1.) What if my project already has a BO issued by USFWS?

If NCDOT has already consulted with USFWS for a particular project, we should continue on with that consultation and any conservation measures we've committed to, unless the project team makes a strategic decision to re-open that consultation to consider usage of the PBO.

2.) How do I use the western bat PBO now?

As we begin to find ways to use this new PBO, NCDOT Biological Surveys Group (BSG) will monitor PBO implementation to ensure all identified conservation measures are implemented, ensure the appropriateness of the opinion's application, and track take. Please send NCDOT Biological Surveys Group your projects that you would like us to start screening for PBO use. See appropriate contact:

- Divisions 11, 13, 14: Melissa Miller mrmiller2@ncdot.gov
- Divisions 9, 10, 12: Chris Manley
- cc: Cheryl Knepp clknepp@ncdot.gov

When you send your projects, please send the information bulleted below and let us know timelines you are looking for (ex. project let or bid schedules) so we can prioritize your projects appropriately.

Project-Level Pre Notification

For each project conducted under this PBO, the NCDOT project manager will work with their project's environmental lead to provide BSG with the following information prior to any ground-disturbing actions (e.g. utility relocation):

• A brief description of the proposed action (e.g., type of action, location - lat/long, timeline, involved federal agencies).
• List of covered bat species associated with the individual project (IPaC -generated species list).
• A quantification of impacts (e.g., acres of tree removal, timing of tree removal, type and timing of structure work).
• Identification of all applicable conservation measures to be implemented (BSG will determine this for now based on buffer mapping).
• Findings of any bat survey work conducted in relation to the covered project, including documents such as completed structure survey forms, photographs, etc.
• A brief summary outlining how project impacts on covered bats align with the effect determinations and associated biological rationale presented in this document (Example: Tree clearing will occur during sensitive seasons and will = LAA for MYSO and MYSE; Bridge replacement will occur outside of active season and replacement will provide suitable roosting features = NLAA for MYGR, MYSO, and MYSE).

BSG will submit the request to USFWS and BSG will cc requestor to know when then 14-day clock begins. Upon receipt, the USFWS has 14 calendar days to review project information to ensure the project conforms to the consultation parameters and may request additional information to verify conformity. If NCDOT is not contacted by the USFWS within 14 calendar days of the confirmed transmittal, we may proceed under the programmatic consultation.

3.) Can I clear trees anytime now?

The PBO identifies an opportunity to expedite clearing and construction while also avoiding the tree clearing moratorium under certain project-specific circumstances. It does not make the tree clearing moratorium for bats go away completely, there is still a consultation process that is required.

4.) When can I clear trees and what is the contribution amount?

Tree clearing can occur any time of year under the PBO and the contribution amount is calculated using the ratios below.

5.) Why is the 2:1 multiplier not shown in Table 3 of the PBO?

Table 3 (pg. 11 PBO) does not include the cost/multiplier for May 15-July 31 (hibernating zone) and May 1-July 15 (year round zone), but it is listed under Tree 4 on pg. 11. The 2:1 ratio is explained under that section. Table 3 outlines tree clearing payments that will only occur in the buffer areas, remember, only certain conservation measures apply to buffer areas. However, Tree 4 is applicable across the entire action area because under Tree 4, you are clearing during the pup season, the most sensitive season for bats. So, if you must clear trees from May 15-July 31 (hibernating zone) and May 1-July 15 (year round zone), no matter where your project falls, it will be a 2:1 multiplier that is applied. The table has been edited below to include all the information from the PBO.

Hibernating Zone

Clearing Date	Ratio
• May 15 - July 31 (non-volant pup season)	2:1 ratio for acreage cleared
• April 1 – May 15 (spring staging and/or summer occupancy before non-volant pup season) • August 1 – September 30 (end of summer occupancy through early fall swarming)	1.5:1 ratio for acreage cleared (this contribution is only necessary in buffer areas)

Year-round Active Zone 1

Clearing Date	Ratio
• May 1 - July 15 (non-volant pup season)	2:1 ratio for acreage cleared
• April 1 – April 30 (summer occupancy before non-volant pup season) • December 15 – February 15 (winter torpor season)	1.5:1 ratio for acreage cleared (this contribution is only necessary in buffer areas)

6.) What situations are not covered in PBO and require separate project-specific consultation?

