state college area
CONNECTOR

PennDOT.gov/SCAC

Threatened and Endangered Species

Technical Memorandum

for the

State College Area Connector Planning and Environmental Linkage (PEL) Study

pennsylvania
DEPARTMENT OF TRANSPORTATION

MAY 19, 2021

U.S. Department of Transportation
Federal Highway Administration

Table of Contents

List of Figures

List of Tables

List of Appendices

List of Acronyms

AMM	Avoidance and Minimization Measures
CNHI	County Natural Heritage Inventory
GIS	Geographic Information System
I-99	Interstate 99
IBA	Important Bird Areas
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHCH	Natural Heritage Core Habitat
PA	Pennsylvania or Pennsylvania Route
PA DCNR	Pennsylvania Department of Conservation and Natural Resources
PA DEP	Pennsylvania Department of Environmental Protection
PASDA	Pennsylvania Spatial Data Access
PE	Pennsylvania Endangered
PEL	Planning and Environmental Linkage
PFBC	Pennsylvania Fish and Boat Commission
PGC	Pennsylvania Game Commission
PNDI	Pennsylvania Natural Diversity Inventory
PNHP	Pennsylvania Natural Heritage Program
PR	Pennsylvania Rare
PT	Pennsylvania Threatened
SCAC	State College Area Connector
SSC	Species of Special Concern
T&E	Threatened and Endangered
TU	Tentatively Undetermined
USFWS	United States Fish and Wildlife Service
USFWS PAFO	United States Fish and Wildlife Service Pennsylvania Field Office

1.0 Introduction

The Planning and Environmental Linkage Study (PEL) for the State College Area Connector (SCAC) study is intended to identify, evaluate, and recommend transportation improvements in the PEL Study Area for project delivery. The PEL process allows early planning-level decisions to be carried forward into future transportation projects so that National Environmental Policy Act (NEPA) requirements are connected and planning analyses and decisions are not revisited. To ensure that the PEL Study results can be used in future NEPA projects, the PEL investigations will meet standards established by NEPA regulations and guidance as well as use consistent NEPA terms (e.g. purpose and need, alternatives, affected environment, environmental consequences, etc.). The PEL Study Area is approximately 70 square miles, extends through the southern portion of Centre County, and includes all or parts of six municipalities: Centre Hall Borough and Potter, Spring, Harris, College, and Benner Townships (Figure 1). The study area includes key transportation routes that provide access to regional destinations and beyond via major transportation routes such as U.S. Route (US) 322, Pennsylvania Route (PA) 144, PA 45, and Interstate 99 (I-99) which, in turn, provide access to nearby Interstate 80 (I-80). The initial data collection area is also shaped by the topography of the area. In general, the study area encompasses the southwestern portion of Penns Valley that extends between the Nittany Mountain to the north and the Seven Mountains area of the Tussey Mountain range to the south. The limits of the study area will be refined as the process advances.

This document is intended to identify the potential threatened and endangered (T&E) species and species of special concern (SSC) within the PEL Study Area including, but not limited to; plants, animals, and aquatic species. This information will be used to identify and analyze impacts to T&E species and SSC associated with proposed transportation improvement alternatives that may be developed during the PEL process. Potential studies may be required to address sensitive species presence/absence determined to be of potential concern within the study area. Studies designed to determine the presence/absence of plant species, plant communities, herpetological, aquatic, and animal species may need to be conducted within the study area to determine

avoidance and minimization measures, ecological offset crediting, and incidental take of sensitive species.

2.0 Methods

An initial secondary source review of online resources and mapping and Pennsylvania Natural Diversity Inventory (PNDI) search was completed to determine potential threatened and endangered species resources within the PEL Study Area. Resources under Pennsylvania and federal jurisdiction were reviewed using the Pennsylvania Department of Conservation and Natural Resources (PA DCNR), Pennsylvania Audubon, Pennsylvania Herpetological Society, and the Pennsylvania Natural Heritage Program (PNHP) website project screening and publicly available data resources (see Appendix A: References, that also include associated hyperlinks). Further secondary source review for Geographic Information Systems (GIS) mapping data was acquired through public data access within the Pennsylvania Spatial Data Access (PASDA) and PA DCNR websites and was used to create map files found in the List of Figures used in this report.

3.0 Results

The entirety of the PEL Study Area occurs in a predominantly rural, highly-fragmented landscape located in Penns Valley between Nittany Mountain to the north and the Tussey Mountain range to the south. Larger tracts of forested habitat are located primarily in the Nittany Mountain range and the Tussey Mountain range in Rothrock State Forest to the south. Agriculture, both active and inactive, and rural residential/developments comprise the majority of the study area. Results of PNDI screenings and agency responses in 2018 (SR322/144/45 Corridors, PNDI #648499, completed as part of the Data Refresh Study) and subsequent screening completed on January 8, 2021 (PNDI #716180) (Appendix B) have determined T&E and/or SSC are present within habitats of the study area. T&E and/or SSC plants, animals, and aquatic species and their habitats were determined to be present in localized areas in and adjacent to the study area. PNDI

project receipt can be viewed in Appendix B. Agency responses to PNDI #716180 can be found in Appendix C.

3.1 Bird Species

The United States Fish and Wildlife Service Pennsylvania Field Office (USFWS PAFO) response to PNDI #716180 and dated February 17, 2021 (Appendix C), identified potential concerns with migratory bird species protected by the Migratory Bird Treaty Act. No specific T&E or SSC bird species were identified within the PEL Study Area through PNDI screening. However, Rothrock State Forest is designated as an Important Bird Area (referred to as the Rothrock State Forest (part) & Stone Mountain IBA) that encompasses 89,736 acres and is home to several species of forest-nesting and migrant species of birds in addition to habitat favorable for migratory bird species.

3.2 Plant Species

PA DCNR response to PNDI #716180 and dated January 11, 2021 (Appendix C), identified potential T&E and SSC plant species and natural communities determined to be a potential concern or previously identified in the PEL Study Area are listed in Table 1 (Plant Species) and Table 2 (Natural Communities).

