



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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Asheville, North Carolina 28801

March 16, 2022

Marissa Cox
Biological Surveys Group
North Carolina Department of Transportation
1000 Birch Ridge Drive
Raleigh, North Carolina 27610

Subject: Revised Informal Consultation for the New I-26 Interchange at Exit 35 and Roadway Connection to Fredrick Law Olmstead Way East, Asheville, Buncombe County, North Carolina (TIP No. HE-0001)

Dear Marissa Cox:

This responds to your request for a revised concurrence letter on the subject proposed action. On June 16, 2021, we attended an external scoping meeting with regulatory partners where the North Carolina Department of Transportation (NCDOT) introduced the HE-0001 project and indicated its placement in the Merger Process. On June 24, 2021, we received (via e-mail) NCDOT's request for informal consultation and section 7 concurrence on effects the subject project may have on federally listed species. On June 29, 2021, we met with you and your staff to discuss the informal consultation request and initial comments. We then submitted written comments to NCDOT on July 7, 2021. On September 16, 2021, we received (via e-mail) an updated request for informal consultation and section 7 concurrence. We attended additional meetings with NCDOT staff to discuss issues and concerns. We sent you an informal concurrence letter dated November 18, 2021. Members of your staff provided additional information on January 18 and 31, 2022. We reviewed the CP3 Merger Packet provided on January 26, 2022, sent additional comments and questions to you on February 4, 2022, and received NCDOT's responses on February 14, 2022, which included a request for a revised concurrence letter. The following is provided in accordance with the provisions of the National Environmental Policy Act (42 U.S.C. § 4321 et seq.); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661 - 667e); and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 - 1543) (Act). This revised informal concurrence letter supersedes our previous letter dated November 18, 2021.

Project Description

A full project description is included in the original concurrence letter signed November 18, 2022. NCDOT is not able to implement all the lighting conservation measures requested by the U.S. Fish and Wildlife Service (Service) and provided additional information on nighttime lighting, stormwater, and inclusion of development as an indirect effect. Most agencies concurred with the use of Detailed Study Alternative 3 (Figure 2) at the CP3 Merger Meeting on February 9, 2022. The North Carolina State Historic Preservation Office abstained. The study area (Figure 1) remains the same though the action area is likely to narrow in the future when final designs are completed.

For HE-0001, NCDOT will analyze the project using the Stochastic Empirical Loading and Dilution Model (SELDM) Catalog for North Carolina (NC-SELDM) to determine recommendations for stormwater treatment goals. The model returns one of three recommendations for stormwater treatment 1) a direct discharge is acceptable; 2) minimization measures are sufficient; or 3) implement toolbox best

management practices. Based on the analysis from the NC-SELDM Catalog, NCDOT will implement stormwater controls as needed to guard against erosion and to protect water quality. Stormwater design information is limited at this stage of project development.

NCDOT provided additional information on construction sediment and erosion control (SEC) measures. NCDOT follows design requirements based on peak flow and designs devices to handle the 25-year or 10-year peak flow storm event. Runoff velocities must be controlled so that the peak runoff from the 10-year frequency storm occurring during or after construction will not damage the receiving stream channel at the discharge point. The velocity must not exceed the greater of the maximum non-erosive velocity of the existing channel, based on soil texture or peak velocity in the channel prior to disturbance. If neither condition can be met, then protective measures must be applied to the receiving channel. As stated in the BE, NCDOT will default to the most-restrictive SEC measure requirements.

NCDOT has committed to the following conservation measures in their BE dated September 15, 2021, in emails dated January 18 and 31, 2022, or did not object to their inclusion in the November 18, 2021 concurrence letter. Conservation measures have been modified for clarity as needed, numbered consecutively, and named based on the type of measure.

Conservation Measures for Gray Bat

TREE 1: As the proposed action will impact suitable habitat for gray bat throughout the action area, all tree clearing will occur between November 15 – March 15, which is outside of the bat active season for gray bat in the French Broad River (FBR) Basin.

TREE 2: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE 3: Ensure tree removal is limited to that specified in project plans and ensure that clearing limits are clearly marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHT 1: Permanent lighting will be confined to the interchange portion of this project along I-26 and will meet safety requirements for fully controlled access roadways. The roadway connection to Frederick Law Olmstead Way East will remain a dark forested corridor.

LIGHT 2: Lighting used for construction will be limited to what is necessary to maintain safety standards and will only be directed toward active work areas, not into adjacent wooded areas or inactive work sites.

