: I do see that you're on the call today. So if you could access that raise hand feature. Great Brant, I see that

you've raised your hand, so I'm going to go ahead and unmute you Brant.

01:03:43.620 --> 01:03:45.480

Brant Miller: Okay, can you hear me, yes.

01:03:45.840 --> 01:03:56.040

EMPSi - Amanda Biedermann: We can hear you. So I'm gonna just keep an eye on the clock. And I'll let you know if you hit five minutes and ask you to wrap up your comments, but you can go ahead and offer your comments today.

01:03:56.520 --> 01:04:18.600

Brant Miller: Okay, well thanks so much. Thanks for having me. Let me make my comments today. My name is Brandt Miller. B-R-A-N-T M-I-L-L-E-R. I'm a member of the Mill Creek Watershed Association and also the chair of Friends of Mill Creek Greenway in Nashville and also former TVRA

01:04:20.790 --> 01:04:30.840

Brant Miller: Head Forrester there, for quite a few years retired now. Um, hey, well, I'd like to say that I support. I've read

01:04:32.130 --> 01:04:55.620

Brant Miller: the Fish and Wildlife Service SSA went, through that and also have read the Southern Environmental law Center's comments that were submitted in January and I support what the SELC comments that they submitted, I feel that the species should not be delisted. And one of the things

01:04:56.730 --> 01:04:58.890

Brant Miller: The future development in the watershed

01:05:00.450 --> 01:05:10.290

Brant Miller: Will be exacerbated by climate change and I'm, I'm kind of paraphrasing some of their comments that I felt were rang true and it has

01:05:11.730 --> 01:05:20.460

Brant Miller: It, climate change has not been addressed efficiently, including increased flooding, droughts, and temperature increase. In fact when

01:05:20.970 --> 01:05:34.200

Brant Miller: The answer to a question there about climate change, the fact that climate change was not incorporated all into the SSA, really concerns me since it is such a looming factor in all

01:05:35.370 --> 01:05:36.840

Brant Miller: Throughout this region.

01:05:38.370 --> 01:05:50.190

Brant Miller: There's, I think that increased flooding events like we've seen lately are going to become more common and that could have a devastating effect on

01:05:50.910 --> 01:06:02.580

Brant Miller: Nashville Crayfish, as well as having more pollutants spread into the areas where they live, that maybe would not have happened without flooding and

01:06:03.570 --> 01:06:15.030

Brant Miller: Also that development is getting worse, is increasing all the time throughout the watershed and particularly in the upper watershed where

01:06:15.780 --> 01:06:28.680

Brant Miller: It is potentially an area that would repopulate lower areas as events happen that might disturb those populations, but with development in the upper watershed, it seems

01:06:29.970 --> 01:06:33.750

Brant Miller: Likely that this could disrupt any benefits that this

01:06:35.310 --> 01:06:53.280

Brant Miller: Currently less developed area would have. And so again, I appreciate having you accept my comments here and I do agree with the SELC's comments that were submitted. And again, I feel that the species should not be delisted from endangered.

01:06:54.720 --> 01:06:56.490

Brant Miller: That's my comments, appreciate it.

01:06:59.040 --> 01:07:07.230

EMPSi - Amanda Biedermann: Great, thank you very much Brant for offering your comments and I'll go ahead and put you back on mute now, and we'll move on to our next commenter.

01:07:09.210 --> 01:07:21.360

EMPSi - Amanda Biedermann: And so that next commenter is Chelsea Bowling. So, Chelsea. I do see that you're on the meeting today. If you could just raise your hand, just so I know that you are available and ready to offer your comments today.

01:07:23.520 --> 01:07:27.660

EMPSi - Amanda Biedermann: Okay, great. I see that Chelsea has raised her hand. I'm going to go ahead and unmute her.

01:07:30.690 --> 01:07:31.140

EMPSi - Amanda Biedermann: Chelsea.

01:07:32.070 --> 01:07:32.310

Hi.

01:07:34.860 --> 01:07:35.190

Chelsea Bowling: My

01:07:36.720 --> 01:07:39.390

Chelsea Bowling: name is spelled C-H-E-L-S-E-A

01:07:40.410 --> 01:07:42.300

Chelsea Bowling: B-O-W-L-I-N-G.

01:07:43.770 --> 01:07:47.550

Chelsea Bowling: And I'm offering comments on behalf of the Southern Environmental Law Center.

01:07:49.020 --> 01:07:56.700

Chelsea Bowling: So we're commenting to express our continued opposition to the Service's proposal to move the crayfish from the federal list of threatened and

01:07:58.140 --> 01:07:59.460

Chelsea Bowling: Endangered wildlife.

01:08:00.690 --> 01:08:19.170

Chelsea Bowling: The Service put the natural crayfish on the endangered species list some 30 years ago, primary justification for the listing is clear that the crayfish has extremely restricted range and the bioavailability within that range is threatened by water pollution and habitat degradation caused by development.

01:08:20.310 --> 01:08:23.340

Chelsea Bowling: And that limited range makes it intrinsically vulnerable to

01:08:24.450 --> 01:08:26.310

Chelsea Bowling: catastrophic events and chemical spills.

01:08:27.840 --> 01:08:30.120

Chelsea Bowling: But the delisting notice in

01:08:31.440 --> 01:08:43.290

Chelsea Bowling: The presentation, the Service did not explain how those threats have actually been ameliorated or changed over time. Seems like those threats have actually only gotten worse and more severe.

01:08:45.030 --> 01:08:47.580

Chelsea Bowling: I think the only habitat is Mill creek and its tributaries

01:08:48.720 --> 01:08:49.200

Chelsea Bowling: So far,

01:08:50.880 --> 01:08:51.600

Chelsea Bowling: We knew

01:08:53.490 --> 01:08:54.390

Chelsea Bowling: Prior to

01:08:55.860 --> 01:08:59.790

Chelsea Bowling: further review and release of the data about the

01:09:01.140 --> 01:09:07.290

Chelsea Bowling: Pickwick potential population and Mill Creek watershed is becoming more urbanized as Nashville grows

01:09:08.970 --> 01:09:10.350

Chelsea Bowling: As well as its suburbs.

01:09:12.570 --> 01:09:25.890

Chelsea Bowling: This growth in population density causes sedimentation, saltation, other water pollution, and we know that climate change will exacerbate the stress because there are

01:09:27.330 --> 01:09:28.590

Chelsea Bowling: There's robust

01:09:29.610 --> 01:09:45.090

Chelsea Bowling: Information that even if you can't make predictions of certainty about the effects of climate change, the probability of increased droughts and floods has been recognized by the EPA and other organizations and agencies.

01:09:46.980 --> 01:09:47.430

Chelsea Bowling: So,

01:09:48.870 --> 01:10:00.030

Chelsea Bowling: The justification given by the Service that even with these threats, the crayfish should be delisted is that it's just a very resilient creature but

01:10:01.380 --> 01:10:01.740

Chelsea Bowling: But

01:10:03.510 --> 01:10:12.330

Chelsea Bowling: The Service itself has acknowledged in the species status assessment, delisting proposal, that a lot of this data is incomplete or out of date.

01:10:13.380 --> 01:10:19.920

Chelsea Bowling: The most recent population estimates are decades old. And many of the tributaries have never been surveyed

01:10:22.410 --> 01:10:25.830

Chelsea Bowling: And even most recent study by the Nashville Zoo.

01:10:27.240 --> 01:10:32.490

Chelsea Bowling: Only, only sampled sites, are not treatments done and it also noted that

01:10:33.570 --> 01:10:39.180

Chelsea Bowling: The data supported the hypothesis that urban land use had a negative impact on the crayfish population.

01:10:41.190 --> 01:10:46.530

Chelsea Bowling: So the Service also has not explained completely

01:10:47.700 --> 01:10:49.770

Chelsea Bowling: What new evidence or

01:10:52.410 --> 01:10:52.890

Chelsea Bowling: Data

01:10:54.150 --> 01:11:10.500

Chelsea Bowling: Supported its decision to remove it from, to downlist the species, between 2017 and 2018. And without that explanation

01:11:11.610 --> 01:11:15.180

Chelsea Bowling: It's difficult to understand why that decision was justified.

01:11:22.050 --> 01:11:25.140

Chelsea Bowling: Even if the Nashville Crayfish population were more stable, a

01:11:27.180 --> 01:11:34.320

Chelsea Bowling: Stable population that's in a very limited range is intrinsically vulnerable, particularly when it's on the edge of

01:11:35.400 --> 01:11:40.530

Chelsea Bowling: A major urban center where there are large roads and there's possibility for

01:11:41.880 --> 01:11:42.900

Chelsea Bowling: catastrophic events.

01:11:44.820 --> 01:11:45.870

Chelsea Bowling: For that reason,

01:11:47.040 --> 01:12:10.170

Chelsea Bowling: The protections of the federal endangered species act are vital and, and continue to be vital, and absent much stronger evidence that the population is both currently viable across its range and that the threats to long-term survival are adequately addressed, we think that any decision to

01:12:11.190 --> 01:12:13.260

Chelsea Bowling: Remove the crayfish from the endangered species list is

01:12:14.430 --> 01:12:14.970

Chelsea Bowling: Premature and unfounded.

01:12:20.490 --> 01:12:20.820

Chelsea Bowling: Thank you.

01:12:24.180 --> 01:12:25.680

Chelsea Bowling: Thank you Chelsea for that comment.

01:12:26.100 --> 01:12:29.220

EMPSi - Amanda Biedermann: We appreciate it. I'll go ahead and put you back on mute now

01:12:29.310 --> 01:12:30.270

Chelsea Bowling: And lower your hand.

01:12:31.020 --> 01:12:33.060

EMPSi - Amanda Biedermann: And we will move on to our next commenter.

01:12:34.830 --> 01:12:38.880

EMPSi - Amanda Biedermann: So our next commenter that I have on my list of again, this is for the

01:12:39.780 --> 01:12:47.850

EMPSi - Amanda Biedermann: Participants today who pre-registered and said that they want to want to offer a comment but again we will open up the meeting to everyone after we get through this list.

01:12:48.510 --> 01:12:58.710

EMPSi - Amanda Biedermann: But the next person on my list is Kat Diersen and so Kat, again, if you could use that raise hand feature so that I know that you are available and ready to offer your comment.

01:13:14.700 --> 01:13:25.680

EMPSi - Amanda Biedermann: Okay, I do see that you are on the meeting today, you might be having an issue accessing that raise hand feature. So I'll go ahead and unmute you so that you can offer your comment.

01:13:25.740 --> 01:13:30.930

Kat Diersen: Thank you very much, I'm struggling with bandwidth issues today. I do apologize.

01:13:31.290 --> 01:13:35.400

EMPSi - Amanda Biedermann: No problem. I'll go ahead and start the clock for your five minutes.

