

7.1 Introduction

The Endangered Species Act (ESA) requires that habitat conservation plans (HCPs) specify, “the funding that will be available to implement” conservation actions that minimize and mitigate impacts on covered species (16 United States Code [U.S.C.] § 1539(a)(2)(A)). ESA also requires the U.S. Fish and Wildlife Service (USFWS) to determine that the applicant will ensure adequate funding is available to implement the HCP.¹ This chapter outlines the estimated costs to implement the Lake States HCP over the proposed 50-year permit term and provides assurances that the Michigan Department of Natural Resources, Minnesota Department of Natural Resources, and Wisconsin Department of Natural Resources (DNRs) will pay for those costs.

The costs outlined in this chapter reflect the estimated costs to implement the plan during year 1 of the permit term based on 2019 dollars. These values are not adjusted for inflation because plan costs are expected to increase due to inflation at the same rate as increases in plan funding sources. For example, any revenue sources that fund agency operations are reevaluated each year and adjusted for actual or predicted inflation, as necessary. Similarly, each state’s annual budget process will adjust budget requests for inflation at the same rate that plan costs will increase due to inflation.

7.2 Cost to Implement the Habitat Conservation Plan

As described in Chapter 6, *HCP Implementation and Assurances*, DNR staff will be responsible for and oversee implementation of the Lake States HCP in each of their respective states. DNR staff members include administrators, geographic information system (GIS) and database managers, biologists, foresters, and other natural resource specialists who will carry out planning and design, monitoring, adaptive management, and periodic coordination with and reporting to USFWS.

Costs to implement the Lake States HCP are divided into three categories, each of which is summarized below for each state separately.

- Program administration
- Conservation program and monitoring actions
- Adaptive management and changed circumstances

All costs were estimated based on information provided by DNR staff for the same or similar actions conducted currently. For HCP tasks that are new to the agency, costs were estimated based on similar actions conducted by other entities in the participating states, or with data from comparable

¹ Id at 1539(a)(2)(B)(iii).

HCPs in other states. These amounts were crosschecked with State DNR staff to ensure the appropriateness and accuracy of the estimation.

It is important to note that these cost estimates are planning-level estimates only for the purpose of demonstrating assured funding for the HCP. Each DNR will prepare annual budgets to implement the HCP that may differ from these cost estimates (either more or less). These cost estimates are not requirements of what each DNR must spend, but rather reasonable estimates of total HCP costs over the entire permit term.

7.2.1 Program Administration

This section describes the program administration and ongoing or yearly costs associated with staff time for coordination, agency meetings, database tracking, and reporting. The DNRs will each provide their own HCP administrator, who will be responsible for compiling their State's HCP Annual Report, coordinating HCP implementation, and performing other HCP administration tasks, as needed. Additional qualified staff provided by each DNR, such as biologists or foresters, will also help with administration. GIS staff at each DNR will maintain and update a database(s) that houses spatial information necessary for tracking compliance with the Lake States HCP. See Chapter 6, Section 6.3.2, *Implementation Structure and Responsibilities*, for a description of the roles of each State's HCP staff.

7.2.1.1 Michigan

Program administration costs for Michigan are estimated to be \$127,084 per year over the life of the permit (Table 7-1).

Table 7-1. Michigan Program Administration Costs

HCP Staff	MI DNR FTEs ^a	Years Needed	Rate ^b	Annual Cost in Year 1 ^c	Cost Over 50-Year Permit Term ^c
HCP Administrator	0.50	50	\$164,486	\$82,243	\$4,112,160
HCP Implementation Team	0.20	50	\$164,486	\$32,897	\$1,644,864
GIS Technician	0.10	50	\$119,434	\$11,943	\$597,168
TOTAL COST				\$127,084	\$6,354,192

Notes:

^a FTEs = Full-time employees

^b Rate for staff time includes staff base salary plus an overhead cost.

^c Costs may not add up due to rounding. Costs over 50-year permit term are annual cost in year 1 x 50.

7.2.1.2 Minnesota

Program administration costs for Minnesota are estimated to be \$73,038 per year over the life of the permit (Table 7-2).

