



Lake States Forest Management Bat Habitat Conservation Plan

Minnesota's Annual Report: January 30,
2023 – June 30, 2024

PREPARED FOR

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Bat HCP Annual Report

Executive Summary

The Lake States Forest Management Bat Habitat Conservation Plan (Bat HCP) was completed in January 2023 and the Minnesota Department of Natural Resources (MN DNR) received its associated Incidental Take Permit on January 30, 2023. The MN DNR is pleased to submit this annual report to the U.S. Fish & Wildlife Service (USFWS) in compliance with the terms of the Bat HCP.

The Bat HCP states that Minnesota DNR's annual reports will cover implementation activities from July 1 to June 30 and be provided to USFWS by December 31 of the same year (Section 6.4.2 of the Bat HCP) with the exception of the first year, which allowed submittal of our first annual report to be submitted in year two of implementation of the Bat HCP, which is December 31, 2024. This first annual report covers the time period of January 30, 2023 - June 30, 2024.

Below are key take-aways from this year's annual report, additional details are in subsequent sections:

- The Lake States Forest Management Bat Habitat Conservation Plan (Bat HCP) defines a limit of annual timber harvest and prescribed fire in Chapter 4, Table 4-1 (page 4-4), which is 362,814 acres. The Minnesota Department of Natural Resources (MN DNR) did not exceed this acreage limit for the reporting period (see the Timber Harvest and Prescribed Fire & Fire Breaks sections below).
- All requirements and conditions of the Bat HCP have been implemented during the reporting period.

Description of Covered Activities

Timber Harvest

Total Acres of Timber Harvest¹

Table 1 provides the cumulative acreage of timber harvest completed on DNR lands, including the type and amount of harvest on DNR lands based on sales completed during the reporting period, as well as cumulative total (i.e., from the start of the permit term).

¹Note that the Bat HCP indicates that if a map of the harvested area is available, it should be included in the annual report as an exhibit. If the harvested area is available as a geographic information system (GIS) file (e.g., in a .kmz or .shp file format), that information should be attached to the electronic transmittal letter, along with the annual report file. The Minnesota DNR does not produce maps of this kind at this time.

Table 1. Cumulative Acreage of Timber Harvest Completed on DNR Lands

Timber Harvest Type	Description	Completed on DNR Lands (acres)	Cumulative Acres Completed on DNR Lands (from start of permit issuance)
Regeneration Harvest of Even-Aged Stands	Clearcut; Clearcut with reserves; Shelterwood – preparatory cuts, regeneration/seeding cut, removal harvest; Seed Tree – removal harvest and regeneration/seeding cut	29,154	29,154
Regeneration of Uneven-Aged Stands	Group selection; Single-tree Selection	10,816	10,816
Intermediate	Precommercial Thinning/Release	3,320	3,320
Salvage	Salvage and Sanitation	1,105	1,105

Retention Guideline Implementation

Check the most applicable box and provide additional information if warranted.

- A subset (1–3%) of harvest units were not assessed for adherence to retention standards as part of internal programs (Minnesota) or forest certification programs (Michigan, Minnesota, Wisconsin) during this reporting period. *If no assessments were made, continue to the Prescribed Fire and Firebreaks section.*
- A subset (1–3%) of harvest permit units were assessed for adherence to retention standards as part of internal programs (Minnesota) or forest certification programs (Michigan, Minnesota, Wisconsin) during the reporting period. If assessments were made, please fill out the additional information below.
 - The number of harvest permit units assessed during the reporting period was 20, this is 2.4% of the total.
 - The percent of assessed harvest permit units with correctly implemented retention guidelines was 100%.
 - The number of enhancement harvests that were audited before and after enhancement during the reporting period was 0.

Prescribed Fire and Firebreaks

Total Acres of Prescribed Fire

The total acres of prescribed fire and fire breaks in forest and brush lands during the reporting period and the cumulative total (i.e., from the start of the permit term) are provided in Table 2.

Table 2. Total Acres of Prescribed Fire and Fire Breaks

Prescribed Burns and Firebreaks	Completed on DNR Lands during the Reporting Period (acres)	Cumulative Acres Completed on DNR Lands (from start of the permit issuance)
Forest	7,369	7,369
Brushlands	8,736	8,736

Tracking the Incorporation of Minimization Criteria into Burn Plans

Check the most applicable box and provide additional information if warranted.

- Minimization criteria were incorporated into burn plans during this reporting period.
- Minimization criteria were not incorporated into one or more burn plans during this reporting period. Below is a list of the burn plans and reason(s) why minimization criteria were not incorporated.

Burn Plan	Reason

Training Provided to Prescribed Fire Staff on HCP Criteria

Check the most applicable box and provide additional information if warranted.

- No training was provided to prescribed fire staff during this reporting period.
- Training was provided to prescribed fire staff during this reporting period. Date of training was January 24, 2023 and approximately 297 participants attended the training, and the slides and a video recording has been made available on the MN DNR’s agency-wide intranet page.