Table 1: Plant Species

Scientific Name	Common Name	Current Status	Proposed Status	Typical Suitable Habitat	Locally Documented Habitat	Survey Season
Amelanchier humilis	Serviceberry	TU	PE	Dry, open, high ground and bluffs	Limestone rock pile along roadside	Flowers April – mid-May; fruits June – early July

Table 1: Plant Species (continued)

Scientific Name	Common Name	Current Status	Proposed Status	Typical Suitable Habitat	Locally Documented Habitat	Survey Season
*Amelanchier sanguinea**	Roundleaf serviceberry	TU	PE	Open woods, rocky slopes and barrens	Deciduous shrub community, limestone slope along roads	Flowers mid-April – late-May; fruits June – early-July
Anemone cylindrica	Long-fruited anemone	PE	No Change	Dry slopes and open fields	Dry, rocky, limestone barrens along abandoned railroad	Flowers June – August
Bouteloua curtipendula	Tall gramma	PT	No Change	Serpentine barrens, dry calcareous clearings and other dry, rocky or sandy sites	Mid-successional pasture with xeric limestone prairie habitat	Flowers August – September
Bromus kalmii	Brome grass	None	PT	Dry or moist woods or rocky banks	Mid-successional pasture with xeric limestone prairie habitat	Flowers June - July
*Carex bebbii**	Bebb's sedge	PE	PT	Pond edges, boggy pastures and moist sand flats, usually on calcareous substrates	A forb-graminoid calcareous seepage wetland	Fruits June - July
*Carex formosa**	Handsome sedge	PE	No Change	Dry woods	Calcareous, dry wooded slope and in moist woods at base of slope	Flowers/ fruits May - June
*Carex lasiocarpa**	Slender sedge	PR	No Change	Sphagnum bogs and boggy shores	A forb-graminoid calcareous seepage wetland	Fruits June - August

Table 1: Plant Species (continued)

Scientific Name	Common Name	Current Status	Proposed Status	Typical Suitable Habitat	Locally Documented Habitat	Survey Season
*Carex prairea**	Prairie sedge	PT	No Change	Moist, calcareous meadows, marshes, and fens	A forb-graminoid calcareous seepage wetland	Fruits June – July
Dichanthelium oligosanthes	Heller's witchgrass	None	PT	Thickets, in loamy or clayey soils	Thin, well-drained rocky calcareous soils, with bedrock at or near the surface	Vernal terminal panicles May – early-July, or late summer or early-fall
*Lathyrus palustris**	Vetchling	TU	PE	Shores, moist meadows, sand plains, swamps and thickets	A forb-graminoid calcareous seepage wetland	Flowers June – August
Linum sulcatum	Grooved yellow flax	PE	No Change	Sandy barrens	Limestone prairie with thin, well-drained rocky soils	Flowers June – July; fruits persist into late-November
Onosmodium molle var. hispidissimum	False gromwell	PE	No Change	Dry, calcareous hillsides and old pastures	Mid-successional pasture, xeric limestone prairie habitat	Flowers late June – early-July
Solidago rigida	Hard-leafed goldenrod	TU	PE	Moist fields or thickets, in rich soil	Mid-successional pasture with limestone bedrock	Flowers August – October
*Stellaria borealis**	Mountain starwort	None	PT	Springy wooded slopes, sphagnous swamps and stream banks	Wetland edge	Flowers May - August

Table 1: Plant Species (continued)

Scientific Name	Common Name	Current Status	Proposed Status	Typical Suitable Habitat	Locally Documented Habitat	Survey Season
*Lupinus perennis**	Lupine	PR	No Change	Alluvial sand and gravel bars, open fields, woods edges and roadsides in sandy soils	Roadside along an oak-maple-sassafras forest	Flowers April - July
Ranunculus fascicularis	Tufted buttercup	PE	No Change	Open woods, slopes and edges, often calcareous	Open woodland over dolomitic limestone	Flowers April - May
Scirpus anncistrochaetus	Northeastern bulrush	PE	PT	Vernal ponds and mudholes with fluctuating levels	Ephemeral pools in open light	Fruits in July: flower structures with achenes through January
*Trillium flexipes**	Declined trillium	TU	PT	Wooded hillsides, swampy woods and floodplains	Forest remnant above a floodplain, with rocky and very calcareous soil	Flowers late April – early-May

PE=PA Endangered, PR=PA Rare, PT=PA Threatened, TU=Tentatively undetermined
*Indicates species documented within study area

Table 2: Natural Communities

Name	Description
Hemlock Palustrine Forest*	Riparian corridor along Sinking Creek, site includes wetlands as well as immediately adjacent lands
Open Sedge Fen*	Open sedge-dominated wetland that includes *Carex stricta, C. prairea,* and *C. lacustris*

*Indicates natural communities documented within study area.

3.3 Mammal Species

PGC response to PNDI #716180 and dated January 29, 2021 (Appendix C), identified potential T&E mammal species and habitat presence in or adjacent to the PEL Study Area (Figure 2). Figure 2 mapping illustrates potential bat summer roost/maternity habitat and fall swarming habitat for Indiana and northern long-eared bats around winter bat colony habitats. Summer roost/maternity habitat describes the area in which bats may spend the months feeding and giving birth to pups. Fall swarming habitat describes the habitat close to their winter hibernacula prior to entering the hibernacula for the winter months. Species and habitat identified as potential concerns for the study area are listed in Table 3.

Table 3: T&E Mammal Species

Scientific Name	Common Name	PA Status	Federal Status
*Myotis sodalis***	Indiana Bat	ENDANGERED	ENDANGERED
*Myotis septentrionalis***	Northern Long-eared bat	ENDANGERED*	THREATENED
Myotis leibii	Eastern small-footed bat	THREATENED	N/A
N/A	Winter bat colony	SPECIAL CONCERN	N/A

*Species status for Pennsylvania changed from Threatened to Endangered in 2019
***Myotis sodalis* and *Myotis septentrionalis* are federally listed species. The PGC defers comment on these species to USFWS.

A minimum of three known bat hibernacula are known to be present within or adjacent to the study area. Two are located within the study area in the northeast corner of the study area. Known hibernacula are overwinter habitat that contain at least one historical record of a threatened and/or endangered bat species. One known hibernaculum is located between Pleasant Gap and Centre Hall with the second known hibernaculum located to the east of Centre Hall and both within the study area. The third known hibernaculum is located approximately 9.5 miles south of the study area in Mifflin County. Potential summer roost and/or fall swarming habitat is present and buffers surrounding the known bat hibernacula encompass the entire study area.

3.4 Reptile Species

PFBC response to PNDI #716180 and dated January 25, 2021 (Appendix C), identified SSC to be potentially present in the PEL Study Area. PFBC identified the timber rattlesnake *(Crotalus horridus)*, a protected species in Pennsylvania, to be potentially present due to suitable habitat presence in the study area. Habitat includes deciduous forests and rocky outcrops. Timber rattlesnake hibernacula are usually found on south-facing rocky slopes with adequate crevices to provide shelter during the winter months. Male timber rattlesnake home ranges are typically larger than females and may travel further from the den site in the summer, moving into valleys and low-lying areas. Gravid (pregnant or carrying eggs) females are far less mobile and tend to stay within a short distance of the den. Bald Eagle and Rothrock State forests both contain suitable timber rattlesnake habitat and rattlesnakes are known to inhabit those areas.