01:13:36.630 --> 01:13:47.610

Kat Diersen: Okay, thank you so much. Other commenters have largely echoed the comments that I wish to offer. So I will be quick and cede the rest of my time to other folks.

01:13:49.020 --> 01:13:55.290

Kat Diersen: So I just want to reiterate what other folks have said, which, you know, obviously, the Nashville Crayfish's only habitat in the world.

01:13:56.310 --> 01:13:57.420

Kat Diersen: Barring this

01:13:58.650 --> 01:14:13.650

Kat Diersen: potentially interesting new population, is the Mill Creek Watershed, and the parts of Davidson and Williamson counties that are within that watershed everyone knows are developing and urbanizing very rapidly with intended growth in impervious purpose

01:14:14.760 --> 01:14:30.120

Kat Diersen: You know, leading to threats to water quality and habitat that include polluted runoff, flashiness, flooding of streams, increases in the likelihood of exotic species invasions, increases in the likelihood of stochastic events.

01:14:31.620 --> 01:14:41.040

Kat Diersen: All of these things are threats to the species that, you know, have not stabilized, are not going away. And indeed, there's every evidence that they're going to continue to grow.

01:14:43.050 --> 01:14:56.100

Kat Diersen: I want to acknowledge and appreciate what one of the Service staff said about some of the other regulatory mechanisms that are in place to

01:14:56.880 --> 01:15:08.430

Kat Diersen: Address water quality issues, but none of those protections from the Clean Water Act or the ARAP permitting process or any of those specifically address the needs of the Nashville crayfish in its habitat.

01:15:09.480 --> 01:15:21.300

Kat Diersen: And I strongly believe that, absent the protections afforded the species in its habitat by the Act, these other regulatory mechanisms are inadequate substitutes. Um,

01:15:22.260 --> 01:15:33.570

Kat Diersen: You know I do just want to add that I completely understand that, you know, everyone loves a success story, and certainly the fact that the stabilization of the Nashville Crayfish.

01:15:34.050 --> 01:15:42.870

Kat Diersen: Population levels and you know the partnership that came together and put forth efforts to restore its habitat as a result of the fact that it's listed

01:15:43.800 --> 01:15:51.300

Kat Diersen: These are a success story, um, you know, certainly, certainly the crayfish is doing far better under the Act, then it would have

01:15:52.200 --> 01:15:59.610

Kat Diersen: Absent the protections of the act, but I think the lesson in that is that removing the protections conferred by the Act will

01:16:00.390 --> 01:16:11.550

Kat Diersen: In all likelihood, very quickly, result in a level of disturbance to the species and its habitat that will quickly drive it once again towards extinction and essentially snatch defeat from the jaws of victory.

01:16:12.480 --> 01:16:22.050

Kat Diersen: Some species are conservation dependent. And I think, in light of the ever-growing threats to this species and its habitat, it just might have to be one of them.

01:16:23.370 --> 01:16:28.290

Kat Diersen: It's been a success story because of the Act. And if we

01:16:29.340 --> 01:16:36.120

Kat Diersen: If we take away the protections of the Act, I think we will walk back the successes that have been had. And I will have

01:16:36.840 --> 01:16:48.690

Kat Diersen: Further comments to submit on behalf of my organization and Defenders of Wildlife and its members in the Nashville area in the written comment on the Federal Register. Thank you.

01:16:50.820 --> 01:16:59.520

EMPSi - Amanda Biedermann: Great. Thank you, Kat. We appreciate your comment. I'll go ahead and put you back on mute now, and we will move on to our next commenter on my list.

01:17:00.120 --> 01:17:14.310

EMPSi - Amanda Biedermann: And so that commenter that I have is Cumberland Kayak, but I saw in your email that you are listed as Ryan Bailey. Okay, I see that Cumberland Kayak is here and has raised their hand. So I'll go ahead and unmute you.

01:17:18.390 --> 01:17:26.280

Cumberland Kayak: I, this is Ryan Bailey, I guess. Let's just combine. Hi this is Ryan Bailey. R-Y-A-N B-A-I-L-E-Y.

01:17:27.360 --> 01:17:30.780

EMPSi - Amanda Biedermann: Great. Thank you, Ryan. I'll go ahead and start your five minutes now.

01:17:31.440 --> 01:17:35.760

Cumberland Kayak: Okay. Well, I appreciate the information provided by some of the more scientific

01:17:36.900 --> 01:17:49.410

Cumberland Kayak: Groups on this call so far. Cumberland River Compact, the Environmental Law Center, I kind of just wanted to provide some, I guess, commercial and/or anecdotal evidence.

01:17:50.730 --> 01:17:59.550

Cumberland Kayak: As a, we're a commercial kayak rental company based out of Shelby Bottoms and we do kayak trips on Cumberland River and also on Mill Creek.

01:18:00.720 --> 01:18:09.840

Cumberland Kayak: We also do a lot of river cleanups on Mill Creek and that's due to the incredible amount of pollution and litter that is coming down the creek.

01:18:10.800 --> 01:18:23.100

Cumberland Kayak: It is, you know, early on. I thought we would be doing river cleanups downtown or at Shelby Park and every time we paddle up that direction it frankly disturbs most of our volunteers.

01:18:23.880 --> 01:18:38.760

Cumberland Kayak: The water that's coming down Mill Creek is clearly impaired. It's clearly littered with trash and it's a terrible thing to witness because it's also such a beautiful

01:18:39.300 --> 01:18:50.340

Cumberland Kayak: Section of our of our city that is, it's I guess to a lot of residents hidden, but it's also right there. And when you're kayaking on it

01:18:51.240 --> 01:19:01.560

Cumberland Kayak: You just see plastic bags everywhere, bottles everywhere. We're pulling tires out of the river. We're pulling, there are cars in the river.

01:19:02.970 --> 01:19:11.730

Cumberland Kayak: All kinds of stuff that has been washed there by the floods and just when the rain comes, trash gets washed into the creek.

01:19:13.380 --> 01:19:26.940

Cumberland Kayak: And the creek is listed as impaired. So when we tell our volunteers there's an endangered species there called the Nashville crayfish, it's frankly heartbreaking to us and to others to know that

01:19:28.230 --> 01:19:40.500

Cumberland Kayak: This is a creature unique to, frankly, I mean it's personal. It's, it's our, it's where we do business. And it's an endangered species

01:19:42.570 --> 01:19:49.320

Cumberland Kayak: That is threatened greatly by development, sedimentation from development, and from litter.

01:19:50.730 --> 01:19:54.270

Cumberland Kayak: And it's unique to Nashville. I mean, it's a true Nashville Native

01:19:55.290 --> 01:19:57.630

Cumberland Kayak: That is part of our story. And part of our history.

01:19:59.520 --> 01:20:10.440

Cumberland Kayak: So it is, it's greatly concerning to us, I guess from a commercial standpoint as well. It's a selling point to our customers. They're very excited. We tell all of our customers and kayakers about the Nashville Crayfish.

01:20:11.490 --> 01:20:22.650

Cumberland Kayak: And it's a sign for, you know, as a kayaker out in Nashville, when I was growing up in Nashville, no one talked about the Cumberland River. Once it was a dirty River.

01:20:23.520 --> 01:20:32.940

Cumberland Kayak: And that is part of the success story of the Cumberland, is that it has been cleaned up over time thanks to work by organizations like the Cumberland River Compact.

01:20:33.420 --> 01:20:39.270

Cumberland Kayak: But the Mill Creek flows right into Cumberland, and it flows right into Omohundro water plant where we get our water.

01:20:39.960 --> 01:20:49.830

Cumberland Kayak: And, you know, the water coming out of it is impaired. So I guess for us as a company that is spending a lot of time and money to help try to clean it up, It's

01:20:50.670 --> 01:20:57.300

Cumberland Kayak: A daily practice. I mean, every day, there's more waste coming down there. I just

01:20:58.260 --> 01:21:09.000

Cumberland Kayak: You know, we're hearing some of the science that the Service is putting out there, but it's just not matching up with the anecdotal evidence of what we are seeing on a day to day basis on the river on Mill Creek.

01:21:10.770 --> 01:21:16.920

Cumberland Kayak: And let's see. I think that's the bulk of my commentary, but I just want to

01:21:18.000 --> 01:21:25.320

Cumberland Kayak: Agree with everybody else that this is a species unique to a very small area and that it is susceptible to a catastrophic event.

01:21:27.120 --> 01:21:36.900

Cumberland Kayak: And it's just, you know, I think it's part, an important part, of our city and an important part of protections and I think Mill Creek could be a much more valuable

01:21:37.320 --> 01:21:45.480

Cumberland Kayak: Place to all of us living here and all the wildlife living here if we continue to protect it and make it more of a natural oasis for our city.

01:21:49.260 --> 01:21:57.630

EMPSi - Amanda Biedermann: Great. Thank you, Ryan for your comment. I'll go ahead and lower your hand and put you back on mute now, and we will move on to our next commenter.

01:21:59.940 --> 01:22:15.780

EMPSi - Amanda Biedermann: And so my next commenter that I have on my list is Kathleen Dennis. So Kathleen, if you are on the meeting today, if you could raise your hand. Great. Kathleen you've raised your hand. I'll go ahead and unmute you. If you could spell out your first and last name

01:22:16.800 --> 01:22:17.370

EMPSi - Amanda Biedermann: For the record.

01:22:18.240 --> 01:22:41.280

Kathleen Dennis: Sure. My name is spelled K-A-T-H-L-E-E-N. Last name is Dennis D-E-N-N-I-S and I'm here on behalf of the Mill Creek Watershed Association as well. And I'm going to add some more comments, essentially, on what people have been talking about with respect to this

01:22:42.450 --> 01:22:57.810

Kathleen Dennis: Great increase in growth and development and urbanization, especially in the areas designated in the SSA as Mill Creek area A Mill Creek area B. These particular areas are seeing

01:22:58.650 --> 01:23:08.910

Kathleen Dennis: unprecedented growth at this time. And some of these major tributaries to Mill Creek are in these in this region as well, including Turkey Creek

01:23:09.450 --> 01:23:25.170

Kathleen Dennis: Owl Creek, Indian Creek, and Collins creek, which the headwaters is actually in MCB that region. And what we're finding at this point in time, is that the

01:23:26.880 --> 01:23:36.900

Kathleen Dennis: Increase in development is hard to pin down, although we spent some time, some of our colleagues and members in this area

01:23:37.350 --> 01:23:51.000

Kathleen Dennis: We looked at the Davidson County development tracker and look to see if we could sort of get some idea of how many acres of land were at this time, being in the process of being developed.

01:23:52.020 --> 01:24:01.560

Kathleen Dennis: Or slated for development in these areas, and we estimated in the Cane Ridge Community area alone that was over 3500 acres of land.