Roads and Trails

Implementation of Tree Removal Restrictions

As outlined in Lake States HCP, Table 5-7, *Seasonal Restrictions for Activities Associated with Roads and Trails*, the following seasonal tree removal restrictions are to be implemented during all road and trail construction and maintenance projects.

- No tree removal within 150 feet of a known occupied maternity roost tree during the summer (April 15 – October 15).
- For Indiana bat only, no tree removal within 2.5 miles of a known occupied maternity roost tree (or associated capture locations as described in Objective 2.3) during pup season (June 1–July 31).

- No tree removal within 2.5 miles of a known hibernaculum entrance in the fall (August 16–October 15) or spring (April 15–May 14).
- No tree removal within 0.25 mile of a known hibernaculum entrance year-round, unless tree removal is necessary for hazard trees or road maintenance for public safety, in which case it will occur when impacts are lowest (i.e., during the winter [November 1–March 15] or early summer [May 15–June 1]).
- During new construction of roads and trails only, no removal of large-diameter trees (i.e., 9 inches diameter at breast height [dbh]) during pup season (June 1–July 31). If a large-diameter tree must be removed during pup season, a survey can be conducted to ascertain if the tree is occupied.

Check the most applicable box and provide additional information if warranted:

- All of the above tree removal restrictions were implemented during all road and trail construction and maintenance projects that occurred during the reporting period.
- One or more of the above tree removal restrictions was not implemented during road and trail construction and maintenance projects that occurred during the reporting period. Below is a list of the road and trail projects for which all restrictions were not implemented, the restriction(s) that was not implemented, and reason(s) why the restriction(s) was not implemented.

Road/Trail Project Name	Restriction Not Implemented	Reason Restrictions Not Implemented (e.g., roost survey conducted documenting no bats present)

Implementation of Bat Habitat Feature Avoidance Measures

As outlined in Lake States HCP, Chapter 5, Table 5-7, *Seasonal Restrictions for Activities Associated with Roads and Trails*, the following bat habitat feature avoidance measures are to be implemented during new road and trail construction projects.

- No new roads and trails within 150 feet of a known occupied maternity roost tree.
- No new roads or trails within 0.25 mile of a known hibernaculum entrance year-round.

Check the most applicable box and provide additional information if warranted:

- All of the above bat habitat feature avoidance measures were implemented during all new road and trail construction that occurred during the reporting period.
- One or more of the above bat habitat feature avoidance measures was not implemented during all new road and trail construction that occurred during the reporting period. Below is a list of the road and trail projects for which all restrictions were not implemented, the restriction(s) that was not implemented, and reason(s) why the restriction(s) was not implemented.

Road/Trail Project Name	Restriction Not Implemented	Reason Restriction was not Implemented (e.g., roost survey conducted documenting no bats present)

Results of Bat Presence/Absence Surveys at Culverts (greater than 36 inches in diameter) and Bridges

As outlined in Lake States HCP, Chapter 5, *Conservation Strategy*, Section 5.2.4.1, *Biological Goal 5: Avoid and minimize effects from covered activities on covered species*, the following measures are to be implemented during road and trail construction projects.

- For activities associated with existing culverts greater than 36 inches in diameter or bridges during the active season (spring, summer, or fall), the structure should be inspected to determine the presence or absence of covered bat species. If covered species are absent from the structure, no additional conservation measures are required. If covered species are present, additional consultation with USFWS is required for the activity to proceed during the active season. For Indiana bats, this objective is in addition to the seasonal avoidance requirements described in Objective 2.3 for timber harvest and prescribed burns during pup season (June 1–July 31).

Check the most applicable box and provide additional information if warranted:

- No road or trail projects involved existing culverts greater than 36 inches in diameter or bridges during the active bat season (spring, summer, or fall); therefore, no structures needed to be inspected to determine presence or absence of covered bat species during the reporting period.
- One or more road or trail projects involved existing culverts greater than 36 inches in diameter or bridges during the active bat season (spring, summer, or fall), therefore the structures needed to be inspected to determine presence or absence of covered bat species during the reporting period. Below is a list of all projects for which such inspections were needed, date of inspection, results of inspection (bat presence/absence), and if applicable, the reason why an inspection was not conducted.