LIGHT 3: NCDOT will use the shortest light pole that meets highway requirements and safety parameters and limits light in suitable bat habitat.

LIGHT 4: NCDOT will use light emitting diode (LED) fixtures with a Type II distribution pattern. This pattern projects light from the fixture further along the road and less across the road.

LIGHT 5: In all cases, the BUG (Backlight, Uplight, and Glare) rating will not exceed 3-0-3.

LIGHT 6: NCDOT will meet the AASHTO minimum requirements of 0.6 fc at 4:1 uniformity, which represents a 25% reduction in the average light on the pavement surface (compared with using the 0.8 fc standard) and should reduce the amount of light reaching suitable bat habitat.

LIGHT 7: NCDOT will eliminate all high mast light poles within the action area.

SEC 1: NCDOT will implement Design Standards for Sensitive Watersheds to minimize impacts to surface waters and wetlands which support aquatic macroinvertebrates, a food source for gray bats.

Conservation Measures for Appalachian Elktoe

Sediment and Erosion Control (SEC)

SEC 2: A combination of Design Standards in Sensitive Watersheds (DSSW, 15A NCAC 04B .0124), Environmentally Sensitive Areas, and the NC Division of Water Quality (NCDWQ) Construction

General Permit (NCG01) terms and conditions that allow for stormwater discharge under the National Pollutant Discharge Elimination System (NPDES) apply and NCDOT will default to the most-restrictive SEC measure requirements.

SEC 3: The sedimentation and erosion control plan (SECP) will be in place prior to any ground disturbance for all pipe replacements and construction. When needed, combinations of SEC measures (such as silt bags in conjunction with a stilling basin) will be used to ensure that the most protective measures are implemented.

SEC 4: The SECP shall adhere to the DSSW for portions of the project draining directly or indirectly to the FBR. Consideration will be given to any on the ground practical application which is most protective of the resource. For example, there may be some areas where NCDOT would not extend a measure of the DSSW (e.g., cut trees to construct a basin) which would have greater impact to sensitive resources.

SEC 5: Environmentally Sensitive Areas will be demarcated within the action area and will be defined by a 50-foot buffer zone on both sides of jurisdictional streams measured from top of streambank, in which the following shall apply:

- The contractor may perform clearing operations, but not grubbing operations until immediately prior to beginning grading operations.
- Once grading operations begin, work shall progress in a continuous manner until complete.
- Erosion control devices shall be installed immediately following the clearing operation.
- Seeding and mulching shall be performed on the areas disturbed by construction immediately following final grade establishment.
- Seeding and mulching shall be done in stages on cut and fill slopes that are greater than 20 feet in height measured along the slope, or greater than 2 acres in area, whichever is less.
- All SEC measures, throughout the project limits, must be cleaned out when half full of sediment, when applicable, to ensure proper function.

Monitoring Effectiveness of SEC Devices

SEC 6: One Construction Project Inspector will monitor SEC devices for the life of the project.

SEC 7: Inspections of erosion control devices will be done on the standard inspection schedule (weekly, or after a rainfall event of one inch or greater).

SEC 8: NCDOT will self-report to the Service any SEC device failures or sediment loss resulting from exceeding the capacity of the measures. The NCDOT inspector will report any failures or sediment loss to the Division Environmental Officer, who will contact the agency within 24 hours. If there are any failures or sediment loss, NCDOT will meet with resource agencies and work to adaptively manage SEC devices for further storm events while construction continues.

Agency Coordination (AC)

AC 1: NCDOT will invite representatives from the Service, U.S. Army Corp of Engineers, and the North Carolina Wildlife Resources Commission to the preconstruction meeting for the proposed project, as well as to all subsequent field inspections prior to construction, to ensure compliance with all special project commitments.

AC 2: NCDOT shall provide the Service with the SECP and allow 30 calendar days for review.

Stormwater Control Measures (SCM):

SCM 1: NCDOT has developed stormwater commitment guidance, which will apply to any portion of the NCDOT stormwater conveyance system draining to an outfall discharging to the FBR within the NCDOT right of way.

SCM 2: NCDOT will prepare a stormwater management plan (SMP) that implements structural and non-structural post-construction stormwater best management practices (BMPs) to the maximum extent practical, which is consistent with NPDES Post-Construction Stormwater Program.

SCM 3: NCDOT will use a hierarchical BMP selection process, which is optimized to treat silt, nutrients, and heavy metals.

