



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801-4850

June 24, 2016

Preston Smith
Tetra Tech
661 Andersen Drive
Foster Plaza
Pittsburgh, PA 15220-2700

RE: USFWS Project #2014-0200

Dear Mr. Smith:

Thank you for your letters of April 22 and 26, 2016, as well as your email of May 12, 2016, which provided the Fish and Wildlife Service (Service) with additional information regarding Sunoco Pipeline, L.P., proposed Pennsylvania Pipeline (formerly part of the Sunoco Mariner East 2 Pipeline) project located in Washington, Allegheny, Westmoreland, Indiana, Cambria, Blair, Huntington, Juniata, Perry, Cumberland, York, Dauphin, Lebanon, Lancaster, Berks, Chester, and Delaware counties, Pennsylvania. 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 and the Migratory Bird Treaty Act (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, as amended) to ensure the protection of migratory bird species.

The project involves the phased installation of approximately 561 miles of two parallel pipelines within a 306-mile, 50-foot wide right-of-way (ROW) from Houston, Washington County, Pennsylvania to Sunoco Pipeline, L.P.'s (SPLP), Twin Oaks facility in Delaware County, Pennsylvania with the purpose of interconnecting with existing SPLP Mariner East pipelines. As initially described, a 20-inch diameter pipeline would be installed within the ROW from Houston, PA to the Twin Oaks facility (306 miles) and a second, up to 20-inch diameter pipeline, is proposed to be installed in the same ROW. The second line is proposed to be installed from SPLP's Delmont Station, Westmoreland County, Pennsylvania to the Twin Oaks facility, paralleling the initial line for approximately 255 miles.

Federally listed species

Bog Turtle

The project area is within the range of the bog turtle (*Clemmys muhlenbergii*), a species that is federally listed as threatened. The species inhabits shallow, spring-fed fens, sphagnum bogs,

swamps, marshy meadows, and pastures characterized by soft, muddy bottoms; clear, cool, slow-flowing water, often forming a network of rivulets; high humidity; and an open canopy. To determine the potential effects of the proposed project on bog turtles and their habitat, Stan Boder, James Drasher, Kevin Keat, Jason Tesauro, Ben Berra, Andy Brookens, and Logan Zugay conducted Phase I bog turtle habitat assessments on all wetlands within 300 feet of the project's proposed limit of disturbance (LOD). According to their reports, 430 wetlands extend to within 300 feet of the proposed LOD within the range of the bog turtle. Following the methods described under "Bog Turtle Habitat Survey" (Phase I survey) of the Guidelines for Bog Turtle Surveys (revised April 2006), the surveyors determined that 334 of the subject wetlands do not have the combination of soils, vegetation, and hydrology typical of habitat occupied by bog turtles. We agree with their habitat determination for those wetlands.

Species presence surveys (Phase II surveys) were initiated at 99 wetlands determined by the surveyors to have the combination of habitat characteristics typical of areas occupied by bog turtles. Based on survey results and known bog turtle occurrences, Tetra Tech reported that there are four wetlands within the LOD and four wetlands within 300 feet of the LOD that are occupied by bog turtles (Table 1.).

Table 1. Occupied wetlands the will be directly or indirectly affected by the action.

Wetlands	BT Occupancy	Location
A54	Occupied	Within LOD
A55	Occupied	Within LOD
AM2	Occupied	Within LOD
AM3	Occupied	Within 300 feet
C6	Occupied	Within LOD
C7	Occupied	Within 300 feet
C8	Occupied	Within 300 feet
C44	Occupied	Within 300 feet

To avoid adverse effects to the known bog turtle populations in wetlands A54 and A55 the applicant has proposed the following measures:

1. Drill under Wetlands A54 and A55 using horizontal directional drilling (HDD) during the bog turtle active season (April 1 and October 31);
 - a. Prior to performing any construction work in wetlands, streams, or uplands within 300 feet of the potential bog turtle habitat, all areas of expected disturbance must be surveyed by a qualified surveyor for the presence of bog turtles immediately prior to construction commencement.
 - b. Prior to the survey, herbaceous vegetation should be cut to a height of 4 to 6 inches using a hand-held trimmer/weed-cutter, and then carefully raked away from the area to be searched. A qualified bog turtle surveyor should be present when this vegetation clearing occurs.
 - c. Immediately following the survey, silt-fencing should be placed between the wetland and the proposed construction zone while the bog turtle surveyor is present to ensure that the fencing is properly installed in the correct location. The silt-fencing should be removed immediately following construction.