01:24:02.100 --> 01:24:12.600

Kathleen Dennis: We have similar findings in the Williamson County area of Nolansville where we're seeing close to about 1500 acres of land that is

01:24:13.500 --> 01:24:34.050

Kathleen Dennis: Presently slated for development for commercial, as well as residential, and this is going to again, as people have mentioned, the impact of this kind of development in terms of impervious structures, the increase in saltation

01:24:35.100 --> 01:24:45.270

Kathleen Dennis: The dissolved oxygen level, alterations that are in occur from this, as well as the phosphate levels that are going to increase precipitously because of everybody

01:24:45.930 --> 01:24:53.400

Kathleen Dennis: Wanting to fertilize these lawns and all the other areas, of the commercial areas as well, so

01:24:54.360 --> 01:25:12.030

Kathleen Dennis: All of this is happening, despite the fact that this is an exceptional Tennessee water, or this Mill Creek enjoys the exceptional Tennessee waters status. So I feel strongly that if this designation is removed, that a lot of the

01:25:13.320 --> 01:25:28.170

Kathleen Dennis: stipulations that are in charge of organizing or keeping the impact of this development at bay is going to be lost. Especially when you walk this area or you

01:25:28.800 --> 01:25:41.070

Kathleen Dennis: Live in this area, you see evidence of increased siltation. You see evidence of the, there's a lot more. There's some flash floods last

01:25:41.550 --> 01:25:50.790

Kathleen Dennis: Month we experienced unprecedented flooding, flash flooding, in this area, probably due to the impervious materials that are now in place here.

01:25:52.080 --> 01:26:03.180

Kathleen Dennis: And so we're really struggling, particularly when we realize that there's really no coordination of these events that are occurring at this time.

01:26:03.720 --> 01:26:15.810

Kathleen Dennis: It's if you decide you want to develop, you develop the area, and whether that is going to impact the areas surrounding your particular development, that's not taken into consideration.

01:26:16.830 --> 01:26:22.200

Kathleen Dennis: I think all of this is, is having a tremendous impact on the health of the creek based on what we're seeing.

01:26:22.890 --> 01:26:35.280

Kathleen Dennis: I think it's also really important to point out that the crayfish itself is a keystone species in this ecosystem. Not only a predator, but it also serves as prey.

01:26:35.910 --> 01:26:50.160

Kathleen Dennis: In particular, it is the source of food for over 240 species in this watershed. So when you're impacting the life of this particular organism, if it's lost due to this

01:26:52.050 --> 01:27:04.590

Kathleen Dennis: Unbelievable unprecedented development that's going on here, you're not just impacting this one species, you're actually impacting the biodiversity that's found in this watershed.

01:27:05.970 --> 01:27:17.520

Kathleen Dennis: I think a lot of the other comments that I was going to make have already been touched on. Again climate change is going to be influencing, I think we're already seeing the influence of climate change in

01:27:19.200 --> 01:27:19.800

Kathleen Dennis: The

01:27:21.090 --> 01:27:22.800

Kathleen Dennis: Impact on this creek as well.

01:27:24.780 --> 01:27:34.440

Kathleen Dennis: So I guess, I think most of the other stuff has been covered that was going to say, but I just like to add those comments that yes, I am in agreement with

01:27:36.390 --> 01:27:40.470

Kathleen Dennis: Not delisting the crayfish at this time. So thank you.

01:27:41.820 --> 01:27:50.160

EMPSi - Amanda Biedermann: Great. Thank you, Kathleen. We appreciate that comment. I'll go ahead and put you on mute and lower your hand, and we'll move on to our next commenter.

01:27:52.560 --> 01:27:56.940

EMPSi - Amanda Biedermann: So our next commenter on our list is Mekayle Houghton.

01:27:58.050 --> 01:28:08.520

EMPSi - Amanda Biedermann: Alright, I see that you've raised your hand. I'll go ahead and unmute you. If you could again please spell your first and last name out loud for the record, and then I will start the five-minute timer.

01:28:11.400 --> 01:28:21.120

Mekayle Houghton: Thank you. My name is Mekayle, M-E-K-A-Y-L-E. Last name is Houghton H-O-U-G-H-T-O-N.

01:28:22.380 --> 01:28:28.860

Mekayle Houghton: Thank you for the opportunity to speak tonight. I began working with the Cumberland River Compact in 2005

01:28:30.780 --> 01:28:39.870

Mekayle Houghton: Working in the Mill Creek watershed. I still remember that it was unnamed tributary A and unnamed tributary B to Franklin branch.

01:28:40.560 --> 01:28:55.920

Mekayle Houghton: And today as Executive Director, I have secured much of the funding and over seen much of the restoration that you talked about earlier in Mill Creek, including the five dam removals.

01:28:57.150 --> 01:29:07.890

Mekayle Houghton: The threats that led to the listing of the species have not disappeared. As I think Kathleen really eloquently talked about, rather they have intensified.

01:29:08.400 --> 01:29:14.460

Mekayle Houghton: Mill Creek watershed is the focus of middle Tennessee's most rapid growth.

01:29:15.030 --> 01:29:35.130

Mekayle Houghton: By delisting the species we jeopardize all of the good work that we have done in partnership the Fish and Wildlife Service, the Cumberland River Compact, TVA, The Nature Conservancy, the Nashville Zoo. All of us have partnered together for over a decade to get this work done.

01:29:37.170 --> 01:29:49.350

Mekayle Houghton: And I think that we're seeing the benefits of all of that hard work. The crayfish is listed because it's endemic to Mill Creek and to this point, I don't think that we've been given convincing proof

01:29:50.850 --> 01:29:56.550

Mekayle Houghton: To all parties that it does live outside Mill Creek, and I eagerly await that

01:29:57.780 --> 01:30:02.070

Mekayle Houghton: Information from Pickwick. One of our greatest challenges

01:30:03.420 --> 01:30:21.720

Mekayle Houghton: As I think citizens of the world is balancing ecosystem needs with economic vitality of our of our cities. The protection of the crayfish is a wonderful example of that balance succeeding.

01:30:22.800 --> 01:30:33.180

Mekayle Houghton: Certainly, developers have made their millions in the Mill Creek watershed, but the crayfish has also thrived. Now is not the time to remove the protections

01:30:34.050 --> 01:30:47.850

Mekayle Houghton: And I don't understand why we would risk species extinction by removing this crayfish from the endangered species list at a time like this. It just seems like too great

01:30:48.990 --> 01:30:51.120

Mekayle Houghton: A risk. Finally

01:30:52.770 --> 01:31:02.790

Mekayle Houghton: Just as an analogy or an example, compensatory mitigation requires that restoration projects be protected in perpetuity.

01:31:03.390 --> 01:31:18.930

Mekayle Houghton: By delisting the crayfish, we are jeopardizing the success of our restoration efforts, rather than protecting those successes, because the original threats to the crayfish remain and are in fact greater. Thank you.

01:31:22.710 --> 01:31:31.020

EMPSi - Amanda Biedermann: Great, thank you Mekayle for that comment. You have muted yourself, so I'll go ahead and lower your hand, and we will move on to our next commenter.

01:31:32.190 --> 01:31:43.530

EMPSi - Amanda Biedermann: The next commenter on my list is Rachel Geiger. So Rachel, if you are on the meeting today and would like to offer a comment, please go ahead and access that raise hand feature.

01:31:50.520 --> 01:31:55.050

EMPSi - Amanda Biedermann: Great. I see that Rachel's raised her hand. So I'll go ahead and unmute you, Rachel.

01:31:57.930 --> 01:32:01.890

Rachel Geiger: Hi, my name is spelled R-A-C-H-E-L.

01:32:02.130 --> 01:32:03.690

Rachel Geiger: G-E-I-G-E-R.

01:32:03.870 --> 01:32:14.130

Rachel Geiger: And I have heard most of the other commentators

01:32:15.450 --> 01:32:26.880

Rachel Geiger: Say a lot of things that I already agree with. And so I won't take up much of the next commentator's time, but I just wanted to emphasize that I agree with

01:32:27.840 --> 01:32:44.910

Rachel Geiger: The previous commentators that delisting is not the current positive move for the crayfish, seeing as Nashville continues to develop at such a high rate.

01:32:45.720 --> 01:33:06.510

Rachel Geiger: We see single family homes, previously single-family homes, those lots get turned into apartment buildings, townhouses, and double, triple the amount of people move into the same areas where single families used to live and that

01:33:07.710 --> 01:33:19.740

Rachel Geiger: rapid increase in population, let alone the development of those new properties, continues to affect the watershed at such a high rate that we just haven't seen

01:33:21.000 --> 01:33:37.950

Rachel Geiger: And we don't know how that will be protected if the crayfish is delisted. So I'm gonna cede my time to the other commentators, but I just wanted to reiterate that delisting is not the proper move at this moment.

01:33:41.070 --> 01:33:49.440

EMPSi - Amanda Biedermann: Great. Thank you, Rachel for your comments. And for letting me know that you'll cede the rest of your time. So we'll go ahead and move on to our next commenter.

01:33:50.520 --> 01:34:03.330

EMPSi - Amanda Biedermann: And our next commenter is Gray Perry, and I see Gray that you messaged Amy letting her know that you are going to be using Carson Cooper's account as your zoom account was having some issues.

01:34:03.840 --> 01:34:21.240

EMPSi - Amanda Biedermann: So Carson Cooper's account if you want to use that raise hand feature so that I know that you are ready to offer your comment. Or Gray, if you figured out your zoom account, you can also use the raise hand feature. I see that Carson has raised his hand. So I'll unmute you.

01:34:23.550 --> 01:34:26.430

Carson Cooper: Hey, sorry about that. Um, yeah.

01:34:26.490 --> 01:34:37.500

Carson Cooper: I just like to say my name is Gray Perry. G-R-A-Y P-E-R-R-Y. And I also work for the Cumberland River Compact. I do a lot of my time modeling watersheds and kind of seeing

01:34:38.040 --> 01:34:51.300

Carson Cooper: You know, looking for Nashville to see what our requirements are, and all our streams throughout Nashville as well throughout the entire Cumberland River Basin, and I do not support delisting the crayfish, as I do believe

01:34:52.620 --> 01:35:02.250

Carson Cooper: As we move forward, since Mill Creek is already impaired for excess nutrients and sedimentation, as well as having low dissolved oxygen. These are already

01:35:03.060 --> 01:35:12.420

Carson Cooper: Issues that are impacting the crayfish and their survivability, and it's only going to get worse, even if we try to regulate development as we move forward. And

01:35:13.110 --> 01:35:25.440

Carson Cooper: I just want to say that I think that we can really utilize this kind of resource to teach people about the really awesome stuff that we have in Nashville. There is a lot of the eco-tourism that we

01:35:25.740 --> 01:35:42.180

Carson Cooper: At the Cumberland River Compact kind of promote as a really awesome species that we have and that we need to do a better job of protecting it in perpetuity throughout the entire future. So just short comment, I'll leave that for more time for other people to comment as well.