3.5 Aquatic Species

PFBC response to PNDI #716180 and dated January 25, 2021 (Appendix C), identified SSC to be potentially present in the PEL Study Area. PFBC identified the triangle floater *(Alasmidonta undulata)* freshwater mussel to be potentially present due to suitable habitat within the Sinking Creek watershed which is located in the study area. Potential triangle floater presence is possible in the Sinking Creek watershed of the study area.

3.6 Federal Species

USFWS PAFO response to PNDI #716180 and dated February 17, 2021 (Appendix C), identified potential federal T&E and SSC mammal and avian species present within the PEL Study Area. The USFWS PAFO identified potential presence of Indiana bat and northern long-eared bat and their respective habitats. The USFWS PAFO also identified potential habitat and species presence located within the study area. Migratory bird species and habitats under MBTA jurisdiction could potentially be present within the study area and associated with IBA. These species are listed in Table 4.

Table 4: Federal T&E Species of Concern

Scientific Name	Common Name	Type	Federal Status
Myotis sodalis	Indiana Bat	Mammal	ENDANGERED
Myotis septentrionalis	Northern long-eared bat	Mammal	THREATENED
Migratory Bird Species		Avian	Varies

Habitats located within the PEL Study Area have been determined to be suitable for all the federal species listed in Table 4. Historic records for Indiana and northern long-eared bat exist for known bat hibernacula located within or adjacent to the study area. Additionally, suitable summer roost and fall swarming habitat buffers around the hibernacula encompass the entirety of the study area. It is unknown if records of bat captures and/or bat maternity colonies are available. Migratory bird species and their habitats under federal jurisdiction within the MBTA are potentially present within the study area. IBA are present within portions of Rothrock State Forest and provide important habitat for migratory bird species.

4.0 Summary

A review of T&E and SSC resources has identified potential threatened or endangered species and their habitats within or adjacent to the study area. T&E species and their associated habitats are present in numerous localized areas. A minimum of two known bat hibernacula are located within the study area and one located to the south in Mifflin County. Summer roost and fall swarming habitat for bats encompass the entirety of the study area. T&E plant species are potentially located in numerous localized areas. Conditions in those areas are suitable for sensitive species based on specific site and favorable ecological conditions that have the potential to support numerous species of plants and wildlife. Sensitive species and their habitats identified through secondary sources and PNDI study area review can potentially be found across the entirety of the study area. PNDI Receipt for the PEL Study Area can be found in Appendix B. Agency review of the PNDI can be found in the response letters in Appendix C.

The information presented in this PEL Study technical memorandum is intended to be used to identify areas of sensitive natural resources within the study area. Identification of these resource areas will be used to develop transportation improvement alternatives to avoid and minimize potential impacts to sensitive resources. Preliminary impact findings will allow for refinement of transportation improvement alternatives as part of a future NEPA project coordination. Additional agency coordination and further surveys of T&E plant and animal species will likely be required for project advancement.

5.0 Preparers

James A. Sinclair, Senior Scientist, Skelly and Loy, Inc., *A Terracon Company*

N

BELLEFONTE

WALKER TWP

SPRING TWP

GREGG TWP

PATTON TWP

BENNER TWP

CENTRE HALL

COLLEGE TWP

STATE COLLEGE

POTTER TWP

HARRIS TWP

0 3,000 6,000 9,000 Feet

LEGEND

PEL Study Area

Municipal Boundaries

pennsylvania
DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

INDEX MAP

May 2021

State College Area Connector PEL Study

STUDY LOCATION

CENTRE HALL BOROUGH, BENNER, COLLEGE, HARRIS, POTTER, AND SPRING TOWNSHIPS
CENTRE COUNTY, PENNSYLVANIA

Figure 1	1 Inch = 6,000 Feet

dtmeneely 4/28/2021 12:02 PM

N

BELLEFONTE

WALKER TWP

SPRING TWP

GREGG TWP

PATTON TWP

BENNER TWP

CENTRE HALL

COLLEGE TWP

STATE COLLEGE

POTTER TWP

HARRIS TWP

0 3,000 6,000 9,000 Feet

LEGEND

- Municipal Boundaries
- PEL Study Area
- Northern Long Eared Bat Swarming Habitat
- Indiana Bat Swarming Habitat

pennsylvania
DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

INDEX MAP

May 2021

State College Area Connector PEL Study

BAT HIBERNACULA BUFFER ZONES FOR INDIANA AND NORTHERN LONG-EARED BAT

CENTRE HALL BOROUGH, BENNER, COLLEGE, HARRIS, POTTER, AND SPRING TOWNSHIPS
CENTRE COUNTY, PENNSYLVANIA

Figure 2	1 Inch = 6,000 Feet

dtmeneely 4/28/2021 3:24 PM

Service Layer Credits: NAIP: Esri, USDA Farm Service Agency, Community: Centre County Government, data.pa.gov, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

APPENDICES

APPENDIX A: REFERENCES

Appendix A: REFERENCES

Department of Conservation and Natural Resources.
https://www.dcnr.pa.gov/Pages/default.aspx
January 2021.

Pennsylvania Audubon.
https://www.audubon.org/important-bird-areas/rothrock-state-forest-part-stone-mountain
January 2021.

Pennsylvania Natural Heritage Program.
https://www.naturalheritage.state.pa.us
January 2021.

United States Fish and Wildlife Service, Pennsylvania Field Office.
https://www.fws.gov/northeast/pafo/endangered/indianabat.html
https://ecos.fws.gov/ecp0/profile/speciesProfile.action?spcode=A0JE
January 2021.

