**AECOM** 

July 31, 2018

United States Fish and Wildlife Service Pennsylvania Field Office 315 South Allen Street, Suite 322 State College, PA 16801-4850

RE:

**Interstate 80 Section 17M Reconstruction Project** 

Phase 2 Bog Turtle Survey Report Addendum and USFWS Determination Update

**USFWS Project #2013-0652** 

To whom it may concern:

AECOM is providing this addendum to the, Interstate 80 Reconstruction Project (Project) SR0080, Section 17M Monroe County Pennsylvania, Phase II Bog Turtle Survey Report that was submitted for the Project in March 2015. AECOM is respectfully requesting an updated USFWS determination for the wetlands surveyed in 2014 and a determination for the additional wetlands that were surveyed in 2018 for the Project.

**PROJECT DESCRIPTION** 

The I-80 Section 17M Project includes the reconstruction of a 3.5-mile section of Interstate 80 in eastern Monroe County. The project is needed to improve safety and bring the roadway up to current design criteria. Potential improvements being considered include interchange reconstructions or elimination, ramp relocations, additional travel and auxiliary lanes, and local road improvements. Stormwater facilities will also be incorporated throughout the project area. The Project extends along Interstate 80 through Stroud Township from just east of the S.R 2005 overpass bridge, through the borough of Stroudsburg, and ends in East Stroudsburg Borough, just west of the Lincoln Avenue overpass.

**BACKGROUND** 

The I-80 Section 17M Project is located within the range of the federally listed (threatened) bog turtle (*Glyptemys muhlenbergii*) therefore an initial Phase 1 bog turtle habitat survey was performed by AECOM biologists Chris Howsare and Chris Salvatico between September 2013 and January 2014 and documented as United States Fish and Wildlife Service (USFWS) project number (#2013-0652). The initial Phase 1 surveys identified four wetlands that met the criteria

AECOM 4505 North Front Street, Suite 200 Harrisburg, PA 17110 717-635-7901 (Tel) 717-635-7902 (Fax) to be considered potential bog turtle habitat. Phase 2 surveys for these wetlands were completed by Autumn Thomas (RQBTS) in the spring of 2014. These survey efforts concluded the probable absence of bog turtles in the survey area. This determination was confirmed in a letter dated April 3, 2015, a copy of which has been included in **(Attachment A)**.

In 2017 due to an expansion of the Project corridor, eight additional wetlands were identified and delineated within the Project's 2017 Expanded Phase 1 Bog Turtle Survey Study Area (Figure 1). On September 21, and 22, 2017 AECOM conducted Phase 1 bog turtle habitat surveys on these additional wetlands. The results of this survey identified two wetlands (W-3-18 and W-3-19) that met the criteria to be considered potential bog turtle habitat. The April 10, 2018 USFWS response to the I-80 Section 17M Phase 1 Bog Turtle Survey Report Addendum requested avoidance of these wetlands, or if impacts to the wetlands could not be avoided a Phase 2 bog turtle survey was required to determine the presence or probable absence of bog turtles in these wetlands (Attachment B). In May and June of 2018 Phase 2 bog turtle surveys were performed for wetlands W-3-18 and W-3-19. This letter report discusses the results of the 2018 Phase 2 bog turtle surveys.

# **SURVEY METHODOLOGY**

During the 2018 Phase 2 bog turtle survey season, AECOM's USFWS/PFBC Recognized Qualified Bog Turtle Surveyor (RQBTS) Bridger Thompson and AECOM Biologists Nathan Jones conducted Phase 2 bog turtle surveys in the two wetlands identified as potential bog turtle habitat for the Project (Figure 2). Wetlands evaluated include; wetland W-3-18 Palustrine Emergent (PEM)/Palustrine Shrub/Scrub (PSS), and wetland W-3-19 PEM, Palustrine Open Water (POW).