01:35:44.010 --> 01:36:00.360

EMPSi - Amanda Biedermann: Okay, great. Thank you, Gray, and I actually have Carson Cooper up next on my list. So Carson, if you are using that same account, I can keep you unmuted. And you can offer your comment or was that Gray, were you just using the Carson Cooper account? I'm a little unclear.

01:36:01.290 --> 01:36:04.860

Carson Cooper: Um, he was using my laptop so we can stay unmuted.

01:36:05.220 --> 01:36:07.230

Carson Cooper: Sorry for the technical confusion.

01:36:07.650 --> 01:36:16.590

EMPSi - Amanda Biedermann: Let me just put your name up on the screen. Carson and if you can just, again, please spell out your first and last name for the record, and then I will start the timer for you to offer your comment.

01:36:17.970 --> 01:36:37.920

Carson Cooper: Hi, my name is Carson Cooper. C-A-R-S-O-N C-O-O-P-E-R. So, um, and I don't want to add too much because a lot of what I believe in has already been said, and I definitely agree with the comments that have already been said, but to offer a different perspective

01:36:39.780 --> 01:36:49.890

Carson Cooper: Endangered species should and are considered an ecosystem service. And if we look at the economic perspective of that ecosystem service that's included

01:36:50.880 --> 01:37:03.540

Carson Cooper: In this area for the watershed and the associated increase in adjacent property values that offers as well as all the other ecosystem services, delisting doesn't really

01:37:04.590 --> 01:37:18.330

Carson Cooper: Add to those ecosystem services. It just takes it away. This is played out in multiple studies and I wouldn't be surprised if this was also the case in Mill Creek, the capitalization on ecotourism, and also

01:37:19.590 --> 01:37:26.280

Carson Cooper: Just as a way to get the community involved in other environmental issues in their area. It's

01:37:26.880 --> 01:37:35.340

Carson Cooper: Incredibly important not only for community engagement, but for the economic value of a community and the biodiversity value of that community.

01:37:35.820 --> 01:37:45.300

Carson Cooper: So I additionally do not support the delisting of the crayfish species or further development of Mill Creek and I'll keep my comment short.

01:37:47.160 --> 01:37:54.420

EMPSi - Amanda Biedermann: Thank you Carson for your comment. I'll go ahead and put you back on you and lower your hand so that we can move on to our next commenter.

01:37:55.050 --> 01:38:05.250

EMPSi - Amanda Biedermann: And our next commenter is Julie Wall, and I don't see Julie on my participants list, but it is possible Julie that you are the one phone caller remaining.

01:38:05.580 --> 01:38:12.540

EMPSi - Amanda Biedermann: So if you are the phone caller that is remaining, if you'll press star nine to access that raise hand feature.

01:38:13.470 --> 01:38:29.550

EMPSi - Amanda Biedermann: I'll give about 10-15 seconds or so, if it is Julie calling in through the phone to access that raise hand feature, and if not, I'll put a star by your name and circle back one more time in case we do have Julie join.

01:38:30.930 --> 01:38:38.610

EMPSi - Amanda Biedermann: But it doesn't appear that Julie is our one phone caller. So I'm going to go ahead and move on to our next commenter.

01:38:40.110 --> 01:38:43.530

EMPSi - Amanda Biedermann: And so our next commenter is Leah Sherry.

01:38:44.550 --> 01:38:54.150

EMPSi - Amanda Biedermann: So, Leah. If you can access that raise hand feature. I do think I see you. Yes, I do see you on the list, just so I know that you're ready to offer your comment.

01:39:01.200 --> 01:39:09.870

EMPSi - Amanda Biedermann: Or if you're having trouble accessing that raise hand feature I can go ahead and unmute you. Hi Leah, can you hear us?

01:39:10.110 --> 01:39:13.290

Leah Sherry: Hi, I'm so sorry I couldn't find the button.

01:39:14.130 --> 01:39:20.910

EMPSi - Amanda Biedermann: No problem at all. And so again, if you'll spell out your first and last name and then I'll start the clock for you to offer your comment.

01:39:21.570 --> 01:39:27.270

Leah Sherry: Sure. My name is Leah Sherry. L-E-A-H S-H-E-R-R-Y.

01:39:28.440 --> 01:39:42.420

Leah Sherry: And I'm also in agreement with other commenters but I do want to express my concerns about removing the Nashville crayfish from the endangered species list and voice my support for the SELC stance on this issue.

01:39:43.050 --> 01:39:50.160

Leah Sherry: I've spent a great deal of time on Mill Creek and I've seen the habitat that the crayfish attempts to survive in firsthand.

01:39:51.030 --> 01:40:02.010

Leah Sherry: And while I'd love to say the reason for spending so much time there is just to enjoy time on the creek, it's sadly been in response to the amount of litter in our waterways and on Mill Creek specifically

01:40:02.490 --> 01:40:06.090

Leah Sherry: As mentioned by Cumberland kayak in great detail.

01:40:06.870 --> 01:40:19.170

Leah Sherry: I felt the need to take action and participate in the adopt-a-stream program and adopt a portion of this creek. So I go out regularly in partnership with a lot of organizations mentioned tonight

01:40:19.530 --> 01:40:31.680

Leah Sherry: Who work tirelessly to protect our waterways. We've gone out with litter grabbers, litter bags, and on trips I've been on, we've pulled over 3000 pounds of trash from the water and counting.

01:40:32.430 --> 01:40:42.960

Leah Sherry: So my relationship with the crayfish is mainly jumping in a boat to try to remove the seemingly never-ending amount of trash from the river to protect their habitat.

01:40:43.500 --> 01:40:54.660

Leah Sherry: I do understand that there may be a larger picture that could account for this delisting proposition. So I did attempt to go in with an open mind to learn more, and research what the experts were saying.

01:40:55.260 --> 01:41:05.130

Leah Sherry: And I did have hope that there would be some type of solid plan outline to demonstrate future protections once restrictions along the creek were removed.

01:41:05.880 --> 01:41:15.480

Leah Sherry: And I was very sadly disappointed to learn that the future for these creatures we have worked so hard to protect over the past several decades still looks bleak.

01:41:15.960 --> 01:41:29.310

Leah Sherry: And it would be bad enough if future protections were simply not being put in place, but instead, these changes would allow opportunities for increased threats to our species, especially in regards to irresponsible development.

01:41:30.330 --> 01:41:42.540

Leah Sherry: And as a city, we've already experienced far too much of that. It's caused extremely detrimental environmental impacts and it's pretty difficult to deny that with such strong examples.

01:41:43.140 --> 01:41:46.650

Leah Sherry: Such as our landfill nearly being at capacity. They're all around us.

01:41:47.280 --> 01:41:59.520

Leah Sherry: And we can scramble to solve some of these problems like finding the next landfill and to put out other fires due to the lack of preventative measures, but the crayfish is different. And once it's gone, it's gone.

01:42:00.150 --> 01:42:10.980

Leah Sherry: There's no going back once we cross that threshold. So using this opportunity to take preventative measures, it's crucial and it could be our one and only chance to protect the species.

01:42:11.760 --> 01:42:19.200

Leah Sherry: And I also want to say I do love this city, and I believe in it, and I've seen this year, just how strong we are and how much we've endured together.

01:42:19.740 --> 01:42:27.210

Leah Sherry: The integrity and the grit we have and so many other factors that set us apart to make us a special place to live

01:42:27.540 --> 01:42:37.020

Leah Sherry: You know, for our residents and also a special place to visit for tourists, including and especially our waterways, which are the only home to this Nashville crayfish in the world.

01:42:37.860 --> 01:42:44.700

Leah Sherry: And I also really have faith that everyone on this call does want what's best for Nashville and for our crayfish.

01:42:44.970 --> 01:42:55.650

Leah Sherry: And I just encourage everyone to really think about the long-term effects that the action of delisting coupled with not putting proper protections in place for the continued survival

01:42:56.100 --> 01:43:03.270

Leah Sherry: Will not only result in just for the species, but also for our waterways, all the biodiversity, and for our community as a whole.

01:43:04.050 --> 01:43:13.710

Leah Sherry: And so I really do believe that we have the power to make the right decision and to keep our city truly unique and to protect our crayfish in Mill Creek. Thank you.

01:43:16.260 --> 01:43:23.370

EMPSi - Amanda Biedermann: Great, thank you, Leah for your comment. I'll go ahead and put you back on mute now, so that we can move forward to our next commenter.

01:43:23.730 --> 01:43:31.980

EMPSi - Amanda Biedermann: I do just want to update everyone that we have two remaining commenters on my pre-registered list of people who selected that they wanted to offer a comment.

01:43:32.370 --> 01:43:42.930

EMPSi - Amanda Biedermann: But again, after we get through these last two participants, we will open up the public meeting to anybody who wants to offer a comment, regardless of whether you selected to offer a comment when you registered.

01:43:43.470 --> 01:43:54.840

EMPSi - Amanda Biedermann: And I do this also want to point out again to everyone, that the raise hand feature - if I do ask you to access that feature, it's located at the bottom of your participants list.

01:43:55.500 --> 01:44:05.520

EMPSi - Amanda Biedermann: And if you go to the bottom of your zoom screen and if you kind of wave your mouse around at the bottom, the participants icon should pop up for you so you can select that icon.

01:44:05.880 --> 01:44:13.020

EMPSi - Amanda Biedermann: And a participants list will appear. And then if you scroll to the bottom of that list on the right-hand side there should be that raised

01:44:13.740 --> 01:44:25.650

EMPSi - Amanda Biedermann: hand icon for you. But of course, if I do see that you're on the meeting, I'll help you out. And, you know, if you're having issues, raising your hand, I'll go ahead and unmute you so that you can offer your comments today.

01:44:26.580 --> 01:44:38.460

EMPSi - Amanda Biedermann: So we'll move on to our second to last commenter on my list. And so that commenter is Kristan Gerlich so Kristin, if you're on the meeting today. If you want to go ahead and access that raise hand feature.

01:44:39.720 --> 01:44:57.450

EMPSi - Amanda Biedermann: And I actually Kristan, I don't see you in my participants list. But again, you might be our one and only phone caller. So if you are, please press star nine on your keypad to access that raise hand feature. Again, I'll give you a couple seconds in case you are that phone caller.

01:45:04.410 --> 01:45:13.830

EMPSi - Amanda Biedermann: Alright, it looks like we maybe don't have Kristan on the call today. And so I'll move on to our very last commenter on my list today.

01:45:15.000 --> 01:45:17.340

EMPSi - Amanda Biedermann: Let me put his name up on the screen here.

01:45:23.070 --> 01:45:26.190

EMPSi - Amanda Biedermann: That commenter is Clay Faircloth.