2. Ensure the HDD will be in bedrock prior to drilling beneath the wetlands by utilizing the information provide in geotechnical reports;
3. Implement Service-approved Inadvertent Return Contingency Plan;
4. Install a series of piezometers to monitor groundwater conditions before, during, and after the HDD following a Service-approved monitoring plan.
5. Post-construction routine pipeline operation and maintenance protective measures:
 - a. "No Mowing" signs will be placed along the boundary of Wetlands A54 and A55 to prevent disturbance during post-construction right-of-way (ROW) maintenance activities;
 - b. Additional signs will be placed at the edge of Zone 2 (300 feet from the wetland edge) to demarcate the limit of herbicide application within the ROW;
 - c. Only hand clearing will occur in Zone 2 and will be conducted between October 1 and March 31.

During an April 6, 2016, field view, Service-biologist Brian Scofield, acknowledged the marginal, but suitable, habitat conditions of Wetland AM2 and recommended a time-of-year restriction or pre-construction survey. The same recommendation was given for Wetlands AM3, C7, C8, and C44 because of their proximity to known bog turtle populations. Therefore, the applicant has proposed that either construction will take place between November 1 and March 31, when bog turtles are hibernating, or a pre-construction survey will be performed if construction occurs between April 1 and October 31, during which time bog turtles are active. If construction takes place during the active season the following measures will be followed.

1. Prior to performing any construction work in wetlands, streams, or uplands within 300 feet of the potential bog turtle habitat, all areas of expected disturbance must be surveyed by a qualified surveyor for the presence of bog turtles immediately prior to construction commencement.
2. Prior to the survey, herbaceous vegetation should be cut to a height of 4 to 6 inches using a hand-held trimmer/weed-cutter, and then carefully raked away from the area to be searched. A qualified bog turtle surveyor should be present when this vegetation clearing occurs.
3. Immediately following the survey, silt-fencing should be placed between the wetland and the proposed construction zone while the bog turtle surveyor is present to ensure that the fencing is properly installed in the correct location. The silt-fencing should be removed immediately following construction.
4. If any bog turtles are located during these searches, the Service and Pennsylvania Fish and Boat Commission (PFBC) should be contacted immediately, and construction should not proceed until further consultation occurs. Survey results should be submitted to the Service and PFBC.

To avoid the risk of take to the known bog turtle population in Wetland C6 the applicant has proposed the use of a dry-bore to go under the wetland and avoid surface impacts. Because dry-bore technology does not utilize pressurized fluid to bore, there is no risk of an inadvertent return; therefore, the applicant has proposed the same minimization measures as Wetlands AM2, AM3, C7, C8, and C44.

With the implementation of the avoidance and conservation measures listed above and in the

applicant's April 2016 Bog Turtle Conservation Plan, this project is not likely to adversely affect the bog turtle. If you are unable to implement all proposed avoidance measures or project plans change, further consultation with the Service will be required, pursuant to the Endangered Species Act.

Indiana bat

The proposed project is located within the range of the Indiana bat (*Myotis sodalis*), a species that is federally listed as endangered. Mist-net surveys were conducted within the appropriate survey windows between May 15, 2014, and August 4, 2015, for Indiana bats. Surveys were carried out only where suitable habitat existed and where those areas occurred outside of already assumed occupied habitats (swarming areas).

According to the April 2016 survey report, surveys were conducted at 294 survey blocks within the project area, in accordance with the Fish and Wildlife Service's 2014 and 2015 Indiana bat summer survey guidelines, which are designed to detect the presence of Indiana bat maternity colonies. During these surveys, no Indiana bats were captured. Additionally, 12 portals were analyzed as potential hibernacula. Harp traps and acoustic surveys were performed, but did not yield any Indiana bat captures or calls. Therefore, based on these survey results, we conclude (1) there is no higher population density of Indiana bat activity that would be typical of a maternity colony, and (2) it is unlikely that the studied mine portals support Indiana bats.