GIS Data Sources

Layer Name	Figure	Source	Date
Northern Long Eared Bat Swarming Habitat	Figure 2: Bat Hibernacula Buffer Zones for Indiana and Northern Long-eared Bat	MTGIS Script	2017
Indiana Bat Swarming Habitat	Figure 2: Bat Hibernacula Buffer Zones for Indiana and Northern Long-eared Bat	MTGIS Script	2017

APPENDIX B: PNDI RECEIPT

1. PROJECT INFORMATION

Project Name: **State College Area Connector Project**
Date of Review: **1/8/2021 03:06:59 PM**
Project Category: **Transportation, Roads, New construction/ New alignment**
Project Area: **45,621.45 acres**
County(s): **Centre**
Watersheds HUC 8: **Bald Eagle; Lower Juniata; Lower Susquehanna-Penns**
Watersheds HUC 12: **Cedar Run; Colyer Lake-Sinking Creek; Headwaters Penns Creek; Laurel Creek; Little Fishing Creek; Logan Branch; Nittany Creek; Slab Cabin Run; Spring Creek-Bald Eagle Creek**
Decimal Degrees: **40.816514, -77.705236**
Degrees Minutes Seconds: **40° 48' 59.4510" N, 77° 42' 18.8508" W**

2. SEARCH RESULTS - LARGE PROJECT

Agency	Results	Response
PA Game Commission	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**
PA Department of Conservation and Natural Resources	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**
PA Fish and Boat Commission	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**
U.S. Fish and Wildlife Service	**Potential Impact**	**FURTHER REVIEW IS REQUIRED, See Agency Response**

Large Project. The project area is greater than 10 miles and/or 5,165 acres and therefore is categorized as a Large Project, and is not analyzed by the PNDI tool. Coordination is therefore required with the four jurisdictional agencies to determine if potential impacts to threatened and endangered and/or special concern species and resources within the project area. Please see the DEP Information section of the receipt if a PA Department of Environmental Protection Permit is required.

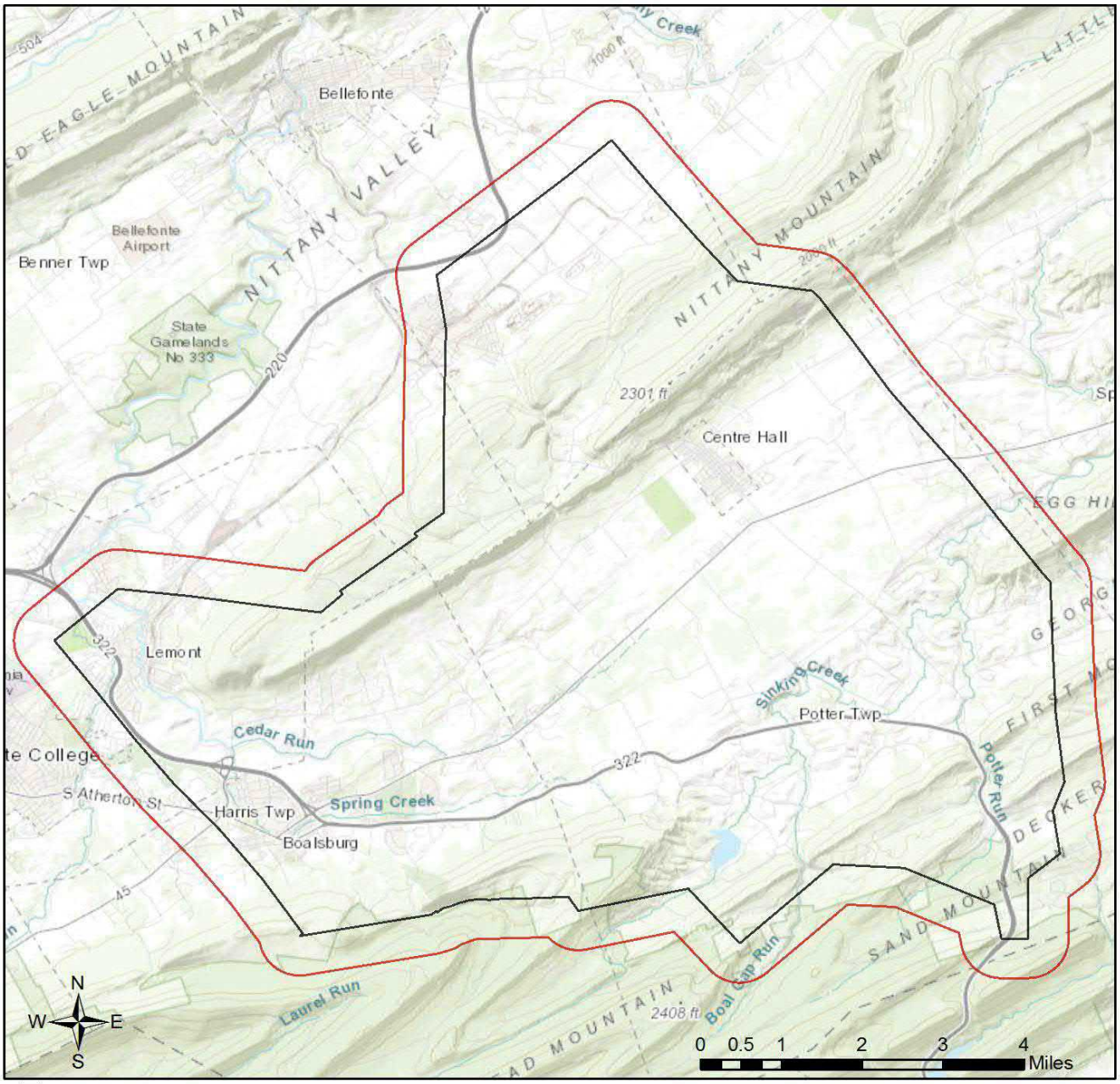
State College Area Connector Project

Project Boundary

Buffered Project Boundary

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China

State College Area Connector Project



Project Boundary

Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jursidictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PA Department of Conservation and Natural Resources

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PA Fish and Boat Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

U.S. Fish and Wildlife Service

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found here. This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).
***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:
X Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
X A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
In addition to the materials listed above, USFWS REQUIRES the following
X **SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.
____Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
____Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at https://conservationexplorer.dcnr.pa.gov/content/resources.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service
Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: James A. Sinclair
Company/Business Name: Skelly and Loy, Inc. A Terracon Co.
Address: 449 Eisenhower Blvd. Suite #300
City, State, Zip: Harrisburg, PA 17111
Phone: (717) 512-3496 Fax: (_____)_____
Email: jsinclair@skellyloy.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

1/8/2021
date

APPENDIX C: AGENCY PNDI RESPONSES LETTERS

pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

BUREAU OF FORESTRY

January 11, 2021

PNDI Number: 716180
Version: Final_1; 1/08/21

James Sinclair
Skelly and Loy, Inc.
449 Eisenhower Boulevard, Suite 300
Harrisburg, PA 17111
Email: jsinclair@skellyloy.com (hard copy will not follow)

Re: UPDATE- State College Area Connector Project
Centre County, PA

Dear James Sinclair,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 716180 for review. The State College Area Connector Project was previously screened under PNDI Number 648449. A list of species potentially present within the study area was provided in a letter dated January 30, 2018. PA Department of Conservation and Natural Resources screened this updated project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

PNDI records indicate species and resources under DCNR's jurisdiction are located in the project vicinity. Please see the attached table detailing species and resources of concern located within or in close proximity to the project study area. This letter is for your information and planning purposes only and does not provide clearance for specific projects. No botanical survey is requested at this time, though avoidance of suitable habitat should be considered during the planning process. Please submit an updated PNDI for review once the project area(s) and activities have been further defined.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Megan Pulver, Ecological Information Specialist, by phone (717-705-2819) or via email (c-mpulver@pa.gov).

