

State Lands Habitat Conservation Plan Annual Report for Indiana and Northern Long- eared Bats on Pennsylvania State Game Lands, State Forests, and State Parks

Reporting Period 1 (Dec. 23, 2020-June 30, 2021)

Pennsylvania Game Commission and Pennsylvania Department of Natural Resources

Public Version: This is a public version of a report by the agencies to US Fish and Wildlife Service detailing the progress of their HCP. As such, some sensitive information has been removed.

Executive Summary

The Pennsylvania Game Commission (PGC) and Department of Conservation and Natural Resources (DCNR) manage a combined 3.8 million acres of mostly forested public lands for many uses and values, including wildlife habitat. They jointly received an Incidental Take Permit (ITP or permit) from the U.S. Fish and Wildlife Service (USFWS) on Dec. 23, 2020. The permit allows for the accidental take of federally endangered Indiana bat (*Myotis sodalis*) and federally threatened northern long-eared bat (*Myotis septentrionalis*) by PGC and DCNR while in pursuit of their normal forestry practices, which can both create and impact habitat for the bats. These practices, called covered activities, include timber sales, prescribed burns, fencing, issuing permits for firewood cutting, and installation and maintenance of roads and trails. The permittees have developed and implemented a habitat conservation plan (HCP) that outlines how they will limit and address impacts on State Game Lands, State Forests and State Parks. This allows a more proactive approach in planning for the conservation of Indiana and northern long-eared bats across the state lands system and includes initiatives such as seasonal restrictions, canopy retention, surveys, monitoring and hibernation protection.

The permit specifies an allowable annual take in acreage of forested state land in habitat areas in lieu of numbers of bats killed. It is an important clarification that “take” of habitat does not imply the removal or “conversion” of forested land to a non-forested condition. Take of habitat refers to covered activities that occurred within the habitat area. The permittees have made a commitment to keep a mosaic of age classes of forest land on the state land system.

The USFWS set the annual take of forest lands for each covered activity and for each species. The acreage of habitat taken across all state lands during the reporting period was well under the annual allowable acreage of take for each bat. Since this reporting period was only 6 months instead of 12, the annual allowable acreage of take was halved, and permittees still reported well under this cap. USFWS permits 19,770 acres (or 9,885 acres for 6 months) of take for Indiana bat and 130,386 acres (or 65,193 acres for 6 months) for northern long-eared bat. The permittees had 3,330 acres of take of Indiana bat habitat and 3,422 acres of take of northern long-eared bat habitat during the permit term conducting timber sales, prescribed burns, fencing and firewood operations, and road and trail construction and maintenance. Each covered activity is discussed in detail below.

In addition, the HCP sets forth specific surveys, and monitoring actions for the conservation measures. As stated previously, this report covers the 6-month period from Dec. 23, 2020-June 30, 2021 and occurred during COVID-19 restrictions. Therefore, many monitoring actions could not be completed as required. These include field views, winter hibernacula surveys, and construction and erection of artificial roosts. Covered activities were also impacted by the COVID-19 restrictions. Many normal projects were put on hold due to the restrictions. The reporting period did not include summer months, and therefore does not include surveys which would take place during late summer or fall such as harp trapping during fall swarms.

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Note: Maps are not included in the public version of this report in order to protect sensitive species location information.

List of Acronyms & Definitions

Acronym	Meaning
BHI	Bat Habitat Identifier
BOF	Bureau of Forestry in DCNR
BSP	Bureau of State Parks in DCNR
DCNR	Department of Conservation and Natural Resources
FIMS	Forestry Information Management System
HCP	Habitat Conservation Plan
IBAT	Indiana Bat
NLEB	Northern Long-eared Bat
PA	Pennsylvania
PGC	Pennsylvania Game Commission
PNDI	Pennsylvania Natural Diversity Inventory
QBS	Qualified Bat Surveyor
SFL	State Forest Lands
SGL	State Game Lands
SP	State Parks
USFWS	United States Fish and Wildlife Service

Introduction

The Department of Conservation and Natural Resources (DCNR) and the Pennsylvania Game Commission (PGC) manage a combined 3.8 million acres of mostly forested public lands for many uses and values, including wildlife habitat. The federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*) use Pennsylvania state lands for foraging, roosting, maternity colonies, spring staging, fall swarming and migratory habitat. Forest management strategies and uses for these lands include removing timber, conducting prescribed burns, installing fencing, permitting the removal of standing dead trees for firewood, and road and trail installation and maintenance. These strategies, called covered activities, have the potential to impact bats using. However, timber removal and prescribed burns also help create foraging habitat and can be beneficial to Indiana and northern long-eared bats.

To avoid these impacts to the greatest extent possible and mitigate them where they might occur, and to expand on benefits to habitat, PGC and DCNR received an Incidental Take Permit (ITP) by the U.S. Fish and Wildlife Service (USFWS) on December 23, 2020. A requirement of the ITP is the implementation of a Habitat Conservation Plan (HCP). The HCP allows the PGC and DCNR to limit and address impacts across the entire 3.8 million acres over a 30-year period, rather than on a project-by-project basis. This allows a more proactive approach in planning for the conservation of Indiana and northern long-eared bats across the state lands system and includes initiatives such as seasonal restrictions, canopy

retention, and hibernation protection. PGC and DCNR will follow the HCP for the permit term of 30 years.

PGC and DCNR are pleased to submit to the USFWS, this annual report for the first reporting period of the permit term (Dec. 23, 2020-June 30, 2021). It summarizes the permittees' implementation activities and details among other things, compliance with commitments, effects of covered activities, conservation and management actions, habitat restoration and creation actions, and monitoring results. Data from PGC and DCNR was collected, synthesized and interpreted. In addition to submitting this annual report to USFWS, a version the report will be made available to the public and posted to the permittees' HCP websites. The public version of this report contains more publicly accessible and summarized information, without including sensitive information.

This annual report satisfies the following goals stated in the HCP:

- Provide the information and data necessary for PGC and DCNR to demonstrate to USFWS and the public that the State Lands Forestry HCP is being implemented properly.
- Disclose any problems with HCP implementation and the corrective measures planned or implemented to address the problems.
- Identify amendments to the HCP or permit components required or requested of USFWS to increase the success of conservation measures, respond to changed circumstances, or address feedback loops through adaptive management.

Organization of the Report

The report is organized according to the requirements in the HCP, Section 6.4.2 Reporting, p. 6-10 - 6-12. The goals of the annual report, listed above, are those outlined in Section 6 of the HCP. Each numbered section of this report corresponds to one of the HCP's reporting requirements. Each section begins by stating the commitments in the HCP, outlining monitoring and reporting metrics. Tables are numbered according to the section in which they occur (e.g., Section 2.1 includes Table 2.1). This report also describes the permittees' processes taken to satisfy each requirement. All numbers are rounded to the nearest whole number for ease of reading.

COVID-19 and Other Challenges

PGC and DCNR experienced some challenges during the reporting period. The COVID-19 pandemic impacted both PGC and DCNR's work. All non-essential work was put on hold for a period of time during 2020 and 2021. Field surveys, monitoring, and activities that involved groups were limited or not conducted. Nevertheless, the permittees present as much information as possible in this report.

This reporting period is also unusual in that it was only 6 months instead of a year, from Dec. 23, 2020-June 30, 2021. As such, some information is not available. For example, surveys planned for summer and autumn occur outside of this reporting window and will not be reported here. Trends have not yet become evident after 6 months. This report serves as a baseline, against which future trends can be

compared. This reporting period has been instrumental for developing and testing methods of collecting, calculating, and analyzing data. It has illuminated differences between PGC and DCNR and their methods of tracking and processes of covered activities. By creating this first HCP report, PGC and DCNR have identified places where consistency is possible, and places where their systems are necessarily different. In this report, the permittees have attempted to be as consistent as possible and explain where there are inconsistencies in reporting methods. It is important to note, however, that while there may be technical differences between a metric, the overall result still satisfies the HCP requirements.

1.0 Communications of Requirement

A copy of the memo communicating HCP requirements was distributed to staff during year 1 of the permit term, as well as evidence of its distribution at permit issuance, and every 6 months until all PGC and DCNR procedural documents have been updated.

2.0 Description of All Covered Activities Implemented

Description of all covered activities implemented during the reporting period as well as cumulative total (i.e., from the start of the permit term). (Dec. 23, 2020-June 30, 2021). All acreage is rounded to the nearest acre.

2.1 Timber Harvest

The HCP directs PGC and DCNR to report on the total acreage of timber harvest conducted, including the location (i.e., game land unit, state forest, state park), the type of harvest, and the acreage of harvest in modeled seasonal habitat for covered bats (CM-4, CM-5).

Process: Timber sale acreage was determined by querying the permittees' commercial timber sale data, searching for timber sales occurring during the reporting period, overlaying, and comparing it to the 6 bat habitat areas (summer, winter, and fall/spring habitat areas for Indiana and northern-long eared bats). Timber treatment types were cross walked with HCP terminology and acreages were aggregated, in Table 2.1 below.

On State Forest land, there were 746 acres of timber sale contracts executed in Indiana bat modeled summer habitat; 267 acres in Indiana bat fall/spring habitat; and 1130 acres occurring in northern long-eared bat fall/spring habitat on State Forest lands. No timber sale acreage occurred in Indiana bat winter habitat, northern long-eared bat winter habitat, or northern long-eared bat summer habitats. There was a total of 965 acres of regeneration treatments and 390 acres of salvage. No intermediate treatments occurred on State Forest lands. All treatments took place within appropriate restriction periods, as verified with communication with district managers.

DCNR Bureau of State Parks' timber sales consist of salvage timber treatments only and are generally included in the Bureau of Forestry's timber sale database and FIMS. These projects are often very small

in acreage; some projects are so small as to be manually managed and tracked, not entered in FIMS. It is important to note that these projects are tracked in the timber sale database and are reported upon below, however a visual representation (i.e., mapping) is not available. While DCNR acknowledges this, it should be noted that this is a very small acreage of minor element of overall work that is represented in the HCP. In this annual reporting period, no salvage was conducted within the modeled bat habitat.

PGC conducted 773 acres of timber sales in Indiana bat modeled summer habitat and 887 acres in northern long-eared bat modeled fall/spring habitat on State Game Lands. No timber sale acreage occurred in winter habitat for either covered species, Indiana bat fall/spring habitat, or northern long-eared bat summer habitats. There was a total of 1337 acres of regeneration treatments and 146 acres of intermediate treatments. No salvage treatments occurred on State Game Lands. All treatments took place outside appropriate restriction periods, as verified with communication with regional land managers.

Altogether, 1,786 acres of timber sale took place in modeled Indiana bat habitat and 2,017 acres took place in modeled northern long-eared bat habitat. Some of the acres of timber sales may overlap each other. Each permittee has provided a map of their timber sales in Indiana bat habitat areas and northern long-eared bat habitat areas. For a visual representation, please refer to Maps 1-4 in [Appendix A](#).

Both DCNR and PGC timber sale acreage includes timber sale haul roads. DCNR timber tracking systems include haul roads as part of the acreage in a timber contract, and therefore cannot currently be extricated from the timber sale acreage. PGC reports timber sale haul roads in a similar manner in this report in order to be consistent with DCNR. DCNR and PGC are analyzing ways to make their data more comparable for the next annual report.

Both DCNR and PGC calculated acres of harvest within modeled seasonal habitat individually, meaning if 1 acre of harvest occurred in both northern long-eared bat and Indiana bat fall/spring habitat it was counted as 1 acre in each species' habitat. The total acres in harvest type for all bat habitats (first column, Table 2.1) is non-duplicated across seasonal habitats. This is shown with an asterisk (*) and footnote under the table. Also, numbers have been rounded to the nearest whole number in this report for ease of reading.

Table 2.1: Timber harvest acreage

Total Acres in Harvest Type in Bat Habitats	Location (SGL, SFL, SP)	Type of Harvest	Acreage in modeled seasonal habitat (IBAT)			Acreage in modeled seasonal habitat (NLEB)		
			Winter	Fall/Spring	Summer	Winter	Fall/Spring	Summer
1337*	SGL	Regeneration	0	0	773	0	741	0
146*		Intermediate	0	0	0	0	146	0
0		Salvage	0	0	0	0	0	0

965*	SFL	Regeneration	0	167	532	0	794	0
0		Intermediate	0	0	0	0	0	0
390*		Salvage	0	100	214	0	336	0
0	BSP	Salvage	0	0	0	0	0	0
2838	Totals		0	267	1519	0	2017	0

* TOTAL AREAS ARE NON-DUPLICATED WITHIN AND ACROSS SEASONAL HABITATS

TIMBER SALE ACREAGE BY HARVEST TYPE AND HABITAT TYPE, ON STATE LANDS DURING THE REPORTING PERIOD.

2.2 Prescribed Fire (burning and firebreaks)

The HCP reporting requirement is for acres of prescribed fire, including the location (i.e., state game land number, state forest, state park), and the acreage of burning in modeled seasonal habitat for covered bats (CM-10, CM-11, CM-12).