Road/Trail Project Name	DNR Lead, Region	Date of Inspection	Bats Present (yes/no)	Reason Inspection was not Conducted
Tettegouche SP Entrance Bridge Replacement (8T294)	PAT, R2	N/A	N/A	Project on-hold, too high and large for visual inspection. Need MNDOT assistance.
Northshore State Trail East Branch Manitou River Bridge (8T292)	PAT, R2	7/18/2023	No	N/A
Northshore State Trail Manitou River Bridge (8T293)	PAT, R2	7/18/2023	No	N/A
Tettegouche SP High Falls Pedestrian Bridge (8P453)	PAT, R2	6/26/2023	No	Inspected in 2023, washed away during flooding in 2024
Blue Ox Trail Bridge Replacement	PAT, R2	June 2023	No	N/A
Alborn Pengilly – Whiteface River Bridge Replacement	PAT, R2	June 2023	No	N/A
Alborn Pengilly – St Louis River Bridge Replacement	PAT, R2	June 2023	No	N/A
Alborn Pengilly – Alborn Bridge Replacement	PAT, R2	June 2023	No	N/A
Alborn Pengilly – West Swan River Bridge Replacement	PAT, R2	June 2023	No	N/A
Savanna Portage Culvert Replacement	PAT, R2	August 2023	No	N/A
Taconite Trail – East Two River Bridge Replacement	PAT, R2	August 2023	No	N/A
Arrowhead State Trail – Elbow River Bridge Replacement	PAT, R2	August 2023	No	N/A
Great River Ridge State Trail– BRO1115	PAT, R3	3/20/2024 & 4/3/2024	No	N/A
Great River Ridge State Trail– BRO1116	PAT, R3	4/28/2023	No	N/A
Luce Line State Trail– Pioneer Creek BRO1166	PAT, R3	5/3/2023	No	N/A
Luce Line State Trail– Oak Lake BRO1164	PAT, R3	5/3/2023	No	N/A
Minnesota Valley State Trail– Nyssens Lake Trestle BRO1475	PAT, R3	4/9/2024	No	N/A

Gateway State Trail- Westminster Bridge BRO1618	PAT, R3	3/22/2023	No	N/A
Minnesota Valley State Trail- Minnehaha Segment Bridges 7 total	PAT, R3	3/28/2023	No	N/A
Minneopa State Park Tunnel Bridge Repair	PAT, R4	3/1/2024	N/A	N/A
Harlis Road Reconstruction (83092)	FOR	05/12/2023	No	N/A
Norland Road Reconstruction (83096)	FOR	06/01/2023	No	N/A
Beaver River Road Culvert Replacement (83104)	FOR	N/A	N/A	Existing culverts washed away in 2022 flooding and were moved to a gravel pit.
Frontier Farmer Reconstruction (8S185)	FOR	N/A	N/A	Culvert was completely inundated with water at time of construction
Harlis Road Reconstruction (83092)	FOR	05/12/2023	No	N/A

Avoidance of Roost and Hibernacula

Known Occupied Maternity Roost Avoidance

An internal list of all sites with known occupied maternity roost trees on DNR lands was generated and mapped prior to year 1 of HCP implementation during the development of the HCP. A monitoring process has been set in place to avoid covered activities in these buffers. The below sections provide documentation of the avoidance of such areas. Note, impacts on the 150-foot known occupied maternity roost tree buffer is restricted year-round for timber harvest, between June 1 and July 31 for prescribed fire, and between April 15 and October 15 for maintenance of roads and trails, with no new roads or trails to be constructed within the 150-foot buffer. In addition, a summary of all roost/tree surveys conducted during this reporting period, for tree removal for which a roost tree survey was necessary, is included below.

Check the most applicable box and provide additional information if warranted.

- No 150-foot buffers for known occupied maternity roost trees were affected by covered activities during the reporting period.
- One or more 150-foot buffers for known occupied maternity roost trees were affected by covered activities during the reporting period. Below is a list of what buffers were affected and reason(s) why.

Location of 150-foot Known Occupied Maternity Roost Tree Buffer Affected	How/Why Affected

Bat Roost/Tree Survey Summary

Check the most applicable box and provide additional information if warranted.

- No bat roost tree surveys (emergence counts) were conducted during the reporting period.
- Bat roost tree surveys (emergence counts) were conducted during the reporting period. Below is a summary of the surveys conducted during the reporting period.

Roost tree name/ID	
Is this a new roost (yes/no)	
Description of survey conducted	
Protocols used	
Were bats observed (yes/no)	
If bats observed, provided number observed and species (if known)	
Recommendations for changes to the monitoring program based on interpretation of results (if applicable)	

Hibernacula Buffer Establishment and Avoidance

Hibernacula Buffer Establishment

Check the most applicable box and provide additional information if warranted.

- A 0.25-mile buffer has been established around all known hibernacula entrances.
- A 0.25-mile buffer has not been established around one or more known hibernacula entrances. Below is a list of which known hibernacula entrances do not yet have 0.25-mile buffers established and reason(s) why.

Hibernacula ID	Reason 0.25-Mile Buffer Not Yet Established

Hibernacula Buffer Avoidance

Hibernacula buffer avoidance measures for the covered activities are as follows.

- Timber harvests within the 0.25-mile buffer will not be permitted at any time of year unless they are done with the express objective of improving habitat for covered bats.
- Limit disturbance from noise (85 decibels at distance of 50 feet) and vibrations within the 0.25-mile buffer from activities such as pile driving and blasting. If necessary, such activities will occur during summer, when most bats are away from the hibernacula entrances.
- To avoid killing or injuring swarming bats in fall/spring habitat, reduce prescribed fire intensity within 0.25 mile of hibernacula entrances during spring and fall, unless the goal of the fire prescription is creating high-quality habitat for bats.
- Roads and Trails:
 - No new road or trail construction within the 0.25-mile buffer of a known hibernaculum entrance year-round.
 - No tree removal associated with the maintenance of existing roads and trails within the 0.25-mile buffer of a known hibernaculum entrance year-round, unless tree removal is necessary for hazard trees or road maintenance for public safety, in which case it will occur when impacts are lowest (i.e., during the winter [November 1–March 15] or early summer [May 15–June 1]).