Sincerely

Greg Podniesinski

Greg Podniesinski, Section Chief
Natural Heritage Section

Plant Species

Scientific Name	Common Name	Current Status	Proposed Status	Typical Suitable Habitat	Locally Documented Habitat	Survey Season
Amelanchier humilis	Serviceberry	TU	PE	Dry, open, high ground and bluffs	Limestone rock pile along roadside	Flowers April - mid-May; fruits June - early July
Amelanchier sanguinea *	Roundleaf serviceberry	TU	PE	Open woods, rocky slopes and barrens	Deciduous shrub community, limestone slope along a road	Flowers mid-April - late May; fruits June - early July
Anemone cylindrica	Long-fruited anemone	PE	No change	Dry slopes and open fields	Dry, rocky, limestone barren along abandoned railroad	Flowers June - August
Bouteloua curtipendula	Tall gramma	PT	No change	Serpentine barrens, dry calcareous clearings and other dry, rocky or sandy sites	Mid-successional pasture with xeric limestone prairie habitat	Flowers August - September
Bromus kalmii	Brome grass	None	PT	Dry or moist woods or rocky banks	Mid-successional pasture with xeric limestone prairie habitat	Flowers June - July
Carex bebbii *	Bebb's sedge	PE	PT	Pond edges, boggy pastures and moist sand flats, usually on calcareous substrates	A forb-graminoid calcareous seepage wetland	Fruits June - July
Carex Formosa *	Handsome sedge	PE	No change	Dry woods	Calcareous, dry wooded slope and in moist woods at base of slope	Flowers / fruits May - July
Carex lasiocarpa *	Slender sedge	PR	No change	Sphagnum bogs and boggy shores	A forb-graminoid calcareous seepage wetland	Fruits June - August
Carex prairea *	Prairie sedge	PT	No change	Moist, calcareous meadows, marshes and fens.	A forb-graminoid calcareous seepage wetland	Fruits June - July
Dichanthelium oligosanthes	Heller's witchgrass	None	PT	Thickets, in loamy or clayey soils.	Thin, well-drained, rocky calcareous soils, with bedrock at or near the surface	Vernal terminal panicles May - early July, or late summer or early fall
Lathyrus palustris *	Vetchling	TU	PE	Shores, moist meadows, sand plains, swamps and thickets	A forb-graminoid calcareous seepage wetland	Flowers June-August
Linum sulcatum	Grooved yellow flax	PE	No change	Sandy barrens	Limestone prairie with thin, well-drained, rocky soils	Flowers June - July; fruits persist into late November
Onosmodium molle var. hispidissimum	False gromwell	PE	No change	Dry, calcareous hillsides and old pastures	Mid-successional pasture, xeric limestone prairie habitat	Flowers late June - early July

Scientific Name	Common Name	Current Status	Proposed Status	Typical Suitable Habitat	Locally Documented Habitat	Survey Season
Solidago rigida	Hard-leaved goldenrod	TU	PE	Moist fields or thickets, in rich soil	Mid-successional pasture with limestone bedrock	Flowers August - October
Stellaria borealis *	Mountain starwort	None	PT	Springy wooded slopes, sphagnous swamps and stream banks	Wetland edge	Flowers May - August
Lupinus perennis *	Lupine	PR	No change	Alluvial sand and gravel bars, open fields, woods edges and roadsides in sandy soils.	Roadside along an oak-maple-sassafras forest	Flowers April - July
Ranunculus fascicularis	Tufted buttercup	PE	No change	Open woods, slopes and edges, often calcareous.	Open woodland over dolomitic limestone	Flowers April - May
Scirpus ancistrochaetus	Northeastern bulrush	PE	PT	Vernal ponds and mudholes with fluctuating water levels	Ephemeral pools in open light	Fruits in July; flower structures with achenes through January
Trillium flexipes *	Declined trillium	TU	PT	Wooded hillsides, swampy woods and floodplains	Forest remnant above a floodplain, with rocky and very calcareous soil.	Flowers late April - early May

* indicates species documented within study area
PE= PA Endangered, PR= PA Rare, PT= PA Threatened, TU= Tentatively undetermined

Natural Communities

Name	Description
Hemlock Palustrine Forest *	Riparian corridor along Sinking Creek, site includes wetlands as well as immediately adjacent lands.
Open Sedge Fen *	Open, sedge-dominated wetland that includes *Carex stricta, C. prairea,* and *C. lacustris*

* indicates natural communities documented within study area

Pennsylvania Fish & Boat Commission
established 1866

Division of Environmental Services
Watershed Analysis Section
595 E Rolling Ridge Dr.
Bellefonte, PA 16823

January 25, 2021

IN REPLY REFER TO
SIR# 53946

Skelly & Loy
James Sinclair
449 Eisenhower Blvd
Harrisburg, Pennsylvania 17111

RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 716180_1
State College Area Connector PEL Study Project Area Screening
Centre County, Pennsylvania

Dear James Sinclair:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

Timber Rattlesnake (*Crotalus horridus*, Species of Special Concern)

Timber Rattlesnakes occur in the forested, mountainous regions of the Commonwealth. They prefer forested areas to forage for small mammals (e.g., mice and chipmunks) and southerly-facing slopes for hibernating and other thermoregulatory activities. The timber rattlesnake is threatened by habitat loss/alteration, wanton killing, and poaching.

Workers in the boundaries of the project limits should be cautioned about rattlesnake-human conflicts. Although the nature of the timber rattlesnake is rather docile, it can be dangerous if cornered or handled. Therefore, the workers should be mindful of the presence of snakes in the area. We recommend the workers responsible for implementing this project be advised that timber rattlesnakes may be encountered, and that avoidance is the best means of minimizing risks to personal safety. These workers should also be advised that the timber rattlesnake is a state protected species and is not to be harmed. Killing of timber rattlesnakes without a proper permit is prohibited by the Commission pursuant to 58 Pa. Code Section 79.6.

Triangle Floater (*Alasmidonta undulata*, Species of Special Concern)

Freshwater mussels are the most imperiled taxonomic group in North America. Nearly half of the species known to occur in the Commonwealth are now extirpated (locally extinct) from Pennsylvania. Freshwater mussel species are extremely vulnerable to physical (i.e., siltation, dredging, trenching, rip-rap) and chemical (i.e., pH, temperature, dissolved oxygen, organic contaminants, heavy metals) changes to their aquatic environment. As such, we are concerned about direct and indirect effects that the proposed project may have on these species of concern. Therefore, we recommend construction techniques that avoid and/or minimize in-stream work, sedimentation, and changes to water quality.