Process: The PGC and DCNR track prescribed burns on State Game Lands, State Forests and State Park lands in prescribed fire database. These databases were queried and a list of fires that occurred during the reporting period were obtained. The projects were searched for in the prescribed fire layer in agency GIS databases and analyzed, comparing them to the bat habitat areas and the seasonal restrictions. Fire breaks were converted from linear features to acreage using an 8' width, as per the HCP (Chapter 2 Sec 2.3.4.1, p.2-23). Acreage of prescribed fires were calculated on State Game Lands, State Forest lands, and State Parks as shown below in Table 2.2. In addition, follow up emails between central office program managers and land managers confirmed that prescribed fires were conducted according to the seasonal restriction windows.

No burns occurred in winter habitat of either species. No burns occurred in northern long-eared bat summer habitat. PGC conducted a total of 1,741 acres of prescribed burns that occurred in modeled bat habitat. DCNR Bureau of Forestry conducted 263 acres of burns on State Forest lands and Bureau of State Parks conducted 48 acres of prescribed fire projects on State Parks. Together, the permittees burned a total of 1,383 acres in Indiana bat modeled habitats and 1,493 acres of burn in northern long-eared bat modeled habitats. It has been verified that all prescribed burns on DCNR State Forest and parks were conducted before May 15 through GIS review and communication with land managers. Two burns on PGC State Game Lands occurred during the seasonal restriction for Indiana bat summer habitat (May 15-Aug. 15): 9 acres from the 242_2021_SC_York fire (which occurred on 6/17/21) and the 206-acre SGL 326 burn (which occurred on 5/19/21). These burns occurred within this timeframe because once the HCP was approved, Burn Bosses and burn plan writers were given 180 days to update *all* PGC burn plans to account for changes due to the HCP. These two aforementioned prescribed fires occurred while operating under the original (not-yet-updated) burn plans. These plans have since been updated and we expect no more prescribed fires will occur during the restricted timeframe.

See [CM-10](#), [CM-11](#) and [CM-12](#) below, for more information on conservation measure-specific monitoring.

Maps of prescribed burns can be found in [Appendix A](#), see Maps 5-8.

Note: Acres of prescribed fire were calculated within modeled seasonal habitat individually, meaning 1 acres of burn occurring in more than one species’ habitat was counted as 1 acre in each habitat. The PGC and DCNR calculated total acreage as non-duplicated within and across seasonal habitats. This is shown with an asterisk (*) and footnote under the table. Therefore, the total acreage column will not necessarily equal the sum of the acreage in the modeled seasonal habitats. Numbers have been rounded to the nearest whole number in this report for ease of reading.

Table 2.2 Prescribed Fire acreage

Total Acres in Prescribed Fire in Bat Habitats (burning and firebreaks)	Location (SGL, SFL, SP)	Acreage in modeled seasonal habitat (IBAT)			Acreage in modeled seasonal habitat (NLEB)		
		Winter	Fall/ Spring	Summer	Winter	Fall/ Spring	Summer
1741*	SGL	0	0	1337	0	1192	0
263*	SFL	0	138	152	0	254	0
48*	BSP	0	0	37	0	47	0
2052*	Totals	0	138	1245	0	1493	0

* NON-DUPLICATED WITHIN AND ACROSS SEASONAL HABITATS

PRESCRIBED FIRES ON STATE LANDS BY HABITAT TYPE, DURING THE REPORTING PERIOD.

2.3 Fencing

The HCP directs PGC and DCNR to report the amount of new fence installed on State Lands, including the location (i.e., game land unit, state forest, state park), quantity of fencing (miles) and acreage of affected land in modeled seasonal habitat for covered bats.

Process: Agencies queried their GIS databases and land managers to determine the amount of fencing installed during the reporting period. Very little fencing occurred during the reporting period due to COVID-19 restrictions and seasonality. Fences were converted from linear features to acreage using a 10’ width, as per the HCP (Chap. 2 Sec. 2.3.2.1, and Table 2-7, p. 2-19 – 2-20).

DCNR Bureau of Forestry constructed only one fence during the reporting period that was two miles long however, no acreage occurred within the bat habitat areas. Since DCNR does not conduct widespread regeneration efforts on State Parks and there is minimal need for fencing, therefore, there are none to report for this period.

PGC installed only one fence totaling 1.5 miles of fence perimeter within Indiana bat summer habitat during the permit term (rounded to 2 in table below). Work took place according to the timing restrictions in applicable conservation measures. Mapping is not available for fencing projects because it is so minimal.

Table 2.3: Fencing acreage

Total amount of fencing (miles)	Location (SGL, SFL, SP)	Acreage in modeled seasonal habitat (IBAT)			Acreage in modeled seasonal habitat (NLEB)		
		Winter	Fall/Spring	Summer	Winter	Fall/Spring	Summer
2	SGL	0	0	2	0	0	0
0	SFL	0	0	0	0	0	0
0	SP	0	0	0	0	0	0
2	Totals	0	0	2	0	0	0

MILES AND ACRES OF FENCING ON STATE LANDS BY HABITAT TYPE, DURING THE REPORTING PERIOD.

2.4 Firewood Collection

The HCP directs the permittees to report on the amount of firewood collection on state lands. This will include the number of firewood collection permits issued, a map of the road lengths designated for firewood collection, and the acreage of these areas in modeled seasonal habitat for covered bats.

Process: DCNR Bureau of Forestry is currently the only agency to issue firewood collection permits. Prior to firewood harvest seasons, a GIS analysis identified roads segments with 30% or more of their length in modeled Indiana bat summer habitat were closed to the collection of standing dead trees from May 15 to August 31. (“Road segments” was defined by the Bureau of Forestry as a length of road between intersections.) Firewood collection areas were determined/modeled on Feb. 12, 2021.

Each district utilized this information based on their firewood collection program. Some districts closed entire tracts or areas to firewood cutting, to make it easier for rangers and foresters to monitor activity. Other districts produced maps showing only roads or tracts that were open to firewood cutting. This was communicated to the public through a [press release](#), information online, and maps and signage of areas closed to firewood cutting. The Bureau maintains an online firewood collection permit database. For this reporting period, the amount of firewood collection was estimated based on the number of firewood permits issued by State Forest district offices. Permits specify the number of cords allowed to be harvested and location of harvest (road names). The Bureau estimates that ¼ acre of forest is needed to provide one cord of firewood. Therefore, numbers of cords were multiplied by 0.25 to determine the number of acres allowed to be cut for each permit. The location of each permit was identified using the road names and date of permitted activity compared in FIMS with bat habitat areas. DCNR issued permits to cut 238 acres of firewood on State Forest lands. Each district confirmed that no firewood permits were issued for the roads seasonally closed to firewood cutting during the timing restriction (fall/spring and summer), or year-round restrictions (winter habitat) ([CM-8](#), [CM-9](#)). Table 2.4 summarizes the firewood data from DCNR Bureau of Forestry. See [Appendix B](#) for examples of communications from the districts to the public explaining roads closed to firewood cutting. See Map 9 in [Appendix A](#) showing firewood restrictions including roads with seasonal closures from May 15-Aug. 31, areas closed to firewood cutting from April 15-May 14 and Sept. 1-Nov.1, and areas closed to firewood cutting year-round (in winter habitat).

Notes: Communication was a key component of the firewood program. Communication with the public took place via [press release](#), news media interviews, creating an [FAQ page](#) on the Bureau of Forestry’s website, and [brochures](#) at State Forest district offices. Maps and signage of areas closed to firewood cutting were utilized in district forests. Examples of these communications tools can be found in [Appendix B](#), Outreach and Communications. Despite Forestry’s efforts to be communicative, some forest users found the changes in policy to be difficult. The permit was issued in Dec. 2020, and changes to the spring firewood program began in May 2021. Therefore, some woodcutters felt they did not have enough time to find new locations to cut. This concern will resolve as the public becomes more familiar with the restrictions and restricted areas in subsequent years.

Table 2.4: Firewood acreage

Total Number of Permits issued	Total Number of Cords Permitted	Total Acreage Permitted	Acreage in modeled seasonal habitat (IBAT)		
			Winter	Fall/ Spring	Summer
826	953	238	0	0	0

FIREWOOD CUTTING ACREAGE IS A METRIC THAT ONLY APPLIES TO STATE FOREST LANDS AND INDIANA BAT HABITAT AREAS.

2.5 Roads and Trails Constructed

The HCP directs DCNR and PGC to report on the number of new roads and trails constructed on state lands, including the location (i.e., state game land number, state forest, state park), quantity of road or trail (miles) and the quantity of road or trail maintained.

Process: DCNR and PGC queried their GIS databases to determine the number of miles of new and maintained roads and trails occurred during the reporting period on state lands. The permittees counted any activity where widening or relocation took place or had vegetation removal associated with them. Projects taking place within the existing footprint were excluded. The acreage of these projects was obtained by converting miles to feet, then determining area assuming 10’ width for work, and converting square feet to acres. The permittees also queried their land managers for additional input. No new roads or trails were built on DCNR State Parks and Forests (see notes below for more details). Very few new roads were created on PGC State Game Lands and all were timber sale haul roads. Two miles of new roads were created in bat habitat areas on State Game Lands during the permit term and PGC maintained no new acres of roads on State Game Lands that overlapped with HCP bat areas. PGC’s road acreages are non-duplicated within and across seasonal habitats. This is shown with an asterisk (*) and footnote under the table.

DCNR Bureau of Forestry queried district forests for input and determined that no new roads or trails nor re-route or maintenance requiring widening or tree removal occurred during the reporting period. DCNR Bureau of State Parks queried park managers for projects that took place during the reporting period. One project on State Parks, a one-mile equestrian trail reroute, was identified and the location

was compared with bat habitat areas. This project resulted in just over 1 acre of impact in Indiana bat summer habitat area. Mapping is not available for roads and trails because it was such a small acreage.

Table 2.5: Roads and trails acreage

Miles of new Roads and Trails Constructed in Bat Habitat	Location (SGL, SFL, SP)	Acreage in modeled seasonal habitat (IBAT)			Acreage in modeled seasonal habitat (NLEB)		
		Winter	Fall/Spr.	Summer	Winter	Fall/ Spr.	Summer
2*	SGL	0	0	2	0	1	0
0	SFL	0	0	0	0	0	0
0	BSP	0	0	0	0	0	0
Miles of Roads and Trails maintained in Bat Habitat	Location (SGL, SFL, SP)	Acreage in modeled seasonal habitat (IBAT)			Acreage in modeled seasonal habitat (NLEB)		
		Winter	Fall/ Spr.	Summer	Winter	Fall/ Spr.	Summer
0*	SGL	0	0	0	0	0	0
0	SFL	0	0	0	0	0	0
1	BSP	0	0	1	0	0	0
3	Totals	0	0	3	0	1	0

* NON-DUPLICATED WITHIN AND ACROSS SEASONAL HABITATS. INCLUDES TIMBER SALE HAUL ROADS THAT WERE NOT INCLUDED AS PART OF THE TIMBER HARVEST ACRES IN TABLE 2.1.

ACREAGE OF NEW AND MAINTAINED ROADS AND TRAILS ON STATE LANDS IN BAT HABITAT AREAS, DURING THE REPORTING PERIOD.

3.0 Calculation of Acreage of Take

The HCP requires DCNR and PGC report the calculation of the acreage of take for each type of modeled habitat (e.g., summer habitat for northern long-eared bats, fall/spring habitat for Indiana bats) using the covered activity data described previously, to demonstrate compliance with the authorized level of take on the ITP. If the implementation of covered activities resulted in the exceedance of take authorization (e.g., if timber harvest levels exceed authorized take levels in a given year), the report will include a detailed description of the circumstances leading to the exceedance and the steps to be taken to remedy such exceedance (for example, by reducing harvest levels in subsequent years so that the 5-year rolling average remains within the take levels authorized under the ITP).

PGC and DCNR collected acreage of covered activities taking place within the covered bat habitat areas. Each process to determine the acreage of the covered activity (e.g. actual take) is thoroughly described in Section 2.0 and the acreages are given in each subsection and summarized in Tables 3.0 and 3.1 below. Additionally, email and phone communication with foresters and other land managers confirmed that activities did not take place during the seasonal restriction windows. Mapping of covered activities can be found in [Appendix A](#).