SCM 4: NCDOT will evaluate the use of emerging BMP technologies that NCDOT has yet to publish in its BMP Toolbox. These emerging BMP technologies include bioswales, bioembankments, biofiltration conveyances, and soil improvements that maximize infiltration.

Federally Listed Species

Appalachian elktoe (Alasmidonta raveneliana)

Appalachian elktoe occur in the FBR upstream and downstream of the project. While the project may not directly impact the FBR, the project will impact jurisdictional streams SA and SDX that flow into the FBR. The jurisdictional streams themselves do not provide suitable habitat for Appalachian elktoe, but they do affect the water quality of the FBR. Tree clearing, land clearing, and stormwater management may all result in effects to the FBR, as discussed in the BE.

The BE states that due to the implementation of conservation measures related to sediment and erosion control and stormwater, any sedimentation or water quality impacts associated with construction of HE-0001 will be insignificant or discountable as it is not expected to reach the main stem of the FBR.

Based on the conservation measures outlined above, we concur with NCDOT's determination that the project may affect, but is not likely to adversely affect Appalachian elktoe.

Gray bat (Myotis grisescens)

While many gray bats forage and commute over water, some choose to fly over land including heavily wooded areas in the FBR basin and near the project study area (Weber et al., 2020, Figure 3).

Additionally, several studies indicate that bad weather in spring and fall can cause gray bats to leave primary feeding locations along water bodies for forest canopies (LaVal et al. 1977, Stevenson and Tuttle 1981). Based on this information and the facts that follow, we believe gray bats forage and commute throughout the action area:

- 1) a primary gray bat roost occurs within 0.65 miles of the action area boundary,
- 2) the action area is located within a bend of the FBR that is a well-documented foraging and commuting corridor for gray bats, which creates opportunity for the action area to serve as an overland bypass for gray bats traveling north or south along the river, and
- 3) the action area is within a small undeveloped forested corridor – connecting the U.S. Forest Service's Bent Creek Experimental Forest with the undeveloped portions of Biltmore properties – that we believe may serve as an important commuting and foraging overland flyway.

Because gray bats are expected to be foraging, commuting, and potentially roosting within the action area, artificial lighting and tree removal may cause avoidance behavior in gray bats during construction and operation of the proposed project. Studies (e.g., Rydell 1992; Blake et al. 1994; Stone et al. 2009, 2012) have shown that road lighting deters many bat species, notably slow-flying, woodland-adapted species such as members of the genus *Myotis*, from approaching the road. Deforestation at foraging sites and along commuting routes is likely to have negative effects due to the removal of prey abundance and reduced cover from natural predators (Tuttle 1979). Recently-volant young are especially susceptible to the effects of deforestation, as they require the protection of forest cover while becoming proficient fliers.

Based on the best available science, information above, and the information provided, we believe that tree removal and new artificial lighting may have short and long-term effects on the gray bat. Conservation measures for this project aim to address these concerns and ensure effects are insignificant. Winter tree clearing and other tree-related measures should reduce any impacts to gray bats including impacts to bats

that may temporarily roost in trees during migration (Samoray et al. 2020). Lighting measures aim to address and reduce the amount of light leaving paved surfaces.

Based on the information provided in the BE, including the conservation measures listed above, we concur with NCDOT that the project may affect, but is not likely to adversely affect the gray bat.

Northern long-eared bat (Myotis septentrionalis, NLEB)

Suitable habitat for NLEB is present within the action area. Based on the information provided, the project is consistent with the final section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016 for NLEB. This rule exempts take of this species for any tree cutting activity that occurs more than 0.25 miles from a known hibernation site or more than 150 feet from a known maternity roost during the pup rearing season (June 1 - July 31). Because this project meets the “exempt” criteria, any take associated with the project has already been addressed in the Biological Opinion for the 4(d) rule, and no further action under section 7 of the Act is required for this species at this time.

The Service is currently reevaluating the listing status of NLEB, and a final listing decision is expected in 2022. Consultations that use the 4(d) rule for NLEB may need to be reinitiated if the 4(d) rule is rescinded or the listing status of the species changes during the life of the project.