The Phase 2 bog turtle surveys were conducted in accordance with the USFWS Guidelines for Bog Turtle Surveys (2006), pursuant to Section 7 of the Endangered Species Act of 1973. Surveys were conducted under the purview of Bridger Thompson's Pennsylvania Fish and Boat commission (PFBC) Type III, Scientific Collectors Permit (Permit Number 2018-03-0057), and associated Chapter 75.4 Special Permit for Collection of Threatened and Endangered Species. For each wetland identified as potential bog turtle habitat, the core habitat or designated survey area (DSA) was identified and approximate acreage was estimated. Four survey visits were conducted for each wetland with four to six hours of survey effort per acre of DSA. Surveys

were conducted between April 15 and June 15 with at least two of the survey visits being conducted in May. Both random opportunistic survey methods and modified transect search methods were used to survey the potential habitat. Initially the entire DSA was quietly walked through and probed with hands and probing sticks, while visually searching for basking or foraging turtles. While conducting the walk through the DSA was visually assessed to identify areas that appeared to contain the best habitat conditions, typically containing all three bog turtle habitat characteristics: spring fed hydrology with subsurface soil pipes, tussock vegetative structure, and mucky soils. Following the initial walk through the areas of best habitat in the DSA were further investigated by lifting and looking under dead or loose vegetation covering the ground surface, muddling with hands in the muck and under vegetation while feeling for submerged turtles, and probing deep subsurface soil pipes with hands. A modified grid-like search and random opportunistic method was used to ensure the entire DSA was thoroughly surveyed. Following a thorough search of the DSA, a final walk through of the entire DSA was again conducted to visually search for turtles that may have moved away from the areas where the intensive search was being conducted. During the final walk through vegetation was lifted and deep mucky areas were probed using probing sticks and hands.

All herptiles encountered during the surveys were recorded in field survey log books along with the time and date, survey crew members, current weather conditions, and air temperature (in the shade) at the start and end of the survey. Representative photos of the wetlands and DSA were taken (Attachment C). If any bog turtles were encountered during the survey the turtles were processed on site following USFWS guidelines and immediately released in the exact location from where there were found and the Phase 2 survey was concluded.

#### WETLAND DESCRIPTIONS

## Wetland W-3-18

Wetland W-3-18 was a 0.16-acre PEM wetland located south of I-80, and northwest of the intersection of White Stone Corner Road and Kirkwood Road. The wetland consisted of a small depression located at a toe of slope that contains multiple spring seep discharges. The spring seeps flow throughout the wetland to their confluence with a small perennial channel WW-3-13. The primary sources of hydrology included a spring seeps, and a seasonally high groundwater table. The vegetation in the wetland was dominated by jewelweed (*Impatiens capensis*),

fringed sedge (*Carex crinita*), purple loosestrife (*Lythrum salicaria*), bittersweet nightshade (*Solanum dulcamara*), watercress (*Nasturtium officinale*), and sweetflag (*Acorus calamus*). The wetland was small in size however it contained a deep mucky substrate associated with the spring seep hydrology and the vegetative structure was typical of bog turtle habitat. Due to the presence of appropriate vegetative structure, sufficient depth of muck soils, and spring fed hydrology with surface flows and subsurface piping Wetland W-3-18 was considered potential bog turtle habitat. The location of the wetland is depicted on (Figure 2). Additional wetland information is provided in Table 1.

#### Wetland W-3-19

Wetland W-3-19 was a 0.36-acre PEM and palustrine open water (POW) wetland located south of I-80 and east of Kirkwood Road. The wetland consisted of a topographic depression located at the toe of a road fill slope in wooded riparian corridor. The primary sources of hydrology included seasonal high groundwater perennial ground water seeps and surface water runoff collection. The wetland contained a large area of surface water with water depths up to twelve inches. The vegetation in the wetland was dominated by skunk cabbage (*Symplocarpus foetidus*), jewelweed, watercress, and silky dogwood (*Cornus amomum*). The wetland contained a mucky substrate associated with the seep hydrology and the fringes of the surface water area. The wetland did not exhibit the vegetative structure typical of bog turtle habitat. However, due to the presence of a sufficient depth of muck soils, and spring fed hydrology with surface flows and the presence of adjacent wetlands identified as potential bog turtle habitat, Wetland W-3-19 was considered potential bog turtle habitat. The location of the wetland is depicted on (Figure 2). Additional wetland information is provided in Table 1.