Table 7-2. Minnesota Program Administration Costs

HCP Staff	MN DNR FTEs^a	Years Needed	Rate^b	Annual Cost in Year 1	Cost Over 50-Year Permit Term
HCP Administrator	0.40	50	\$110,873	\$44,349	\$2,217,456
HCP Implementation Team	0.15	50	\$107,323	\$16,098	\$804,924
GIS Technician	0.15	50	\$83,938	\$12,591	\$629,532
TOTAL COST				\$73,038	\$3,651,912

Notes:

^a FTEs = Full-time employees^b Rate for staff time includes staff base salary plus an overhead cost.

7.2.1.3 Wisconsin

Program administration costs for Wisconsin are estimated to be \$79,035 per year over the life of the permit (Table 7-3).

Table 7-3. Wisconsin Program Administration Costs

HCP Staff	WI DNR FTEs^a	Years Needed	Rate^b	Annual Cost in Year 1	Cost Over 50-Year Permit Term
HCP Administrator	0.50	50	\$101,053	\$50,526	\$2,526,320
HCP Implementation Team	0.20	50	\$101,053	\$20,211	\$1,010,528
GIS Technician	0.10	50	\$82,977	\$8,298	\$414,885
TOTAL COST				\$79,035	\$3,951,733

Notes:

^a FTEs = Full-time employees^b Rate for staff time includes staff base salary plus an overhead cost.

7.2.2 Conservation Program and Monitoring Actions

As stated in Chapter 5, *Conservation Strategy*, the conservation program implements the biological goals and objectives and fulfills the HCP requirement to avoid, minimize, and mitigate impacts of forest management on bats to the maximum extent practicable. Costs associated with the conservation program include implementation of avoidance and minimization measures, mitigation, and monitoring actions, as well as the staff time associated with tracking these elements. The cost associated with each of these program elements is described below.

7.2.2.1 Staff Costs

HCP staff will implement the conservation program and design and implement monitoring actions. Each of the biological objectives within the conservation program has associated actions that may require additional staff time and direct costs. Natural resources professionals in the DNRs, such as biologists, foresters, and planners will oversee and assist with implementation of the conservation program; therefore, a portion of a full-time salary was allocated across the agencies to account for these costs (Tables 7-4 to 7-6).

7.2.2.2 Conservation Measures

This HCP commits the DNRs to continue some conservation measures which they already implement. In other cases, the DNRs will incorporate new measures into currently established programs or practices. Implementation of ongoing measures will require minimal new staff time or materials. Ongoing or existing costs are not estimated for the purposes of costing this HCP. However, the Lake States HCP will require the communication of new and different measures, as well as some new activities. Staff time, direct costs, and materials for conservation measures were estimated only for new actions (Tables 7-4 to 7-6).

7.2.2.3 Monitoring Actions

The HCP monitoring program is described in Chapter 5, Section 5.5, *Monitoring*. Monitoring the outcomes of conservation measures is the foundation of the HCP's conservation program and adaptive management approach and can help advance scientific understanding to better achieve the HCP's biological goals and objectives. As with the conservation measures, many monitoring actions will be implemented by continuing existing practices. The costs of existing monitoring programs and actions is not included as an HCP cost. Those new HCP monitoring actions that will result in additional costs are included in Tables 7-4 to 7-6.