• Projects impacting designated or proposed critical habitat.
• Projects within 0.25 mile of previously documented maternity roost trees and within 0.25 mile of previously documented post-WNS decline (2013) captures of non-gray *Myotis* and *Perimyotis* species.
• Projects within 0.25 mile of hibernacula
• The structure has record(s) of ≥20 gray bats and work will occur from March 15-Nov 15.
• The structure is a documented maternity site
• Projects on new alignment that will clear ≥100 acres of contiguous forested habitat and/or projects that will clear ≥250 acres of forested habitat overall.

Also, the PBO may not be the most effective means for bat consultation if we already must formally consult on other species for a specific project.

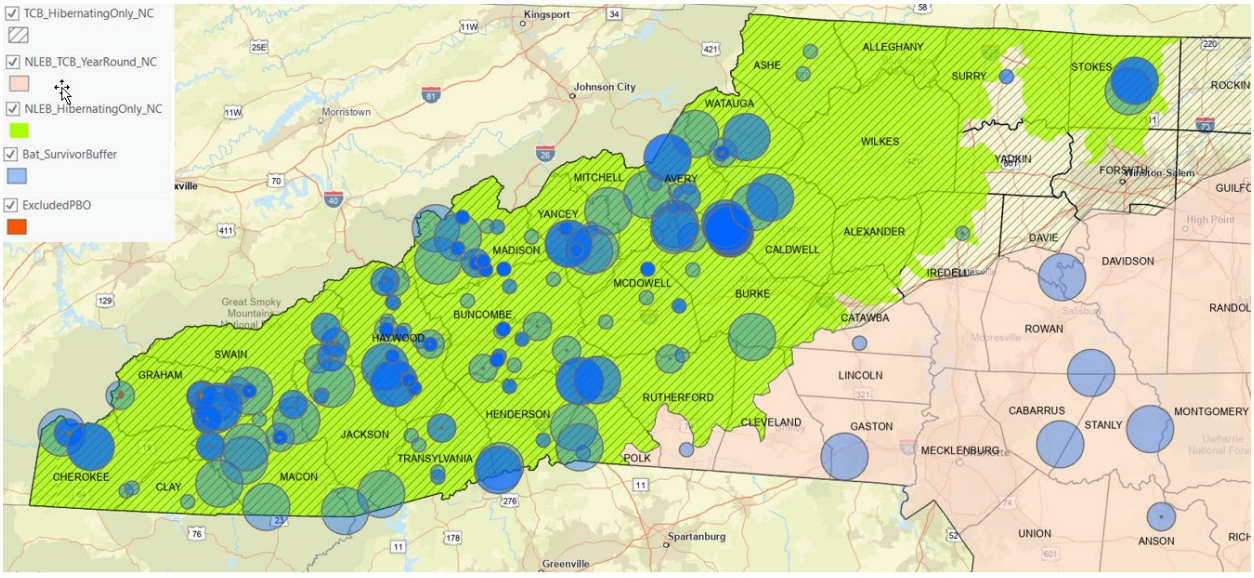
7.) What species does the PBO cover?

The programmatic provides coverage for Indiana bat (*Myotis sodalis,* MYSO), gray bat, (*Myotis grisescens*, MYGR), Northern long-eared bat (*Myotis septentrionalis,* MYSE), tricolored bat (*Perimyotis subflavus*, PESU) and little brown bat (*Myotis lucifugus*, MYLU). It does not cover the Virginia big eared bat (*Corynorhinus townsendii*, COTO) as the suitable habitat range for that species is so small within North Carolina, many transportation projects will not impact that species.

8.) Where is the map so I can check if my project qualifies and if I am in a buffered area?

The map below is for example purposes only, it is not the most up to date map. This figure shows the excluded areas of the PBO area (small red circles) and also the protective buffers in blue. The year-round range for MYSE and PESU are overlayed in light pink and hibernating zones for PESU (hatch) and MYSE (lime) are also included. Conservation measures were developed to take into account the sensitive nature of the buffer areas. In other words, not all conservation measures apply equally across the entire area. So, we put buffers of varying sizes around hibernacula, known roosts and capture records of covered species. These are called the 'protective buffers' and so some of the measures are only pertinent to those areas and are identified in the PBO as 'buffers only'. This map is currently being updated and will be available as soon as possible online for use. For now, please send BSG projects as outlined in #1 above for potential PBO use and BSG will determine if the project qualifies and what conservation measures apply. An interactive map will be available asap with a July 2025 target date.