No acreage of any covered activity occurred within either bats’ winter habitat (the quarter-mile buffer around Indiana and northern long-eared bat hibernacula). Overall, a total of 3,173 acres of covered activities took place within Indiana bat habitat and 3,511 acres in northern long-eared bat habitat. The USFWS’s Intra-Service [Biological Opinion](#) dated Dec. 17, 2020, provides allowable acreage of modeled Indiana bat and northern long-eared bat habitat anticipated to be annually impacted by covered activities. The USFWS allows for the take of 19,770 acres of Indiana bat habitat and 130,386 acres of take of northern long-eared bat habitat, across all habitat types and state lands. Since the allowable acreage applies to annual take, this was pro-rated for the 6-month reporting period. The pro-rated USFWS allowable take for Indiana bat habitat is 9,985 acres and for northern long-eared bat habitat is 65,193 acres. The difference between the permittees’ actual take and the pro-rated allowable take for Indiana bat is 6,712 acres and for northern long-eared bat is 61,682 acres. Stated another way, PGC and DCNR still had over 6,000 acres in Indiana bat habitat and over 60,000 acres in northern long-eared bat habitats to “use up.” The permittees were nowhere close to reaching the USFWS’s cap on habitat take for either bat during this permit term.

Table 3.0: Detailed summary

Covered Activity	Acreage in modeled seasonal habitat (IBAT)			Acreage in modeled seasonal habitat (NLEB)		
	Winter	Fall/ Spr.	Summer	Winter	Fall/ Spr.	Summer
Timber Harvest	0	267	1519	0	2107	0
Prescribed Burn	0	138	1245	0	1483	0
Fencing	0	0	2	0	0	0
Firewood Collection	0	0	0	0	0	0
Roads and Trails	0	0	3	0	1	0
TOTAL TAKE	0	405	2769	0	3511	0
TOTAL ALLOWED TAKE	0	3136	16634	0	22338	108048
Total Acres Under the Allowed Take	0	2731	13865	0	18827	108048
TOTAL ALLOWED TAKE (Pro-rated for 6 mo.)	0	1568	8317	0	11169	54024
Total Acres Under the Pro-rated Allowed Take	0	1163	5548	0	7658	54024

ACTUAL ACREAGE OF EACH COVERED ACTIVITY CONDUCTED ON STATE LANDS IN EACH BAT’S HABITAT AREAS DURING THE REPORTING PERIOD IS SHOWN. TOTAL ACTUAL ACREAGE PER COVERED ACTIVITY IS SHOWN AS WELL AS TOTAL ALLOWED TAKE. PRO-RATED ALLOWED TAKE IS ALSO SHOWN, TO ACCOUNT FOR THE 6-MONTH PERMIT TERM, AS WELL AS THE DIFFERENCE BETWEEN ALLOWABLE AND ACTUAL TAKE (BOTH FULL AND PRO-RATED ALLOWED TAKE) ARE SHOWN. THE TOTAL ACRES UNDER THE ALLOWED TAKE IS THE DIFFERENCE BETWEEN ALLOWABLE AND ACTUAL TAKE.

Table 3.1: Actual and allowable (pro-rated) take for each covered activity

Covered Activity	Acreage of Take in all Modeled Seasonal Habitat	
	IBAT	NLEB
Timber Harvest Take	1786	2107
Allowed Take (Pro-rated for 6 mo.)	2424	18102
Prescribed Burn Take	1383	1493
Allowed Take (Pro-rated for 6 mo.)	5058	28488
Operations Take	2	0
Allowed Take (Pro-rated for 6 mo.)	168	1480
Roads and Trails Take	3	1
Allowed Take (Pro-rated for 6 mo.)	2236	17124
TOTAL TAKE	3173	3511
TOTAL ALLOWED TAKE (Pro-rated for 6 mo.)	9885	65193
Total Acres Under the Pro-rated Allowed Take	6712	61682

ACTUAL ACREAGE OF EACH COVERED ACTIVITY CONDUCTED ON STATE LANDS IN BAT HABITAT AREAS DURING THE REPORTING PERIOD IS SHOWN. ALLOWABLE TAKE FOR EACH COVERED ACTIVITY, PRO-RATED FOR 6 MONTHS, AND THE DIFFERENCE BETWEEN ALLOWABLE TAKE AND ACTUAL TAKE IS SHOWN. THE TOTAL ACRES UNDER THE ALLOWED TAKE IS THE DIFFERENCE BETWEEN ALLOWABLE AND ACTUAL TAKE.

4.0 Documentation of Applicable Conservation Measures

The HCP reporting section requires PGC and DCNR to provide documentation of applicable conservation measures, such as an updated, categorized list of northern-long eared bat hibernacula (CM-1 Install Gates at Known Hibernacula), an updated list of northern-long eared bat roosting activity areas (CM-4 Minimize Effects on Trees that Provide Summer Roosting Habitat), and artificial roosts installed under CM-22 Install Artificial Roost Structures, and CM-24 Provide Artificial Roosts for Infected Bats.

Below is summarized the outcome of specific outcomes required by conservation measures. This reporting period has been unusual in that it was only 6 months instead of a year and the permittees had to deal with COVID-19 restrictions. Because the reporting period is from Dec. 23, 2020-June 30, 2021, some activities fell outside of the reporting period. Because of the pandemic restrictions, some normal, anticipated, winter and spring work did not take place this year. All non-essential work was put on hold for a period of time during 2020 and 2021. This included field surveys; hibernacula monitoring; and creation, installation, maintenance, and monitoring of artificial roosts. As such, PGC and DCNR anticipate satisfying these activities over the next reporting period.

Table 4.0: Conservation measure documentation summary.

Conservation Measure	Documentation for IBAT	Documentation for NLEB
Progress on updated, categorized list of northern-long eared bat hibernacula	(N/A)	DCNR and PGC have begun working on the categorized list of NLEB hibernacula. The list of hibernacula that was used in the HCP writing

(CM-1 Install Gates at Known Hibernacula)		process was obtained from consultants, ICF. Since the writing of the HCP, some data has been updated. The list of hibernacula from ICF was compared to the list of hibernacula from PNDI, updating any new sites or eliminating any duplicates. This list has been analyzed by PGC to identify all the known gated hibernacula. Plans are being made to visit and verify the presence or absence of gates. DCNR has acquired some new properties that are scheduled to be surveyed for NLEB suitability. These sites will be added to the list of NLEB hibernacula. Work continues to verify locations and names.
Updated list of northern-long eared bat roosting activity areas (CM-4 Minimize Effects on Trees that Provide Summer Roosting Habitat)	(N/A)	No new NLEB roosting activity areas have been identified due to COVID-19 restrictions during the reporting period. Field surveys were limited during the 2021 season.
Artificial roosts installed in summer habitat areas (CM-22 Install Artificial Roost Structures)	No new artificial roosts have been installed in IBAT summer habitat areas during the reporting period due to COVID-19 restrictions.	One artificial roost was installed in NLEB summer habitat areas during the reporting period. The installation of others was delayed due to COVID-19 restrictions.
Artificial roosts installed in winter habitat (CM-24 Provide Artificial Roosts for Infected Bats)	No new artificial roosts have been installed in IBAT winter habitat areas during the reporting period due to COVID-19 restrictions.	No new artificial roosts have been installed in NLEB winter habitat areas during the reporting period due to COVID-19 restrictions.

5.0 Documentation of Observed Individual Take

The HCP directs PGC and DCNR to provide documentation of the annual and cumulative amount of killed, injured, harassed, or harmed Indiana and northern long-eared bats identified through implementation of covered activities.

The HCP relies on acres of habitat as a surrogate and the number of acres of habitat impacted is reported above. No individual bats were observed to be killed, injured, harassed or harmed during this reporting period. No dead bats were reported or collected from state lands, and no citations were issued. Reporting the number of individuals observed to be killed, injured, harassed or harmed satisfies Condition W of the Incidental Take Permit. However, the take calculation is solely based on the assumptions associated with the habitat surrogate.

Table 5.0: Number of bats observed to be killed, injured, harassed, or harmed.

Time Period	Number of bats observed killed, injured, harassed, or harmed	
	IBAT	NLEB
Annual: Yr. 1 (Dec. 23, 2020-June 30, 2021)	0	0
Cumulative:	0	0

6.0 Documentation of Directives, Guidance, and Plans

The HCP requires documentation of all PGC and DCNR directives, guidance, or management plans used to establish HCP requirements (e.g., all comprehensive management plans on State Game Lands containing modeled bat habitat, the DCNR Forestry Manual [Pennsylvania Department of Conservation and Natural Resources 2012]), indicating the date each was last updated and when it is due for revision.

PGC and DCNR adopted a Habitat Conservation Plan Users’ Guide on March 15, 2021. The PGC’s and DCNR’s management plans, directives and guidelines will be updated according to their schedules (either 5 or 10-year cycles). This Users’ Guide will be used as default guidance on bat HCP until the time when all management plans are updated. This was communicated to staff in trainings.

The Users’ Guide and other information, plans, directives and guidance are shared via several online platforms including Microsoft Teams Bat HCP Team including PGC and DCNR HCP management staff and a DCNR IntraForestry Bat HCP sites for appropriate staff. These online platforms are easily and often updated to make sure all staff has access to the most up to date information.

7.0 Costs

7.1 Actual HCP Cost over Reporting Period

The HCP requires documentation of HCP costs over the reporting period, Dec. 23, 2020-June 31, 2021 are shown below. Program administration costs were calculated as halving the anticipated annual HCP administration costs since the reporting period was only 6 months. Costs of the Conservation Program and Monitoring Actions were less than expected because COVID-19 restrictions prevented the permittees from conducting actions. The first reporting period was only 6 months therefore not enough time has passed to identify adaptive management or changed circumstances. It is expected that future costs of the HCP will be closer to the predicted costs.

Table 7.1: Costs of the HCP.

Cost	Reporting Period ^{a, b}	
	PGC	DCNR
Program Administration Costs	\$15,000	\$24,000

Conservation Program	\$30,000	\$30,000
Monitoring Actions	\$23,000	\$26,000
Adaptive Management and Changed Circumstances	\$0	\$0
Total Cost Per Agency	\$68,000	\$80,000
Total Cost of HCP	\$148,000	

^a All implementation costs were annualized over the permit term; however, not all implementation activities will occur on an annual basis, therefore not all costs will occur on an annual basis.

^b Reporting Period consists of 6 months: Dec. 23, 2020-June 30, 2021. See Introduction for details about COVID-19 restrictions.

7.2 Changes in Budget Needs

The HCP requires a description of any change in budget needs for the next reporting year (i.e., to account for inflation, changes to personnel, salaries), as well as evidence that the adjusted amount of needed funds have both been requested and secured for the upcoming year.

No changes in budget needs were identified during this reporting period that covers the first 6 months of the HCP implementation. Agencies are allocating a portion of their Fiscal Year 2021 operating budget to fulfil HCP requirements.

8.0 Adaptive Management

The HCP directs PGC and DCNR to describe any changes in HCP implementation resulting from the adaptive management process during the reporting period, as applicable. This description will include the information that triggered the change, the rationale for the planned responses, and the results of any applicable monitoring actions.

No major changes in HCP implementation resulted from the adaptive management process during this reporting period. Since the reporting period was only 6 months, not enough time has passed to develop new changes in HCP implementation.

Some small adaptive management strategies were identified. DCNR has determined to that the utilize the FSC-SFI annual audit reports that occurred during the field season *following* the reporting period rather than the one during the reporting period. This was chosen as the more accurate audit report because it is evaluating the previous year's (e.g. the reporting period) activities. Another adaptive management issue stemming from the annual report is the determination that the permittees will report on total acreage within bat habitat areas, not total acres of covered activities regardless of bat habitat areas. Since the HCP, ITP, and this report revolve around covered activities within the modeled habitat areas for the covered species, it was determined that this was the most appropriate information to report on.

DCNR and PGC both have identified several aspects of internal tracking and reporting methods that need to be updated to ensure all activity is tracked more consistently. DCNR and PGC both acknowledge improvements in tracking methodology (both within the DCNR and PGC, as well as aligning with each

other) will facilitate both the ease of reporting as well as the clarity of the reporting metrics. This will likely be iterative and take several reporting periods to refine the systems.

9.0 Monitoring Program

The HCP directs DCNR and PGC to provide a summary of surveys conducted through the monitoring program for the reporting period, including description of surveys conducted, protocols used, survey results, and discussion of each survey identifying any issues, limitations, and implications of survey results.

9.1 Survey Results

The HCP reporting section directs PGC and DCNR to provide a summary of surveys conducted through the monitoring program for the reporting period, including description of surveys conducted, protocols used, survey results, and discussion of each survey identifying any issues, limitations, and implications of survey results.

Table 9.1 summarizes all bat survey information and monitoring requirements for summer, fall/spring and winter habitats for Indiana and northern long-eared bats. Table 9.1 follows the monitoring requirements in Table 5-7, Status and Trends Monitoring in the HCP (Chapter 5, pp. 5-58 – 5-59). As described earlier, many survey activities were put on hold during the reporting period. COVID-19 restrictions prevented field surveys from taking place last winter and spring. As such, PGC and DCNR acknowledge there are holes in the table below.

Table 9.1 Survey results summarized for summer, fall/spring and winter (hibernacula) habitat surveys.