7.2.2.4 Michigan

Table 7-4. Michigan Conservation Program Costs

Biological Objectives	Potential associated action(s)	Additional Staff Time Needed to Implement the HCP											Direct Costs					Total Annual Costs	Total Over Permit Term			
		MI FTEs										New Commitment	Annual Cost in Yr 1	# of Years	Over Permit Term	Set Up Cost	Cost per Event	# of actions	Annual Cost in Yr 1	Over Permit Term	Michigan	Michigan
		HCP Administrator	HCP Implementation Team Member	Clerical Worker/ Web Admin	GIS Technician	Community Liaison	Senior Biologist	Forest Assistant Manager	Biologist	Field Supervisor	Field Crew Member											
Objective 1.1: Manage DNR-administered forestlands (currently over 9 million acres) sustainably such that habitat for covered bats is maintained over the permit term	Continue existing management actions												\$0		\$0		\$0	\$0	\$0	\$0	\$0	
	Maintain forestland as forest												\$0		\$0		\$0	\$0	\$0	\$0	\$0	
	Document high level forestry approach used by the DNR over the last reporting year for use in annual report						0.077					✓	\$10,989	50	\$549,440		\$0	\$0	\$10,989	\$549,440		
	Document any updates to FIA data for annual report						0.019					✓	\$2,747	10	\$27,472		\$0	\$0	\$549	\$27,472		
Objective 2.1: Implement retention guidelines in all forest habitat for bats beginning in year 1 and continuing throughout the permit term	Develop a guidance document for use by field staff					0.058						✓	\$8,242	1	\$8,242		\$0	\$0	\$165	\$8,242		
	Implement retention guidelines												\$0		\$0		\$0	\$0	\$0	\$0.00		
	Audit a subset of harvested units annually												\$0		\$0		\$0	\$0	\$0	\$0.00		
	Document audits for the annual report					0.019						✓	\$2,747	50	\$137,360		\$0	\$0	\$2,747	\$137,360		
Objective 2.2: Minimize impacts to roosting bats by avoiding 150 feet around known roost trees	Geolocate known maternity roost trees on DNR lands within year 1												\$0		\$0		\$0	\$0	\$0	\$0.00		
	Incorporate new roosts trees on DNRs lands into state database as they are identified/geolocated					0.019						✓	\$2,747	50	\$137,360		\$0	\$0	\$2,747	\$137,360		
	Incorporate new roosts trees identified on private lands into state database as they are identified/geolocated					0.019						✓	\$2,747	50	\$137,360		\$0	\$0	\$2,747	\$137,360		
Objective 2.3: Minimize impacts to roosting Indiana bats by restricting activities around all known roosts	Implement 2.5-mile buffer around known Indiana roosts and capture locations.												\$0		\$0		\$0	\$0	\$0	\$0		
	Document that no harvest has occurred unless specifically conducted to benefit bats within the specified protective buffer for annual report												\$0		\$0		\$0	\$0	\$0	\$0		
Objective 3.1: Increase bat-friendly management practices in private, county, and municipal lands throughout the permit term	Develop and administer Landowner Enrollment Program					0.019						✓	\$2,747	50	\$137,360	\$2,500	1	\$50	\$2,500	\$2,797	\$139,860	
	Document participation in LEP and acreage of enrolled private lands for annual report					0.019						✓	\$2,747	50	\$137,360		\$0	\$0	\$2,747	\$137,360		
	Monitor LEP adherence to relevant conservation measures					0.340						✓	\$48,625	50	\$2,431,272		\$0	\$0	\$48,625	\$2,431,272		
Objective 3.2: Develop and implement a communication plan for educating public on covered bats	Develop a communication plan for bats and implement within 2 years				0.019	0.019						✓	\$5,310	2	\$10,619	\$5,000	1	\$100	\$5,000	\$312	\$15,619	
	Produce and update online content						0.010					✓	\$2,333	50	\$116,630		\$0	\$0	\$2,333	\$116,630		
	Development of a brochure, speaking engagements, webinars, and other public outreach				0.038	0.038						✓	\$10,619	50	\$530,960	\$10,000	1	\$200	\$10,000	\$10,819	\$540,960	
Objective 4.1: Remove obstructions at known hibernacula entrances on DNR lands by year 5 and continue throughout the permit term	Visit hibernacula to trim vegetation and remove obstructions once in first 5 years then every 10 years												\$0		\$0		\$0	\$0	\$0	\$0		
	Identify potential sites for creation or rehabilitation (optional)												\$0		\$0		\$0	\$0	\$0	\$0		