01:45:28.620 --> 01:45:42.240

EMPSi - Amanda Biedermann: So clay. I see that you are on the meeting today. If you are ready and willing to offer your comment, you can go ahead and access that raise hand feature. But again, if you're having issues, I can go ahead and just unmute you.

01:45:43.290 --> 01:45:46.980

EMPSi - Amanda Biedermann: Since you are our last commenter, I'll just go ahead and unmute you on my end.

01:45:51.180 --> 01:45:51.630

EMPSi - Amanda Biedermann: Hi Clay.

01:45:51.780 --> 01:45:52.530

Clay Faircloth: Hi.

01:45:52.980 --> 01:45:57.960

Clay Faircloth: I don't know how I got listed as a commenter. I didn't need to make a comment, but thank you.

01:45:58.500 --> 01:46:02.430

EMPSi - Amanda Biedermann: Okay, thank you. I appreciate it. I'll go ahead and put you back on mute.

01:46:06.50 --> 01:46:16.590

EMPSi - Amanda Biedermann: I do see that somebody has raised their hand. Oh, I see that it is a different zoom name. So you might be Kristan Gerlich so I will unmute you in case that is you.

01:46:19.740 --> 01:46:28.680

twana chick: Hi this is Twana Chick from Cambridge Community Club. I did pre-register, but I don't think you have me listed. Do you want me to go ahead?

01:46:29.910 --> 01:46:40.530

EMPSi - Amanda Biedermann: Sure, if you want to spell out your first and last name, I can put you on the screen and then we will move on to the portion where we open up everyone, but yes, if you want to go ahead right now.

01:46:41.610 --> 01:46:43.020

EMPSi - Amanda Biedermann: We can accept your comment.

01:46:44.190 --> 01:46:48.660

twana chick: T-W-A-N-A C-H-I-C-K.

01:46:49.260 --> 01:46:49.650

twana chick: So on.

01:46:50.790 --> 01:46:55.950

twana chick: I'm the president of Cane Ridge Community Club and represent hundreds of Cane Ridge residents.

01:46:56.490 --> 01:47:09.270

twana chick: We work with the developers in our area. We adopted the Cane Ridge community resource declaration a little over three years ago to protect our community. We want the extra protection of the listing to continue.

01:47:09.780 --> 01:47:17.310

twana chick: I've heard messages tonight that reference quote meeting minimum requirements, unquote, as that relates to government regulations.

01:47:17.760 --> 01:47:25.320

twana chick: I submit to you all tonight that meeting minimum requirements is part of what has caused us to have issues to date.

01:47:25.710 --> 01:47:34.680

twana chick: Our road system does not handle traffic because it only meets minimum standards. Our sewer system here is in distress because it has only been built to minimum standards.

01:47:35.250 --> 01:47:42.990

twana chick: If we again lower that minimum standard by delisting this species, one important control over developers is lost.

01:47:43.410 --> 01:47:56.820

twana chick: Many times it is only the fear of violating regulations which cause additional precautions and encourage compliance by developers. We want to be better than minimum standards to protect our neighborhoods for the future.

01:47:57.660 --> 01:48:06.330

twana chick: I think I hear you saying that because the crayfish may now exist in Paris landing the overall status is considered less threatened.

01:48:06.780 --> 01:48:13.830

twana chick: I interpret that to mean that simply because it may have been found somewhere else, it could be considered appropriate

01:48:14.310 --> 01:48:23.790

twana chick: For some of the populations to perhaps be lost in places like Cane Ridge. That means we lose again. We deserve the same protection as other communities.

01:48:24.240 --> 01:48:36.240

twana chick: I've lived around Mill Creek for decades and regularly kayak and wade Mill Creek and its tributaries. I see fewer crayfish, fewer large mussels, fewer fish, way, way, way more trash and more degradation.

01:48:36.720 --> 01:48:47.010

twana chick: Those small tributaries that are above any development are still nice, those that are below developments absolutely visibly suffer and that is with the current listing in place.

01:48:47.460 --> 01:48:57.180

twana chick: I don't see mussels like I used to. I don't see the same crayfish and crayfish tubes like I used to. Only the additional protection of the regulations will help continue to preserve it.

01:48:57.600 --> 01:49:02.310

twana chick: Cane Ridge has had thousands of acres of development over the last several years and more is planned.

01:49:02.790 --> 01:49:13.920

twana chick: Each incoming HOA brings more asphalt, more runoff, more car washing, more silting, and more chemicals. It is scary how much matter is washed in after each heavy rain.

01:49:14.550 --> 01:49:23.130

twana chick: Crayfish and its co-inhabitants who are protected by status do much to protect all of the mussels, fish, the birds, the Coons, the otters, etc.

01:49:23.550 --> 01:49:32.460

twana chick: The listing is important for everyone and every creature. It is wishful thinking to believe that other regulations from TGAP and others will fill the gap left by delisting.

01:49:32.880 --> 01:49:39.150

twana chick: Removing protection now would be like allowing DDT again after a few dozen condors were found alive.

01:49:39.480 --> 01:49:45.510

twana chick: We don't want a population that is simply persisting here in Cane Ridge. That sounds like meeting minimum standards.

01:49:45.900 --> 01:49:55.740

twana chick: We want a thriving population because if the Nashville crayfish is thriving and healthy so is everything else sharing the water. This will only occur with the continued protection. Thank you.

01:49:59.190 --> 01:50:06.540

EMPSi - Amanda Biedermann: Great, thank you for your comments. I'm now going to put you on mute and lower your hand. And so we have gone through my list.

01:50:07.140 --> 01:50:16.920

EMPSi - Amanda Biedermann: Apologies on my part for that mix up but now that we have now gone through our list of people who pre-registered. So we're now going to open up the meeting to anyone who would like to offer comments.

01:50:17.400 --> 01:50:26.550

EMPSi - Amanda Biedermann: And again, I put up the commenting instructions on the screen for everyone to look at. They're very similar to the instructions I just went through for everybody who pre-registered.

01:50:27.180 --> 01:50:32.820

EMPSi - Amanda Biedermann: This time I will just go in the order that I see hands raised as best I can.

01:50:33.540 --> 01:50:41.430

EMPSi - Amanda Biedermann: And so, again, to indicate that you would like to offer a comment, please use the raise hand feature at the bottom of your participants list.

01:50:41.970 --> 01:50:49.440

EMPSi - Amanda Biedermann: And when it is your turn. I will call out your name and display your name on the next screen. I'll go buy your zoom name. But again, if you could

01:50:49.800 --> 01:50:54.270

EMPSi - Amanda Biedermann: please spell out your first and last name for the record, we would appreciate that.

01:50:55.140 --> 01:51:05.070

EMPSi - Amanda Biedermann: And then if we get through everyone who's using the zoom web platform or zoom app, I'll then move on to our phone caller if they'd like to offer a comment.

01:51:05.520 --> 01:51:14.910

EMPSi - Amanda Biedermann: But as of right now, I see that we do have somebody who would like to offer a comment. So I'm going to go ahead and move on to our next screen.

01:51:16.350 --> 01:51:21.240

EMPSi - Amanda Biedermann: And I see that commenter, hold on briefly, is

01:51:23.190 --> 01:51:27.060

EMPSi - Amanda Biedermann: James Redwine. So James, I'm going to go ahead and unmute you.

01:51:29.700 --> 01:51:33.360

James Redwine: Thank you. Great. Hey, can you hear me, I assume.

01:51:33.930 --> 01:51:37.770

EMPSi - Amanda Biedermann: Yeah, if you could spell out your first and last name and then I will start with five minutes.

01:51:38.820 --> 01:51:55.170

James Redwine: Great. Thank you. My name is James J-A-M-E-S Redwine R-E-D-W-I-N-E. I am the vice president and CEO of the Harpeth Conservancy. Harpeth Conservancy is a science-based conservation organization dedicated to clean water and healthy ecosystems

01:51:57.300 --> 01:51:58.860

James Redwine: Into rivers across Tennessee.

01:52:00.120 --> 01:52:10.350

James Redwine: And we are currently the fiscal sponsor of the Mill Creek Watershed Association. We object to the delisting of the Nashville Crayfish.

01:52:11.580 --> 01:52:14.850

James Redwine: We are concerned with a number of issues that have been raised here tonight.

01:52:16.440 --> 01:52:35.760

James Redwine: I want to concentrate my comments on the internet-only format of this of this hearing. We are concerned that it does not, is not the equivalent of a traditional public hearing, and there is no compelling reason for this

01:52:37.980 --> 01:52:59.730

James Redwine: For a public hearing, a proper public hearing, not to have been held. Obviously, this hearing is being held because of a pandemic in which many people either did not hear of, get notice of this matter, or cannot participate because of illness and other reasons.

01:53:01.650 --> 01:53:03.480

James Redwine: We have, there are

01:53:04.740 --> 01:53:06.150

James Redwine: technical glitches that have

01:53:08.040 --> 01:53:08.490

James Redwine: Have

01:53:09.810 --> 01:53:23.640

James Redwine: Impacted this meeting, including the fact that while I had pre-registered, I was not listed as a commenter. I'm sure there are numerous others who have similar issues and pretty poor bandwidth and so forth as noted.

01:53:25.980 --> 01:53:36.900

James Redwine: The principal issue that we have with the internet-only only format is that it is simply not the same as a traditional public hearing.

01:53:38.070 --> 01:53:38.430

James Redwine: They

01:53:39.750 --> 01:53:59.130

James Redwine: There is limited opportunity for people to understand who is on the public hearing for them to discuss the issues with each other for it to be covered properly by the press. So it is simply not the same as a as a traditional public hearing. We do have concerns

01:54:00.180 --> 01:54:01.500

James Redwine: With substantive

01:54:03.960 --> 01:54:16.410

James Redwine: points raised, and we endorsed the comments of the commenters so far, including the written comments of SELC. And we are concerned that

01:54:16.920 --> 01:54:27.600

James Redwine: As a result of everything that we have heard that in fact the proposed delisting is arbitrary, capricious, and an abuse of discretion. We note in particular that

01:54:28.920 --> 01:54:45.000

James Redwine: The proposed delisting fails to properly consider the impacts of climate change, and there's been no demonstration that other populations, such as those of the supposed to Tennessee repopulation, are viable. So

01:54:46.410 --> 01:55:05.610

James Redwine: We are concerned that in fact that the delisting is delivered, is driven by political considerations and impulses to deregulate rather than having a proper relationship to sound science. So on that basis we object to the to the delisting. Thank you, and I will cede the balance of my time.

01:55:08.730 --> 01:55:23.250

EMPSi - Amanda Biedermann: Great, thank you James for submitting that comment. I'll put you back on mute now, and lower your hand. I do apologize that you weren't on my list. I tried to get everyone that I could who is pre-registered, but I think I did cut it off at about

01:55:24.690 --> 01:55:36.780

EMPSi - Amanda Biedermann: Maybe 5:30pm Central time so we very much appreciate you being able to offer your comments and that's why we're taking the opportunity right now to open it up to anyone who would like to offer a comment who's on the meeting today.