Portions of the project area are within two known Indiana bat hibernacula swarming areas. Swarming areas are habitat surrounding known hibernation sites that the bats depend on for spring staging and fall swarming (the periods following emergence from hibernation and prior to reentering hibernation, respectively). These swarming areas are also used by some male bats, but are not used by reproductive females through the warmer seasons. As such, Sunoco Pipeline, L.P., has submitted an Indiana Bat Conservation Plan. The proposed project will affect approximately 258 acres of forest habitat in the vicinity of the Hartman Mine Indiana bat swarming area. To avoid adverse effects on Indiana bats, Sunoco Pipeline, L.P. has agreed to implement the measures outlined in their April 2016 Indiana Bat Conservation Plan for the subject pipeline project. This includes a commitment to cut trees between November 15 and March 31 in the Indiana bat swarming area. The Conservation Plan also details specific measures that will be implemented to avoid indirect effects of the cumulative forested habitat loss on Indiana bats, including the contribution of \$1,002,819 into the Indiana Bat Conservation Fund that will be used for permanent conservation of Indiana bat habitat.

The project information and our analysis includes a portion of the pipeline project that traverses through Raystown Lake Recreation Area, which is located in Hartman Mine Indiana Bat Swarming Area. Sunoco Pipeline, L.P. has committed to removing these trees between November 15 and March 31 during a time when bats are assumed to be hibernating to avoid the risk of directly killing roosting bats.

Additionally, a small segment of the pipeline will traverse a portion of the Layton Fire Clay Mine Indiana bat swarming area. There is limited tree clearing proposed here (approximately 0.62 acres), due to this portion of the line being collocated with an existing right-of-way. To

avoid the risk of directly killing or injuring Indiana bats, Sunoco Pipeline L.P., has agreed to implement tree clearing in this swarming area between November 15 and March 31.

The Service has reviewed the Conservation Plan and found it to address the recommended avoidance and conservation measures outlined in our guidance. Therefore, with the implementation of these measures: (1) time of year restrictions on tree clearing to avoid the risk of direct take of Indiana bats, (2) the results of the mist-net and hibernacula surveys that failed to locate maternity colonies or new hibernation sites, and (3) use of the Indiana Bat Conservation Fund to offset indirect effects to bats that may result from aggregate forest habitat loss of swarming habitat, we conclude that effects of the project on the Indiana bat are insignificant or discountable.

Northern long-eared bat

The proposed project is located within the range of the federally threatened northern long-eared bat (*Myotis septentrionalis*). On February 16, 2016, the final rule that tailors protections for the northern long-eared bat under the Endangered Species Act became effective (81 FR 1900; see: <http://www.fws.gov/midwest/endangered/mammals/nlecb/pdf/FRnlecbFinal4dRule14Jan2016.pdf>).

Mist-net surveys were conducted within the appropriate survey windows between May 15, 2014 and August 4, 2015, for northern long-eared bats.

According to the April 2016 survey report, surveys were conducted at 294 survey blocks within the project area, in accordance with the Fish and Wildlife Service's 2014 and 2015 Indiana bat summer survey guidelines. During the 2014 surveys, 30 northern long-eared bats were captured and 13 were radio-tracked. Two more northern long-eared bats were captured and radio-tracked in 2015 surveys. Additionally, 12 portals were analyzed as potential hibernacula. Harp trapping and acoustic surveys were performed at the portals, but did not yield any northern long-eared bat captures or calls.

