



**PROGRAMMATIC BIOLOGICAL ASSESSMENT  
FOR THE EFFECTS OF  
TRANSPORTATION ACTIONS ON THE BOG TURTLE  
WITHIN THE COMMONWEALTH OF PENNSYLVANIA  
ADDENDUM**



**APRIL 2018**

# Transportation BA Bog Turtles in PA Addendum

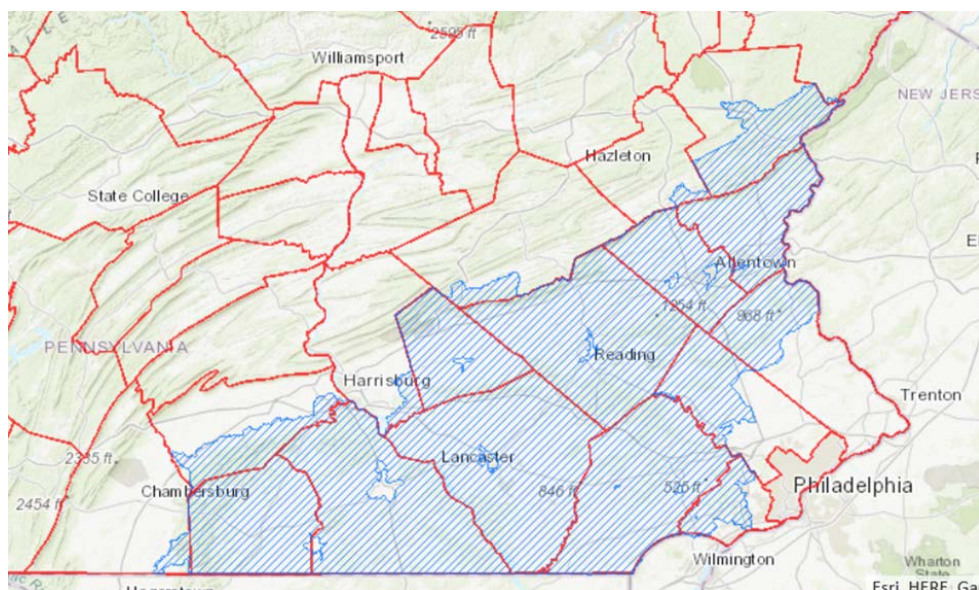
This addendum to the Programmatic Biological Assessment (BA) for the Effects of Transportation Actions on the Bog Turtle within the Commonwealth of Pennsylvania (February 2018), prepared by the Federal Highway Administration (FHWA) in conjunction with the Pennsylvania Department of Transportation (PennDOT), addresses questions and requests for additional information or clarification as communicated by the USFWS by phone conference on April 11, 2018 and in written comments received on April 16, 2018. Please insert or replace the text in the February 2018 BA as specified herein. **Note that all new BA text is highlighted.**

## I. 1.4 Consultation History

For updating the consultation history, add the following text to page 8:

- |                         |   |
|-------------------------|---|
| <b>October 13, 2017</b> | PennDOT provides preliminary Draft Programmatic Biological Assessment to FHWA, PennDOT Districts, PFBC and USFWS for review and comment.  |
| <b>November 2, 2017</b> | USFWS provides review comments to PennDOT on preliminary Draft Programmatic Biological Assessment.  |
| <b>January 11, 2018</b> | PennDOT conducts a conference call with PennDOT Districts 5-0, 6-0 and 8-0, FHWA, USFWS and PFBC to review comments, responses and revisions to the Draft BA.                   |
| <b>March 14, 2018</b>   | FHWA requests Formal Consultation on the Programmatic Biological Assessment for the Effects of Transportation Actions on the Bog Turtle within the Commonwealth of Pennsylvania |

## II. For consistency with Conservation Explorer/PNDI, replace Figure 1 on page 9 with the following revised figure.



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## III. 4.4 Bridge Replacement and Construction

For clarification, replace the second sentence in Section 4.4 on page 18 with this sentence:

There are multiple types of bridges including but not limited to concrete slab, concrete arch, concrete box girder, concrete T-beam, steel beam, pre-tensioned concrete beam, post-tensioned concrete beam, steel truss, timber trestle or a bridge may be replaced with a culvert.