NCDOT Western Bat Programmatic- Protective Buffers and Hibernation Zones



9.) Do we have to conduct surveys prior to construction activities?

Surveys will be conducted for concrete bridges or bridges with concrete decks. See page 39 of the PBO for complete survey details. Remember, if you project is within a red, excluded area, this PBO does not apply. Bridge surveys will be conducted between May 1 and October 1. Culvert surveys will be conducted between December 15 and February 15. Both using method described in NCDOT Standard Operating Procedures for Preliminary Bat Habitat Assessments (Structures, Caves & Mines).

https://connect.ncdot.gov/resources/Environmental/EAU/BSG/Pages/default.aspx

Culvert surveys are only necessary on structures that meet the NCDOT minimum size threshold ≥3'height x 60' length. **Culvert surveys will only occur in the tricolored bat hibernation zones** as outlined here:

Viewable map of the year round ranges (the hibernation zone is west of the year round zone and unshaded in this map.):

https://experience.arcgis.com/experience/9e4a7e7ce83448679714a313810f9fce

Conservation measures described on pg. 12 of the PBO (*Roost 1-3*) help decrease the likelihood or severity of impacts. Think of 1-3 as a stepwise process, with 3 being the last resort. Step 1, a survey is conducted (*Roost 1*). Step 2 is completed if you find bats, you either wait until they are gone, exclude or relocate them (*Roost 2*). Step 3 comes in when you couldn't complete either step 1 or step 2, this is the contribution (*Roost 3*). While this says 'buffer only', it will occur no matter where you are at. A good faith effort must be made to conduct a survey, only under special circumstances would we not comply with this survey requirement. For example, if the project comes online without time to conduct a survey during the survey season (Oct 1-April 30), some early Helene projects for example used the 'structure compensation' conservation measure. All sensitive season structure work included in projects that use the PBO will be added to the tally for 'take' (not to exceed 215 structures per year). Even though we are conducting surveys, it does not change the status of the effects determination. USFWS has concurred with our analysis that 215 structures will be altered during a sensitive season (MALAA) and we have committed to survey (or appropriately relocate, exclude or compensate) as conservation measures to offset those MALAA impacts to bats.

If the structure will be altered in the 'sensitive' seasons, the effect determination will be MALAA, if the alteration to the roosting structure will occur outside of the 'sensitive' season, the effect determination will be MANLAA and will not count towards take.

If surveys can be conducted during the appropriate survey season and no evidence of bats is indicated, the effect determination will still be MALAA, the survey acts as a conservation measure to help decrease the likelihood of impacts to the species outside the buffer areas. If surveys cannot be completed prior to project let date (inside or outside buffers), you would assume presence, MALAA, and use the appropriate contribution with multiplier explained under *Roost 3* pg. 12

10.) Can we assume absence of listed or proposed bat species in a non-concrete deck bridge or a low water bridge year-round?

Yes, according to NCDOT data collected on bridge surveys spanning over two decades, timber deck bridges and low water bridges do not provide suitable habitat for listed bat species. If one or more covered species occurs on the official species list (IPaC), but suitable habitat is not present, then project work will not result in effects on the species or to suitable habitat (No Effect).

If your project involves work on a timber bridge or metal form bridge **with a concrete deck**, it is considered suitable habitat. Therefore, the appropriate biological conclusion if the bridge will be altered in a 'sensitive' season is MALAA, if the alteration to the roosting structure will occur outside of a 'sensitive' season, the effect determination will be MANLAA. While the 'active season' is determined by species below, the term 'sensitive' season is used in the effects determination PBO Table 5 (pg. 33) because of the complication of year round active zones and hibernation zones for the different species.