Although several northern long-eared bat roost trees were documented close to the LOD, only one roost tree was identified within 150 feet of project disturbance. In accordance with the final 4(d) rule, removal of this roost tree will not occur between June 1 and July 31. Additionally, your project is not located within 0.25 mile of a known northern long-eared bat hibernaculum. Therefore, following the June 1 --July 31 time of year restriction on roost tree clearing, any incidental take that might result from tree removal is not prohibited, and no further consultation regarding this species is necessary. More information on the northern long-eared bat and the 4(d) rule can be found here: <http://www.fws.gov/midwest/endangered/mammals/nlecb/>

Northeastern bulrush

The project is within the known range of the northeastern bulrush (*Scirpus ancistrochaetus*), a federally listed, endangered plant. Surveys were conducted for this species in 2014 and 2015. 231 potential northeastern bulrush habitat areas were identified. These 231 habitat areas revealed two previously undocumented northeastern bulrush populations. The Blair County population is located approximately 340 feet from the edge of the proposed LOD and is not hydrologically connected to Wetland L70, which is located in the ROW.

The Cambria County population is located within the LOD, approximately 75 feet from a proposed access road. To minimize and avoid impacts to this population, Sunoco Pipeline, L.P., proposes to install the pipeline under this wetland system via HDD. While we support this method of crossing to reduce vernal pool and wetland impacts, best management practices need to be employed to minimize potential harm to listed species. The pipeline will be approximately 50 feet below the surface. The entry point will be about 150 feet from the population and the exit point will be about 1,534 feet southeast of the population. The HDD length will be approximately 1,684 feet.

Despite best intentions, drilling fluids can still be released to the surface. Damage to the wetlands, its hydrology, flora or fauna can occur from equipment used to clean up the drilling fluid material. Therefore, all precautions to prevent an inadvertent release (IR) should be implemented, including examining the subsurface soil and bedrock material to determine geotechnical limitations or IR probability, and designing a drill path to minimize drill pressure and entry angles. As a means to minimize impacts should an IR occur, you provided an HDD Inadvertent Release Contingency Plan. In addition to the instructions in this Plan, please add the USFWS phone number (provided below) as an agency to be contacted should an IR occur, and inform the HDD contractor about the sensitive nature of the drill at this location.

With the aforementioned buffers in place and a successful HDD, this project is not likely to adversely affect these northeastern bulrush populations.

Assessment of Risks to Migratory Birds

As mentioned in our letter of March 19, 2014, and discussed during our meeting of September 9, 2015, the Service is the principal Federal agency charged with protecting and enhancing populations and habitat of migratory bird species; however, at this point, you have not provided us with a migratory bird conservation plan or any other information about how, or if, SPLP will minimize impacts to migratory bird species. The Migratory Bird Treaty Act prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for allowing unauthorized take, the FWS recognizes that some birds may be taken during activities such as pipeline construction even if all reasonable measures to avoid take are implemented. The FWS's Office of Law Enforcement carries out its mission to protect migratory birds not only through investigation and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. Although it is not possible under the MBTA to absolve individuals, companies, or agencies from liability (even if they implement avian mortality avoidance or similar conservation measures), the Office of Law Enforcement focuses on those individuals, companies, or agencies that take migratory birds with disregard for their actions and the law, especially when conservation measures have been developed but are not properly implemented.

The potential exists for avian mortality from habitat destruction and alteration within the project boundaries. Site-specific factors that should be considered in project siting to avoid and minimize the risk to birds include avian abundance; the quality, quantity and type of habitat; geographic location; type and extent of bird use (e.g. breeding, foraging, migrating, etc.); and

landscape features. Please review the enclosed information for general recommendations for avoiding and minimizing impacts to migratory birds within and around the project area. Please be aware that since these are general guidelines, some of them may not be applicable to the current project design or they may have already been included in the project design.

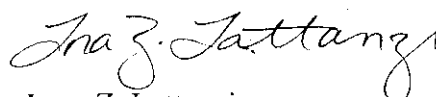
Your project is located in the vicinity of several Important Bird Areas (IBAs). IBAs are designated by the Pennsylvania Ornithological Technical Committee. They are the most critical regions in the Commonwealth for conserving bird diversity and abundance, and are the primary focus of Audubon Pennsylvania's conservation efforts. To find out more information about this IBA, including which bird species breed there, visit: <http://netapp.audubon.org/IBA/State/US-PA>.

We are happy to further discuss how SPLP can minimize impacts to these species. As a means to minimize impacts, please see the enclosed migratory bird general guidance document that was also provided to you in our March 19, 2014, letter.