Monitoring Requirement 1: Mist Netting	
Monitoring commitment: PGC and DCNR will continue mist-netting surveys (approximately 12 field days) in areas of greatest scientific value (e.g., in known populations of both IBAT and NLEB). Bats captured during these events will be radio-tracked in accordance with current USFWS and PGC protocols. PGC will continue to require mist netting and reporting from environmental contractors who must get a permit from PGC to handle bats in Pennsylvania. The results of both efforts will be compiled into the PGC bat net/trap database and provided to USFWS. At least four sites annually during the approved summer survey period for IBAT and NLEB.	
Description:	Mist-netting did not occur during the first reporting period due to COVID-19 restrictions in 2020/2021 and the shortened reporting period. The approved summer survey period for Indiana bats and northern long-eared bats is May 15-Aug. 15. This reporting period covers Dec. 23, 2020-June 30, 2021 and as such only 1.5 months coincided with the summer habitat season. DCNR and PGC plan on conducting mist netting at minimum of 4 sites next year.
Results of mist-netting:	0 bats captured or radio collared
Monitoring Requirement 2: Canoe Creek SP Maternity Colony Monitoring	
Monitoring commitment: PGC and DCNR will continue annual direct visual counts of the maternity colony at Canoe Creek State Park. Mist-netting conducted at least once every 3 years during the maternity season. IBAT or NLEB captured during this effort will be tracked in accordance with current USFWS and PGC protocols.	
Date of visual count:	6/20/21
Results of mist netting:	No mist netting took place due to COVID-19 restrictions and the shortened reporting period.

Results of visual observation:	439 (half little brown bats & half big brown bats)
Monitoring Requirement 3: Artificial Roost Monitoring Summary	
Monitoring commitment: PGC and DCNR will continue direct visual counts of maternity colonies and existing and new artificial roost sites, including those used by IBAT and NLEB, across the state as part of the Appalachian Bat Count. Approx. 200 sites annually.	
Appalachian Bat Count:	
Sites counted:	55 individual sites (only counted through June 30, 2021; many of these 55 counted multiple times).
Bats observed:	Big brown bats and little brown bats.
Newly installed artificial roosts monitored:	A roost box was installed at French Creek State Park, Berks County, in May 2021 (pictured below). <div data-bbox="678 600 1304 1377" data-label="Image"> </div>
Photo M-3: Artificial roost structure installed at French Creek State Park.	
Bat species observed using roosts:	Little brown bats
Include: Mapping is not available for the ABC sites, as the final report has not yet been received.	
Monitoring Requirement 4: USGS NABat Monitoring Program	
PGC and DCNR will continue to participate in the USGS NABat monitoring program by completing six transects in each of the six PGC regions throughout the state. Currently, this requires a minimum of 35 nights of monitoring which are completed by driving a designated route at 20 miles an hour, recording bat calls during the trip, and subsequently using approved software to analyze and identify calls. These routes provide an index of summer bat populations of all species and a means of locating unknown colonies of IBAT and NLEB. Annually.	
Number of monitoring nights:	This activity did not take place during the reporting period due to COVID-19 restrictions
0	

Monitoring Requirement 5: Telemetry	
PGC will continue to request that telemetry of both covered bat species be conducted as a condition of PGC permit issuance to QBSs for handling of bats (PGC issued an average of 18 permits annually from 2010 to 2015). Telemetry will be conducted in accordance with the guidelines outlined in the PA Game Commission Bat Surveyor Packet, which is updated annually in coordination with USFWS. Because of both species' population decline in Pennsylvania, there may be years in which capture efforts fail to acquire one or both species. Frequency: Conduct as able.	
Telemetry surveys conducted:	PGC staff trapped and followed 3 Indiana bats in May 2021. Contractor data from trapping from May 2021-June 30 is not required to be reported until December. That data will be presented in the next annual report.
Number new roosts identified:	0
Mapping of new roosts is not available because none were identified during the reporting period.	
Monitoring Requirement 6: Fall/Spring Habitat Surveys	
PGC will continue to perform sampling of bats "swarming" at cave or mine entrances using harp traps or mist nests during spring (April or May) or fall (August to November) to assess presence and population of covered bat species. At least one trapping event at three to six different hibernacula annually.	
Fall survey results:	Fall surveys did not occur during this reporting period, because the reporting period was from Dec. 23, 2020-June 30, 2021 and did not include the months of August through November
Spring survey results:	Spring harp trap surveys did not occur due to COVID-19 restrictions. The only spring survey work during the reporting period was for ongoing WNS research at the select sites as identified in the Indiana Bat Hibernacula Surveys Annual Report.
Mapping is not available for this monitoring because these surveys did not take place during the reporting period.	
Monitoring Requirement 7: Winter Habitat (Interior Hibernacula) Surveys	
PGC will continue to perform visual inspection of caves and mines for hibernating bats from December through March to assess presence and population of covered bat species. Annual surveys typically include at least 1 survey at each of 30 different hibernacula.	
Number surveys conducted:	11 sites visited
Results:	2 sites contained IBAT 1 site contained NLEB

9.2 Conservation Measure-Specific Monitoring

The HCP directs PGC and DCNR to provide documentation of compliance and effectiveness monitoring for conservation measures that are due for first reporting period.

Documentation of monitoring is provided below for each conservation measure. The charts below follow Table 5-8, *Conservation Measure-Specific Monitoring*, in the HCP (Chapter 5, pp. 5-61 – 5-67). As previously stated, many activities were put on hold during the reporting period due to COVID-19 restrictions.

CM-1 Install Gates at Known Hibernacula

Commitment: PGC and DCNR will install gates and categorize hibernacula as described in Section 5.4.1, Caves and Mines. Permittees will also check the location and condition of signs and gates to ensure that no vandalism has occurred, and gates are structurally sound. Speleologists will be installed where

possible and will be serviced every other year. Inspections should take place during annual hibernacula surveys (December-March); repairs/replacements take place May 15-Aug. 31.		
Monitoring action:	Documentation:	
Compliance: Install gates and categorize hibernacula as described in Section 5.4.1, Caves and Mines. Check the location and condition of signs and gates to ensure that no vandalism has occurred, and gates are structurally sound.	Photo documentation of the location and condition of signs at hibernacula entrances and gates.	
	No photos of signs or gates were taken due to limited field time due to COVID-19 restrictions. Field work was put on hold during much of the reporting period Dec. 23, 2020-June 30, 2021. No hibernacula were gated or inspected on state lands due to COVID-19 restrictions.	
	Documentation of northern long-eared bat hibernacula survey plan and findings.	
	The northern long-eared bat hibernacula survey plan is currently being developed by PGC and DCNR. The permittees are assessing the known gated hibernacula and determining which ones still need to be gated. The Agencies have reassessed the information used during the development of the HCP, compared it to the known hibernacula in the PNDI system, and cross referenced it with PGC's data on known gated hibernacula. The DCNR and PGC are in process of verifying these gates are still in place and identifying other Category 1 hibernacula. This process was slowed down due to limited field time and shifting priorities due to COVID-19 restrictions during the reporting period.	
Effectiveness: In hibernacula that can be safely entered by agency staff, place cameras or speleologgers (light-sensitive event detectors) similar to those used in other states (Johnson et al. 2002) to ensure that gates and signage prevent human entry. Detectors placed in dark regions will record disturbance events in the hibernacula. Detectors will be serviced every other year as part of the hibernacula surveys in Table 5-7.	Documentation of maintenance of cameras and detectors.	
	No new cameras were installed or maintained by the permittees due to limited field time due to COVID-19 restrictions	
	Documentation of any recorded disturbance events.	
	One trail camera is present at one site. No activity has been reported from this site. No citations have taken place within the reporting period. Each PGC region was queried for updates, but had nothing to report. It is anticipated that, due to citing nearly 100 people many years ago, the public have learned to avoid this location.	
	Management recommendations to improve effectiveness.	
	The permittees have no new management recommendations.	
Frequency:	Annually	Normally occurs during the hibernacula surveys Dec.-March but did not occur this year because of COVID-19.

CM-2 Remove Obstructions around Known Hibernacula

Commitment: PGC and DCNR will inspect the six Indiana bat hibernacula entrances annually in late summer or early fall to ensure that hibernacula have not become compromised by water, vegetation,

or debris. Permittees will inspect Category 1 northern long-eared bat hibernacula at least every other year. Permittees will remove problematic obstructions between April 1-Sept. 14.		
Monitoring action:	Documentation:	
Compliance: Inspect the six Indiana bat hibernacula entrances annually in late summer or early fall to ensure that hibernacula have not become compromised by water, vegetation, or debris. Inspect Category 1 northern long-eared bat hibernacula at least every other year. Remove problematic obstructions.	Documentation of obstruction removal, complete with photo documentation.	
	No surveys or removals took place this year due to COVID-19 restrictions. No photos are available.	
	Documentation of QBS recommendations.	
	No QBS recommendations available at this time.	
Effectiveness: A QBS or bat identifier will conduct a survey of the status of each hibernaculum.	Documentation of QBS recommendations	
	No new QBS recommendations are available at this time.	
Frequency:	Annually	Normally occurs during the hibernacula surveys Dec.-March but did not occur this year because of COVID-19 restrictions.

CM-3 Close Hibernacula Seasonally to Public Visitation

Commitment: PGC and DCNR will inspect signage and gates to close hibernacula on State Lands to visitation from September 15 to May 31.		
Monitoring action:	Documentation:	
Compliance: Inspect signage and gates to close hibernacula on State Lands to visitation from September 15 to May 31.	Photo documentation of signage and other measures taken to prohibit human entry during this period	
	See CM-1 , no surveys took place this year within hibernacula due to COVID-19 restrictions. PGC and DCNR limited Barton Cave opening from June 30-August 30 to limit spread COVID-19. No photos are available from this reporting period.	
Effectiveness: Same as for CM-1	Same as for CM-1, QBS Recommendations	
	No new QBS recommendations are available at this time.	
Frequency:	Annually	Normally occurs during the hibernacula surveys Dec.-March but did not occur this year because of COVID-19.

CM-4 & CM-5 Minimize Effects on Trees that Provide Summer Roosting Habitat, and Avoid Timber Harvest Effects on Non-Volant Pups in Maternity Colonies

Commitment: PGC and DCNR will minimize effects on suitable roost trees in summer habitat for both species by avoiding damaging or harvesting potential roost trees and identifying NLEB roosting activity areas. Permittees will monitor timber sales to ensure BMPs, regeneration, snag retention, species retention, design, layout, road building, etc. are being followed (CM-4) and that cutting of roost trees during pup season in summer habitat is being avoided (CM-5).
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Monitoring action:	Documentation:
<p>Compliance: Avoid damaging or harvesting potential roost trees and identify northern long-eared bat roosting activity areas.</p>	<p>Documentation of site visits with photos of potential roosts before and after harvest.</p>
	<p>Site visits occurred less frequently during the reporting period due to COVID-19 restrictions. All field activity including field visits was put on hold for a period of time in 2019 and 2020. Therefore, there are no site photos of before and after during this reporting period.</p>
	<p>PGC: The PA Game Commission maintains a detailed Reserve Tree Tally for timber harvests that records the number, species, size and type (Live, Dead, Den, Snag). This tally is used by foresters to evaluate whether or not potential roost trees - marked as reserve - remain protected throughout the harvest operation. Foresters have taken photos of significant potential roost trees before and after harvest operations in many instances, but a complete inventory is not available for all potential roost trees. PGC aims to improve their information management systems to better capture and organize site photos moving forward.</p>
	<p>State Forests’ site visits were commented upon in DCNR Bureau of Forestry’s annual FSC-SFI audit, <i>Forest Management and Stump-To-Forest Gate Chain-Of-Custody Surveillance Evaluation Report</i>, 3.</p>
	<p>Changes in Management Practices:</p> <ul style="list-style-type: none"> ▪ COVID-19 developments continue to have an impact on work policies with adjustments made by BOF as mandated policies are updated by State of Pennsylvania. ▪ Partnerships with cooperators in the field were impacted by limitations on in-person interactions which affected field projects, trainings, and other types of collaborations. ▪ “Timber Tours” done in person for forest stands offered for public bids were done virtually in 2020. In the past these timber tours were done in person and on-site. Remote access to information from forestry staff may continue past the pandemic by the BOF. <p>Since only salvage operations occurred on State Parks which resulted in very little acreage during the permit term, no information is available for this reporting period.</p>
	<p>Documentation of identified northern long-eared bat roosting activity areas.</p>
<p>No new northern long-eared bat roosting activity areas were identified during reporting period of Dec. 23, 2020-June 21, 2021 because of COVID-19 restrictions and shortened reporting period.</p>	
<p>Documentation of any take of covered bats (regardless of season).</p>	
<p>No take of covered bats (regardless of season) occurred during the reporting period of Dec. 23, 2020-June 21, 2021. See Section 5.0</p>	