Other Species

While the following species occur in the region, the action area is outside the current range and/or area of influence for blue ridge goldenrod (*Solidago spithamea*), Carolina northern flying squirrel (*Glaucomys sabrinus coloratus*), roan mountain bluet (*Hedyotis purpurea* var. *montana*), spreading avens (*Geum radiatum*), and spruce-fir moss spider (*Microhexura montivaga*). While the action area is within the current range and/or area of influence for mountain sweet pitcherplant (*Sarracenia rubra* ssp. *jonesii*) and rock gnome lichen (*Gymnoderma lineare*), no suitable habitat is present within the action area for either species. Therefore, no further section 7 review for these species is required.

Little brown bat (*Myotis lucifugus*) and tricolored bat (*Perimyotis subflavus*) are at-risk species (ARS). ARS are not legally protected under the Act and are not subject to any of its provisions, including section 7, unless they are formally proposed or listed as endangered or threatened. The Service is expected to make listing determinations on these species in the near future. While lead federal agencies are not prohibited from jeopardizing the continued existence of an ARS or proposed species unless the species becomes listed, the prohibition against jeopardy and taking a listed species under section 9 of the Act applies as soon as a listing becomes effective, regardless of the stage of completion of the proposed action. We include this notification to make you aware of their current status and potential occurrence within the action area and to request your assistance in protecting them. Depending on the timeline of the subject project and final listing determinations, reinitiation may be required.

Conservation Recommendations

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- Consider timing clearing and grading operations (not including tree cutting) such that follow-up seeding and mulching activities avoid the coldest winter months of January and February when growth of winter rye is slow and may not perform well as a protective BMP for sediment and erosion control. This measure may be most effective when applied to Environmentally Sensitive Areas.

- Use only low-pressure sodium (LPS), high-pressure sodium (HPS), or LED light sources that emit “warm” light. “Warm” light sources are those that contain low amounts of blue light in their spectrum. Choosing light sources with a color temperature of no more than 3,000 Kelvins will minimize the effects of blue light exposure. For additional information and actions that can be taken to reduce outdoor light pollution, visit: <https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/>.
- Consider the conservation needs of the Appalachian elktoe when designing SEC and SCM plans for HE-0001. Include SCMs that provide control of water quantity to prevent downstream flooding and erosion of Streams SA and SDX. We encourage the use of wet detention basins which maintain a permanent pool of water and attenuates peak stormwater flows (NCDOT BMP Toolbox Chapter 12, 2014). Wet detention basins will benefit gray bats as they have been shown to use them in Weaverville and will improve the aesthetics of the roadway for users and the Blue Ridge Parkway viewshed.
- Develop a study to monitor the new roadway’s impacts to Stream SA. We are concerned about the long-term implications of increased impervious surfaces within the watersheds of Appalachian elktoe, and this situation presents an opportunity to observe and learn, on a small scale, what happens to stable streams when well-designed roadway projects that include SCMs are introduced on the landscape. We are ultimately interested in creating adaptive feedback loops that can inform freshwater mussel recovery in a landscape that is under constant development pressure.

For the Service to be kept informed of actions benefitting listed species or their habitats, we request written notification of the implementation of any conservation recommendations along with the results of any monitoring.

Reinitiation Notice

We believe the requirements under section 7 of the Act are fulfilled for the federally listed species discussed above. However, obligations under section 7 must be reconsidered if: (1) new information reveals impacts of this proposed action that may affect listed species or critical habitat in a manner not previously considered, (2) this proposed action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed, or critical habitat is determined that may be affected by the proposed action.

We appreciate the opportunity to provide these comments. Please contact Ms. Lauren B. Wilson of our staff at lauren_wilson@fws.gov if you have any questions. In any future correspondence concerning this project, please reference our Log Number 21-330.