**Table 1: Wetland Information Table** 

Wetland ID	Size (acres)	DSA (acres)	Wetland Types and Percentage	Extent of Mucky soils (<3"deep)	Latitude/ Longitude	Potential Bog Turtle Habitat	Bog Turtles Found
Wetland W-3-18	0.16	0.09	PEM – 75% PSS – 25%	PEM – 60% PSS – 40%	40.987611° -75.243572°	Yes	No
Wetland W-3-19	0.36	0.05	PEM – 50% POW – 50%	PEM – 45% POW – 10%	40.987066° -75.242861°	Yes	No

#### **PHASE 2 SURVEY RESULTS**

## Wetland W-3-18

Four Phase 2 survey visits were conducted with a total of 36.64 survey hours per acre for the 0.09 acres of DSA in Wetland W-3-18. Phase 2 survey visits were conducted during suitable survey conditions and standardized methods were used in accordance with USFWS guidelines. Habitat conditions at the site are suitable to be considered potential bog turtle habitat. However, no bog turtles, or signs of bog turtle activity (tracks, shells, or nests) were observed within the identified DSA area during the 2018 survey efforts. Table 2 summarizes the dates of surveys, number of surveyors, survey effort, weather conditions, and species observed. Table 3 provides a summary of all herptofauna observed during the Phase 2 survey efforts.

#### Wetland W-3-19

Four Phase 2 survey visits were conducted with a total of 54.00 survey hours per acre for the 0.05 acres of DSA in Wetland W-3-19. Phase 2 survey visits were conducted during suitable survey conditions and standardized methods were used in accordance with USFWS guidelines. Habitat conditions at the site are suitable to be considered potential bog turtle habitat. However, no bog turtles, or signs of bog turtle activity (tracks, shells, or nests) were observed within the identified DSA area during the 2018 survey efforts. Table 2 summarizes the survey effort, weather conditions, and dates of surveys. Table 3 provides a summary of all herptofauna observed during the Phase 2 survey efforts.

# **AECOM**

**Table 2: Phase 2 Bog Turtle Survey Results** 

Wetland name	Survey Date	Time (in- out)	Search- Effort (hours)	Number of Surveyors	DSA size (in acres)	Total Hours of Search- Effort (per acre)	Weather (start and stop) (cloud-cover estimate)	No. of Bog Turtles Found	Other species observed, Comments
Wetland W-3-18	5/16/18	1715 1815	1.0	1	0.09	11.11	In: 61°F, 80% cloud cover Out: 61°F, 80% cloud cover	0	N. Red salamander (1) Pickerel frog (1)
	5/22/18	0850 0930	0.6	1	0.09	6.66	In: 60°F, 100% light rain Out: 60°F, 100% light rain	0	None
	5/22/18	1100 1130	0.5	1	0.09	5.55	In: 65°F, 40% cloud cover Out: 65°F, 40% cloud cover	0	None
	6/01/18	0920 0940	0.3	2	0.09	6.66	In: 71°F, 100% cloud cover Out: 71°F, 100% cloud cover	0	None
	6/05/18	1010 1050	0.6	1	0.09	6.66	In: 68°F, 0% cloud cover Out: 68°F, 0% cloud cover	0	Pickerel frog (1)
Wetland W-3-19	5/16/18	1645 1715	0.5	1	0.05	10.00	In: 59°F, 80% cloud cover Out: 61°F, 80% cloud cover	0	Green frog(1)
	5/22/18	0930 1010	0.6	1	0.05	12.00	In: 60°F, 100% light rain Out: 60°F, 100% light rain		Wood frog(1) Pickerel frog (1) Green frog (4)
	5/22/18	1130 1200	0.5	1	0.05	10.00	In: 65°F, 40% cloud cover Out: 65°F, 40% cloud cover	0	Red spotted newt (2)
	6/01/18	0945 1005	0.3	2	0.05	12.00	In: 71°F, 100% cloud cover Out: 71°F, 100% cloud cover	0	None
	6/05/18	0940 1010	0.5	1	0.05	10.00	In: 68°F, 0% cloud cover Out: 68°F, 0% cloud cover	0	None

# **AECOM**

Table 3: Herpetofuana Observed during the Phase 2 Bog Turtle Surveys

Common Name	Scientific Name
Green Frog (Bronze frog)	Lithobates clamitans
Pickerel Frog	Lithobates palustris
Wood Frog	Rana sylvatica
Northern Red Salamander	Pseudotriton ruber
Eastern (red spotted) Newt	Notophthalmus viridescens

# CONCLUSION

Phase 2 bog turtle surveys were performed in May and June of 2014 for the I-80 Section 17M Reconstruction Project. The results of these surveys determined the probable absence of bog turtles for the proposed project area. In a letter dated April 03, 2015 the USFWS agreed with this determination and concluded the Project would not affect any federally listed species. This determination was valid of two years from the date of the letter.