01:55:37.230 --> 01:55:45.990

EMPSi - Amanda Biedermann: And we highly encourage comments. So if you do have a comment that you would like to make, again, please feel free to go ahead and use that raise hand feature.

01:55:46.290 --> 01:55:55.050

EMPSi - Amanda Biedermann: Or if you're calling in through the phone, please press star nine on your keypad to access that raise hand feature so that you can offer your comment.

01:55:56.460 --> 01:55:58.650

EMPSi - Amanda Biedermann: Again, will give everyone a few minutes here

01:55:59.340 --> 01:56:11.970

EMPSi - Amanda Biedermann: To decide if they'd like to offer a comment. And if we do have time at the end, and there are no commenters left, then we will try to wrap back around to those questions that were asked previously during the Q and A session

01:56:12.420 --> 01:56:17.100

EMPSi - Amanda Biedermann: To get some Fish and Wildlife Service input and responses to those questions.

01:56:42.750 --> 01:56:52.230

EMPSi - Amanda Biedermann: I'll just point out that if you do have a comment that you would like to make, please go to your participants icon at the bottom of your zoom screen.

01:56:53.010 --> 01:57:03.240

EMPSi - Amanda Biedermann: And then once you open up your participants list, there's the raise hand icon at the bottom of that list. If you are having issues accessing that raise hand feature

01:57:03.780 --> 01:57:13.650

EMPSi - Amanda Biedermann: You can go ahead and chat to Amy Lewis, the host of today's meeting and that way we'll know that you want to offer a comment if you are having issues with that raise hand feature.

01:57:26.460 --> 01:57:31.740

EMPSi - Amanda Biedermann: And we'll give folks a few more minutes here just in case anyone does have a comment that they would like to offer.

01:57:32.100 --> 01:57:45.540

EMPSi - Amanda Biedermann: And then it looks like we will have time so we can go back to those questions that you asked previously and respond to those questions, so please stay tuned as we give folks just a few more minutes here to decide if they would like to offer the comment. Thank you.

01:58:20.010 --> 01:58:24.900

EMPSi - Amanda Biedermann: Alright, it looks like we don't have any raised hands at the moment, and I don't see any

01:58:25.920 --> 01:58:30.600

EMPSi - Amanda Biedermann: Messages to Amy Lewis at the moment that anybody would like to offer a comment.

01:58:31.050 --> 01:58:42.390

EMPSi - Amanda Biedermann: So at this point we will go back to the Q and A session, but I do just want to reiterate that at any time if you want to give a comment, please use that raise hand feature and we can toggle back to you.

01:58:42.870 --> 01:58:50.850

EMPSi - Amanda Biedermann: But for now, in order to allow everyone who had questions to have those questions answered. We will go back to our questions.

01:58:54.690 --> 01:58:59.010

EMPSi - Amanda Biedermann: So if you'll just give me a minute, I will transfer back over to our questions.

01:59:05.670 --> 01:59:20.820

EMPSi - Amanda Biedermann: Alright, so our question that we have next is, "Don't the buffer zones get reduced in size once the ETW designation is removed?" And Lee, I'll go ahead back to you and unmute you so that you can respond to this question.

01:59:25.080 --> 01:59:30.480

USFWS - Lee Andrews: Could you repeat that? I wasn't clear about the ETW?

01:59:31.950 --> 01:59:41.100

EMPSi - Amanda Biedermann: Yes, so the question is, "Don't the buffer zones get reduced in size once the ETW designation is removed," is the question.

01:59:43.980 --> 01:59:46.500

USFWS - Lee Andrews: I'm not sure what ETW refers to.

01:59:47.550 --> 01:59:58.710

EMPSi - Amanda Biedermann: Okay, so if the person who asked that question, if you could provide perhaps some follow up clarification on your question, so that we can adequately respond to your question, we would appreciate that.

02:00:08.700 --> 02:00:10.260

USFWS - Lee Andrews: Steve, Steve.

02:00:10.410 --> 02:00:13.200

USFWS - Lee Andrews: Is Steve still on the call? He may know what that means.

02:00:13.680 --> 02:00:15.390

EMPSi - Amanda Biedermann: Sure, I can unmute Steve as well.

02:00:16.950 --> 02:00:24.270

USFWS - Steve Alexander: That's Exceptional Tennessee Waterway. And that's an automatic designation when there's a federal listed species present.

02:00:26.010 --> 02:00:36.270

USFWS - Steve Alexander: And there's really no connection that I'm aware of, to buffer zones. Those are typically set in the local ordinances

02:00:37.620 --> 02:00:39.780

USFWS - Steve Alexander: Under stormwater control program.

02:00:49.890 --> 02:00:59.250

EMPSi - Amanda Biedermann: Okay, great. Thank you Lee and Steve for providing a response to that question. And so we'll move on to our next question in line.

02:01:01.650 --> 02:01:03.480

EMPSi - Amanda Biedermann: Let me go down to it really quickly.

02:01:06.990 --> 02:01:16.260

EMPSi - Amanda Biedermann: Okay. And so, this question is a follow up to a previous question that we have. And so, that question is, "So to follow up on Paris landing data question

02:01:16.590 --> 02:01:25.770

EMPSi - Amanda Biedermann: Would the Fish and Wildlife Service need to reissue a public comment once that information is made available? If it is going to be considered in the rulemaking process?"

02:01:31.440 --> 02:01:39.750

EMPSi - Amanda Biedermann: And Lee I have kept you unmuted. But if you would like me to unmute any other Fish and Wildlife Service staff members to respond to that question, I can go ahead and unmute them.

02:01:40.650 --> 02:01:43.200

USFWS - Lee Andrews: Kristi or Byron, may be

02:01:44.250 --> 02:01:45.300

USFWS - Lee Andrews: Available to answer that.

02:01:46.800 --> 02:01:49.350

EMPSi - Amanda Biedermann: Okay, I'll go ahead and unmute Kristi and Byron.

02:01:55.020 --> 02:01:56.460

USFWS - Kristi Young: This is Kristi.

02:01:56.970 --> 02:01:58.200

USFWS - Byron Hamilton: Could you repeat the question?

02:01:59.880 --> 02:02:01.230

EMPSi - Amanda Biedermann: Sure. I'll repeat the question.

02:02:01.650 --> 02:02:02.460

USFWS - Kristi Young: What.

02:02:04.830 --> 02:02:08.100

EMPSi - Amanda Biedermann: Okay, I'll just repeat the question quickly so that everybody can hear it again.

02:02:08.730 --> 02:02:22.110

EMPSi - Amanda Biedermann: The question is, "So to follow up on the Paris Landing data question, would the Fish and Wildlife Service need to reissue public comment once that information is made available? If it is going to be considered in the rulemaking process?"

02:02:29.400 --> 02:02:30.900

USFWS - Kristi Young: Byron, do you want to answer that question?

02:02:31.500 --> 02:02:35.520

USFWS - Byron Hamilton: If I'm not mistaken, it will be considered in the final rule.

02:02:37.740 --> 02:02:54.090

USFWS - Lee Andrews: Yeah, I think the answer to that is no. We wouldn't have to reopen the comment period because we may get other data during this comment period that we would consider before making our final decision on the proposal.

02:02:59.430 --> 02:03:00.360

USFWS - Kristi Young: Yeah, I agree with that.

02:03:06.360 --> 02:03:11.130

EMPSi - Amanda Biedermann: Great, thank you for those responses. And so we'll wait to receive more questions.

02:03:19.350 --> 02:03:29.880

EMPSi - Amanda Biedermann: Alright, so we have our next question, and that question is, "Are there plans to consider the economic literature on hedonic valuation of ecosystems on adjacent property value.

02:03:39.750 --> 02:03:46.260

USFWS - Lee Andrews: I would think that we would consider any information that was germane to the decision that we were trying to make.

02:03:47.430 --> 02:03:57.420

USFWS - Lee Andrews: If there are particular articles or publications that folks think we should consider, I would submit them in the public comment period.

02:03:59.820 --> 02:04:11.940

USFWS - Kristi Young: And Lee if I could follow on with that. This is Kristi. Again, the decision is made to either list or, whether species warrants listing under the Endangered Species Act.

02:04:12.390 --> 02:04:21.000

USFWS - Kristi Young: That decision is made solely on the basis of the best scientific and commercial information available, and we do not consider things like economic impacts in that.

02:04:25.980 --> 02:04:33.450

EMPSi - Amanda Biedermann: Great, thank you Lee and Kristi for that clarification. And so we'll move on to our next question that's been submitted.

02:04:33.990 --> 02:04:45.030

EMPSi - Amanda Biedermann: And that question is "If the Nashville Crayfish is delisted or downlisted, what situation would trigger it to get relisted as endangered, and how long is that process?"

02:04:56.550 --> 02:04:57.960

EMPSi - Amanda Biedermann: I'll unmute Kristi so she can respond.

02:05:02.370 --> 02:05:09.720

USFWS - Kristi Young: Okay, if I'm understanding the - so if the final decision is to delist the species

02:05:10.380 --> 02:05:17.160

USFWS - Kristi Young: downlisting it would still be listed. So I guess I'm going to focus on delisting as the answer to this question.

02:05:18.060 --> 02:05:31.410

USFWS - Kristi Young: So if there is a post delisting monitoring plan for a delisted species, so we will be monitoring for a minimum of five years and later Steve may be able to talk better about the actual plan.

02:05:32.250 --> 02:05:46.710

USFWS - Kristi Young: So we will be monitoring that for a minimum of five years and looking to see if the status of the species changes, more longer term, again, if there are changes in the status of the species.

02:05:47.730 --> 02:05:59.100

USFWS - Kristi Young: The, any member of the public can petition the Fish and Wildlife Service to list the species with new information and then we would go through the normal petition process, normal finding, etc.

02:06:06.930 --> 02:06:13.650

EMPSi - Amanda Biedermann: Great, thank you Kristi for that response to that question. And so we'll move on to our next question.

02:06:14.100 --> 02:06:22.200

EMPSi - Amanda Biedermann: And this question states "Mill Creek is currently listed as impaired for sedimentation, low DO, and excessive nutrients.

02:06:22.560 --> 02:06:34.470

EMPSi - Amanda Biedermann: Are there any plans in place to remediate the current habitat impairments by your organization to improve the health of the stream prior to the expected development, both in Nashville and Nolansville?"

02:06:41.370 --> 02:06:42.150

USFWS - Lee Andrews: I'll answer that.

02:06:44.190 --> 02:06:49.800

USFWS - Lee Andrews: You know, we're always open to work with folks that want to do habitat improvement projects.