Active season by species:
- Indiana bats, April 1 – November 15
- Northern long-eared bats, April 1 - November 15
- Tricolored bats, April 1-November 15 outside the year-round active zone, otherwise year-round
- Little brown bats, April 1-November 15 outside the year-round active zone, otherwise year-round
- Gray bats, March 15 – November 15

11.) Can we assume *absence* of tricolored bats (or other listed or proposed bat species) in culverts in the year-round range? Can we assume *absence* of listed bats in culverts within the tricolored hibernation zone, if we are not in the winter months?

Through internal NCDOT research, we have found that culverts <3 feet in height and <60 feet long do not provide suitable habitat for listed bat species (zero occurrences=absent). Ultimately, it is rare to find listed bats using culverts in western North Carolina of any size. Percent occupancy data can be found in the baseline section of the Programmatic Biological Assessment document that we provided to USFWS in May 2024. While bat use is rare in culverts in the summertime, suitable habitat does exist but very low occupancy rates have been found. Thereofore, impacts are considered insignificant to bat species during summer given the low percent occupancy and their ability to escape through flight. Tricolored bats appear to be the only listed bats that use culverts in winter in western North Carolina (there have been a few occurrences of tricolored bats in torpor in culverts in western North Carolina). Therefore, in order to minimize impacts to species unable to fly (to avoid construction activities), NCDOT has agreed to conduct winter surveys (December 15 – February 15) in areas during hibernation periods to ensure tricolored bats are not present. However, if those surveys can't be conducted, see survey question above.

12.) If we were going to consult for tricolored bats separately outside the PBO, is it safe to assume absence in culverts and go with a No Effect determination?

I do not think you could rule out habitat completely with tricolored or gray bats in culverts. You could make the argument for No Effect on the other listed bats that have not been found in culverts in North Carolina given all the effort we have put into surveying this habitat. In the areas where gray bats are present, they are only considered to be present March 15 – November 15, they are not known to hibernate in North Carolina. Therefore, I would render a MANLAA if culvert work would occur during their active time, citing that while this species does use culverts, the percent occupancy of these species has been shown to be so low and they have the ability to escape out of harm's way during the active season that impacts associated with culvert replacement/rehab would

be discountable and insignificant. In the year round active zone for PESU, I would render a MANLAA citing that while this species does use culverts, the percent occupancy of these species has been shown to be so low and they have the ability to escape out of harm's way as they are not exhibiting bouts of torpor, impacts associated with bridge replacement/rehab would be discountable and insignificant. For the hibernating zone for PESU, a conservation measure commitment to survey 30 days prior to construction let would provide evidence of absence in order to render a MANLAA effects determination. If this survey is not able to be completed, we have been able to use the contribution fund on projects we are consulting on outside the PBO, we just add that language into the individual consultation with USFWS.

13.) Just so I'm clear, you are saying no culvert/pipe surveys are necessary in the year round active zone? Are we assuming presence or absence?

No culvert surveys are necessary in the year round active zone. It has been determined that while listed species in the year round active zone do use culverts (PESU), the percent occupancy of these species has been shown to be so low and they have the ability to escape out of harm's way as they are not exhibiting bouts of torpor (no sensitive season), that impacts associated with culvert replacement/rehab would be discountable and insignificant. Thus, the biological conclusion would be MANLAA and would not count towards the total tally for take.

14.) How do we calculate the contribution amount?

The contribution amount will be calculated by BSG staff during the annual reporting stage, so the below if for your information. The information you send us on your project in SharePoint will help us determine how to apply the contribution.

Tree Clearing Contribution:
Contributions must be made if forested habitat removal must occur during sensitive activity seasons for covered bat species (excepting gray bat-not a tree roosting species). Contributions will be made based on acreage cleared, using a ratio (see table above for ratios), adjusted for the time of year when tree clearing occurs, reflecting sensitivity of bat life stages. The current year USDA Farm Real Estate Value for NC can be found here:
https://www.nass.usda.gov/Publications/Todays_Reports/reports/land0824.pdf
Formula: *(USDA Farm Real Estate Value for NC) x (acreage of tree clearing) = (dollar amount) x (effects multiplier, table below from PBO pg. 11) = tree clearing contribution amount.*

Example: $5,190 x 0.1 ac of clearing= $519 x 2 (critical life stage multiplier) = $1,038 contribution

