

From: Becker, James M
Sent: Thursday, October 26, 2017 5:30 PM
To: 'Vokoun, Patricia'
Cc: Doub, Peyton (Peyton.Doub@nrc.gov); Krieg, Rebekah; Mcdowell, Bruce K; Leigh, Kimberly D; Dozier, Tamsen
Subject: RE: October 23, 2017 FWS phone conversation with PNNL on CRN

Hi, Pat,

Below is a compilation of my notes and Becky's notes from our call with FWS and my conversation with FWS the day prior. Thank you for sending the information about our previous scoping letter to the AL FWS office. I will get back to you on your other question tomorrow.

Thank you,

Jim

Clinch River Project Endangered Species Act Consultation Conference Call –
10/24/17 (with additional notes from Dustin Boles, FWS, phone call to Jim Becker,
PNNL, on 10/23/17.)

Participants: NRC (Pat Vokoun, Peyton Doub), PNNL (Jim Becker, Becky Krieg),
FWS (Dustin Boles, David Pelren, Robbie Sykes)

Notes

Objective: Initial coordination for beginning to prepare the biological assessment (BA)

Action area of BA for terrestrial resources: CRN Site, buried 69 kV transmission line that connects the CRN Site to the Bethel Valley substation, BTA, offsite transmission line corridors throughout eastern Tennessee and extending into Kentucky and Georgia.

Action area of BA for aquatic resources: Ponds and streams on CRN site and BTA; streams along the proposed 69 kV transmission line to be buried in the right-of-way of existing 500 kV corridor from Bethel Valley substation to the CRN site; Clinch River arm of the Watts Bar Reservoir from approximately CRN 19.0 downstream to a location between CRN 14.5 and the confluence with the Emory River (TBD); offsite transmission line corridors throughout eastern Tennessee and extending into Kentucky and Georgia.

Species and habitats for the BA: These include the species and habitats at and in the vicinity of the CRN site as identified in the FWS July 2017 letter plus the little brown bat and tricolored bat just added by FWS. (FWS indicated they have petitions for about 400 species nationwide and that 100 of these are in TN; they think the little brown bat and tricolored bat are the most likely to be listed in the near future and the most important to include in our assessment as they are known from the CRN Site and BTA). The FWS also asked us to include species and habitats in the GA and KY counties (that contain two of the offsite transmission line segments) that were not included in the FWS July 2017 letter. They also asked us to include any species or habitats different from those noted previously that were identified as occurring within 1/8th mile of the offsite transmission line corridors as provided by the TN, GA, and KY Natural Heritage Programs.

Proposed Action: Construction, operation, and maintenance activities that would take place in the above action areas

Consultation at ESP versus at COL: Because the early site permit (ESP) is a major federal action and in order to resolve as many ESA issues as possible early on, consultation will proceed now but may need to be reopened at the COL stage for such things as if TVA breaches its plant parameter envelope (bounds that define the action area and proposed action for the ESP [a breach of the envelope might include such things as upgrading an offsite transmission line requiring working outside the existing corridor in adjacent forest habitat]), if there are new species listings, etc.

Communication between FWS, NRC, and TVA: FWS desires discussion of matters pertaining to the consultation with NRC (not TVA). There may be items we will need from TVA in order to provide FWS needed information in the BA. FWS expects NRC will discuss such matters with TVA, if needed, in order to include them in the BA.

Offsite transmission lines TVA Plans to Uprate, Reconductor, or Rebuild (Collectively Upgrades): TVA has estimated they plan to affect about 4000 acres as a result of upgrades to transmission lines within about 336 miles of existing corridors in Tennessee, Georgia, and Kentucky. This number is based on an initial interconnection system impact study of projected future transmission system conditions. TVA stated it would work only within the corridors of identified transmission line segments, not in adjacent areas. FWS noted that TVA sometimes may not have good access to transmission line corridor areas and will disturb adjacent areas, including forest habitat, to create access roads to work areas within corridors. TVA has also stated that the transmission line segments and engineering solutions could change at the COL stage. PNNL and NRC will write the BA based on TVA's currently identified transmission line segments and engineering solutions (uprating, reconductoring, and rebuilding), as well as the bounding parameter of only working within the corridors containing the identified transmission line segments. If TVA applies for a COL, it will provide more detailed information on the locations and nature of the work on offsite transmission lines, and if there any changes to the above assumptions, consultation may need to be reopened.