Check the most applicable box and provide additional information if warranted.

- All of the above restrictions were implemented within the 0.25-mile buffers for hibernacula entrances during the reporting period.
- One or more of the above restrictions were not implemented within the 0.25-mile buffers for hibernacula entrances during the reporting period. Below is list of what buffers were affected and reason(s) why.

Location of 0.25-mile Buffer for Hibernacula Entrance Affected	How/Why Affected (such as harvest geared at enhancement, etc.)

Observed Bat Mortality and Injury

Check the most applicable box and provide additional information if warranted.

- No dead or injured covered bat species were identified and documented and/or discovered incidentally from covered activities and reported to DNR during the reporting period.
- Dead or injured covered bat species were identified and documented and/or discovered incidentally from covered activities and reported to DNR during the reporting period. Below is a summary of bats reported to DNR.

Species ^a	Bat Dead (D) or Injured (I)	Date DNR was Notified	Date DNR Notified USFWS	Comments ^b

^aSpecies to be reported on include Indiana, northern long-eared, little brown, or tricolored bats.

^bComments may include where carcass was found, what covered activity was associated with dead/injured bat, whether injured bat was euthanized or taken to rehabilitator, reason USFWS was not notified within 5 business days, etc.

Confirmation of Bat Protection Zones Protections

At year zero, the Bat Protection Zones were established on permit issuance date, January 30, 2023, as described in Appendix B, *Landowner Enrollment Program*, of the Lake States HCP. Within the Bat Protection Zones, harvest restrictions apply. Check the most applicable box and provide additional information if warranted.

Implementation of Timber Harvest Restrictions

Check the most applicable box and provide additional information if warranted.

- All timber harvest restrictions were implemented.
- Not all timber harvest restrictions were implemented within the Bat Protection Zones. Below is a list of which timber harvest restrictions were not implemented and the associated reason.

Timber Harvest Restriction	Reason Not Implemented

Changes to Bat Protection Zones

Check the most applicable box and provide additional information if warranted.

- No significant changes were made to the established Bat Protection Zones.
- Significant changes were made to the established Bat Protection Zones. The following changes were made to the established Bat Protection Zones:

Hibernacula Assessments

Within the first 3 years of the permit term, DNR must complete an assessment of all known hibernacula entrances on DNR lands. The assessment will provide the following information about the current condition of hibernacula entrances on DNR lands: if no longer occupied, the time since last occupancy; documentation of specific issues at a site (e.g., vandalism, potential for collapse, flooding); presence and status of gate; and if available, number and type of bats present. New and existing gates will be visited at least every 5 years. In Exhibit A, photo-documentation of some of the gate condition for those gates visited during the last reporting period available and those missing will be included in future reports. The list of entrances prioritized for gate installation and the list of sites where additional data are needed to determine if a gate is appropriate on DNR lands is in Exhibit B.

Hibernacula Entrance Assessments

- ☒ One or more hibernacula entrance assessments on DNR lands occurred during this reporting period. The hibernacula entrances assessed, date of assessment, and relevant information collected are included in Table 3 with Gate and Bat Use Assessments (note: Exhibit B lists all hibernacula entrances on DNR lands with a schedule of when they are to be assessed).

Hibernacula Gate Assessments

- ☒ One or more hibernacula gate assessments on DNR lands occurred during this reporting period. The hibernacula entrances assessed, date of assessment, and relevant information collected are included in Table 3 with Entrance and Bat Use Assessments (note: Exhibit B lists all hibernacula entrances on DNR lands with a schedule of when they are to be assessed):

Hibernacula Bat Use Assessments

- ☒ One or more hibernacula bat use assessments on DNR lands occurred during this reporting period. The hibernacula assessed, date of assessment, and relevant information collected are included in Table 3 with Entrance and Gate Assessments. See Exhibit B for a list of all hibernacula on DNR lands with a schedule of when their bat use is to be assessed.

Table 3. Combined table showing entrances, gates, and hibernacula assessed, date of assessment, and relevant information collected.