Structure Removal Contribution:
When structures have a known or assumed presence and conservation measure *Roost 2* cannot be adhered to, and/or when the replacement structure will not provide suitable roosting features, the NCDOT will contribute to a USFWS-approved fund, to offset impacts. Contribution amount will be based on the following rationale. Structures with documented bat use are generally larger than the average bridge, with a median size of 0.10 acre (length x width). Therefore 0.10 acre per structure is used to calculate the amount of suitable bat habitat lost for projects involving structure impacts, with the dollar value based on the United States Department of Agriculture Farm Real Estate Value for North Carolina. To account for loss of suitable roosting habitat due to lack of suitable features on new structure, a 1:1 multiplier will be used. To account for suitable habitat structure removal while bats are assumed present, a 2:1 multiplier will be used; or, while bats are known to be present, a 4:1 multiplier will be used, with the following formula:
(USDA Farm Real Estate Value for NC) x 0.10 ac = (dollar amount) x (effects multiplier) = structure contribution amount. Example: $5,190 x 0.1 = $519 x (2) = $1,038 contribution

15.) Who is going to be responsible for keeping up with 'take' thresholds?

The PBO allows for 900 acres of tree removal per year and work to be performed on 215 structures per year. If this is exceeded, project consultation will revert back to an individual consultation for the remaining projects. Our estimates were calculated to add a margin of error, and we should be well within these limits. Project Managers will be responsible for uploading all tree clearing acreage and structures tallies onto the SharePoint reporting mechanism (currently in development for post construction reporting). BSG will then compile all of the site-specific information collected for each project into an annual report to USFWS.

16.) Can I use the PBO to cover borrow site tree clearing?

The programmatic covers all construction, maintenance and operational activities within Divisions 9-14 including the establishment of borrow and disposal sites. However, there is a limit to the amount of annual tree clearing (900 acres) and we must ensure we do not exceed that limit. This will be done by notifying BSG before any tree clearing activities to ensure a singular project does not deplete the entire allowance. A SharePoint form is in development for PreNotification, until then, please email clknepp@ncdot.gov.

If there are other Federally listed species within the borrow area that will involve Section 7 consultation, it may be prudent to consult separately for that entire borrow area project to include all species in the consultation to USFWS.

17.) How does this PBO and 'may affect' determinations change USACE non-notifying permits?

USACE is a signatory on this PBO. As with our eastern bat PBO, for projects with jurisdictional impacts below notification thresholds that would require notification solely as the result of a "May Affect" species determination, the USACE Wilmington District will not require a pre-construction notification so long as the project and bat species effects qualifiy for use under the PBO, and the species is covered in the PBO.

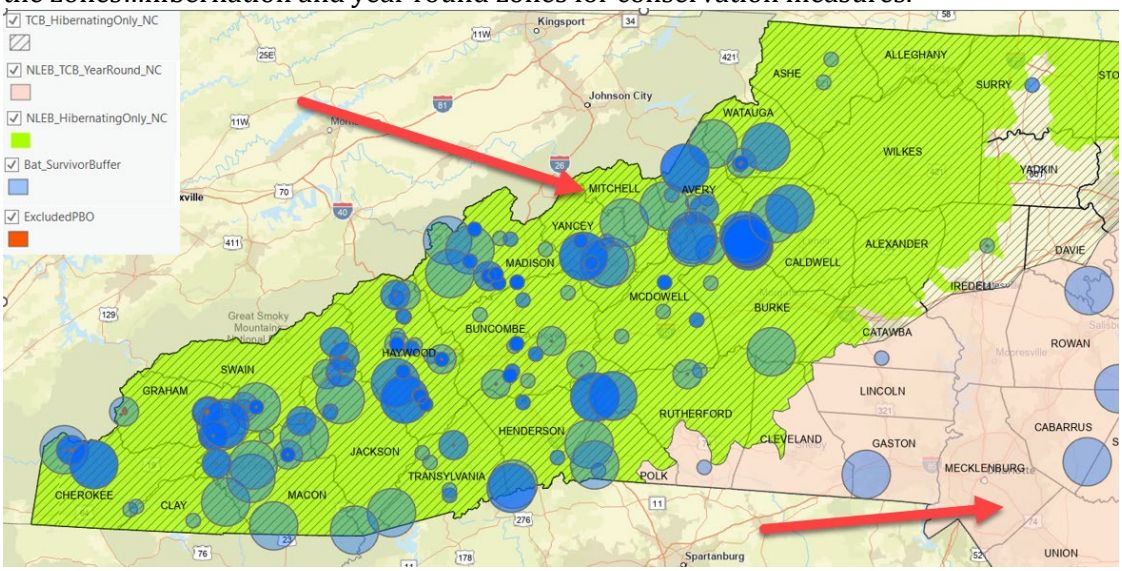
If any other (non PBO species) have a "May Affect" determination, a pre-construction notification will be required.