If the proposed project involves in-stream disturbances within Sinking Creek, it may have the potential to adversely impact freshwater mussels known to exist within the proposed project area. **Typically, we request that you notify this office nine (9) months prior to construction so that we will have enough lead time to possibly perform on-site surveys and mussel translocations in the area of disturbance during suitable conditions. Please note that the mussel survey season begins May 15 and concludes October 1.** The notification can be in the form of an email to this office and should include the project start date, a plan sheet showing the area to be impacted, description of the waterway in the disturbance area (i.e. depths, substrate, etc.), photos, and a detailed description of the proposed work activities and sequencing. This information will assist us in our evaluation and expedite our review process and ultimately help us determine if translocation efforts are warranted.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Bill Savage at 814-359-5145 and refer to the SIR # 53946. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

Bill Savage, Fisheries Biologist
Watershed Analysis Section

WS/dn

United States Department of the Interior

FISH AND WILDLIFE SERVICE

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

February 17, 2021

James Sinclair
Skelly and Loy
449 Eisenhower Boulevard, Suite 300
Harrisburg, PA 17111

RE: USFWS Project #2020-1263
PNDI Receipt # 716180

Dear Mr. Sinclair:

Thank you for your electronic transmission of February 3, 2021, which provided the U.S. Fish and Wildlife Service (Service) with information regarding the proposed State College Area Connector Planning and Environmental Linkages (PEL) Study, a planning-level study for State Routes (SR) 322, 144, and 45 transportation corridors. The project area is located in Benner, College, Harris, Potter, and Spring Townships; State College, Pleasant Gap, and Centre Hall Boroughs, Centre County, 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 (MBTA, 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 Pennsylvania Department of Transportation (PennDOT) proposes to conduct an environmental and engineering study associated with the SR 322, 144, and 45 corridors, but does not yet have any defined projects within the 45,623-acre area being considered. The PEL Study will evaluate planning-level transportation improvements for a study area that covers approximately 70 square miles in Centre County, Pennsylvania. The PEL approach lays the foundation for collaborative planning and decision making that consider environmental, community, and economic goals early in the transportation planning process. This results in study outcomes that easily transition from a planning-level analysis to more detailed project-specific analysis required by the National Environmental Policy Act (NEPA). A NEPA study is a federally mandated investigation that evaluates potential environmental impacts based on possible transportation activities, examining the natural, cultural and built environments.

Federally Listed Species

The proposed project is located within the range of the Indiana bat (*Myotis sodalis*), a species that is federally listed as endangered, and the northern long-eared bat (*Myotis septentrionalis*), which is listed as a threatened species.

Indiana bats and northern long-eared bats hibernate in caves and abandoned mines during the winter months (November through March), and use a variety of upland, wetland and riparian habitats during the spring, summer and fall. These bats usually roost in dead or living trees with exfoliating bark, crevices or cavities. Female Indiana bats and northern long-eared bats form nursery colonies, typically under the exfoliating bark of dead or living trees such as shagbark hickory, black birch, red oak, white oak, and sugar maple, in upland or riparian areas.

Indiana bat

As no specific projects have been identified within the study area, PennDOT has not yet tabulated the total amount of trees that are proposed for removal. Regardless, land clearing, especially of forested areas, may adversely affect these bat species by killing, injuring or disturbing roosting bats, and by removing or reducing the quality of foraging and roosting habitat. Due to the anticipated impacts of the project to forested habitat, a bat survey[1] of the project area should be conducted between May 15 and August 15 by a qualified, Service-approved biologist using the *2020 INDIANA BAT SUMMER SURVEY GUIDELINES*, https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html (or most current version). The purpose of a survey during this period of the year is to detect Indiana bat maternity colony activity and is not intended to detect spring and fall activity associated with hibernation sites. Survey results should be submitted to the Service for review and concurrence.

We are aware of at one documented Indiana bat hibernaculum in the study area. In addition, if any natural caves, abandoned mines, or hard rock openings occur within the project area, bats may be using them during hibernation or as summer roost sites. Entrances to these potential hibernacula could be intentionally or inadvertently closed or destroyed during activities such as land clearing, grading, fill disposal, mining, road construction or building construction. If bats are present within a cave or abandoned mine when this occurs, they will become trapped inside and perish. Even if bats are not present during the closure, they may be adversely affected when they return to their hibernaculum in the fall and find it closed. This will force them to expend energy looking for another suitable hibernaculum during a time when it is crucial that they store up sufficient fat reserves for hibernation. Bats are at an increased risk of mortality when they enter hibernation with insufficient fat reserves, or are unable to locate a cave/mine with the suite of conditions (*e.g.*, temperature, humidity, air flow) necessary for successful hibernation.

[1] When suitable habitat for a listed species is present and effects to the species are reasonably foreseeable, the Service recommends species surveys to enable fact-specific analysis of effects and fact-specific development of conservation measures. Rather than conduct habitat and/or species surveys, a project proponent and action agency may choose to assume presence of the species. However, assuming presence usually makes the analysis of effects significantly more difficult (because the specific nature of the species' presence is not known) and can lead to the incorporation of conservation measures that might otherwise not be needed if surveys were to be conducted and the species were not to be found.

To determine whether this project will affect any potential Indiana bat hibernacula, the project area should be surveyed for undescribed cave, hard rock openings, and mines. All openings should be accurately mapped using a GPS unit. If potentially unstable mines (*e.g.*, abandoned coal mines) occur in the project area, the openings of these mines should be evaluated using the *PROTOCOL FOR ASSESSING BAT USE OF POTENTIAL HIBERNACULA* https://www.fws.gov/northeast/pafo/pdf/20190826_PENNSYLVANIA%20PROTOCOL%20FOR%20ASSESSING%20POTENTIAL%20HIBERNACULA_Appendix%20A.pdf.

The Pennsylvania Game Commission has developed this protocol to determine whether abandoned mines may serve as potentially suitable bat habitat. Following this initial mine opening assessment, a qualified bat surveyor should survey each new potentially suitable opening, as well as the area in the immediate vicinity of these openings. For qualified surveyors, use this link: https://www.fws.gov/northeast/pafo/pdf/Qualified_Bat_Surveyors_05-13-2020.pdf. Surveys should be carried out in accordance with the survey protocol, and a copy of the survey results should be submitted to the Service and the Pennsylvania Game Commission for review and concurrence.