In 2017 due to an expansion of the Project corridor, eight additional wetlands were identified and delineated within the Project's 2017 Expanded Phase 1 Bog Turtle Survey Study Area. Two of these wetlands (W-3-18, and W-3-19) were determined to be potential bog turtle habitat. Phase 2 bog turtle surveys were performed in May and June 2018 for wetlands W-3-18 and W-3-19 in the Interstate 80 Section 17M Reconstruction Project 2017 Expanded Phase 1 Bog Turtle Survey Study Area. No bog turtles, or signs of bog turtle activity (tracks, shells, or nests) were observed within the identified wetlands during the 2018 survey efforts.

Therefore, AECOM has concluded the probable absence of bog turtles within the I-80 Section 17M Project's 2017 Expanded Phase 1 Bog Turtle Survey Study Area. AECOM is respectfully requesting an updated USFWS determination for the wetlands surveyed in 2014 and a determination for the additional wetlands surveyed in 2018 for the I-80 Section 17M Reconstruction Project. Thank you for your consideration.

## **SIGNATURES**

This report was prepared by:

And reviewed by:

AECOM AECOM

Bridger Thompson Deborah Poppel

Senior Biologist, RQBTS Senior Ecologist/ Project Manager

Enclosures;

Figures: Figure 1 (Project Location) Figure 2 (Expanded Phase 1 Bog Turtle Survey Wetlands)

Deborah X. Doppel

Attachment A: April 3, 2015 USFWS Determination Letter Attachment B: April 10, 2018 USFWS Determination Letter

Attachment C: Photo Log

Bilgr J. Thyon

#### **REFERENCES**

AECOM, 2014. Interstate 80 Reconstruction Project SR0080, Section 17M Monroe County Pennsylvania, Phase I Bog Turtle habitat Assessment; Prepared for Prepared for PennDOT District 4, (PennDOT), March 2014.

AECOM, 2015. Interstate 80 Reconstruction Project SR0080, Section 17M Monroe County Pennsylvania, Phase II Bog Turtle Survey Report; Prepared for Prepared for PennDOT District 4, (PennDOT), October 2015.

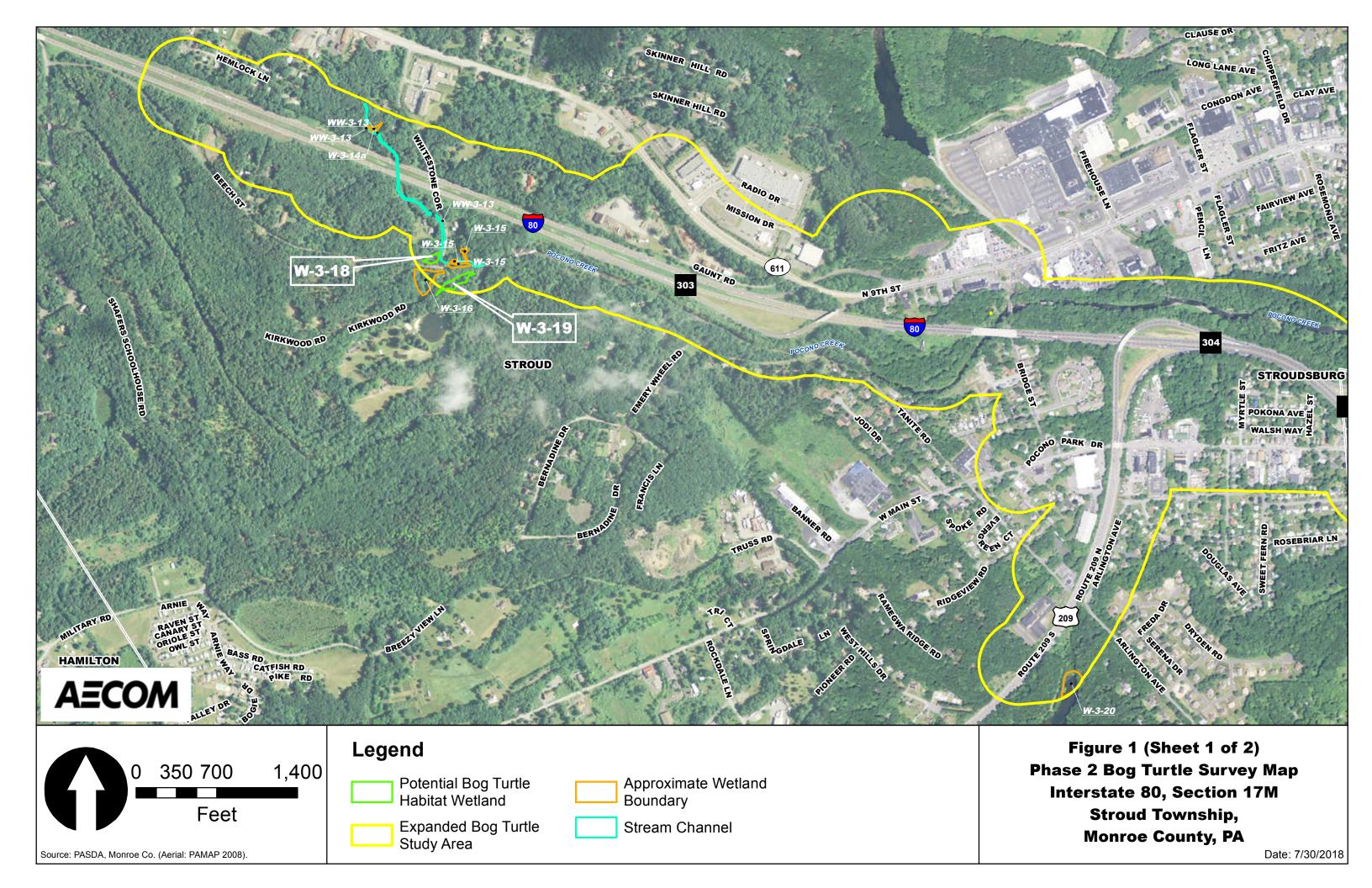
AECOM, 2017. Interstate 80 Reconstruction Project SR0080, Section 17M Monroe County Pennsylvania, Phase I Bog Turtle habitat Assessment Addendum; Prepared for PennDOT District 4, (PennDOT), February 2018.