18.) How does this PBO and 'may affect' determinations affect FHWA signature requirement on a Categorical Exclusion document?

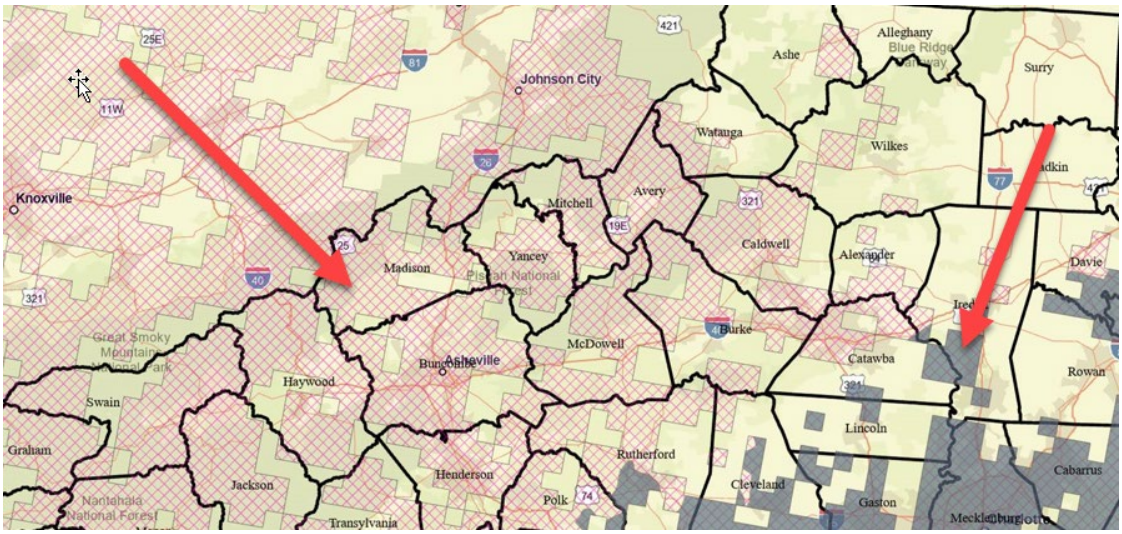
FHWA is a signatory on this PBO. Our CE language will incorporate our anticipated utilization of this PBO. For example, on a Type I-A CE we would check No for question 1 ("Does the project require formal consultation…"), and we would check Yes for question 8 ("Is an ESA determination unresolved or resolved utilizing a Section 7 programmatic agreement?"). NCDOT BSG staff will develop a standard response and provide it in this FAQ or other guidance so we are clearly communicating our intent to use the PBO for resolution of Section 7 for the covered species.

19.) What are all these GIS layers showing us?

NCDOT developed this map below using NHP element occurrence data to create the blue protective buffers for listed species. The other layers include the USFWS hibernation zone and the year round zone polygons, this is not showing species distribution. The range zone polygons are what we will look at to determine what conservation measures to apply. The arrows in the map below indicate the zones…hibernation and year round zones for conservation measures.



The map below shows the distribution of the species for consultation purposes (PESU in below example). It's pixelated based on the model used so that is a good way to tell the difference right away. This layer informs IPaC…like if the species is considered present there for your project. It is updated periodically so the pixels could change with each update. This does happen, I noticed from my Aug 2023 download and my April 2024 download, some squares changed. So, you have to double check it in IPaC if you are using the .shp from your computer.



This map shows the IPaC MYSE distribution range in red and the year round active range for MYSE in gray. Currently, there is no overlap between the IPaC distribution range for MYSE and what USFWS – Asheville has indicated is the year round range for MYSE, they do not believe MYSE are active year round anywhere in Divisions 9-14.