	and Table 5.0 in this report for additional information. No dead bats were reported, no citations were issued for either species or for either permittee.
Frequency: As Needed	
Effectiveness: Monitor timber sale sites to ensure that the conditions of timber sale contracts are being met for completed sales. Ensure that best management practices are being implemented and that state guidelines for regeneration, snag retention, species retention, design, layout, road building, etc. are being followed. Ensure that the tree and snag retention guidelines are being met. Bureau of Forestry timber sales are also independently audited by the Forest Stewardship Council, which randomly audits four or five State Forest districts each year. The council will incorporate the timber harvest guidelines outlined in the HCP into their audit process. Bureau of Forestry will provide the results of all council audits to USFWS as part of the annual report (PGC and Bureau of Forestry).	Documentation of site visits with photos of potential roosts before and after harvest.
	Site visits occurred less frequently during the reporting period due to COVID-19 restrictions. All field activity including field visits was put on hold for a period of time in 2019 and 2020. Therefore, there are no site photos of before and after during this reporting period.
	Results of all Forest Stewardship Council audits conducted during the year.
	<p>Bureau of Forestry timber sales are independently audited by a third party for compliance with the Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) standards, which randomly audits four or five State Forest districts each year. Consultants from SCS Global Services conducted the audit and reported findings to FSC and SFI. Annual FSC-SFI audit took place on State Forests during the week of August 31-Sept. 1, 2021, evaluating forestry practices over the past year. Pinchot, Tioga, Susquehannock and Loyalsock State Forests were visited. (DCNR acknowledges the date of the audit was outside the reporting period. The audit was reviewing information from the past few years, not just present conditions. Therefore, for reporting purposes, the audit occurring in the field season after the reporting period, e.g. August, should be considered the appropriate year’s data).</p> <p>The FSC report notes significant changes to management on BOF lands including COVID-19 developments and restrictions as well as the implementation of the bat HCP (sec. 3 Changes in Management Practices in the FSC audit report). The SFI report notes that “sustainable harvest levels and resources to monitor regeneration, wildlife habitat and biodiversity were demonstrated during audit” (Objective 1. Forest Management Planning).</p> <p>Please see the full FSC and SFI audit reports in Appendix D, Forest Management and Stump-to-Forest Gate Chain-of-Custody Surveillance Evaluation Report (FSC standards) and the <i>Pennsylvania Department of Conservation and Natural Resources Public Summary Audit Report</i> (SFI standards).</p>
Frequency:	Annually

CM-6 Cease Harvest Activities when Bats Are Detected

Commitment: Same as for CM-4. In addition, perform a GIS review to ensure that no harvest is authorized in designated northern long-eared bat roosting activity areas during the pup season		
Monitoring action:	Documentation:	
Compliance: Same as for CM-4. In addition, perform a GIS review to ensure that no harvest is authorized in designated northern long-eared bat roosting activity areas during the pup season.	Same as for CM-4. Documentation of GIS review.	No bats were detected during harvesting activities (see CM-4). A GIS review of timber sales determined that no timber sales took place within NLEB roosting activity areas (summer habitat) during the reporting period. Results of timber sale data are in Table 2.1 Timber harvest acreage and Table 5.0 Number of bats killed. Maps of PGC's and DCNR's timber sales can be found in Appendix A , Maps 1-4.
Effectiveness:	N/A	
Frequency:	Annually	

CM-7 Avoid Timber Harvest Effects on Winter Habitat

Commitment: PGC and DCNR will restrict timber harvest and firewood collection year-round in identified winter habitat for Indiana bats and Northern long-eared bats.		
Monitoring action:	Documentation:	
Compliance: perform a GIS review to ensure that no harvests occurred in protected areas.	Documentation of locations where timber harvest occurred throughout State Lands.	PGC and DCNR queried agency GIS mapping data, timber databases and individual land managers to verify that no timber harvests took place in the ¼-mi buffer around known occupied hibernacula for IBAT and NLEB. See also Table 2.1 Timber harvest acreage, showing no timber sales took place in winter habitat areas. Maps of PGC's and DCNR's timber sales can be found in Appendix A , Maps 1-4. No firewood collection was permitted in winter habitat (only applies to State Forest lands). DCNR district foresters were queried and confirmed this. See 2.4 Firewood for more details on DCNR's firewood program and data collection methods. Map 9 shows areas where firewood collection is restricted on State Forest lands.
Effectiveness:	N/A	
Frequency:	Annually	

CM-8 Limit Firewood Collection Seasonally (Fall/Spring Indiana Bat)

Commitment: The Bureau of Forestry will close all areas of modeled habitat for Indiana bat to the collection of standing dead trees from April 1 to May 14 and September 1 to November 1.
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Monitoring action:	Documentation:
<p>Compliance: Continue to monitor State Lands for illegal activity (which includes firewood collection where prohibited) and issue tickets for violations. Include a record of all citations issued for illegal firewood collection in closure areas in the annual report submitted to USFWS. Any take of Indiana bats or northern long-eared bats by woodcutters will be reported (PGC game wardens, wildlife conservation officers, DCNR rangers, and State Forest officers).</p>	<p>Documentation of citations issued.</p> <p>No citations were issued during the reporting period. DCNR district foresters were queried and confirmed that no firewood permits were issued for roads within spring/fall habitat from April 1-May 14 and Sept. 1-Nov. 1.</p> <p>Fall/spring firewood collection areas were determined/modeled on Feb. 12, 2021. Communication with the public took place via press release, news media interviews, creating an FAQ page on the Bureau of Forestry’s website, brochures at State Forest district offices, and maps and signage in districts. Examples of these communications tools can be found in Appendix B, Outreach and Communications.</p> <p>See Map 9 in Appendix A showing firewood restrictions including roads with seasonal closures from May 15-Aug. 31, areas closed to firewood cutting from April 15-May 14 and Sept. 1-Nov.1, and areas closed to firewood cutting year-round (in winter habitat).</p>
<p>Effectiveness: Visit closure areas during site reviews to ensure that roost areas are protected (Bureau of Forestry staff, BHIs)</p>	<p>Report of any known take of Indiana bats or northern long-eared bats by woodcutters.</p> <p>There was no report of known take of Indiana bats or northern long-eared bats by woodcutters or citations.</p> <p>Additionally, areas of closure were visited regularly by foresters, rangers and specialists to ensure that roost areas are protected.</p> <p>Management recommendations to improve effectiveness</p> <p>Earlier and expanded communication to the public is preferable so woodcutters can plan accordingly. Local landowners who utilized State Forests for fuelwood cutting, who had to either find new locations to cut or to cut during a different season commented such to Forestry. A few districts were disproportionately affected, and these landowners had fewer options than others. However, through communications and good relationships between the district forests staff and landowners, no negative impacts have been observed. Management recommendations to improve effectiveness include additional communication to woodcutting communities prior to firewood restrictions. Due to the timing of receipt of the ITP, spring woodcutters had to change plans quickly.</p>
Frequency:	Annually

CM-9 Limit Firewood Collection Seasonally (Summer Indiana Bat)

<p>Commitment: The Bureau of Forestry will close areas of modeled summer habitat for Indiana bat to the collection of standing trees along roads that have 30% or more of their length within the high-quality Indiana bat modeled summer habitat, from May 15-Aug. 31.</p>	
<p>Monitoring action:</p>	<p>Documentation:</p>
<p>Compliance: Monitor as described for CM-8. Report any take of Indiana bats or northern long-eared bats by woodcutters.</p>	<p>Documentation of citations issued.</p> <p>No citations were issued during the reporting period. DCNR district foresters were queried and confirmed that no firewood permits were issued for roads within summer habitat from May 15-Aug. 31.</p> <p>Summer firewood collection areas were determined/modeled on Feb. 12, 2021. Communication with the public took place via press release, news media interviews, creating an FAQ page on the Bureau of Forestry’s website, brochures at State Forest district offices, and signage in districts. Examples can be found in Appendix B.</p> <p>See Map 9 in Appendix A showing firewood restrictions including roads with seasonal closures from May 15-Aug. 31, areas closed to firewood cutting from April 15-May 14 and Sept. 1-Nov.1, and areas closed to firewood cutting year-round (in winter habitat).</p>
<p>Effectiveness: Visit closure areas during site reviews to ensure that roost areas are protected. Evaluate the results of the habitat distribution model annually and update closure areas, as needed.</p>	<p>Report of any known take of Indiana bats or northern long-eared bats by woodcutters.</p> <p>There was no report of known take of Indiana bats or northern long-eared bats by woodcutters or citations.</p> <p>Additionally, areas of closure were visited regularly by foresters, rangers and specialists to ensure that roost areas are protected.</p> <p>Management recommendations to improve effectiveness</p> <p>Earlier and expanded communication to the public is preferable so woodcutters can plan accordingly. Local landowners who utilized State Forests for fuelwood cutting, who had to either find new locations to cut or to cut during a different season commented such to Forestry. A few districts were disproportionately affected, and these landowners had fewer options than others. However, through communications and good relationships between the district forests staff and landowners, no negative impacts have been observed.</p>
<p>Frequency:</p>	<p>Annually</p>

CM-10 Restrict Prescribed Fire Seasonally (Winter)

<p>Commitment: PGC and DCNR will restrict prescribed burns in forested Indiana and northern long-eared bat winter habitat to prevent smoke from entering hibernacula.</p>	
<p>Monitoring action:</p>	<p>Documentation:</p>

<p>Compliance: Verify that all prescribed burns were conducted outside the restriction window unless preapproved by USFWS.</p>	<p>Documentation and mapping of burns undertaken.</p> <p>Table 9.2-CM-10 Prescribed burns on DCNR and PGC land, below shows the name of prescribed burns conducted and the date burn plan was approved, for burns that took place within bat habitat areas. It was verified that no burns took place within the ¼ buffer of the known hibernacula by GIS review and verification with land managers.</p> <p>Map 5-8 show prescribed burns on state lands and Indiana bat and northern long-eared bat habitat area intersects. No projects took place in winter habitat. Mapping can be found in Appendix A.</p> <p>PGC and DCNR will continue to use the PNDI HCP project types for prescribed burns project on state lands and include the PNDI receipt in burn plans. The parameters for the burn are provided in the PNDI response and then incorporated into the burn plan in a way that the burn boss is able to carry it out. The burn boss will do his/her best to carry it out. The prescribed fire response in PNDI provides seasonal restriction:</p> <p><i>“Prescribed burns in forested habitat will be restricted year-round within 0.25 miles of known Indiana bat hibernacula to prevent smoke from entering hibernacula.”</i></p> <p><i>*Note: In Table 9.2-CM-10, we recognize two prescribed fires occurred within the restricted timeframe. This occurred because once the HCP was approved, Burn Bosses and burn plan writers were given 180 days to update ALL burn plans to account for changes due to the HCP. These two prescribed fires occurred while operating under the original (not-yet-updated) burn plans. These plans have since been updated and we expect no more prescribed fires will occur during the restricted timeframe.</i></p>
<p>Effectiveness: Not applicable; related to status and trend monitoring</p>	<p>N/A</p>
<p>Frequency:</p>	<p>A minimum of once every 5 years</p>

Table 9.2-CM-10: Prescribed Burns on DCNR and PGC lands.

Forest District	Name	Plan Approved	Date of Burn	Acres Burned in Bat Habitat Areas
2	Shawnee State Park WSG	2/27/2020	3/9/2021	36
7	Snowmobile	2/20/2019	4/20/2021	48
7	Chipmunk	3/20/2021	5/13/2021	95
8	Jennings SP EEC Prairie	2/21/2020	3/8/2021	4
16	Cavanaugh Access	2/12/2020	3/23/2021	9

18	Scrub Oak 2	2/16/2021	4/28/2021	111
4	Laurel Hill State Park	8/20/2020	3/23,4/7	8
SGL	Name	Plan Approved	Date of Burn	Acres Burned in HCP Polygon
39	Venango Fields	4/16/2020	3/17,4/7,4/8	53
84	Crissinger Farm	3/2/2020	3/11/2021	25
95	SGL 095 Forest	2/20/2020	3/8/21	7
108	SGL 108 WSG	2/27/2020	3/30/2021	15
111	SGL 111 Scull Area WSG	10/3/2019	3/30, 4/6	7
145	SGL 145 Grass	3/11/2021	3/16/2021	0.2
151	151_2018_NW_Lawrence	3/19/2018	3/9/2021	4
169	169_2018_SC_Cumb	10/1/2018	3/7/2021	2
211	SGL 211 Forest Comprehensive	11/18/2020	3/23,4/27,4/28	1088
212	Woody Woodpecker	3/4/2021	4/26/2021	61
228	White Rabbit	2/27/2020	4/6/2021	5
232	SGL 232 Grass	3/2/2020	3/8,3/9	21
235	235_2020_SC_Franklin	3/25/2020	3/8,3/21	6
242	242_2021_SC_York*	3/21/2021	6/17/2021	9
243	243_2021_York_HOs	3/24/2021	4/7/2021	19
252	252_2021_NC_LycUnion	3/24/2021	3/23/2021	84
290	SGL 290-2018	4/5/2018	3/9, 4/3	12
311	SGL 311	5/26/2020	3/21, 4/6	4
322	2020 SGL 322	10/15/2020	3/22/2021	195
326	SGL 326*	5/24/2020	5/19/2021	206
333	SGL 333 Spring Creek Canyon	3/1/2019	3/22, 3/23	39
411	SGL 411 WSG	3/6/2020	3/17/2021	31
420	Raystown Lake Project	3/24/2020	3/8/2021	127
427	SGL 427 Mahoning WSG	3/15/2021	3/22/2021	0.9
Menser	Menser WSG Units	3/18/2021	3/22/2021	11

*See Note in Table CM-10.