Hibernaculum ID	Soudan Mine	Mystery Cave	Robinson's Ice Cave	Brightsdale	Hole in the Head ²	Gnomen ²	Canfield Creek ²
Date of Bat Use and Entrance Assessment	2/20/2024	3/7/2023	3/14/2023	3/4/2024	3/12/2003	10/14/2003	9/22/2024
Bats present (Yes/No)	Yes	Yes	Yes	Yes	-	-	-
Date Last Occupied by Bats	-	-	-	-	-	-	-
No. Indiana Bats Present	No	No	No	No	-	-	-
No. Northern Long-eared Bats Present	No	Maybe (Myotis spp.)	No	Yes	-	-	-
No. Tricolored Bats Present	No	No	No	Yes	-	-	-
No. Little Brown Bats Present	Yes	Yes	No	Yes	-	-	-
WNS Present (Yes/No)	Yes	Yes	Yes	Yes	-	-	-
No. Bats Observed with WNS	Yes	Yes	Yes	Yes	-	-	-
Entrance Issues Documented (e.g., vandalism, collapse, flooding, blocking vegetation)	None	None	None	Damage to door	-	-	-
Recommended Actions (e.g., water pumping)	None	None	None	Door Repair	-	-	-
Number of entrances	2	3	1	2	1	1	1
Number of gated entrances	2	3	1	2	0	0	0
If gated, description of gate condition and reference to photo in Exhibit A	-	Figures 1-5	-	Figure 6	-	-	-
If not gated, is gating recommended? (Yes/No)	No	No	No	No	No	No	No
If gating is recommended, what is the anticipated date of installation?	-	-	-	-	-	-	-
Recommended maintenance actions for existing gate?	-	-	-	-	-	-	-

Date(s) Hibernacula Bat Use and Entrance Previously Assessed	3/3/2023	3/20/2019	2/12/2019	3/10/2020	-	-	-
Recommended Actions from Previous Visit Implemented (Yes/No)	Yes	Yes	Yes	Yes	-	-	-
If Recommended Actions Not Implemented, Please Provide Rationale	-	-	-	-	-	-	-

New Hibernacula Documentation

Check the most applicable box and provide additional information if warranted.

- No new hibernacula were documented during this reporting period.
- One or more new hibernacula were documented during this reporting period. Below is a list of the new hibernacula document and relevant information about each.

Hibernaculum ID	
Location (Township)	
Date Discovered	
Date Bat Use Assessed	
Bats present (Yes/No)	
No. Indiana Bats Present	
No. Northern Long-eared Bats Present	
No. Tricolored Bats Present	
No. Little Brown Bats Present	
WNS Present (Yes/No)	
No. Bats Observed with WNS	
Recommended Actions (e.g., gate, water pumping, remove obstructions)	

² Hole in the Head, Gnomen, and Canfield Creek are difficult to access. These entrances are not known to have public disturbance issues, therefore no gates are maintained. Bat use at Canfield Creek was confirmed with trail camera images as standard use assessments are not possible due to entrance size. Hole in the Head and Gnomen are targeted for future surveys.

Bat Research Collaboration and Associated Permits

Bat Research Collaboration

Check one box and provide additional information if warranted.

- DNR has not collaborated with USFWS and/or other entities on bat research during this reporting period.
- DNR has collaborated with USFWS and/or other entities on bat research during this reporting period. Below is a list of the bat research projects and the entities involved in each.

Bat Research Project Name	Entities Involved	Is Research Related to WNS? (Yes/No)

Bat Research Permits

Check the most applicable box and provide additional information if warranted.

- DNR has not issued permits to continue white-nose syndrome (WNS) research on DNR lands during this reporting period.
- DNR has issued permits to continue white-nose syndrome research on DNR lands during this reporting period. Below is a list of bat research project for which permits were issued and date permit was issued.

Bat Research Project Name	Date State Permit Issued

White-Nose Syndrome Communication and Information Sharing

Meeting Participation

Check the most applicable box and provide additional information if warranted.

- DNR has not participated in regional communication and information sharing related to WNS during this reporting period.
- DNR has participated in regional communication and information-sharing related to WNS during this reporting period. Below is a list of the meetings, conferences, calls, etc. in which DNR participated.

Name of Meeting (Conference, Call, etc.)	Date(s) of Meeting	Names of Persons and/or Groups Involved in Meeting
Midwest Bat Working Group Annual Meeting	March 2023	Melissa Bowman (MN DNR); other Midwest States Bat Biologists and managers, federal WNS coordinators
Midwest Bat Working Group Annual Meeting	April 2024	Melissa Bowman (MN DNR); other Midwest States Bat Biologists and managers, federal WNS coordinators
WNS Monthly Partner Call	January 2023 – June 2024	Melissa Bowman (MN DNR); other Midwest States Bat Biologists and managers, federal WNS coordinators
WNS National Annual Meeting	June 2024	Melissa Bowman (MN DNR); other Midwest States Bat Biologists and managers, federal WNS coordinators

Surveys and Technical Assistance

Check the most applicable box and provide additional information if warranted:

- DNR has not conducted any WNS surveys nor implemented any technical assistance to research during this reporting period.
- DNR has conducted one or more WNS surveys or implemented technical assistance to research during this reporting period. Below is a list of the WNS surveys conducted and/or technical assistance implemented and the dates of each.

Name of WNS Survey/Technical Assistance	Date of Survey/Implementation of Technical Assistance

DNR Guidance and Directive Updates

Check the most applicable box and provide additional information if warranted.