## IV. 4.15 Bog Turtle Impact Avoidance, Minimization, and Compensatory Measures

- a. To include statements of routine PennDOT processes that were not clearly stated in the biological assessment, replace the first paragraph in this section (page 35) with the following:

The FHWA and PennDOT routinely implement standard measures as part of the environmental compliance process [e.g., NEPA, USACE and Pennsylvania Department of Environmental Protection (PA DEP) wetland/watercourse permitting], and many of these measures reduce potential effects on the bog turtle. These include:

- Identifying in PennDOT maintenance manuals all maintenance activities (aka assemblies) that may affect the bog turtle with the following statement that serves to alert maintenance managers to coordinate these activities with their district environmental staff:

*If the assembly is proposed within the counties of Adams, Berks, Bucks, Carbon (only Aquashicola Creek Watershed), Chester, Cumberland, Dauphin (only Spring Creek and Conewago Creek Watersheds), Delaware, Franklin (only Antietam Creek Watershed), Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill (only Swatara Creek Watershed), or York, then this activity must avoid adverse impacts to the bog turtle. The bog turtle is a federally threatened, and state endangered species protected by applicable laws. Potential habitat for the species is typically characterized by wetlands with thick mucky soils and groundwater springs. If wetlands or watercourses are present within 300 feet of the disturbance area for the assemblies identified below, then avoidance and minimization measures (AMMs) including time of year restrictions may be necessary. All operators, employees, and contractors working on assemblies in areas where the species may be present must be provided briefing materials prior to the initiation of the activity. If a turtle is encountered, then all work activities within 300 feet of the capture will cease immediately. Coordinate with the District Project Manager and District Environmental staff. Refer to Threatened and Endangered Species Desk Reference (Pub 546) for standard operating procedures for the avoidance of adverse effects to the bog turtle.*

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- Completing Pennsylvania Natural Diversity Inventory (PNDI) evaluations for all maintenance activities and projects that may affect the bog turtle within its range in Pennsylvania;
- Conducting annual refresher training for environmental and wetland scientists that routinely conduct Phase I bog turtle habitat assessments;
- Conducting project scoping, wetland and bog turtle habitat assessments;
- Implementing QA/QC practices on a subset of wetland and Phase I assessments when these activities are not conducted by qualified surveyors or trained staff with considerable experience in performing these assessments;
- wetland and watercourse habitat avoidance/minimization/compensation;
- clearly delineating project limits of disturbance; and
- compliance with state water quality standards through erosion and sediment pollution control plans, stormwater management plans, and spill pollution control plans.

- b. It should be noted that, through the implementation of the above mentioned screening and avoidance/minimization process, locations of concern requiring additional species surveys or exclusionary measure implementation are identified and these additional measures are pursued. As an example, for ditch excavation activities when potential habitat is identified and cannot be avoided, AMM 18 would be deployed.

To clarify the implementation of routine PennDOT processes that were implied but not stated in the biological assessment, replace the first paragraph on page 36 with the following:

This programmatic consultation approach can be broadly summarized as: 1) performing PNDI and habitat screening procedures; 2) modifying projects as possible to avoid and minimize impacts; 3) conducting actions during the appropriate seasonal time period to avoid adverse effects, or 4) implementing appropriate measures for the exclusion of the species from disturbance areas during their active seasonal time period, or 5) providing for compensation of anticipated limited adverse effects. The following descriptions characterize the programmatic categories of transportation actions assembled for this consultation.

- c. Sensitivity training, as referenced in AMM 1 will be further defined in the proposed User's Guide for implementation of the programmatic biological opinion. We anticipate building upon training and briefing practices that have been implemented in the past for specific projects, maintenance activities and by the Environmental Managers in

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PennDOT Districts within the range. For construction projects, a pre-construction briefing for contractors and provision of a pamphlet including species identification and AMM information that they would keep on hand is envisioned. For maintenance staff, an annual species and habitat briefing will be conducted typically during our maintenance winter schools. We also envision distribution of pamphlets and on site briefing prior to specific maintenance activities in locations where a conflict would rarely, but could potentially occur.

To assure that personnel are aware of and implementing equipment disinfection protocols to avoid and minimize the spread of pathogens suspected to result in disease or death to bog turtles, replace the first row in Table 4-1 with the following:

<b>AMM 1</b>	Ensure that all <b>wetland, bog turtle habitat and species surveyors</b> , operators, employees, and contractors working in areas of known, or assumed occupied bog turtle habitat are aware of all PennDOT environmental commitments, including all applicable AMMs, PA DEP permit conditions, USACE permit conditions, <b>and Bog Turtle Health Bulletin (2015) equipment disinfection and infected specimen protocols</b> . Sensitivity training and briefing materials should be provided to all applicable personnel prior to the initiation of the action. Sensitive resource signage will be placed at the site of the action to notify personnel of the potential presence of the species.
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- d. To clarify the daily erosion and sedimentation control inspections, replace the second row in Table 4-1 with the following:

<b>AMM 2</b>	All work associated with the action shall be conducted in accordance with the Erosion and Sediment Pollution Control Plan approved by the County Conservation District or PA DEP. Erosion and sediment control best management practices will be implemented before, during, and after all land disturbance to prevent the potential for asphyxiation and smothering of species individuals as well as accidental sedimentation and filling of adjacent wetland habitats that may potentially support the species. All best management practices will be properly installed and maintained in accordance with the County Conservation District and PA DEP. The project site will be monitored daily, <b>as is also required for all Chapter 102 and NPDES permitting</b> , to ensure the erosion and sedimentation control practices are implemented and properly maintained, and to identify any project related impacts due to sediment accumulation. <b>The daily inspection may be completed by the on-site environmental monitor/inspector or project foreman.</b>
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- e. The 300-foot buffer referenced in AMM 4 in the BA was selected because the mussel programmatic and other some other regulatory requirements utilize this distance. Based on written concerns of the USFWS, that continual refueling offsite may degrade exit areas and equipment travel routes, we have modified the text of AMM 4 below to eliminate the 300-foot buffer. The project specific SPCC Plan will provide for a storage and refueling that addresses spill concerns for any aquatic habitats present.