Sincerely,

Janet Mizzi
Field Supervisor

Enclosures: maps

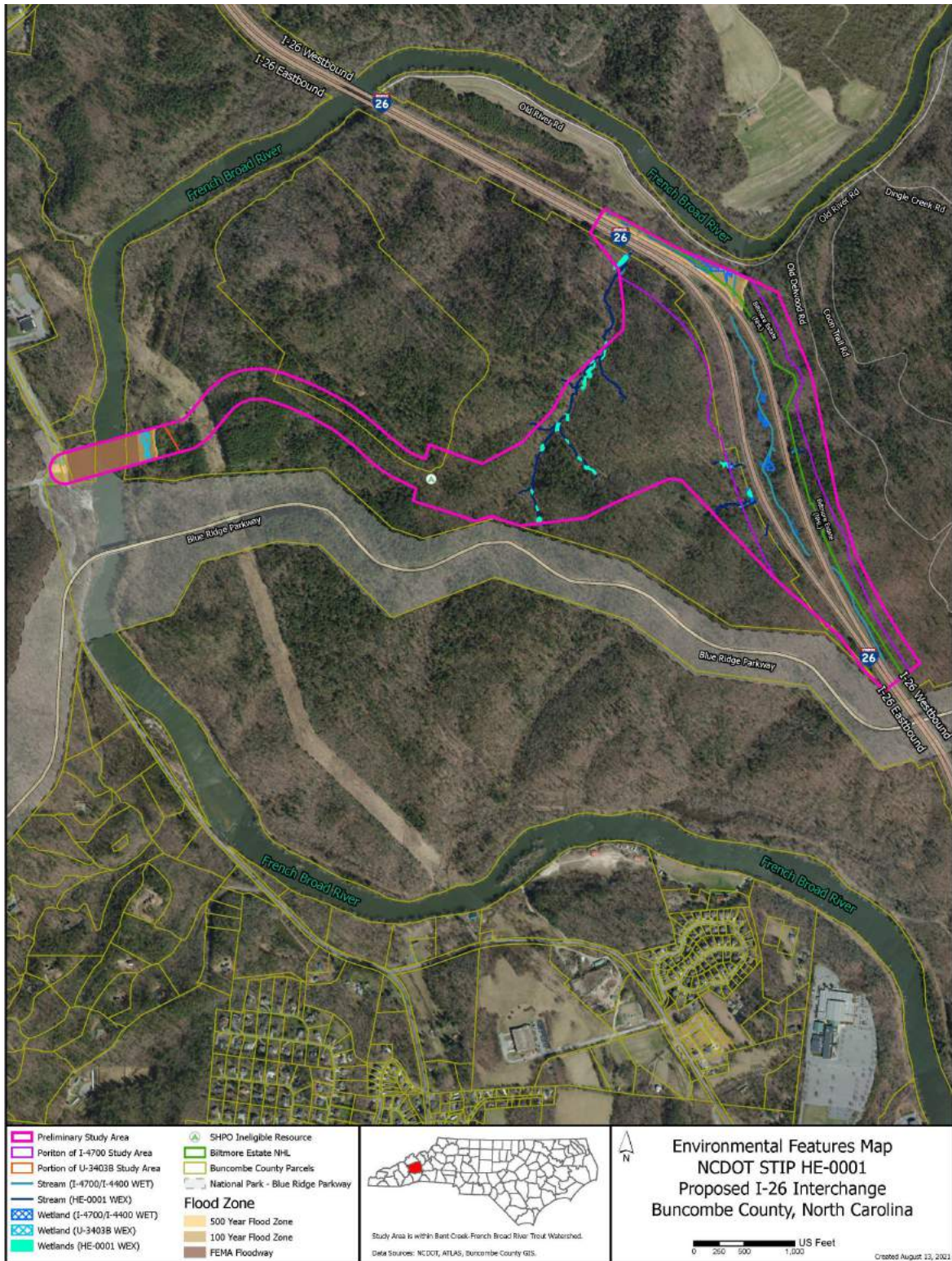


Figure 1. Stream SA and SDX in the Action Area. Map shows results of the jurisdictional determination for streams and wetlands within the action area.