CM-11 Restrict Prescribed Fire Seasonally (in Summer habitat)

Commitment: PGC and DCNR will restrict prescribed burns in forested Indiana bat summer habitat from May 15 to August 15 and in designated roosting activity areas for Northern long-eared bats from June 1 to July 31.	
Monitoring action:	Documentation:
Compliance: Verify that all prescribed burns were conducted outside the restriction window unless preapproved by USFWS.	Documentation and mapping of burns undertaken. Table 9.2-CM-10 Prescribed burns on DCNR and PGC land, above, shows the name of prescribed burns conducted and the date burn plan was approved, for burns that took place within bat habitat areas. No burns took place in NLEB summer habitat at all on state lands. It has been verified that all prescribed burns on DCNR State Forest and parks were conducted before May 15 through GIS viewing and communication with land managers. Two burns on PGC State Game Lands occurred during the seasonal restriction for Indiana bat summer

	<p>habitat (May 15-Aug. 15): 9 acres from the 242_2021_SC_York fire (which occurred on 6/17/21) and the 206-acre SGL 326 burn (which occurred on 5/19/21). PGC acknowledges these two burns were an oversight, and have put measures in place to ensure all burns occur within the appropriate seasonal restriction.</p> <p>In a check in with USFWS on 5/19/21, permittees discussed updating burn plans. The HCP specified plans be “updated in 90 days.” PGC and DCNR prioritized burns for 2021, reran PNDIs and updated plans. PGC and DCNR aimed for Sept. 1 to have all plans updated with HCP timing restrictions. Any new plans were written to match HCP requirements, but older ones needed to be updated.</p> <p>See also section 2.2 Prescribed fire, in this report for more information on burns on state lands.</p> <p>Map 5-8 show prescribed burns on state lands and Indiana bat and northern long-eared bat habitat area intersects. No projects took place in winter habitat. Mapping can be found in Appendix A.</p> <p>Example language in burn plans stating seasonal restriction dates:</p> <p><i>“Scheduling (Describe timing, time constraints):</i></p> <p><i>The timing of the implementation of this prescribed fire project will be largely dependent on the window of time between March 1st and May 31st. Since this window coincides with spring fire season, importance will be made to ensure that adequate resources remain available for district wildfire suppression. Due to the density of volunteer fire companies in the Weiser State Forest Fire District, the quantity of district fire resources to be reserved for this sole purpose will be minimal.”</i></p> <p>PGC and DCNR will continue to use the PNDI HCP project types for prescribed burns project on state lands and include the PNDI receipt in burn plans. The parameters for the burn are provided in the PNDI response and then incorporated into the burn plan in a way that the burn boss is able to carry it out. The burn boss will do his/her best to carry it out. The prescribed fire response in PNDI provides seasonal restriction dates:</p> <p><i>“Prescribed burns in designated roosting activity areas may only occur between August 1 and May 31.” (NLEB)</i></p> <p><i>“Prescribed burns in forested Indiana bat summer habitat may only occur between August 16 and May 14.”</i></p>
<p>Effectiveness: Not applicable; related to status and trend monitoring</p>	<p>N/A</p>

Frequency:	A minimum of once every 5 years
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CM-12 Manage Prescribed Burns to Minimize Effects on Bats

Commitment: PGC and DCNR will ensure that prescribed burns adhere to smoke and heat restriction to minimize the effect of burns on Indiana and Northern long-eared bats.	
Monitoring action:	Documentation:
Compliance: Verify that all prescribed burns were conducted outside the restriction window unless preapproved by USFWS.	Documentation and mapping of burns undertaken.
	Table 9.2-CM-10 Prescribed burns on DCNR and PGC land, above, shows the name of prescribed burns conducted and the date burn plan was approved, for burns that took place within bat habitat areas. Maps 5-8 show prescribed burns on state lands and Indiana bat and northern long-eared bat habitat area intersects. No projects took place in winter habitat. Mapping can be found in Appendix A .
	Smoke management plans prepared for each burn.
	Smoke management plans are prepared for each burn. Example language in burn plans regarding fire management practices used to minimize effects of smoke and heat on bats: <i>“Smoke management techniques:</i> <i>The optimal smoke movement is to rise vertically and disperse after reaching proper mixing height. If smoke acts different than described, firing sequence and heat application will be modified to achieve desired results. Some lingering ground smoke is unavoidable, and will be allowed as long as the operation or human safety is not compromised from the residual smoke. The area is sparsely populated, and nearest smoke impacts will be more than one half mile.</i> <i>Ignition will be manipulated to allow a buildup of heat to generate convection that will allow the smoke to lift and disperse on a favorable wind direction during a time of adequate ventilation. Smoke should lift well before being dissipated by upper-level winds to avoid obscuring visibility for crew. Depending on wind direction, smoke inversions could be an issue in the X or Y areas of the burn unit. Smoke will be manipulated throughout the unit to reduce risk of tree-roosting bats awaking from torpor and flushing. The burn boss will designate a crew member to check for smoke issues if it appears that there could be a problem. All burn crew members will note any flushing of bats and report it immediately up the chain to the Burn Boss so any mitigation measures can immediately occur and be recorded by Burn Boss.”</i> PGC and DCNR will continue to use the PNDI HCP project types for prescribed burns project on state lands and include the PNDI receipt in burn plans. The parameters for the burn are provided in the PNDI response and then incorporated into the burn plan in a way that the

	<p>burn boss is able to carry it out. The burn boss will do his/her best to carry it out. The prescribed fire response in PNDI provides smoke management information:</p> <p><i>“A prescribed fire plan, as outlined under the Prescribed Burn Practices Act, will be drafted, and approved by the agency administrator and include a smoke management plan. The smoke management plan shall include the use of ignition tactics that reduce fire intensity and flame length so that the critical plume temperature at which bats could be injured (140°F) does not reach roost height (approximately 30 feet in height). Minimize the loss of potential roost trees to ensure there is an ample supply of roost snags and trees. Large snags and trees should be left on the landscape to provide alternative roosting habitat during prescribed burns.”</i></p> <p>PGC and DCNR will continue to implement language relating to smoke and bats in burn plans moving forward.</p>
Frequency:	Annually
Effectiveness: Perform a GIS review to determine if any prohibited areas were burned.	<p>Management recommendations to improve effectiveness</p> <p>DCNR and PGC will continue to work towards ensuring new PNDIs are run for all burn plans and implementing the smoke management and timing restrictions into the burn plans.</p>
Frequency:	A minimum of once every 5 years

Table 9.2-CM-12 Number of burn plans requiring a new HCP PNDI review during the reporting period. Plans with HCP hits were updated with language specified in the HCP guidance.

PGC Region	# of Plans Needing Updated	# of Plans Updated	Notes
NW	5	4	SGL 95 still waiting for USFWS response
SW	9	9	
NC	7	7	
SC	6	6	
NE	10	10	
SE	11	11	
Total	48	47	

CM-13 Restrict Vehicles and Equipment in Perennial Stream and Riparian Areas

Commitment: PGC and DCNR will restrict vehicles or equipment used for construction and timber harvest activities near streams or wetlands. See Appendix L, <i>Stream Buffer Guidelines</i> , in the HCP.	
Monitoring action:	Documentation:
Compliance: Monitor State Lands for illegal activity (which includes	Documentation of enforcement activities.
	No citations were issued during the reporting period. Through clarification with USFWS, this is interpreted to mean state agency

vehicle entry where prohibited) and issue tickets for violations. Provide a summary of all citations issued for illegal vehicle activity in the annual report submitted to USFWS (PGC game wardens, wildlife conservation officers, DCNR rangers, and State Forest officers).	activities not public activities (e.g. illegal off-roading ATVs, etc.). No instances of encroachment in stream or wetland buffers were identified.
	Management recommendations to improve effectiveness
	No new management recommendations to improve effectiveness at this time.
Effectiveness: Assess riparian areas for vehicle activity during regular monitoring of State Lands (PGC and Bureau of Forestry BHIs).	No riparian areas were known to be impacted by vehicle activity during regular monitoring of state lands during the reporting period.
Frequency:	Annually

CM-14 Retain Vegetation in Perennial Stream and Riparian Areas

Commitment: PGC and DCNR will retain appropriate natural vegetation within 50 feet of perennial streams and around wetlands.	
Monitoring action:	Documentation:
Compliance: Monitor State Lands for illegal activity (which includes removing riparian vegetation where prohibited) and issue tickets for violations. Provide a summary of all citations issued for illegal vehicle activity in the annual report submitted to USFWS (PGC game wardens, wildlife conservation officers, DCNR rangers, and State Forest officers).	Documentation of enforcement activities.
	No citations were issued during the reporting period. Through clarification with USFWS, this is interpreted to mean state agency activities not public activities (e.g. illegal removal of vegetation for personal use). No instances of encroachment in stream or wetland buffers were identified.
	Management recommendations to improve effectiveness
	No new management recommendations to improve effectiveness at this time.
Effectiveness: Assess riparian areas for vegetation removal during regular monitoring of State Lands (PGC and Bureau of Forestry BHIs).	No riparian areas were known to be impacted by vegetation removal during regular monitoring of state lands during the reporting period.
Frequency:	Annually

CM-15 Implement Erosion and Sediment Control Plans

Commitment: PGC and DCNR will develop and implement erosion and sediment control plans for logging and other earth-disturbing activities, as needed.	
Monitoring action:	Documentation:

Compliance: Annually review documentation to ensure that erosion and sediment control plans are developed for all logging and other earth-disturbing activities. During annual audits of timber sale sites, ensure that erosion and sediment control measures are being followed (PGC and Bureau of Forestry).	Documentation of activities.
	All timber sale contracts must include an erosion and sedimentation control plan to be considered complete. During site visits to timber sales, foresters ensure that E&S measures are being implemented. DCNR's Bureau of Forestry annual FSC-SFI audit also observes E&S measures being implemented (see Appendix D for complete FSC-SFI audit reports).
	Management recommendations to improve effectiveness
Effectiveness:	Not applicable
Frequency:	Annually
No new management recommendations to improve effectiveness at this time.	

CM-16 Implement Spill Pollution Prevention Measures

Commitment: PGC and DCNR will continue to implement spill pollution prevention measures for operations activities and will include provisions in all timber sale agreements requiring the following actions of operators.	
Monitoring action:	Documentation:
Compliance: Annually review documentation to ensure that spill pollution prevention measures are being implemented for appropriate agency activities. During annual audits of timber sale sites, ensure that steps are being taken to avoid point- and minimize nonpoint-source pollution in streams and other waterbodies.	Documentation of plans.
	<p>All timber sale contracts must address spill prevention measures to be considered complete. During site visits to timber sales, foresters ensure that E&S measures are being implemented. DCNR's Bureau of Forestry annual FSC-SFI audit also observes E&S measures being implemented (See Appendix D for complete FSC-SFI audit reports).</p> <p>Below is example language from DCNR's contracts that represent language used by both permittees in contracts:</p> <p><i>(b) Should soil erosion, water pollution, or other conditions detrimental to the environment, occur on State or private lands from the operation of this sale, Buyer, at his own expense, must correct said conditions immediately to the satisfaction of the Department.</i></p> <p><i>(c) Oil Spills- Commercially available spill kits for hydraulic fluids, lubricating oils, fuels, and other environmentally hazardous fluids must be available on site when equipment is active. Spill kits must include pads and containment socks that are rated to absorb at least 8 gallons of petroleum-based fluids and containers (or heavy-duty bags) capable of holding an equivalent amount of contaminated soil and other absorbents. A shovel should also be available on-site. Pads must be capable of absorbing fluids in water as well as on the ground. Any leaks or spills shall be contained immediately. Soil and absorbents shall be properly disposed of through a landfill approved by the Department of Environmental Protection (DEP). All leaks that exceed 5</i></p>