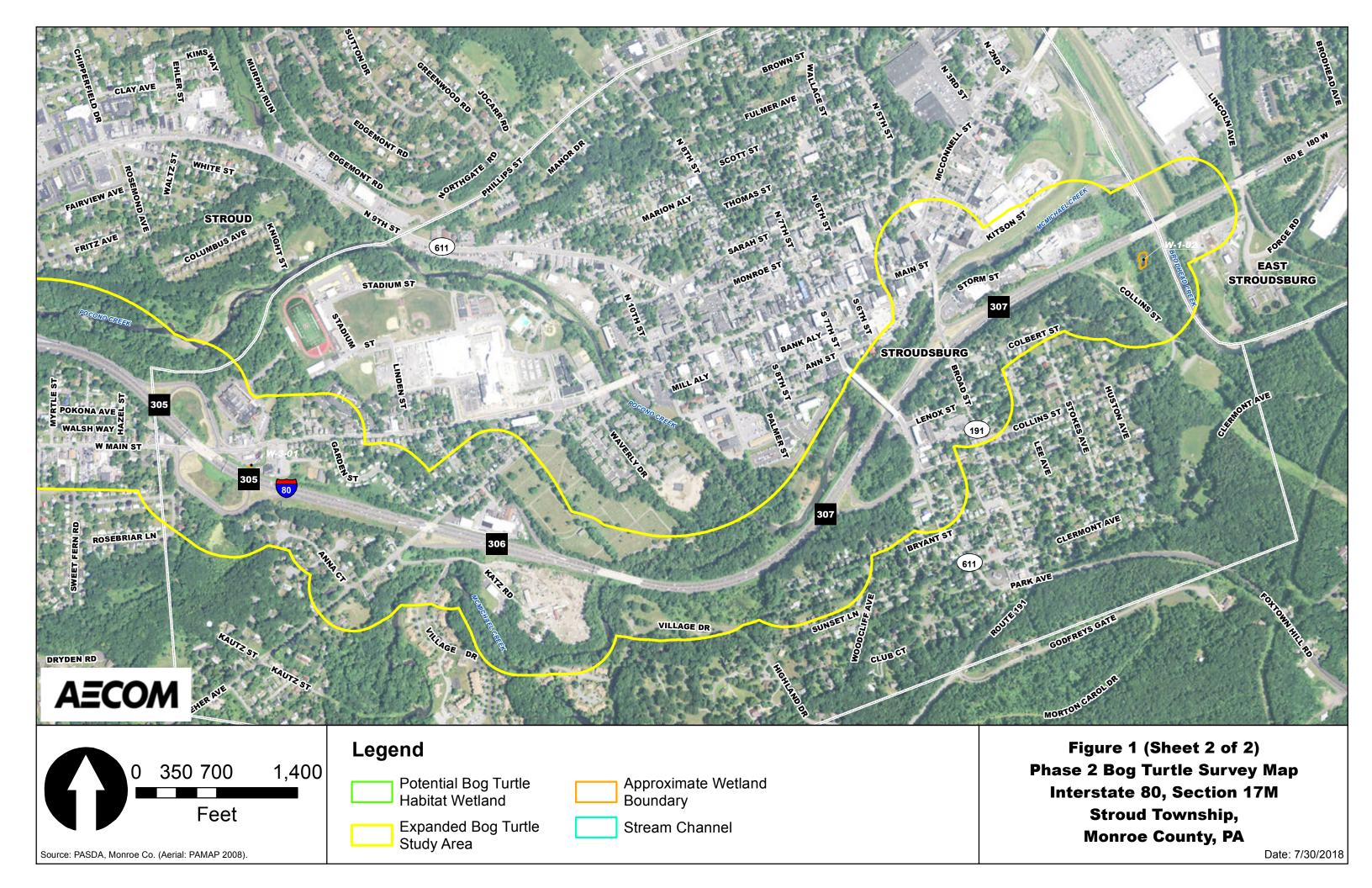
U.S. Fish and Wildlife Service (USFWS). 2001. Bog Turtle (Clemmys muhlenbergii), Northern Population Recovery Plan. Hadley, Massachusetts.