- No guidance or directives were updated to reflect Lake States HCP requirements during the reporting period.
- Guidance and/or directives were updated to reflect Lake States HCP requirements during the reporting period. Below is a list of directives and/or guidance and the date they were updated.

Directive/Guidance Name	Date Updated to Reflect HCP Requirements

Acres of DNR-Owned Lands

The total (approximate) acres of DNR-owned lands at the end of this reporting period were 4,997,383.

Lake States HCP Cost Report

HCP implementation funds were provided for in the DNR budget. Check one box and provide additional information if needed.

- Yes.
 - No. Below is a description of budgeting status during the reporting period.
-

Acquisition and Disposal of Parcels with Roosts or Hibernacula

Check the most applicable box and provide additional information if warranted.

- No parcels with known occupied maternity roost trees or hibernacula entrances were acquired or disposed of during the reporting period.
- Parcels with known occupied maternity roost trees or hibernacula entrances were acquired and/or disposal of during the reporting period. Below is a list of the parcels, their location, whether they were acquired or disposed of, and whether they had a known occupied roost tree and/or hibernaculum entrance present.

Parcel Name	Location (Township)	Acquired (A) or Disposed Of (D)	Known Occupied Maternity Roost Trees (R) and/or Hibernacula (H) Entrance on Parcel

Audit Reports for Certification Programs and/or Internal Programs

Below is a list of programs (internal, i.e., retention guideline monitoring and/or certification) audit reports and links that were released during the reporting period. (Note that these are provided for context for USFWS.)

Program	Audit Report Link
Forest Stewardship Council (FSC)	FSC Forest Management Digital Audit Report Supplement (state.mn.us); https://files.dnr.state.mn.us/forestry/certification/audit_reports/fsc/fsc-surveillance-evaluation-report-2023.pdf
Sustainable Forestry Initiative (SFI)	Sustainable Forestry Initiative Forest Management Audit Report (state.mn.us); https://files.dnr.state.mn.us/forestry/certification/audit_reports/sfi/sfi-surveillance-evaluation-report-2023.pdf

Landowner Enrollment Program Summary

Total acres participating during this reporting period in Minnesota was 0.

Total number of landowners participating during this reporting period in Minnesota was 0.

Total acres of timber harvest on Landowner Enrollment Program lands conducted during this reporting period in Minnesota was 0.

Total acres of prescribed fire and/or firebreaks that were conducted during this reporting period in Minnesota were 0.

Note that the MN DNR began the enrollment process in July 2024 (just outside of the reporting period for this annual report).

Progress on Communications Plan

- The communications plan was finalized during this reporting period. (Note: the full plan is due to USFWS by year 2.)
- The communications plan was not finalized during this reporting period; below is the progress that was made: _____.

Actions completed that are associated with the final communications plan that were completed during this reporting period are as follows.

Action	Date Completed
Conduct a training and make the slides and a video recording available on the MN DNR's agency-wide intranet page.	January 24, 2023

Adaptive Management Actions Implemented

The Lake States HCP incorporates adaptive management as advocated for, and defined by, USFWS for implementing HCPs consistent with the USFWS *Habitat Conservation Planning Handbook* (2016).

The primary purpose of the adaptive management program is to resolve uncertainties associated with HCP objectives. Uncertainties are variables or parameters that will affect outcomes for bats but that are outside the control of the state and cannot be known or determined with certainty in advance. Four uncertainties were identified during the drafting of the Lake States HCP: climate change, number of protected hibernacula, number of protected maternity roosts, and landowner eligibility. These uncertainties are detailed in Lake States HCP, Chapter 5, *Conservation Strategy*, Section 5.5, *Adaptive Management*.

Check the most applicable box and provide additional information, if warranted.

- Adaptive management was not triggered during this reporting period.
- Adaptive management was triggered during this reporting period. Below is a summary of adaptive management that was triggered.

Uncertainty	Adaptive Management Trigger	Associated Adaptive Management Action ^a	Summary of the Action Taken and Results of Current or Previous Actions Taken (if available) during the Reporting Period ^a
Climate change leading to shifts in covered bat species distribution.	Species models for covered bats will be rerun during year 30 of plan implementation. Results show that species distributions have changed relative to 2022.	If results of the updated model indicate a potential increase in the level of permitted take, the permittee(s) will coordinate with USFWS as described in Lake States HCP Chapter 6, <i>HCP Implementation and Assurances</i> , Section 6.6.2, <i>Amendments</i> .	
Addition or removal of hibernacula as protected resources.	Discovery of a new hibernaculum and its entrance.	For DNR lands, DNR will incorporate the site as a managed resource under this HCP and will apply any relevant conservation objectives or measures. For enrolled lands, DNR will have 60 days from discovery or notification of the new site to notify enrolled landowners and discuss how to address the resource under the HCP. County, municipal, tribal, and private landowners will be responsible for implementing any changes in management within 30 days of being notified of the change.	