Underground 69 kV transmission line: TVA has stated it would work only within the corridor (of the existing 500 kV line) to bury the new 69 kV line. TVA indicated that they will bury the transmission line by trenching under streams where feasible. However, we have no plans from TVA on how this would be done, and it may change at COL.

Northern Long-Eared Bat (NLEB): It is assumed the species uses the suitable forest habitat on the CRN Site and in the BTA at least for summer roosting and foraging. The 4(d) rule for the NLEB applies to precluding forest harvest during the pup season from June 1 through July 31. Adherence to this seasonal restriction would preclude most direct (but not indirect) impacts to this species. TVA has not committed to any seasonal forest harvest restriction.

Indiana Bat: It is assumed the species uses the suitable forest habitat on the CRN Site and in the BTA at least for summer roosting and foraging. Precluding forest harvest from about late October through the end of March would preclude most direct (but not indirect) impacts to this species. TVA has not committed to any seasonal forest harvest restriction. However, tree removal any time of year constitutes take for the Indiana bat. Even if direct impacts were avoided by restricting forest harvest to from about late October through the end of March, there would still be take of the species because of the indirect effects of displacement, e.g., the energy expenditure of finding and reestablishing roost sites and possible abortion of young if new maternity roost sites cannot be found in a timely fashion after spring emergence.

Gray Bat: It is assumed the species uses habitat on the CRN Site and BTA at least for summer foraging. The species may roost in nearby offsite caves, such as those in the adjacent Grassy Creek Habitat Protection Area, as the species typically roosts within 4 mi of water bodies where it forages.

Blasting and Demolition: TVA has stated there would be blasting and demolition

onsite that would elicit periodic excessive noise levels that have not been quantified. TVA has stated that noise and vibration may be experienced by residents on the other side of the Clinch River. This may affect bat use of the CRN Site for roosting and foraging and may affect bat use of nearby offsite caves, such as those in the adjacent Grassy Creek Habitat Protection Area. Dustin will contact Peggy Shute (Assistant Field Supervisor, 931-528-6481) and any others in his office who have access to studies on the effects of blasting on bats (e.g., mining industry consultations) and will provide it to PNNL.

Nearby Caves: There are 5 nearby offsite caves in the adjacent Grassy Creek Habitat Protection Area (managed by TVA), 3 of them along Grassy Creek. A ridge may separate some or all of these caves from lower lying areas just to the south on the CRN Site where blasting/demolition would occur. It is unknown where the caves run underground, e.g., towards or away from the CRN Site. TVA stated that these caves have not been surveyed for bats, but a recent conversation with the State of Tennessee indicated they may be surveyed this fall. PNNL will follow up with the State on this. As of now, use by bats is unknown. PNNL will evaluate whether blasting and demolition may potentially affect possible bat use of these caves.

Pink mucket and sheepnose mussel: FWS does not think these species are present in the action area for the following reasons –

- Only relic shells identified
- Lack of suitable habitat
- Too cold of water released from Melton Hill dam
- Invasive mussels (e.g., zebra mussel) have become established

Spotfin chub:

- Check the 5-year status review for the species
- The species is confined to the Emory River drainage
- The species is extirpated in the Clinch River Arm of Watts Bar Reservoir

From: Vokoun, Patricia [<mailto:Patricia.Vokoun@nrc.gov>]
Sent: Tuesday, October 24, 2017 4:37 PM
To: Becker, James M
Cc: Mcdowell, Bruce K; Leigh, Kimberly D; Dozier, Tamsen
Subject: FW: October 23, 2017 FWS phone conversation withPNNL on CRN

Hi, Jim,

Please note that we reached out to Alabama FWS
[View ADAMS Properties ML17088A264](#)
I don't find or remember seeing a response.

Can you get the species lists for GA and KY online?

The info in your call yesterday appears to be identical to what we discussed today.

If we need follow-on calls, please send me a list of topics early so that we can send that info to try to avoid duplicative conversations.

Do you plan to provide a meeting summary from today? If so, please send to me when complete so I can add my notes.

I've included this info for the TLs as they requested an update.