USFWS. 2006 (revised). Guidelines for Bog Turtle Surveys. Accessed at www.fws.gov/northeast/nyfo/es/btsurvey.pdf

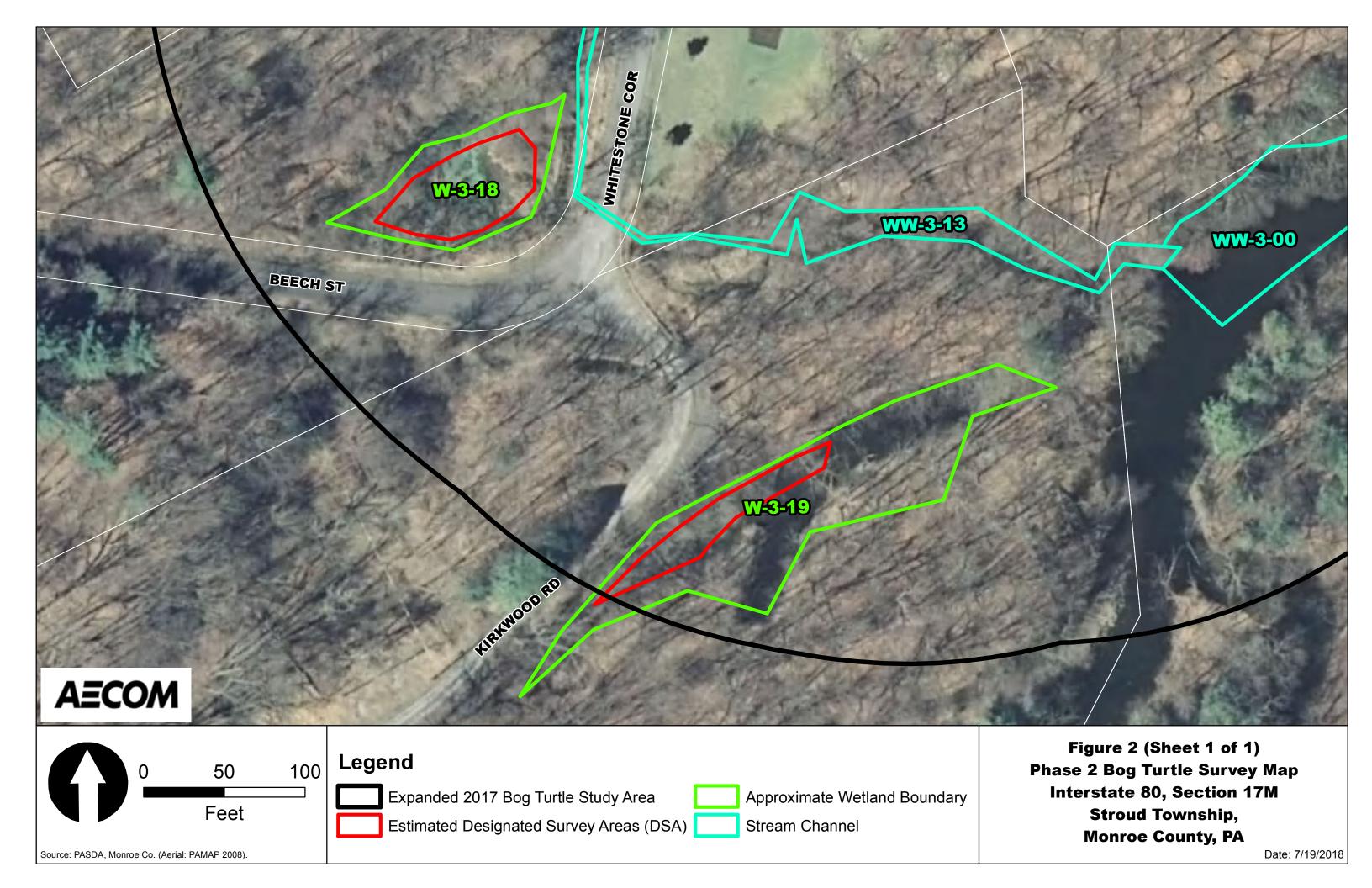
USFWS. Draft Bog Turtle Trapping Survey Protocol. Accessed at https://www.fws.gov/northeast/pafo/pdf/Trapping%20protocol.pdf