To clarify the daily monitoring to ensure spill avoidance/remediation practice implementation, replace the fourth row in Table 4-1 with the following:

<b>AMM 4</b>	A hazardous material construction spill avoidance/remediation plan (Spill Prevention Control and Countermeasure Plan – SPCC Plan) will be developed and implemented during the fulfillment of the transportation action. The project site will be monitored daily to ensure spill avoidance/remediation practices are implemented. <b>The daily inspection may be completed by the on-site environmental monitor/inspector or project foreman.</b>
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- f. AMM 5 has been modified as recommended by USFWS in comments submitted on April 16, 2018.

AMM 5	Project storage and staging areas will be located only in upland areas located as far as possible from wetland/watercourse habitat areas. This shall include all areas required for stockpiles, equipment storage, and parking.
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- g. In response to comment received regarding AMM 12, it is clarified that either a full Phase 2 survey or an exclusionary survey is pursued. Phase 3 trapping would not be necessary. No changes have been made to AMM 12.
- h. In response to comment regarding the application of AMM 15, it is clarified that this measure is currently in practice. In addition to standard pre-construction exclusion survey efforts during the species active season, inspections of spoil materials have been completed on the internal contents of culvert structures during their replacement, as well as, dredged materials from culvert maintenance activities to ensure any species individuals are recovered and relocated. No changes have been made to AMM 15.
- i. To define “continuous monitoring” as referenced in AMM 16, we refer to current practice, where, on a case by case basis, a recognized qualified surveyor has provided continuous monitoring throughout the execution of the transportation activity to monitor the project disturbance area for transient individuals. These situations have typically occurred when the transportation activity is being executed directly adjacent to, or in very close proximity to, occupied habitat and typical exclusionary barrier structures/methods cannot be implemented due to site specific or project specific circumstances. No changes have been made to AMM 16.

## V. Chapter 5 – Project Action Area

Replace the first paragraph and Table 5-1 with the following text. These modifications occurred because of refinement of the geographic range in the PNDI system:

At the geographic-scale level, the action area for this programmatic consultation will include the existing PennDOT state roadway network within the extant range of the northern population of the bog turtle as identified in the Pennsylvania Conservation Explorer Planning Map Tool at <http://conservationexplorer.dcnr.pa.gov/content/map>. The current (April 2018) spatial extent of the action area is illustrated on Figure 1. Table 5 -1 provides a summary of the current extant range.

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**TABLE 5-1 Extant Range of the Bog Turtle Within Pennsylvania (April 2018)<sup>1</sup>**

PENNSYLVANIA COUNTY	EXTANT RANGE WITHIN COUNTY
Adams	Entire County
Berks	Entire County
Bucks	Northern Watersheds (see Conservation Explorer Map)
Carbon	Aquashicola Creek Watershed
Chester	Entire County
Cumberland	Southern Watersheds (see Conservation Explorer Map)
Dauphin	Spring Creek and Conewago Creek Watersheds
Delaware	In part (see Conservation Explorer Map)
Franklin	Antietam Creek Watershed
Lancaster	Entire County excluding urban City of Lancaster
Lebanon	Entire County
Lehigh	Entire County
Monroe	Southern Watersheds (see Conservation Explorer Map)
Montgomery	Northern Watersheds (see Conservation Explorer Map)
Northampton	Entire County
Schuylkill	Swatara Creek Watershed
York	Entire County excluding urban City of York

## VI. Chapter 6 – Effects Analysis

As requested by USFWS, to better correlate the transportation activities identified as the action, as further described in the project details, with the programmatic categories an additional table, Table 6-2A, is provided.

## VII. 7.1.1 No Effect Determinations for the Bog Turtle

Replace the title of Table 7-2 as follows:

**TABLE 7-2 Large Watercourse Habitats Within the Extant Range that May Include Reaches Greater than 30' in Width with Persistent Cobble/Boulder Substrates.**

<sup>1</sup> Changes to the extant range may occur. Utilizing an account login and selecting federal species/bog turtles the Conservation Explorer Planning Mapping (<http://conservationexplorer.dcnr.pa.gov/content/map>) will provide the most current. The most current will always be considered as the Action Area for this programmatic consultation.