02:06:51.450 --> 02:06:58.890

USFWS - Lee Andrews: But I'm personally not aware of anything in the works at the moment. Steve may be aware of things that I'm not aware of.

02:07:06.030 --> 02:07:16.650

EMPSi - Amanda Biedermann: All right, great. Thank you, Lee. If you want me to go ahead and unmute Steve if he has any additional input. Steve, I'll go ahead and unmute you if you want to provide any additional follow up to that.

02:07:17.520 --> 02:07:29.460

USFWS - Steve Alexander: Sure. I think it's important to note that not the entire Mill Creek watershed is listed as impaired. There are segments that are listed as impaired.

02:07:30.030 --> 02:07:43.380

USFWS - Steve Alexander: Some of those are on the main stem, some are in tributaries. If anything, those impairments in areas where we have survey data indicated the species is quite resilient

02:07:44.580 --> 02:07:45.150

USFWS - Steve Alexander: To those

02:07:47.130 --> 02:07:57.750

USFWS - Steve Alexander: Impairments. And I would also emphasize what Lee said too, if there are projects where we could work with the State of Tennessee in trying to address

02:07:58.320 --> 02:08:07.710

USFWS - Steve Alexander: Those water quality impairments, we're more than willing to cooperatively work with the State. The Tennessee Department of Environmental Conservation

02:08:08.280 --> 02:08:19.410

USFWS - Steve Alexander: Looks at the watershed on a five-year cycle and their data which is primarily derived from macro invertebrate densities through an index and biotic integrity.

02:08:20.580 --> 02:08:43.470

USFWS - Steve Alexander: It may change from one cycle to another. There may be improvements. There may be one segment that was not

impaired, and five years from now may be impaired. It's the State's responsibility to address those impairments and they do that through the development of a TMDL

02:08:44.880 --> 02:08:56.400

USFWS - Steve Alexander: Or through some other type of regulatory process that would address sedimentation and other things that occur as result of development.

02:08:57.20 --> 02:09:05.220

USFWS - Steve Alexander: The State attempted to do that several years back with developing specific numeric targets for

02:09:06.000 --> 02:09:16.830

USFWS - Steve Alexander: Sedimentation associated with development and they were unable to get the rules approved through the legislature. So it's an ongoing

02:09:17.640 --> 02:09:30.420

USFWS - Steve Alexander: It's an ongoing process. I can't speak for TDEC, but I think they're, they're very aware of the issues that are present in the watershed and we're doing anything and everything within their power to try to address it.

02:09:34.800 --> 02:09:43.320

EMPSi - Amanda Biedermann: Great. Thank you, Steve for that additional input, so we'll move on to our next question, and this question goes back to the Paris landing data.

02:09:43.800 --> 02:09:52.320

EMPSi - Amanda Biedermann: And the participants stated, "It seems like there is a difference between receiving data from the public and data generated by the Fish and Wildlife Service.

02:09:52.860 --> 02:10:03.990

EMPSi - Amanda Biedermann: In terms of making it available for public review during a public comment period before a final decision" and the participant is asking if that is an accurate assumption?

02:10:07.680 --> 02:10:11.280

EMPSi - Amanda Biedermann: I'll go ahead and unmute Kristi again in case she wants to weigh in on this.

02:10:17.640 --> 02:10:21.450

USFWS - Lee Andrews: Well, I'm, I'm not sure that is an accurate assumption.

02:10:22.560 --> 02:10:31.590

USFWS - Lee Andrews: You know, from what the law says and what our regs require us to do, we look at what the best available data are,

02:10:33.300 --> 02:10:38.310

USFWS - Lee Andrews: No matter where that where they come from, who generates them, etc. in making our decisions.

02:10:43.560 --> 02:10:47.340

EMPSi - Amanda Biedermann: Okay, great and Steve, if you want to weigh in on that at all, feel free.

02:10:50.130 --> 02:10:56.610

EMPSi - Amanda Biedermann: Or if not, and we have answered it adequately, we can move on to any new questions that we've received.

02:10:58.230 --> 02:11:15.030

EMPSi - Amanda Biedermann: And so it looks like we do have another question and so, that question is "How far in the future does the decision-making board try to look? In other words, here in Cane Ridge, we are trying to do what will be right for 100 years from now. How far in the future are you trying to consider?"

02:11:19.020 --> 02:11:33.690

USFWS - Lee Andrews: On my recollection of what the SSA says, was that they use a 40-year planning horizon. Mike or Steve may be able to verify my recollection on that.

02:11:39.660 --> 02:11:43.560

EMPSi - Amanda Biedermann: Steve is unmuted. And I'll go ahead and unmute Mike as well.

02:11:45.330 --> 02:11:48.120

Texas A&M - Mike Marshall: Sure I'll chime in here. So

02:11:49.830 --> 02:11:57.390

Texas A&M - Mike Marshall: In this particular SSA, we looked out and I'm sorry, I don't have a document in front of me, but I believe it was about 30 years

02:11:57.900 --> 02:12:11.070

Texas A&M - Mike Marshall: And the time Horizon we look out at all depends on the species and also depends on the primary threats. So given that the primary threats that we assessed were development

02:12:11.490 --> 02:12:24.630

Texas A&M - Mike Marshall: We didn't feel comfortable looking at 100 years in terms of trying to figure out what will be developed in 100 years, but the sweet spot was about a 20 to 30-year time. So that's what the SSA did.

02:12:32.010 --> 02:12:33.930

EMPSi - Amanda Biedermann: Great. Thank you, Mike for that input.

02:12:35.250 --> 02:12:44.730

EMPSi - Amanda Biedermann: So we'll go ahead and move on to our next question, and that question is "Regarding the five years just mentioned in an earlier

02:12:45.150 --> 02:12:59.700

EMPSi - Amanda Biedermann: question regarding the post delisting monitoring plan, does that mean if delisted, the species will remain delisted for five years?" And the commenter expressed concern about development on adjacent properties.

02:13:00.360 --> 02:13:04.650

EMPSi - Amanda Biedermann: So Kristi sounds like you're going to respond to this one. So I'll go ahead and unmute you.

02:13:12.270 --> 02:13:14.940

USFWS - Steve Alexander: Kristi, this is Steve, do you want me to take that question?

02:13:20.610 --> 02:13:25.470

EMPSi - Amanda Biedermann: Kristi I have you unmuted on my end, but you might be muted still on your end. There you go.

02:13:26.730 --> 02:13:28.950

USFWS - Kristi Young: Yeah, I had unmuted myself but oh well.

02:13:30.090 --> 02:13:36.360

USFWS - Kristi Young: So I can take that. Yeah, so the post delisting monitoring plan is a requirement under the Endangered Species Act and

02:13:36.990 --> 02:13:51.900

USFWS - Kristi Young: We have to, at a minimum, monitor a delisted species for at least five years, but we developed the plan. And yes, Steve, if you want to talk about the actual plan and what it requires that would be great. But it would be delisted

02:13:53.670 --> 02:14:02.400

USFWS - Kristi Young: At a minimum for that amount of time. But, you know, normally, it's not like an automatic if we determine the

02:14:03.390 --> 02:14:10.350

USFWS - Kristi Young: The trends are declining during that monitoring period. It doesn't like automatically trigger a relisting

02:14:11.130 --> 02:14:22.470

USFWS - Kristi Young: But we would definitely look at that information and potentially reassess the status of the species at the end of the time period expressed in the post-delisting monitoring plan

02:14:23.310 --> 02:14:34.860

USFWS - Kristi Young: For this, you know, to see if the status needs to go back to being listed. However, in most instances, when we have delisted species in the past due to recovery.

02:14:35.550 --> 02:14:43.560

USFWS - Kristi Young: We've gone through that monitoring period and shown that the species is still maintaining or improving its status and then the species continues to be delisted.

02:14:48.840 --> 02:14:49.140

EMPSi - Amanda Biedermann: Great.

02:14:50.220 --> 02:14:52.680

USFWS - Steve Alexander: Yeah, and the post-delisting monitoring plan has a

02:14:53.850 --> 02:15:08.640

USFWS - Steve Alexander: Stepwise process, looking at densities of the species, utilizing the same protocols that we developed in cooperation with the Nashville Zoo. So if

02:15:09.870 --> 02:15:16.500

USFWS - Steve Alexander: For example, I'm not saying this will happen, but the first year of monitoring indicates that we have exceeded

02:15:18.510 --> 02:15:26.040

USFWS - Steve Alexander: The most stringent criteria and we're not seeing levels at some of the same sampling sites that we did before.

02:15:26.970 --> 02:15:37.110

USFWS - Steve Alexander: The Service could take that information and make a decision that the species should be relisted. We wouldn't have necessarily wait five years.

02:15:37.860 --> 02:15:57.660

USFWS - Steve Alexander: That process could start after that first year of monitoring. I don't anticipate that would be the case. And as Kristi said, most of the species that have been delisted go through that five-year monitoring period and they're still at levels that would warrant their not being listed.

02:16:03.720 --> 02:16:05.730

EMPSi - Amanda Biedermann: Great. Thank you, Steve for that additional input.

02:16:08.100 --> 02:16:20.160

EMPSi - Amanda Biedermann: So it looks like we don't have any more questions. Currently, we have about 15 minutes left. But again, please feel free to send any questions you have over to the host of the meeting, Amy Lewis

02:16:20.790 --> 02:16:28.380

EMPSi - Amanda Biedermann: And a Fish and Wildlife Service staff member will respond to that question. Additionally, if you've decided that you would like to offer a comment

02:16:28.800 --> 02:16:38.730

EMPSi - Amanda Biedermann: Again, please access that raise hand feature so that we can accept your comments for today's meeting. If you are having issues with accessing that raise hand feature

02:16:39.060 --> 02:16:45.060

EMPSi - Amanda Biedermann: Again, please go ahead and send a chat over to Amy Lewis and let her know that you would like to comment.

02:16:45.750 --> 02:16:57.390

EMPSi - Amanda Biedermann: And again, we'll allow for you to comment today. But for now, we'll give folks a few minutes if they have any additional questions to send those over or if they would like to offer a comment to raise their hand.

02:17:15.840 --> 02:17:23.940

EMPSi - Amanda Biedermann: Alright, it looks like we've received a question, and that question is "What data was actually collected with the 2017 review?"

02:17:27.870 --> 02:17:30.870

USFWS - Lee Andrews: The five-year review

02:17:33.540 --> 02:17:45.690

USFWS - Lee Andrews: It doesn't collect new data, it just assimilates the existing data and information that are available on the species. And so normally the lead biologists for the species

02:17:46.920 --> 02:17:59.520

USFWS - Lee Andrews: Works with state and other partners to gather any new data that's been collected and then we summarize that in the five-year review. And as I said, the five-year review

02:18:00.660 --> 02:18:07.140

USFWS - Lee Andrews: is a requirement for the Endangered Species Act we have to update and check on the status of every listed species

02:18:08.310 --> 02:18:10.350

USFWS - Lee Andrews: At least once every five years.