Figure 1
Project Location Map





# Figure 2 Expanded Phase 1 Bog Turtle Survey Wetlands



# Attachment A

USFWS Project 2013-0652 Determination Letter (April 3, 2015)



# United States Department of the Interior



# FISH AND WILDLIFE SERVICE

Pennsylvania Field Office 110 Radnor Road, Suite 101 State College, Pennsylvania 16801-4850

April 3, 2015

J. Thomas Cushman, Jr. AECOM 1700 Market Street, Suite 1600 Philadelphia, PA 19103

RE:

USFWS Project #2013-0652

PNDI Receipt #20130327397134

Dear Mr. Cushman:

This responds to your letter dated March 3, 2015, which provided the Fish and Wildlife Service (Service) with updated information regarding the S.R. 0080, Section 17M, reconstruction project located in Stroud Township, Stroudsburg Borough, and East Stroudsburg Borough, Monroe County, Pennsylvania. The proposed project is within the range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

Autumn Thomas of AECOM conducted a Phase 2 survey on four wetlands, which included wetlands identified as 2-05, 2-06, 3-02, and 3-10 in the project area. According to your October 2014 survey report, habitat conditions within these four wetlands are suitable for the support of bog turtle; however, no bog turtles were located within the identified wetlands habitat areas during the surveys on May 20, May 22, May 29, May 30, 2014 and June 3, June 4, June 11, and June 12, 2014. Based on our review of this information, we conclude that construction of this project will not affect the bog turtle.

If this project is implemented as proposed, construction will not affect any federally listed or proposed species or their habitat. This response relates only to endangered or threatened species under our jurisdiction. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

This determination is valid for two years from the date of this letter. If the proposed project has not been fully implemented prior to this, an additional review by this office is necessary. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

If the Phase 2 survey did not include all potential habitat in all areas that will be directly or indirectly affected by the proposed project and project-associated features (e.g., roads, water and sewer lines, utility lines, stormwater and sedimentation basins, buildings and other structures, driveways, parking lots, yards/lawns, wells), expand the scope of the Phase 2 survey to include these areas. Submit the results of the expanded Phase 2 investigation to our office for review so that we can confirm whether the above determination is still valid.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

If you have any further questions regarding this matter, please contact Kayla Easler of this office at (814) 234-4090.

Sincerely,

Lora L. Zimmerman Field Office Supervisor

cc:

PennDOT - Neal

# Attachment B USFWS Project 2013-0652 Determination Letter (April 10, 2018)



# United States Department of the Interior



# FISH AND WILDLIFE SERVICE

Pennsylvania Field Office 110 Radnor Road, Suite 101 State College, Pennsylvania 16801-4850

April 10, 2018

Bridger Thompson AECOM 100 Sterling parkway, Suite 205 Mechanicsburg, PA 17050

RE: USFWS Project #2013-0652

PNDI Receipt #20130327397134

Dear Mr. Thompson:

Thank you for your letter of March 29, 2018, which provides the Fish and Wildlife Service (Service) with updated information regarding the Interstate 80 (I 80), Section 17M, reconstruction project located in Stroud Township, Stroudsburg Borough, and East Stroudsburg Borough, Monroe County, Pennsylvania. The proposed project is within the range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

The Pennsylvania Department of Transportation (PennDOT) proposes to reconstruct a 3.5-mile section of I 80 to improve safety and update the road. Work includes reconstructing/eliminating interchanges, relocating ramps, adding travel or auxiliary lanes, and improving local roads. We previously commented on this project by letter dated April 3, 2015. Since that time, PennDOT has expanded the project corridor, and eight additional wetlands were identified.