<p>Addition or removal of hibernacula as protected resources.</p>	<p>Reclassification of hibernacula as unoccupied. Absence of the target bat species can be demonstrated by both an emergence count at the hibernaculum entrance and/or a survey for bats in the area. If no covered bats are detected for 5 consecutive years, the site will be considered unoccupied.</p>	<p>Sites considered unoccupied will not be subject to HCP restrictions (i.e., Objectives 4.1, 4.3, 4.4). Historic hibernacula and their entrances will be recorded and resurveyed every 5 years to confirm that they remain unoccupied. If covered bats are subsequently detected, the hibernaculum will again be considered occupied and HCP restrictions will apply.</p>	
<p>Addition or removal of maternity roost as known and occupied.</p>	<p>Discovery of an occupied maternity roost tree (any covered bat species).</p>	<p>For DNR lands, DNR will incorporate the site as managed resources under this HCP and will apply any relevant conservation objectives or measures. For enrolled lands, DNR will have 60 days from discovery or notification of the new site to notify enrolled landowners and discuss how to address the resource under the HCP. County, municipal, tribal, and private landowners will be responsible for implementing any changes in management within 30 days of being notified of the change.</p>	
<p>Addition or removal of maternity roost as known and occupied.</p>	<p>Discovery of an Indiana bat occupied maternity roost tree.</p>	<p>An additional 2.5-mile buffer around known Indiana bat occupied maternity roost trees is required during the pup season (Objective 2.3). This objective applies to both known occupied maternity roost trees and known capture locations (absent roosting data). These new locations will be subject to the conservation measures for Indiana bat in the HCP. Should any new occupied maternity roost trees for Indiana bat be identified outside the current summer distribution model developed for the HCP, that map will be revised, and</p>	

		<p>conservation associated with summer habitat/roost trees for Indiana bats will apply in the newly mapped area.</p>	
<p>Addition or removal of maternity roost as known and occupied.</p>	<p>Reclassification of known occupied maternity roost tree and its buffer as unoccupied. A known occupied maternity roost tree and its buffer are considered occupied for the length of the permit term unless a) the known occupied maternity roost tree and all roosting habitat within the buffer are no longer present (e.g., due to tree fall, wildfire, windthrow, disease); or b) surveys demonstrate that the known maternity roost tree and its buffer are unoccupied. A known occupied maternity roost tree and its buffer may be demonstrated to be unoccupied if a) an emergence count at the known occupied maternity roost tree (if a specific tree is known) demonstrates that there are no covered bats present; and b) an acoustic survey for bats in accordance with current USFWS guidelines, as supplemented by DNR, demonstrates that no covered bats are present. For the acoustic survey, a bat detector must be placed near the known occupied roosting tree for seven weather-appropriate nights. For Indiana bats, the 2.5-mile pup-season buffers for known occupied maternity roost tree may also be based on known capture locations (see Objective 2.3 for details). Buffers based on known capture location data that are over 25 years old will be reclassified as unoccupied</p>	<p>If deemed unoccupied, sites will be resurveyed by bat biologist(s) at least once, no more than 5 years later, to confirm that they remain inactive. At this point, the site will be removed from the list of known occupied maternity roost trees. Sites that have been removed from the list of known occupied maternity roost trees because all roosting habitat within the buffer was no longer present do not need to be resurveyed after 5 years. If demonstrated as unoccupied, the 150-foot buffer would not be implemented.</p>	

	<p>unless another known capture location within the buffer is recorded. Buffers based on specific known occupied maternity roost trees for Indiana bats are considered occupied using the same criteria as for other covered bats described above. A buffer of 150 feet would be surveyed to identify whether habitat is no longer present or whether the known maternity roost tree and the buffer are unoccupied. This smaller buffer would be used as opposed to the 2.5-mile buffer that is protected from timber harvest during pup season for Indiana bats.</p>		
<p>Eligibility for landowner enrollment program</p>	<p>Five-year period recalculation of covered bat densities on the landscape.</p>	<p>The values in Lake States HCP Appendix B, Section B.3, <i>Methodology Used to Determine Program Eligibility</i> (Tables B-1 through B-10) are adjusted, as needed, to reflect changes in bat populations. This will change the eligibility criteria for the Landowner Enrollment Program.</p>	

Changed and Unforeseen Circumstances Triggered

Check the most applicable box and provide additional information, if warranted.

- No changed or unforeseen circumstances were triggered during the reporting period.
- Changed and/or unforeseen circumstances were triggered during the reporting period (see Lake States HCP Chapter 6, *HCP Implementation and Assurances*, Section 6.5.1.1, *Additional Species Listed or Impacted*). Below is a list of the triggered circumstances and actions taken.