If any new caves or stable hard rock mines (*e.g.*, limestone mines) occur in the project area, they should be surveyed for hibernating bats during the winter. Interior winter hibernacula surveys should be coordinated with the Pennsylvania Game Commission. Survey results should be submitted to the Service for review and concurrence. If caves or hard rock mines cannot be safely entered, their openings should be surveyed as described above.

Prior to conducting any survey, however, the Pennsylvania Game Commission should be contacted to determine whether or not they have surveyed the cave/mine in the past and to determine whether or not it is appropriate to survey the openings, given the potential threat of the Covid virus to bat populations. If adequate surveys have been conducted in the recent past, this may preclude the need to conduct additional surveys.

Should Indiana bats be found during any survey, further consultation with the Service will be necessary, including the submission of detailed project plans, and an analysis of alternatives to avoid and minimize adverse effects.

Northern long-eared bat

We are aware of at least two documented northern long-eared bat hibernacula within the study area. Removal of trees and forested areas within the vicinity of these hibernacula could result in the direct take of roosting bats, which could be injured or killed when trees are cut. Studies have found that forested areas near hibernacula provide important foraging and roosting habitat for bats, especially during the fall and spring, when bats are building up their fat reserves prior to and after hibernation. In addition, female maternity colonies and individual male bats may be found in the vicinity of hibernacula throughout the summer months. Bats roost in dead or living trees with exfoliating bark, crevices or cavities.

Land-clearing, especially of forested areas, may adversely affect northern long-eared bats by killing, injuring or harassing roosting bats, and by removing or reducing the quality of foraging and roosting habitat within 0.25 miles of their hibernaculum. Therefore, to determine whether the proposed project will affect northern long-eared bats or their hibernacula, we will need additional project information, including site plans and a detailed project description, that describe how much forest disturbance will occur (area, tree species, and size classes).

Please note that January 28, 2020, the U.S. District Court remanded the 'threatened' determination back to the Fish and Wildlife Service for review {Center for Biological Diversity v. Everson (No. 1:15-cv-00477) (D.D.C. 2020)}. The Service is engaged in a northern long-eared bat species status assessment that could result in a change in status of this species and introduce a level of uncertainty for a long-term project such as the proposed State College Area Connector Project. The following recommendations are made, in part, in consideration of this uncertainty about the species status under the Endangered Species Act.

The proposed project has the potential to affect northern long-eared bat habitat as a consequence of tree removal, construction, regrading, or blasting. Using the best scientific information available for this species, we recommend that you consider the northern long-eared bat and develop possible avoidance measures during project planning.

Bat surveys recommended to detect Indiana bats maternity colonies and hibernation sites, described above, may also detect northern long-eared bats. Due to the risk of transferring the Covid virus to bats, please coordinate with the Pennsylvania Game Commission current safety procedures and for their approval and concurrence prior to conducting any mist net surveys.

Survey results should be submitted to the Service and the Pennsylvania Game Commission for review and concurrence. Should northern long-eared bats be found during the surveys, further consultation with the Service will be necessary, including the submission of detailed project plans, an analysis of alternatives, and proposed measures to avoid and minimize adverse effects to bats.

Migratory Bird Treaty Act

The mission of the Service is to work with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. Migratory bird conservation remains an integral part of our mission. The Service works with any partner that is interested in reducing impacts to migratory birds and their habitats. We continue to develop best management practices (BMPs) to protect migratory birds and their habitats in partnership with any industry, Federal, State, and Tribal entity as interest dictates.

The potential exists for bird mortality from habitat destruction and alteration within the project boundaries. Site-specific factors can be considered in project siting to avoid and minimize the risk to birds include bird 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. We provide the following general conservation recommendations that may avoid and minimize impacts to migratory birds within and around the project area.

1. Where disturbance is necessary, clear natural or semi-natural habitats (*e.g*., forests, woodlots, reverting fields, shrubby areas) and perform maintenance activities (*e.g.,* mowing) between September 1 and March 31, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid take of most breeding birds, their nests, and their young (*i.e*., eggs, hatchlings, fledglings).

2. Minimize land and vegetation disturbance during project design and construction. To reduce habitat fragmentation, co-locate roads, fences, lay down areas, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (*e.g*., existing roads, pipelines, agricultural fields) and cluster development features (*e.g*., buildings, roads) as opposed to distributing them throughout land parcels. Where this is not possible, minimize roads, fences, and other infrastructure.

3. Avoid permanent habitat alterations in areas where birds are highly concentrated. Examples of high concentration areas for birds are wetlands, State or Federal refuges, Audubon Important Bird Areas (*i.e*., Rothrock State Forest), private duck clubs, staging areas, rookeries, leks, roosts, and riparian areas. Avoid establishing sizable structures along known bird migration pathways or known daily movement flyways (*e.g.,* between roosting and feeding areas).

4. To conserve area-sensitive species, avoid fragmenting large, contiguous tracts of wildlife habitat, especially if habitat cannot be fully restored after construction. Maintain contiguous habitat corridors to facilitate wildlife dispersal. Where practicable, concentrate construction activities, infrastructure, and man-made structures (*e.g*., buildings, cell towers, roads, parking lots) on lands already altered or cultivated, and away from areas of intact and healthy native habitats. If not feasible, select fragmented or degraded habitats over relatively intact areas.

5. Develop a habitat restoration plan that avoids or minimizes negative impacts to birds, and that creates functional habitat for a variety of bird species. Use only plant species that are native to the local area for revegetation of the project area.

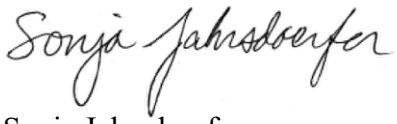
Please be aware that because these are general guidelines, some of them may not be applicable to the current project development or they may have already been considered in the project design.

This response relates only to endangered or 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.

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 questions regarding this matter, please contact Jennifer Kagel of my staff at 814-206-7451.

Sincerely,



Sonja Jahrsdoerfer
Project Leader

cc:
PGC – Libandi-Mumma

jsinclair@skellyloy.com
tlibrandi@pa.gov

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 Elmerton Avenue
Harrisburg, PA 17110-9797
Wildlife Habitat Management
(717) 787-6818

January 29, 2021

Mr. James Sinclair
Skelly & Loy, Inc.
449 Eisenhower Blvd., Suite 300
Harrisburg, PA 17111

Project Search ID: PNDI-716180
PNDI Receipt: *project_receipt_state_college_area_connec_716180_FINAL_1.pdf*
Re: State College Area Connector Project
Spring, Benner, College, Harris, Potter, and State College Township/Municipality(s), Centre County, PA

Dear Mr. Sinclair,

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt *project_receipt_state_college_area_connec_716180_FINAL_1.pdf* for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

Potential Impact Anticipated
PNDI records indicate species or resources of concern are located in the vicinity of the project. The PGC has received and thoroughly reviewed the information that you provided to this office, as well as PNDI data, and has determined that potential impacts to the following endangered, threatened or special concern species of birds and mammals may be associated with your project. Therefore, additional measures may be necessary to avoid potential impacts to the species listed below.