02:18:14.460 --> 02:18:16.260

EMPSi - Amanda Biedermann: Great, thank you Lee for the response.

02:18:17.280 --> 02:18:24.990

EMPSi - Amanda Biedermann: And it looks like we don't have any additional questions at this time. But again, we'll give folks a few minutes if they have any additional questions or comments.

02:18:42.000 --> 02:18:46.440

EMPSi - Amanda Biedermann: Alright, it looks like we have a follow up question to the question that was just answered.

02:18:46.860 --> 02:19:00.360

EMPSi - Amanda Biedermann: And the question is, so based on, Lee, what you just responded about, "there is no requirement for current and new data to be collected?" And I think the participant is requesting some clarification on your point.

02:19:02.520 --> 02:19:07.080

USFWS - Lee Andrews: Yeah, that's right. There is no requirement in the Act for us to collect data

02:19:08.310 --> 02:19:10.890

USFWS - Lee Andrews: Or, you know, generate our own new data.

02:19:12.210 --> 02:19:13.560

USFWS - Lee Andrews: So we don't have to go out and

02:19:13.560 --> 02:19:14.040

USFWS - Lee Andrews: Resurvey

02:19:14.280 --> 02:19:21.570

USFWS - Lee Andrews: every five years or something like that in order to determine what the status is. We take it based on what's already available.

02:19:27.900 --> 02:19:34.080

EMPSi - Amanda Biedermann: Great. Thank you Lee and I saw that a few participants just joined. I just want to note to those new participants

02:19:34.470 --> 02:19:44.790

EMPSi - Amanda Biedermann: That if you would like to offer a comment or a question, please chat that over to Amy Lewis You can access your chat feature at the bottom of your zoom screen.

02:19:45.180 --> 02:19:53.430

EMPSi - Amanda Biedermann: So if you click on that chat icon and chat over to Amy if you have a question or if you'd like to offer a comment, please let her know.

02:19:54.810 --> 02:20:06.960

EMPSi - Amanda Biedermann: And I just got a follow up to the question that was just asked. And so, that question is "Can the public or others cause that requirement to be installed? The requirement that a new study would be required?"

02:20:08.254 --> 02:20:11.685

USFWS - Lee Andrews: No.

02:20:14.850 --> 02:20:26.160

EMPSi - Amanda Biedermann: Great. Thank you, Lee for that clarification. And again, if anybody has any follow up to your

question or a new question, please chat that over now. We have about 10 minutes remaining on the meeting.

02:21:08.790 --> 02:21:17.100

USFWS - Kristi Young: So this is Kristi again and just a bit of follow up on that last comment or question regarding the five-year review requirement.

02:21:18.660 --> 02:21:26.610

USFWS - Kristi Young: So the process for five-year reviews is that we will put a notice in the Federal Register and also do some outreach.

02:21:27.270 --> 02:21:35.400

USFWS - Kristi Young: You know, definitely be reaching out to State partners, but other partners when we are preparing to do a federal review.

02:21:35.970 --> 02:21:40.470

USFWS - Kristi Young: And so we'll list basically all the species that we're going to be working on, having five-year reviews

02:21:41.370 --> 02:21:49.200

USFWS - Kristi Young: Within the next year or so. So there's, there is a notice sent out basically saying, hey, we're about to do a five-year review

02:21:49.830 --> 02:22:06.990

USFWS - Kristi Young: Please send us any new information that you have. And then the field offices often also do quite a bit of outreach to local partners to try to get all the new information that has come up since the last five-year review was performed if we don't already have it.

02:22:08.070 --> 02:22:25.920

USFWS - Kristi Young: And so I guess it's, you know, it doesn't require us ourselves, to go out and collect your data, but I think we do try to do our due diligence to make sure that we have gathered all the new data that have been collected since the previous five-year review had been performed

02:22:27.210 --> 02:22:27.630

USFWS - Kristi Young: That's it.

02:22:32.220 --> 02:22:36.330

EMPSi - Amanda Biedermann: Great, thank you Kristi for now follow up and it looks like we have one more question. I

02:22:36.690 --> 02:22:46.410

EMPSi - Amanda Biedermann: think we'll go for just one question and then move into our closing remarks slide, but we will continue to accept questions and comments, up until 8:30pm Central time

02:22:46.860 --> 02:22:56.010

EMPSi - Amanda Biedermann: So this question is "Would morphologically distinct and separate populations of the Nashville crayfish be viewed and protected independently under the ESA?"

02:23:03.720 --> 02:23:13.830

USFWS - Lee Andrews: Morphology in a lot of these species varies. So we don't always rely just on morphology or the diverse nature of populations.

02:23:16.200 --> 02:23:20.760

USFWS - Lee Andrews: What we rely on is, you know, good

02:23:21.900 --> 02:23:28.080

USFWS - Lee Andrews: Taxonomic information. So if the species are the same species.

02:23:29.160 --> 02:23:33.990

USFWS - Lee Andrews: If the species is listed, all of them are listed unless there's a special rule

02:23:35.190 --> 02:23:38.370

USFWS - Lee Andrews: You know, that designates only a certain population of vertebrates.

02:23:49.260 --> 02:23:55.470

EMPSi - Amanda Biedermann: Great. Thank you, Lee. I'll go ahead and click to our closing remarks slide

02:23:56.400 --> 02:24:03.240

EMPSi - Amanda Biedermann: So that Lee can lead us through some closing remarks. It looks like we do have one quick follow up question. I'll ask that quickly.

02:24:03.630 --> 02:24:13.710

EMPSi - Amanda Biedermann: And so, that question is, "So what would need to be attached to data provided by the community?" and "GPS pictures," for example, is the participants question.

02:24:17.070 --> 02:24:21.210

USFWS - Lee Andrews: Are they talking specifically about maybe new occurrence records or that sort of thing?

02:24:24.240 --> 02:24:30.120

EMPSi - Amanda Biedermann: I'll allow the participant to see if they have any additional follow-up clarification to their question.

02:24:43.500 --> 02:24:49.650

EMPSi - Amanda Biedermann: Or if a Fish and Wildlife Service staff member wants to respond to that question while we wait.

02:25:02.160 --> 02:25:04.560

USFWS - Lee Andrews: Well I guess what I will say is that

02:25:06.240 --> 02:25:11.910

USFWS - Lee Andrews: We can accept all sorts of data, you know, we will still have to vet the data.

02:25:13.350 --> 02:25:24.240

USFWS - Lee Andrews: You know, for instance, if somebody, a commenter was or questioner was talking about, you know, maybe trying to fill in some gaps in distribution in the Mill Creek Watershed

02:25:25.620 --> 02:25:28.350

USFWS - Lee Andrews: You know, we, we would need to

02:25:29.550 --> 02:25:35.670

USFWS - Lee Andrews: You know, have some sort of data that it would support A: it was a Nashville Crayfish and B:

02:25:36.750 --> 02:25:38.190

USFWS - Lee Andrews: Where it came from.

02:25:39.930 --> 02:25:43.530

USFWS - Lee Andrews: You know, we keep those records, and the State does also.

02:25:45.000 --> 02:25:56.310

USFWS - Lee Andrews: Heritage programs keep that data. So, you know, they could, they could send it to them also, and then we would end up with it whenever we do our reviews or whenever we

02:25:57.660 --> 02:26:01.260

USFWS - Lee Andrews: You know, consider this proposal for the delisting.

02:26:04.500 --> 02:26:06.420

USFWS - Steve Alexander: Yeah, I think it would be good for those

02:26:07.470 --> 02:26:27.630

USFWS - Steve Alexander: Citizen scientists, if they have any program that would have a date and time stamp as well as a georeferenced location and there are many programs available that can go on an Android device or an iPhone

02:26:28.680 --> 02:26:45.120

USFWS - Steve Alexander: That you can also put comments into. So if you were taking a photo of what you think is a Nashville crayfish, make sure that you get the photos, both from a ventral and then a posterior shot as well.

02:26:46.290 --> 02:26:49.410

USFWS - Steve Alexander: And that's a good start. Very good start.

02:26:51.780 --> 02:26:57.960

USFWS - Lee Andrews: Just, just one word of caution, that you know the crayfish is listed so

02:27:00.510 --> 02:27:02.430

USFWS - Lee Andrews: You're not supposed to keep it, take it home.

02:27:04.140 --> 02:27:14.820

USFWS - Lee Andrews: You know, accidentally kill it, you know, all those sorts of things. So just be very careful if you do you do recreationally collect crayfish to see what they are.

02:27:19.800 --> 02:27:21.690

EMPSi - Amanda Biedermann: Right. Great. Thank you, Lee and Steve for those

02:27:21.690 --> 02:27:22.230

EMPSi - Amanda Biedermann: Responses.

02:27:23.010 --> 02:27:37.140

EMPSi - Amanda Biedermann: And so we've just about hit the end of our meeting. Lee, if you'd like to lead us through this last closing remarks slide and just provide participants today one last kind of informational blurb on how to submit comments, that would be great.

02:27:38.070 --> 02:27:53.460

USFWS - Lee Andrews: Sure, yeah. I'd be happy to, you know. I appreciate everyone that has called in or joined us via the zoom platform. We do really appreciate all the questions and comments and hopefully

02:27:54.600 --> 02:27:57.660

USFWS - Lee Andrews: We've answered your questions to your satisfaction.

02:27:59.850 --> 02:28:04.050

USFWS - Lee Andrews: You know, the public hearing ends here in

02:28:04.590 --> 02:28:04.620

USFWS - Lee Andrews: about

02:28:04.920 --> 02:28:05.880

USFWS - Lee Andrews: minute and a half.

02:28:08.010 --> 02:28:16.350

USFWS - Lee Andrews: So if there are any last-minute questions or anything, please try to get those in real quickly. But, you know, we certainly encourage everyone to

02:28:17.490 --> 02:28:29.370

USFWS - Lee Andrews: You know, provide us with written comments and lots of times it's easier for us to understand, you know, the full complexity of your questions or concerns or comments

02:28:30.780 --> 02:28:55.080

USFWS - Lee Andrews: You know, if you if you write those out. We will accept comments that are received or postmarked on or before October 23 of this month 2020, and if you want to send us your comments that way. Use the www.regulations.gov website and again

02:28:56.250 --> 02:29:07.410

USFWS - Lee Andrews: Put them under docket number FWS-R4-FES-2018-0062.

02:29:08.160 --> 02:29:25.530

USFWS - Lee Andrews: And again, if you have already provided comments. There's no need to resend those comments. we have them and they will be fully considered as we work through our determination on this proposal, again, I like to thank everybody, and the public hearing is now ended.