Thank you,

Patricia Vokoun
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571.212.3554 c

From: Becker, James M [<mailto:James.Becker@pnnl.gov>]
Sent: Monday, October 23, 2017 7:19 PM
To: Vokoun, Patricia <Patricia.Vokoun@nrc.gov>; Doub, Peyton <Peyton.Doub@nrc.gov>; Krieg, Rebekah <Rebekah.Krieg@pnnl.gov>
Subject: [External_Sender] October 23, 2017 FWS phone conversation withPNNL on CRN

Hi Pat,

These are my observations from this morning's conversation with Dustin. Dustin noted that his supervisor and their bat biologist will also be on the call tomorrow. Dustin wanted me to copy him on this as well. Let me know if that is OK.

Thank you,

Jim

Dustin Boles contacted me by phone this morning in preparation for tomorrow's meeting. We noted some topics we may want to address in our phone conversation tomorrow, amongst any others of interest to those who will be on the call. A summary of our conversation follows.

Offsite transmission lines TVA Plans to Uprate, Reconductor, or Rebuild (Collectively Upgrades)

TVA has estimated it would affect about 4000 acres doing upgrades within about 335 miles of existing transmission line corridors (TVA stated it would work only within the corridors, not in adjacent areas) in Tennessee, Georgia, and Kentucky. The July 2017 FWS letter did not include county level (IPaC) species lists from the counties in GA and KY that contain about 30-40 miles of transmission lines in those states. We will need to get the species lists from those GA and KY counties and include them in

the BA. This will be a small effort.

We will need to evaluate in the BA impacts to 1) the above county level (IPaC) species and 2) the species noted in Natural Heritage Program (NHP) correspondence to the NRC as occurring within a 1/8th mile buffer surrounding the 335 miles of corridors (that we used in the EIS). Based on a cursory look, the NHP lists do not appear to contain any species beyond those identified at the county level (IPaC) lists noted above.

TVA has stated the offsite transmission line segments that would be upgraded were identified by TVA based on an initial interconnection system impact study of projected future transmission system conditions. TVA has stated it used available information about transmission and generation additions and upgrades that may subsequently change depending on the final configuration and additional electrical capacity of the specific reactors ultimately proposed along with associated changes in the corridor segments and engineering solutions. Thus, if these changes were to occur at COL, consultation would need to be reinitiated.

Notwithstanding the above uncertainty about the offsite transmission lines that would be upgraded, it is necessary to consult on the whole project (Clinch River [CRN] Site, Barge Traffic Area [BTA], offsite buried transmission line, and the offsite transmission lines that would be upgraded) at the same time due to the “but for” rule that precludes project segmentation, i.e., there can be no separate consultation later at COL just for the offsite transmission lines that would be upgraded. (Note that the FWS has a programmatic consultation with TVA that is currently in progress regarding transmission line upgrades and the Indiana bat and northern long-eared bat only and that this programmatic consultation will have no effect on the NRC consultation about the CRN project)

The NRC must consult for an early site permit (ESP) as it is a major federal action. Thus, NRC is expecting to consult on the whole project now in order to get ESA resolution on as many listed species/critical habitats/project activities as possible, even though consultation may need to be reopened at COL due to new information on the offsite transmission lines that would be upgraded or for any other reason (e.g., new species listings).

Addition of Two New Species Not in the FWS July 2017 Letter

Although not currently listed, the below two species could be listed in the near future and FWS has requested NRC consider them in the BA. Both are found on the CRN Site and BTA and would be affected by the project. The species were not included in the FWS July 2017 letter.

Little brown bat – petitioned in 2010 for ESA protection

Tri-colored bat -- petitioned in 2016 for listing as threatened and for designation of critical habitat

Provision of Information from FWS to NRC on 3 Aquatic Species

The below 3 species were included in the FWS July 2017 letter. FWS has located information that we should use in the BA and which supports a conclusion of either no effect or not likely to adversely affect. FWS will provide this information to us in an email.

Pink mucket
Shortnose mussel
Spotfin chub

Invocation of the 4(d) Rule for the Northern Long-Eared Bat (NLEB)

The 4(d) rule for the NLEB applies to precluding forest harvest during the pup season from June 1 through July 31. If TVA would commit to forest harvest timing restrictions, it would preclude most direct (but not indirect) impacts to this species.

Communication between FWS, NRC, and TVA

As issuer of the ESP, the NRC has the lead on this consultation. FWS will need to discuss matters pertaining to the consultation with NRC not TVA. There will likely be items we will need from TVA in order to provide FWS needed information in the BA (and satisfactorily complete the consultation), such as a commitment to forest harvest timing if TVA is willing or possible further information on the blasting that will occur during preconstruction/construction. FWS expects NRC will discuss such matters with TVA in order to include them in the BA.