Scientific Name	Common Name	PA Status	Federal Status
Myotis sodalis	Indiana Bat	ENDANGERED	ENDANGERED
Myotis septentrionalis	Northern Long-eared Bat	ENDANGERED	THREATENED
Myotis leibii	Eastern Small-footed Bat	THREATENED	N/A
N/A	Winter Bat Colony	SPECIAL CONCERN	N/A

Next Steps
Indiana and Northern Long-eared Bats: Indiana and northern long-eared bats are both federally listed species under the jurisdiction of the U.S. Fish and Wildlife Service. As a result, our agency defers comments on potential impacts to Indiana and northern long-eared bats to the U.S. Fish and Wildlife Service.

Eastern Small-footed Bat: In order for the PGC to make a determination regarding potential impacts to eastern small-footed bat, the following surveys are needed:

- *Bat Mist-Net Survey*: Mist-net surveys are to be conducted by a qualified consultant on the U.S. Fish and Wildlife Service's approved Qualified Bat Surveyor list, and following mist netting protocols found in the *PGC Standard and Minimum Effort Requirements for Qualified Bat Surveyor Netting within the Commonwealth of Pennsylvania for Environmental Review Projects.* Nets should be placed in locations suitable to sample for all of the above listed species and any suitable bats that may be captured during the mist net survey should be radio-tracked based on the criteria and protocols outlined in the *PGC Standard and Minimum Effort Requirements for Qualified Bat Surveyor Netting within the Commonwealth of Pennsylvania for Environmental Review Projects*. A PGC special use permit will need to be obtained by the consultant in order to conduct such surveys that involve the handling of bats. Results of the survey are to be submitted to the PGC no later than December 31st of the year the survey is conducted. (Note: the *2021 PGC Standard and Minimum Effort Requirements for Qualified Bat Surveyor Netting within the Commonwealth of Pennsylvania for Environmental Review Projects* are not yet available, however the PGC anticipates finalizing the document in the coming months).

- *Eastern Small-footed Bat Roosting Habitat Assessment*: A summer day roost habitat assessment is to be completed on and within 1,000 feet (within ¼ mile, if blasting is proposed) of the project following the protocol found in Appendix A of the *PGC Eastern Small-footed Bat Environmental Review Guidance Document*. Results of the habitat assessment will be used by the PGC to determine if emergence count surveys are needed. Results of the assessment are to be submitted to the PGC no later than December 31st of the year the survey is conducted.

- *Hibernacula Investigations*: refer to the winter bat colony section below.

Winter Bat Colony(s): In order for the PGC to make a determination regarding potential impacts to winter bat colonies located on and adjacent to the project area, a winter hibernacula habitat assessment is to be conducted on and within 1,000 feet of the project area (within ¼ mile, if blasting is proposed), following the *PGC Protocol for Assessing Abandoned Mines/Caves for Bat Surveys* which can be found in Appendix B of the *PGC Eastern Small-footed Bat Environmental Review Guidance Document*. Please note, that mining records may not be accurate, subsidence or reclamation may have occurred, and therefore ground truthing the project area is necessary to determine if features are located on and in the vicinity of the project. The openings that have potential as bat hibernacula will need to be surveyed to determine the presence or absence of bat species. A PGC special use permit will need to be obtained by the consultant in order to conduct any surveys that involve the handling of bats. Results of the survey are to be submitted to the PGC no later than December 31st of the year the survey is conducted.

Next Steps: In addition to the above surveys, the PGC requests the following information so that a more accurate determination can be made regarding impacts to species and resources under the PGC's jurisdiction:

- The project boundaries and scope of work for each project proposed within the large study area.

- Location and details of any subsurface impacts (i.e. blasting) to occur on each of the proposed projects within ¼ mile of each bat hibernacula and within ¼ mile of any eastern small-footed bat roost habitat.

- An alternative comparison matrix of all proposed projects that includes the amount of impacts to resources and their associated habitats for the species under the PGC's jurisdiction listed above. The matrix should include, but not be limited to, the following information for each of the proposed projects within the large study area:
  - Amount and location of proposed impacts to wetlands, including the amount of each type of wetland to be impacted.
  - Amount and location of proposed impacts to other aquatic resources (streams, rivers, creeks, tributaries, etc.) impacts, as well as total amount of loss of each.
  - Total acres of impacts of forested habitat including location of, species composition, size (dbh), and age of trees to be impacted. Include the amount of contiguous forested habitat to be fragmented by each of the proposed alignments.
  - Total acres of impacts to threatened and endangered species habitat (eastern small-footed bat roost habitat, bat hibernacula, Indiana bat habitat, etc.).

- Impacts to wildlife migration corridors associated with each proposed project. Including information regarding any proposed wildlife crossings associated with each alignment (both tunnel and cut) as well as how the location of each proposed wildlife crossings were determined.

- In addition, the PGC strongly recommends the following are incorporated into the design of proposed projects within the large study area:
  - The overall footprint of the project be minimized to the greatest extent possible to avoid any unnecessary impacts.
  - Rocky habitat within the project area that maybe used by wildlife be avoided and minimized to the greatest extent possible.
  - Fragmentation of the large continuous forest blocks found within the project area be avoided and minimized to the greatest extent possible.
  - Habitat removal and/or disturbance within 1,000 feet of all identified hibernacula be avoided and minimized to the greatest extent possible.
  - Tree removal within the project area be avoided and minimized to the greatest extent possible. If any tree removal is necessary, it shall be done be removed between November 15th and March 31st, when bats are hibernating.
  - Adverse impacts to wetlands and other aquatic resources be avoided and minimized to the greatest extent possible and where possible, riparian buffers of at least 50 feet are maintained.

This response represents the most up-to-date summary of the PNDI data files and is valid for two (2) years from the date of this letter. An absence of recorded information does not necessarily

imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for two additional years.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,

Tracey Librandi Mumma

Tracey Librandi Mumma
Division of Environmental Planning & Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 73614
Fax: 717-787-6957
E-mail:tlibrandi@pa.gov

A PNHP Partner

Pennsylvania Natural Heritage Program

TLM/tlm

Enclosures: *PGC Eastern Small-footed Bat Environmental Review Guidance Document*

cc: Jennifer Kagel, U.S. Fish & Wildlife Service
Schnupp
Brauning
Turner
Mitchell
Ternent
Dingman
File