Changed Circumstance	Trigger	Information that Triggered the Change	Action(s) Taken
Additional species listed or affected	When a new species (not exclusive to bats) has been proposed for classifying and its habitat is associated with covered lands, USFWS will notify DNR. Additionally,		

	impacts from covered activities on species already listed due to range expansion will trigger similar measures.		
Wildfire	For each state, annual fire totals greater than the maximum annual acres burned on state lands plus one standard deviation are unforeseen: Michigan: 32,469 acres Minnesota: 29,856 acres Wisconsin: 3,432 acres		
White-nose syndrome	Populations have collapsed such that covered bat species (northern long-eared, tricolored, and little brown bat) are only present in one-third of hibernacula in each state (i.e., reduced to 3 hibernacula in Michigan, 3 hibernacula in Minnesota, and 4 hibernacula in Wisconsin).		
White-nose syndrome	The results of survey data show that some hibernaculum has a population of more than 30,000 covered bats (of any one or a combination of any of the covered bat species) and, thus, shows signs of recovery from WNS.		
White-nose syndrome	Measures that are proven effective for treatment of bats with WNS become available over the permit term.		

Administrative Changes Proposed or Approved

Check the most applicable box and provide additional information if warranted.

- No administrative changes were proposed or approved during the reporting year that affect the implementation of the Lake States HCP.
- Administrative changes were proposed or approved during the reporting year that affect the implementation of the Lake States HCP. Below is list of administrative changes, the date the changes were proposed, and the date the changes were approved.

Administrative Change	Summary of Changes	Date Proposed	Date Approved
Corrections of typographical, grammatical, and similar editing errors that do not change the intended meaning or obligations			
Corrections of any minor errors in maps or exhibits			
Corrections of any maps, tables, or appendices to reflect approved amendments to the HCP or ITP			
Changes to DNR staff or changes to membership of the HCP Advisory Committee without changing the representation of DNR			

5-year Impact Assumption Validation Assessment

As required in Lake States HCP, Chapter 6, Section 6.4.2, *Reporting*, the assumptions used in the Lakes States HCP will be assessed by the Minnesota Department of Natural Resources (DNR) every 5 years to ascertain whether they are still applicable. This impact assumption validation assessment is outlined in Appendix F, *Impact Assumption Validation Assessment*, of the Lake States HCP, with the main goal of periodically revisiting the assumptions made in the HCP.

Check the most applicable box and provide additional information if warranted.

- A 5-year impact assumption validation assessment was not required during this reporting period.
- A 5-year impact assumption validation assessment was required during this reporting period and completed following the guidance provided in Lake States HCP Appendix F, *Impact Assumption Validation Assessment* (see results below).

Impact Assumption Validation Assessment Results

- The assessment validated that the assumptions outlined in Appendix F, *Impact Assumption Validation Assessment* are still applicable and that no additional actions are necessary.
- The assessment revealed that the assumptions outlined in Appendix F, *Impact Assumption Validation Assessment* may no longer be valid and that additional actions may be necessary. The results of and process used for verifying the impacts assumptions as part of the 5-Year impact assumption validation assessment are attached in Exhibit C.

Photo-Documentation of Gate Conditions on DNR Lands



Figure 1. A recently collapsed ceiling in a side passage of Mystery Cave had created a new, unmanaged entrance into the cave. A newly installed 10' x 10' cupola-style bat gate to allow fly-in bat access but block human entry.



Figure 2. Mystery Cave Entrance 1 Door with exterior barrier open, bat portal visible above door. This entry leads to a cement tunnel that contains a second door to access the cave interior.



Figure 3. Close up of exterior bat portal entry at Mystery Cave Entrance 1.



Figure 4. Interior view of outer door at Mystery Cave Entrance 1.



Figure 5. Second interior door at Mystery Cave Entrance 1, located in tunnel that leads to the cave.



Figure 6. Exterior door for Brightsdale Tunnel. This door was replaced in fall 2024. This door replaced a previous door that began having issues staying securely closed due to weathering. Bats enter this site through a bat portal approximately 5 feet above the door (not included in image).

List of Hibernacula on DNR Lands with Completed and Anticipated Future Assessment Dates

Hibernacula Entrance, Gate, and Bat Use Assessments

Hibernacula entrances in this list are prioritized in terms of how long it has been since they were last assessed and whether additional data is needed to determine if a gate is appropriate. Future assessments and their anticipated completion are marked by Permit Year in the table below.

Hibernaculum Name	Number of gates	Number of entrances	County	Last Year Bat Use Documented	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Soudan Underground Mine	2	2	St Louis	2/20/2024	X		X		X					
Mystery Cave	3	3	Fillmore	3/7/2023	X			X	X					
Robinson's Ice Cave	1	1	Pine	3/14/2023	X	X			X					
Brightsdale	2	2	Fillmore	3/4/2024	X		X		X					
Hole in the Head ^a	0	1	Lake	3/12/2003					X					
Gnomen ^a	0	1	Lake	10/14/2003					X					
Canfield Creek ^a	0	1	Fillmore	9/22/2024	X				X					
Total	8	11												

^a Hole in the Head, Gnomen, and Canfield Creek are difficult to access. These entrances are not known to have public disturbance issues, therefore no gates are maintained. Bat use at Canfield Creek was confirmed with trail camera images as standard use assessments are not possible due to entrance size. Hole in the Head and Gnomen are targeted for future surveys.