To determine the potential effects of the proposed project on bog turtles and their habitat, you, a recognized qualified bog turtle surveyor (QBTS), conducted Phase 1 bog turtle habitat assessment on May 21 and 22, 2017. According to the report eight additional wetlands extend to within 300 feet of the proposed limit of disturbance. Following the methods described under "Bog Turtle Habitat Survey" (Phase 1 survey) of the Guidelines for Bog Turtle Surveys (revised April 2006), you determined that the wetlands referred to as "W-3-18" and "W-3-19" have the combination of soils, vegetation, and hydrology typical of habitat occupied by bog turtles. We concur with your habitat determination.

Based on a review of the information supplied to this office, the Service has determined that these wetlands contain habitat characteristics suitable for bog turtles. If direct or indirect adverse effects to these wetlands cannot be avoided, a more detailed and thorough survey will be

necessary, as described under Phase 2 of the *Guidelines for Bog Turtle Surveys*. Avoidance of direct and indirect effects means no disturbance to or encroachment into the wetlands (e.g., filling, ditching or draining) for project-associated activities such as roads, sewer lines, utility lines, storm water or sedimentation basins, residences, driveways, parking lots and other structures. Adverse effects may also be anticipated to occur when lot lines include portions of the wetland, when an adequate upland buffer is not designated around the wetland (recommended buffer is 300 feet wide), or when roads or storm water/sedimentation basins affect the hydrology of the wetland.

The Phase 2 survey should be conducted by a qualified biologist with bog turtle field survey experience (see enclosed list of qualified surveyors). Submit survey results to the Service for review and concurrence. If project activities might adversely affect bog turtles, additional consultation with the Service will be required, pursuant to the Endangered Species Act.

Please advise this office as to the course of action you intend to pursue regarding bog turtle surveys of, or avoidance of project impacts to, wetlands in the project area. This information and appropriate supporting information (*e.g.*, bog turtle survey results, project plans documenting no encroachment into wetlands) will be necessary before the Service can concur that no federally listed species will be adversely affected by the project.

This response relates only to endangered and threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing potential Service concerns under the Fish and Wildlife Coordination Act or other authorities.

To avoid potential delays in reviewing your project, please use the above-referenced USFWS project tracking number in any future correspondence regarding this project.

If you have any further questions regarding this matter, please contact Jennifer Kagel of this office at (814) 234-4090.

Sincerely,

Robert M. Anderson

Acting Field Office Supervisor

hope to anther

cc:

PennDOT – Neal PFBC - Savage

# Attachment C Photo Log



Date:

1

05/16/18

Feature ID:

Wetland W-3-18

Direction:

South

Description:

View of habitat conditions in wetland W-3-18 on 05/16/18.



Photograph:

Date:

2

05/16/18

Feature ID:

Wetland W-3-19

Direction:

Northeast

Description:

View of the habitat condition in wetland W-3-19 on 05/16/18.





Date:

3

05/16/18

Feature ID:

Wetland W-3-18

Direction:

N/A

# Description:

Photo of the northern red salamander captured in wetland W-3-18.



Photograph:

Date:

4

05/22/18

Feature ID:

Wetland W-3-19

Direction:

N/A

# Description:

Photo of one of the pickerel frogs captured in wetland W-3-19.





Date:

5

05/22/18

Feature ID:

Wetland W-3-19

Direction:

N/A

# **Description:**

Photo of the eastern (red spotted) newt captured in wetland W-3-19.



Photograph:

Date:

6

05/25/18

Feature ID:

N/A

Direction:

N/A

# Description:

Photo of a green frog similar to the individuals identified in wetland W-3-18 and W-3-19.





Date:

7

06/01/18

Feature ID:

Wetland W-3-18

Direction:

East

# **Description:**

View of the wetland condition in wetland W-3-18 on 06/01/18.



Photograph:

Date:

8

06/01/18

Feature ID:

Wetland W-3-19

Direction:

Southwest

# Description:

View of the habitat conditions in wetland W-3-19 on 06/01/18.