	<p><i>gallons in size or a leak of any size into water must be reported immediately to DEP and to the District Forester. 911 or DEP regional offices may be called directly 24-hours per day to report the spill to DEP:</i></p> <p><i>Northwest: (800) 373-3398 Northcentral: (570) 327-3636 Northeast: (570) 826-2511</i></p> <p><i>Southwest: (412) 442-4000 Southcentral: (877) 333-1904 Southeast: (484) 250-5900</i></p> <p><i>(d) Excessive Oil Leakage- Equipment must be maintained to minimize excessive fluid leakage. The District Forester may require equipment with excessive fluid leakage to be removed from the site and oil soiled areas to be excavated and properly disposed.</i></p> <p><i>(e) Equipment Parking- Equipment may not be parked overnight within 100 feet of sinkholes, streams, intermittent streams with a defined bed and banks, and any other water body where fluids can leak into them.</i></p> <p><i>(f) Oil drained from equipment shall be placed in suitable containers and disposed of as directed by the District Forester.</i></p> <p><i>(g) Buyer shall not permit human waste, garbage, kitchen or laundry wash, manure, sawdust or other mill refuse, oil or any other substance harmful or destructive to human, aquatic or fish life to enter any spring, stream, water course, dam, pond or lake.</i></p> <p><i>(h) Buyer shall provide, maintain and abandon toilet facilities in accordance with the regulations of the Department at locations approved by the District Forester.</i></p> <p><i>(i) Garbage shall be disposed of as directed by the District Forester.</i></p>
	<p>Documentation of spills and the steps taken to address them</p>
	<p>No spills were reported during the reporting period.</p>
	<p>Management recommendations to improve effectiveness</p>
	<p>No new management recommendations to improve effectiveness at this time.</p>
<p>Effectiveness:</p>	<p>Not applicable</p>
<p>Frequency:</p>	<p>Annually</p>

CM-17 Maintain Speed Limits on Forest Roads

<p>Commitment: PGC and DCNR will always maintain a 25 miles-per-hour speed limit on all roads under their jurisdiction in modeled summer habitat of Indiana bats and Northern long-eared bats.</p>	
<p>Monitoring action:</p>	<p>Documentation:</p>

<p>Compliance: Monitor State Lands for illegal activity (which includes speed limit violations) and issue tickets for violations. Review road signage at least every 5 years to ensure that speed limit signs are in place and in good condition. Review records of speed limit citations on State Lands to determine if additional signage is needed (PGC game wardens, wildlife conservation officers, DCNR rangers, and State Forest officers).</p>	<p>Map or GIS layer showing the roads on State Lands where speed limits are restricted.</p> <p>A GIS layer showing roads on state lands where speed is restricted is not available because all roads on state lands are speed-restricted unless otherwise posted. Forestry, Park and Game Land roads are managed, and speed limits are governed by rules and regulations specifying the 25 mph. State, municipal, or national highways' speed limits are set by separate governing regulations. See DCNR and PGC's information regarding speed limits below:</p> <p>DCNR BOF: State Forest Rules and Regulations</p> <p>DCNR BSP: State Park Rules and Regulations</p> <p>PGC: State Game Lands Code</p>
	<p>Documentation of activities.</p> <p>Each land manager manages the status of road signage on their State Game Land, park or forest, inspecting them during normal working travel through state lands. Periodically signs will be vandalized or deteriorate. PGC and DCNR sign shops manage replacement of signs. No new replacement signs have been erected during the reporting period. No citations have been issued during this reporting period.</p>
	<p>Frequency:</p> <p>Every 5 years</p>
	<p>Effectiveness: Review the literature on bats and vehicle collisions and speed. If this review suggests that a different management approach would be useful, coordinate with USFWS.</p>
	<p>Documentation of any take of Indiana bats or northern long-eared bats</p> <p>No documentation of take of covered bats occurred during the reporting period.</p>
	<p>Documentation of findings.</p> <p>No new literature has been identified on bats and vehicle collisions.</p>
	<p>Management recommendations to improve effectiveness.</p> <p>No new management recommendations are available at this time.</p>
<p>Frequency:</p>	<p>A minimum of once every 5 years</p>

CM-18 Implement Staff Training Program

<p>Commitment: Document training of land managers in overall ecology of covered bats and specialized habitat needs such as summer roosts, foraging areas, and identification of potential hibernacula for both species.</p>	
<p>Monitoring action:</p>	<p>Documentation:</p>
	<p>Documentation of training events (to include date, location, and topics covered, number of attendees).</p>

<p>Compliance: Document training of land managers in overall ecology of covered bats and specialized habitat needs such as summer roosts, foraging areas, and identification of potential hibernacula for both species.</p>	Documentation of development of the staff training program, as well as a record of all trainings provided to PGC and DCNR staff, and the materials used in such trainings:		
	Staff Trainings:	Date:	Materials:
	HCP User Guide Training, provided to DCNR & PGC (hosted by ICF International)	3/3/2021	HCP, Users Guide, Users Guide training module videos, Online Whiteboard
	DCNR Firewood / HCP training	3/15/2021	HCP, maps showing firewood restrictions
	DCNR Q/A to District Managers	4/7/2021	Frequently Asked Questions document
	<p>Training has taken place continually for DCNR and PGC since the ITP was issued. HCP coordinators answer questions about snag retention, timing restrictions, and surveys for acquisitions. The most questions, and therefore one-on-one trainings, revolve around PNDI. Staff are still getting used to the new project categories and often need support walking through the process. This has been a positive experience for both the coordinators and the staff of both agencies.</p> <p>DCNR Bureau of Forestry also developed an article for their weekly internal publication, Forest Fridays, on bat life cycles and how the firewood restrictions benefit them. While not a formal “training event,” this type of ongoing education of staff is critical for awareness of the importance of the HCP. A copy of this article, Indiana Bats and Firewood, can be found in Appendix B.</p>		
Effectiveness:	Not applicable		
Frequency:	Annually		

CM-19 Support Public Engagement

<p>Commitment: PGC and DCNR will provide education and outreach to the public and other stakeholders about aspects of management for the covered bat species including identification of habitat, actions the permittees are taking to improve habitat, and actions stakeholders can take to benefit bats.</p>	
Monitoring action:	Documentation:
<p>Compliance: The Bureau of State Parks will develop an outreach program for the public on the conservation</p>	<p>Document all outreach efforts (including date, location, and topics covered) on an annual basis.</p>
	<p>No public programs were held during the first 6 months of the incidental take permit, due to COVID-19 restrictions preventing public programming on state lands.</p>

<p>efforts and practices for Indiana bats and northern long-eared bats. This program will provide instruction on recognizing and protecting covered hibernacula on state lands, identifying and avoiding effects on potential roost trees, and providing high-quality summer habitat for the covered bat species.</p>	<p>However much information was made available to the public via PGC's and DCNR's websites.</p>		
	<p>Outreach Actions:</p>	<p>Date:</p>	<p>Description:</p>
	<p>Bat HCP press release (Newspapers, online media and news sources, social media, DCNR Resource newsletter)</p>	<p>2/4/2021</p>	<p>The permittees utilized and widely shared the press release, written by USFWS public affairs specialist with input and direction from PGC and DCNR, announcing the finalization of the HCP. This notes white nose syndrome and ways that forestry practices covered by this HCP can benefit bats. The press release links to PGC website, white nose syndrome and Indiana bat.</p>
	<p>Bat HCP information added on both PGC and DCNR's websites</p>	<p>1/2020, updated 5/4/202</p>	<p>General information about the HCP and its goals, the USFWS and the ITP. Includes HCP Frequently Asked Questions document.</p> <p>PGC website: State Lands HCP pdf</p> <p>DCNR website: State Lands HCP pdf</p>
	<p>Bat website added to DCNR's biodiversity management page</p>	<p>6/2021</p>	<p>Migrated DCNR's bat information off of the general wildlife page and onto its own bat-specific page (making it easier to find HCP information).</p>
<p>Bat HCP and Firewood Conservation Measures FAQ's</p>	<p>7/2021</p>	<p>Frequently Asked Questions for the public on firewood collection restrictions. Districts also communicate restrictions via their local webpages, like the Sproul State Forest's Advisory site. DCNR is aware that this occurred after the cut off of this reporting period, however it is illustrative of how we have identified ways to improve communications regarding the HCP and firewood collection. See Appendix B for examples.</p> <p>DCNR also posted this information on its FaceBook page. Below is a screen shot:</p>	

Effectiveness:	Not applicable		
Frequency:	Annually		

CM-20 Maintain a Forested Landscape in a Variety of Seral Stages

Commitment: PGC and DCNR will maintain at least 3.5 million acres of forest of the 4 million acres of State land owned and managed by the permittees.																
Monitoring action:	Documentation:															
Compliance: Annually review timber sale records on State Lands to ensure that the amount of forest cover remains at or more than 3.5 million acres throughout the permit duration and that areas of modeled Indiana bat and northern long-eared bat habitat remain at or more than current levels (PGC and Bureau of Forestry).	Documentation of acreage of forest cover across State Lands.															
	<p>There are currently approximately 3,987,000 acres of forest cover across the 4 million acres of state lands. Through conversations with USFWS, it was determined that this metric revolves around the temporal nature of timber sales, to ensure that the entire state lands system is not being cut all at once. This metric does not imply that a timber sale causes the “conversion” of forest to non-forest, but simply resets the age of the forest. The goal is to have a mosaic of forest age classes and habitat patches. PGC and DCNR take this approach to managing their lands.</p> <p>The process taken to determine the acreage of forest cover across all state lands involved taking the total acreage of state lands (4 million) and subtracting the acreage of timber sales of both permittees across all lands (regardless of bat habitat presence).</p> <p>As previously noted, this reporting period was unusual in that it was only 6 months long and was limited by COVID-19 restrictions. Therefore the amount of timber sales reported is less than normal.</p>															
	Documentation of acreage of summer, fall/spring, and winter habitat for covered bats across State Lands.															
	<p>Acreage of habitat for covered bats across state lands:</p> <table border="1"> <thead> <tr> <th></th> <th>IBAT</th> <th>NLEB</th> </tr> </thead> <tbody> <tr> <td>Summer</td> <td></td> <td></td> </tr> <tr> <td>Habitat acreage (clipped)</td> <td>471,177</td> <td>366</td> </tr> <tr> <td>Timber in habitat</td> <td>-1,519</td> <td>-0</td> </tr> <tr> <td>Result</td> <td>469,658</td> <td>366</td> </tr> </tbody> </table>		IBAT	NLEB	Summer			Habitat acreage (clipped)	471,177	366	Timber in habitat	-1,519	-0	Result	469,658	366
	IBAT	NLEB														
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	<p>Fall/Spring</p> <table> <tr> <td>Habitat acreage (clipped)</td> <td></td> <td>143,962</td> <td>1,968,416</td> </tr> <tr> <td>Timber in habitat</td> <td></td> <td>-267</td> <td>-1,493</td> </tr> <tr> <td></td> <td>Result</td> <td>143,695</td> <td>1,966,924</td> </tr> </table> <p>Winter</p> <table> <tr> <td>Habitat acreage (clipped)</td> <td></td> <td>765</td> <td>4,746</td> </tr> <tr> <td>Timber in habitat</td> <td></td> <td>-0</td> <td>-0</td> </tr> <tr> <td></td> <td>Result</td> <td>765</td> <td>4,746</td> </tr> </table> <p>The process used for determining these figures began with a GIS exercise by clipping each modeled habitat area to state lands' geometry ("Habitat acreage (clipped)" for each habitat type). The acreage of timber sales occurring during the reporting period and within the habitat type was subtracted from the acreage of the clipped habitat polygons.</p> <p>It is noted again that this metric is not meant to imply that timber sales remove or "convert" forested habitat to non-forested habitat. This refers to the mosaic of age classes of forest across state lands.</p>	Habitat acreage (clipped)		143,962	1,968,416	Timber in habitat		-267	-1,493		Result	143,695	1,966,924	Habitat acreage (clipped)		765	4,746	Timber in habitat		-0	-0		Result	765	4,746
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	Result	765	4,746																						
Frequency:	Annually																								
Effectiveness: Perform a review of habitat cover and quality based on the most recent vegetative data maintained by the permittees.	Documentation of review and findings																								
	Review of the habitat cover and quality shows that PGC and DCNR are providing adequate high-quality habitat for covered bat species.																								
	Management recommendations to improve effectiveness.																								
	No new management recommendations are available at this time.																								
Frequency:	Every 5 years																								

CM-21 Enhance Foraging and Roosting Habitats

Commitment: PGC and DCNR will increase the quality of existing habitat for Indiana bats and northern long-eared bats across State Lands.	
Monitoring action:	Documentation:
Compliance: Manage timber harvests and prescribed fire to ensure maintenance of summer habitat for covered bats. Review timber sale sites to ensure that retention guidelines are being followed as described under CM-4.	Documentation of acreage of summer habitat for covered bats across State Lands.
	There are 469,658 acres of summer habitat for Indiana bats and 366 acres of habitat for northern long-eared bats across state lands. See CM-20 for more detail.
	Site visits did not happen as often as typically due to COVID-19 restrictions. However, site visits that took place verified that retention guidelines were being followed as described in CM-4 . This is confirmed in DCNR's annual FSC-SFI audit report (Appendix D).
Frequency:	Annually
	Documentation of review and findings

Effectiveness: Review habitat cover and quality based on the most recent vegetative data maintained by the permittees.	Review of the habitat cover and quality shows that PGC and DCNR are providing adequate high-quality habitat for covered bat species. No major changes have occurred to alter the habitat cover and quality for bats.
	Management recommendations to improve effectiveness.
	No new management recommendations are available at this time.
Frequency:	Every 5 years

CM-22 Install Artificial Roost Structures (in Summer Habitat)

Commitment: PGC and DCNR will install, maintain, and monitor 7 artificial roost structures, such as bat boxes or artificial bark, every other year in Indiana bat summer habitat for the first 10 years of implementation, and another 7 artificial structures in Northern long-eared bat habitat that overlaps with Indiana bat summer habitat for a total of 70 structures.	
Monitoring action:	Documentation:
	Documentation of location and status of artificial roosts.