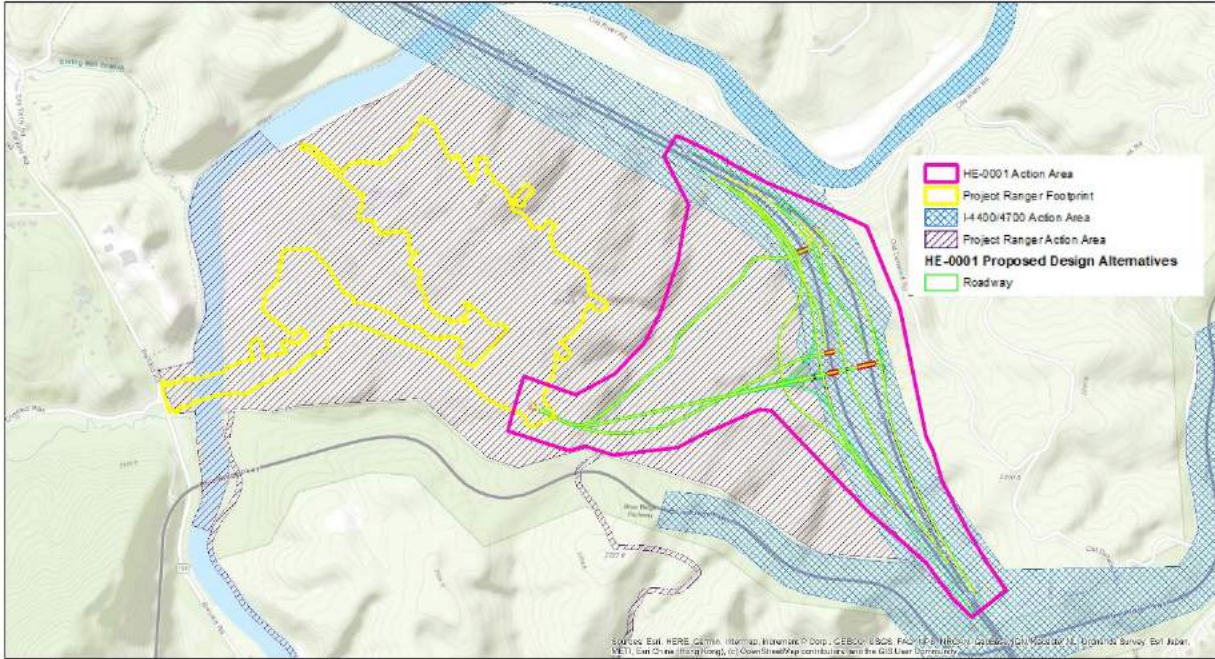


Figure 2. HE-0001 Detailed Study Alternatives and Consultation History in Project Vicinity. Includes action areas for Project Ranger (FWS Log No. 19-328) and I-26 Widening Project (I-4400/I-4700). Merger agencies choose Detailed Study Alternative 3, the northern most green road, as the least environmentally damaging practicable alternative.

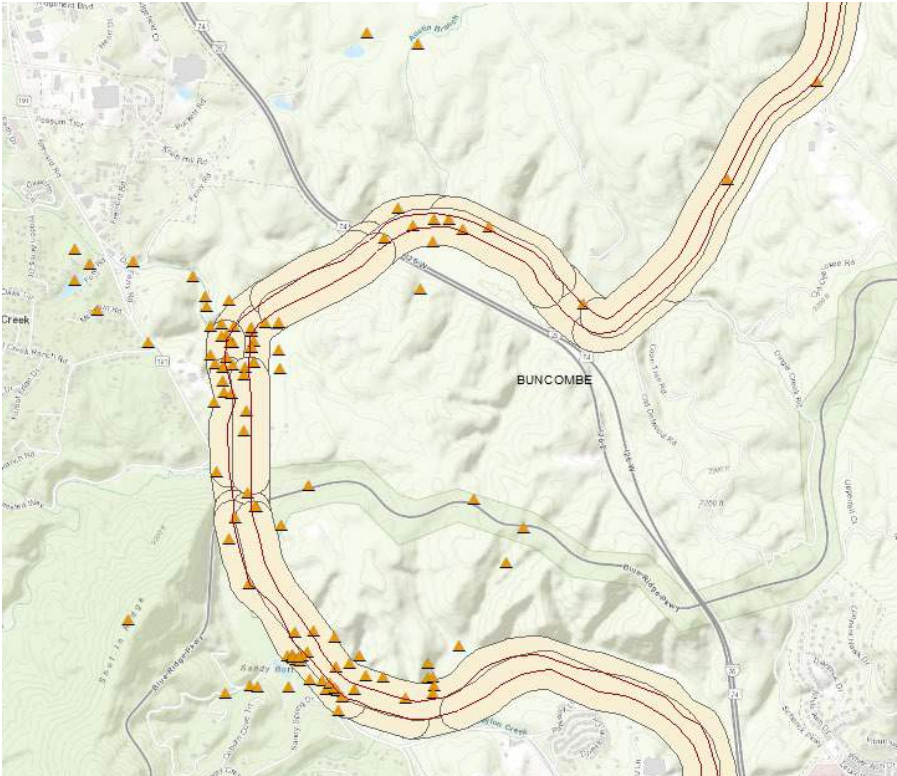


Figure 3. Gray Bat Locations Near the Action Area. Known gray bat foraging locations (orange triangles) from Weber et al. (2020) in the vicinity of the action area. The map shows the French Broad River (cream colored polygon with red outline) and a 100 m buffer (cream polygon with a gray outline).