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

Please contact Pamela Shellenberger or Brian Scofield of this office at (814) 234 4090 if you have any questions or require further assistance regarding this matter.

Sincerely,

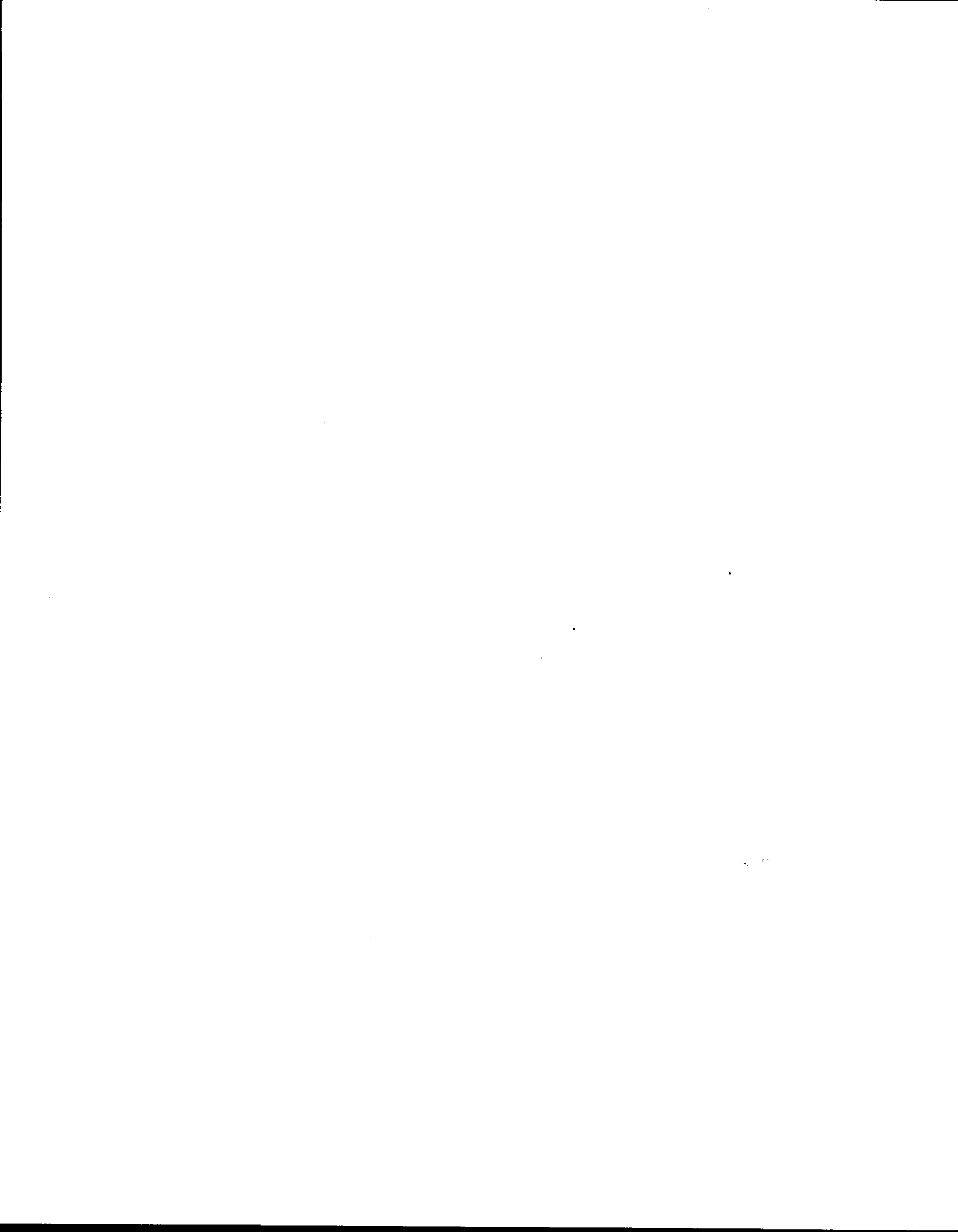


Lora Z. Lattanzi
Field Office Supervisor

Enclosure

cc:

Corps – W. Chandler
DEP – A. McDonald



**CALCULATION SHEET FOR
INDIANA BAT HABITAT COMPENSATION**
(revised 9/22/2014)

USFWS Project # 2014-0200 Date 04/26/2016
 Project Name: Pennsylvania Pipeline Project
 Project Location (township and county): Pennsylvania
 Project Type: Natural Gas Liquids Pipeline DEP permit # _____
 Hibernaculum and/or Maternity Colony Affected: Hartman Mine

Table 1. Calculation of Compensation Acres

IMPACT TYPE	IMPACT ACRES	MULTIPLIER ¹	COMPENSATION ACRES
Summer Habitat Loss²			
Known maternity habitat		1.5	
Known non-maternity habitat		1.0	
Potential habitat ³		0.5	
Swarming Habitat Loss⁴			
P2 or P3	258	1.5	387
P4		1.0	
Overlapping Habitat Loss⁵			
Known maternity and swarming habitat occur together: choose highest multiplier from above (maternity or swarming) for the impact, and add 1.0 to the multiplier			

¹ Multiplier provides for a PARTIAL offset of habitat impacts and assumes permanent habitat protection will occur in accordance with the *Indiana Bat Mitigation Guidance for Pennsylvania*. A substantially higher multiplier would be needed to fully offset habitat impacts.

² Loss of known summer habitat assumes such loss will occur when bats are NOT present (i.e., between October 15 and March 31).

³ For coal mining projects having forest impacts ≥ 40 acres, applicants can either conduct mist-net surveys in accordance with the Service's survey guidelines OR assume presence of Indiana bats. When assuming presence, a seasonal restriction will apply, along with a 0.5:1 compensation ratio for forest impacts. Non-coal projects are evaluated on a case-by-case basis.

⁴ Swarming habitat is suitable habitat in the vicinity of an Indiana bat hibernaculum (generally 10-20 miles). Loss of swarming habitat assumes such loss will occur when bats are NOT present (i.e., between November 15 and March 31).

⁵ Loss of summer and swarming habitat assumes such loss will occur when bats are NOT present (i.e., between October 15 and March 31).

Table 2. Calculation of Deposit when using the Indiana Bat Conservation Fund

Location of Impact (County)	Compensation Acres (from Table 1)	Cost/Acre ⁶	IBCF Deposit ⁷
Adams		TBD	
Armstrong/Butler		\$2,060	
Beaver/Lawrence		\$2,320	
Bedford		TBD	
Berks		TBD	
Blair	187.5	\$2,285	\$428,437.50
Centre		\$3,600	
Fayette		\$1,519	
Greene		\$1,223	
Huntingdon	136.5	\$3,631	\$495,631.50
Luzerne		\$3,716	
Mifflin		TBD	
Pike		\$8,100	
Somerset		\$2,247	
Washington		\$2,760	
York		TBD	
Cambria	63	\$1,250	\$78,750.00

* See Table 3 for cost/acre value

NOTE: Deposits to the IBCF are due prior to permit issuance. Provide documentation of the deposit to the USFWS and the permitting agency (e.g., PA DEP). An escrow account has been set up at the following institution to receive IBCF deposits.⁸

First Commonwealth Bank – Trust Division
 Attn: Brenda Alabran
 614 Philadelphia Street
 P.O. Box 698
 Indiana, Pennsylvania 15701
 724-463-6580 (phone)

Designate the deposit for: Indiana Bat Conservation Fund (Acct #710621004)

USFWS Concurrence: *Shaj Jattanzi* Date: 6/22/2016

⁶ Cost/acre subject to change, based on a periodic re-evaluation of land comparable values by the Pennsylvania Game Commission. Cost per acre reflects land cost per acre, plus 20% for expenses associated with land acquisition (e.g., comparable values search, title search, transfer taxes, land survey, recording fees, etc.).

⁷ Multiply the number of Compensation Acres by the Cost/Acre to determine the amount to be submitted to the Indiana Bat Conservation Fund.

⁸ If you choose to set up an escrow account at another institution, do so in coordination with the Pennsylvania Game Commission.