Compliance: Record quantities, activities, and locations of structures installed or maintained.

14 artificial roost structures are to be installed in overlapping habitat of both bats (7 in IBAT and 7 in overlapping NLEB habitat) every other year for the first 10 years. COVID-19 restrictions limited field time and caused delays in this timeline.

Currently, there are 84 recorded structures (bat boxes or condos) across PGC and DCNR lands. However, some of these structures may be down or in disrepair, as a thorough inventory has not been conducted since COVID.

One roost box was installed at French Creek State Park, Berks County, in May 2021 (pictured below).



Photo M-3: Artificial roost structure installed at French Creek State Park.



Approximate location of bat box at French Creek.

Frequency:	As needed
Effectiveness: Examine structures will be to determine bat use. If bats are present, count bat emergences. Mount a guano screen to the base to collect fecal pellets, which may be submitted for genetic analysis (Judy et al. 2010) (QBS or BHI).	Documentation of condition and use of artificial roosts.
	No field views took place to inspect the condition and use of artificial roosts due to the COVID-19 restrictions.
	Management recommendations to improve effectiveness.
	No new management recommendations are available at this time.
Frequency:	Every 5 years

CM-23 Identify, Assess, Protect, and Enhance Potential Hibernacula

Commitment: PGC and DCNR will install artificial roost structures for covered bats in modeled summer habitat. In addition to the seven known and occupied hibernacula protected under CM-1 <i>Install Gates at Known Hibernacula</i> , PGC and DCNR will search for and protect at least 10 additional sites on State Lands suitable as hibernacula for both Indiana bats and northern long-eared bats over the permit term by identifying and protecting potential underground structures (e.g., mines, tunnels, bunkers, and abandoned large culverts).	
Monitoring action:	Documentation:
Compliance: Document all efforts to survey State Lands for potential Indiana bat hibernacula. Identify and enhance at least five hibernacula in the first 15 years and the remaining five hibernacula in the remaining 15 years (if not sooner). Report annually on progress towards these benchmarks. Record the status of all identified potential hibernacula and any steps taken to enhance the quality of potential hibernacula for Indiana bats (through direct means, such as structural modifications, or indirectly through other management efforts).	Documentation of steps leading to and locations of created hibernacula on State Lands.
	No new potential hibernacula have been identified during the reporting period. Several DCNR acquisitions were underway during the reporting period but had not been completed. It is anticipated that potential hibernacula will be present on at least one of them.
Frequency:	Annually
Effectiveness: Following gating and or modification, equip each site that is safe to enter with a speleologist to determine if the site provides suitable temperatures for Indiana bats.	Documentation of survey data and findings.
	No actions occurred during the reporting period.
	Management recommendations to improve quality of hibernacula.
	No new management recommendations to improve the quality of hibernacula are available at this time.
Frequency:	Annually

CM-24 Provide Artificial Roosts for Infected Bats (Winter Habitat)

Commitment: PGC and DCNR will install artificial roosts within 0.25 mile of the entrance to each Indiana bat hibernaculum with known or suspected WNS contamination to allow bats infected with WNS a place to roost once they emerge from hibernation. Agencies will install 14 artificial roosts at known winter IBAT habitat within first year of permit term (where species are anticipated to share roost sites) and install roosts at 3 Category-1 NLEB Hibers.	
Monitoring action:	Documentation:
Compliance: Document or verify installation of artificial roosts near hibernacula so that WNS-infected bats can recover following emergence	Documentation of location and status of artificial roosts.
	The HCP directs PGC and DCNR to install 14 artificial roosts in overlapping IBAT and NLEB winter habitat (1/4 mile buffer around hibernacula) within the first year of the permit term and 3 at Category-1 NLEB hibernacula. However, COVID-19 restrictions limited field time and caused delays in this timeline. During this reporting period, 5 boxes have been installed at IBAT hibernation sites: <i>(Note: this information has been removed to protect location of sensitive species from take, including harassment or poaching).</i> Map 10 shows these 5 artificial roost locations.
Frequency:	As needed
Effectiveness: Monitor created roosts to determine use.	Documentation of condition and use of artificial roosts.
	No field views took place to inspect the condition and use of artificial roosts due to the COVID-19 restrictions.
Frequency:	Annually

10.0 Monitoring and Research Program Changes

The HCP directs PGC and DCNR to identify recommendations for changes to the monitoring and research program based on interpretation of monitoring results and research findings, if applicable.

No changes in PGC’s and DCNR’s monitoring and research program are being proposed as a result of this reporting period. Since the reporting period was only 6 months, not enough time has passed to gather and interpret the monitoring results and research findings. Also, due to COVID-19 restrictions, very little monitoring and research could take place during the reporting period. PGC and DCNR anticipate being able to conduct more monitoring and research in future years. Through the process of writing the annual report, several instances have been identified for more streamlined collection of data. The permittees will work to get those improvements in place for future years, such as utilizing Microsoft Teams or other platform for shared storage of photos or other data.

11.0 Shortfalls

The HCP directs PGC and DCNR to report on identification of any shortfalls and whether the methods need to be improved or quantities increased for habitat restoration and creation methods (i.e., installation of artificial roosts, modifications to hibernacula).

The only shortfalls that have been identified during this reporting period are the gaps between permittees data collection and reporting abilities. There is an opportunity for greater efficiencies in internal tracking mechanisms. PGC and DCNR have not identified conservation measure methods that need to be improved or quantities that need to be increased for habitat restoration or creation at this point. Obviously, the permittees have fallen short on the number of bat boxes and gates installed, due to COVID-19 restrictions during the permit term. DCNR and PGC will discuss with USFWS how to best incorporate the structures into future years to meet goals.

12.0 HCP-Directed Studies

The HCP directs PGC and DCNR to describe of any HCP-directed studies undertaken during the reporting period, study results, and a description of integration with monitoring, assessment, and compliance and effectiveness elements.

No HCP-directed studies have been undertaken during this reporting period.

13.0 Climatic Conditions

The HCP reporting section requires a summary of climatic conditions in the plan area, including average high and low monthly temperatures and average monthly precipitation over the reporting period.

The following information is a summary of archived data for Harrisburg, PA for the reporting period of Dec. 2020-June 2021. This location was chosen since it is the state capital and central location of the HCP coordination. National Weather Service Forecast Office (NOAA) website was queried for the reporting period. Table 13.0 shows the average climatic conditions, average monthly high and low temperatures, and average monthly precipitation, according to the NOAA website from State College, PA.

Table 13.0 Average climatic conditions for permit area.

Month	Average High / Low Temperature (in degrees Fahrenheit)	Average Monthly Precipitation
January	40.6 / 28.3	2" precip. / 4.6" snowfall
February	38.7 / 26.9	4.34" precip. / 19.7" snowfall
March	56.9 / 35.4	2.53" precip. / 0" snowfall
April	65.8 / 44.8	2.43" precip. / trace snowfall
May	73.6 / 52.6	0" / 0"
June	85.2 / 65.7	0" / 0"

14.0 White Nose Syndrome Impact

The HCP directs PGC and DCNR to provide an assessment of the annual and cumulative impact of WNS on covered species in the plan area (Section 6.5.1.2, White-Nose Syndrome). This will include copies of reports or publications about WNS and covered bats released over the reporting year and the total number of hibernacula surveyed (including both known and potential habitat for covered species).

The annual and cumulative impact of WNS on covered species has not changed over the reporting period, as compared to the 2011 Turner et. al. publication, “A Five-year Assessment of Mortality and Geographic Spread of White-Nose Syndrome in North American Bats, with a Look at the Future. Update of White-Nose Syndrome in Bats.” *Bat Research News*, 52:13-27.

One new publication about WNS and covered bat species, which included co-authorship from PGC biologists Michael Scafani and Gregory Turner, has been released. This publication can be found here:

[Cheng, T.L., et. Al. 2021. The scope and severity of white-nose syndrome on hibernating bats in North America. *Conservation Biology*. 35:1586-1597.](#)

15.0 Changed or Unforeseen Circumstances

The HCP directs PGC and DCNR to provide documentation of any changed and unforeseen circumstances that were triggered during the year, if applicable. If any were triggered, the report will also include any responses implemented, and resulting monitoring, to changed circumstances in prior years.

No changed or unforeseen circumstances were triggered during the past reporting period.

16.0 Administrative Changes and Amendments

The HCP directs PGC and DCNR to provide a summary of any administrative changes, minor amendments, or major amendments proposed or approved during the reporting year (Section 6.5.2, Modifications to the HCP or Permit).

The HCP provides definitions for “administrative changes” and “amendments.” Administrative changes are internal changes or corrections to the HCP that may be made by PGC and DCNR, at their own initiative, or approved by PGC and DCNR in response to a written request submitted by USFWS. Requests from USFWS will include an explanation of the reason for the change as well as any supporting documentation. Amendments that modify the projects and activities described in the HCP such that they may affect the effects analysis or conservation program of the HCP or affect other environmental resources or other aspects of the human environment in a manner not already analyzed, must comply with applicable permitting requirements, including the need to comply with NEPA, the National Historic Preservation Act, and Section 7 of the ESA.

No administrative changes, minor amendments, or major amendments have been proposed or approved during the reporting period. PGC, DCNR, and USFWS have discussed possible paths forward if additional bat species such as little brown bat (*Myotis lucifugus*) and tri-colored bats (*Perimyotis subflavus*), become federally listed in future.

17.0 Section 106 Documentation

USFWS issuance of an ITP is a federal action subject to Section 106 of the NHPA. To comply with Section 106, USFWS will have to consider the effects of permit issuance on properties listed on or eligible for listing in the National Register.

As per the environmental assessment (EA) conducted by the US Fish and Wildlife Service for the National Environmental Policy Act (NEPA), PGC and DCNR will consult with the State Historic Preservation Office (SHPO). The Service remains responsible for all required findings and determinations associated with the National Historic Preservation Act (NHPA) review, coordination with the applicants and SHPO, and documented completion of the compliance process. However, the Service will require the permittees to satisfy Section 106 requirements prior to initiating any ground-disturbing activities that could affect historic properties and provide documentation to the Service.

17.1 NHPA Consultation

The EA states Completion of the required NHPA consultation process can be satisfied through several alternative pathways. For example, the applicants could choose to consult with the SHPO on a project-by-project basis for individual timber harvests, coordinate NHPA consultation on each resource/comprehensive management plan, develop an agreement with the SHPO that could spell out requirements for future consultations on a programmatic basis, or identify another alternative. The applicants are encouraged to choose the scope and scale of coordination that best suits their needs, so long as documentation confirming that the required consultation has been concluded is provided to the Service.

The PGC and DCNR consult with SHPO when internal review of projects determines a potential conflict with cultural resources. Since the PGC and DCNR did not conduct ground disturbing impacts in this time period, no consultation with SHPO took place within the reporting period.

17.2 Tribal Consultation

The Section 106 process also requires consultation with federally recognized Tribal Nations whose interests could be affected by covered undertakings (or covered activities). In accordance with 36 C.F.R. Part 800, the Service shall delegate initiation of Tribal consultation to the permittees. As part of their Section 106 compliance, the applicants will notify consulting Tribes about proposed undertakings early in the planning process and take Tribal comments on historic properties into consideration prior to initiating any ground-disturbing activities that could affect historic properties. The applicants will provide documentation of Tribal consultation to the Service.

The PGC and DCNR consulted with the two tribal nations, the Delaware Nation and the Seneca Nation, that indicated they wished to be contacted. Copies of that consultation is included in [Appendix C](#). PGC and DCNR will notify these nations annually and keep track of communications.

Appendices:

Appendix A. Maps

DUE TO THE SENSITIVE NATURE OF THE INFORMATION INCLUDED IN THIS APPENDIX, THESE MAPS HAVE BEEN REDACTED FROM THE PUBLIC VERSION.

Appendix B. Outreach and Communications Examples

Appendix C. Tribal Coordination

DUE TO THE PRIVATE NATURE OF THE INFORMATION INCLUDED IN THIS APPENDIX, THESE CORRESPONDANCE HAVE BEEN REDACTED FROM THE PUBLIC VERSION.

Appendix D. FSC-SFI Annual Report for BOF

DUE TO THE CONFIDENTIAL NATURE OF SOME OF THE INFORMATION INCLUDED IN THIS APPENDIX, THE FSC AUDIT REPORT HAS BEEN REDACTED FROM THE PUBLIC VERSION. THE SFI PUBLIC REPORT IS INCLUDED HEREIN.