Biological Objectives	Potential associated action(s)	Additional Staff Time Needed to Implement the HCP											Direct Costs					Total Annual Costs	Total Over Permit Term				
		MI FTEs											New Commitment	Annual Cost in Yr 1	# of Years	Over Permit Term	Set Up Cost	Cost per Event	# of actions	Annual Cost in Yr 1	Over Permit Term	Michigan	Michigan
		HCP Administrator	HCP Implementation Team Member	Clerical Worker/ Web Admin	GIS Technician	Community Liaison	Senior Biologist	Forest Assistant Manager	Biologist	Field Supervisor	Field Crew Member												
Objective 4.2: Protect known hibernacula on DNR lands by implementing a 0.25-mile protective buffer and maintain or enhance habitat in those areas throughout the permit term	Implement a 0.25-mile buffer around known hibernacula													\$0		\$0		\$0	\$0	\$0	\$0		
	Document that no harvest has occurred unless specifically conducted to benefit bats within the specified protective buffer for annual report													\$0		\$0		\$0	\$0	\$0	\$0		
	Document additional known hibernacula on private forest lands enrolled in the HCP in state database						0.019						✓	\$2,747	50	\$137,360		\$0	\$0	\$2,747	\$137,360		
	Document any enhancements to core areas around hibernaculum on DNR lands and provide a before and after assessment in the annual report						0.019						✓	\$2,747	50	\$137,360		\$0	\$0	\$2,747	\$137,360		
Objective 4.3: Maintain gates on all known entrances to occupied hibernacula on DNR lands (unless determined to be not needed or detrimental) throughout the permit term.	Assess all known hibernacula on DNR lands and prioritize gating efforts						0.038						✓	\$5,494	5	\$27,472		\$0	\$0	\$549	\$27,472		
	Install gates on any nongated hibernacula where applicable						0.038						✓	\$5,494	1	\$5,494		\$0	\$0	\$110	\$5,494		
	Repair existing gates						0.038						✓	\$5,494	20	\$109,888	\$1,000	20	\$400	\$20,000	\$2,598	\$129,888	
	Survey hibernacula for covered bats													\$0		\$0		\$0	\$0	\$0	\$0.00		
Objective 4.4: Promote awareness and understanding of WNS through distribution of state-specific WNS response plans and collaboration with researchers throughout the permit term	Develop a state-specific WNS response plan by year 3													\$0		\$0		\$0	\$0	\$0	\$0.00		
	Add content to website						0.010						✓	\$1,374	50	\$68,680		\$0	\$0	\$1,374	\$68,680		
	Establish a regional clearing house and collaborate with FWS and other entities on research						0.038						✓	\$5,494	50	\$274,720		\$0	\$0	\$5,494	\$274,720		
	Provide permits (as appropriate) to continue WNS research on DNR lands													\$0		\$0		\$0	\$0	\$0	\$0.00		
Objective 5.1: Incorporate criteria within prescribed burn plans that minimize impacts on roosting and hibernating bats by year 5 and continue throughout the permit term	Update prescribed burn plans to reflect impact minimization criteria by year 5 and continue throughout permit term						0.019						✓	\$2,747	5	\$13,736		\$0	\$0	\$275	\$13,736		
	Document training of prescribed fire staff on new criteria													\$0		\$0		\$0	\$0	\$0	\$0.00		
	Seasonally implement prescribed burn plans on modeled habitat													\$0		\$0		\$0	\$0	\$0	\$0.00		
Objective 5.2: Minimize impacts on covered bats from tree removal associated with construction of new, permanent roads and trails throughout the permit term	Identify and locate areas where seasonal restrictions apply						0.058						✓	\$8,242	50	\$412,080		\$0	\$0	\$8,242	\$412,080		
	Communicate seasonal restrictions to relevant DNR staff													\$0		\$0		\$0	\$0	\$0	\$0.00		
	Report any road construction on DNR lands as well as the season and location of activity													\$0		\$0		\$0	\$0	\$0	\$0.00		
Total		0.000	0.000	0.010	0.000	0.058	0.937	0.000	0.000	0.000	0.000			\$142,435		\$5,548,225	\$18,500	\$0	\$750	\$37,500	\$111,715	\$5,585,725	
																			Total MI Cost		\$111,715	\$5,585,725	

7.2.2.5 Minnesota

Table 7-5. Minnesota Conservation Program Costs

Biological Objectives	Potential associated action(s)	Additional Staff Time Needed to Implement the HCP										Direct Costs					Total Annual Costs	Total Over Permit Term				
		MN FTEs										New Commitment	Annual Cost in Yr 1	# of Years	Over Permit Term	Set Up Cost	Cost per Event	# of actions	Annual Cost in Yr 1	Over Permit Term	Minnesota	Minnesota
		HCP Administrator	HCP Implementation Team Member	Clerical Worker/ Web Admin	GIS Technician	Community Liaison	Senior Biologist	Forest Assistant Manager	Biologist	Field Supervisor	Field Crew Member											
Objective 1.1: Manage DNR-administered forestlands (currently over 9 million acres) sustainably such that habitat for covered bats is maintained over the permit term	Continue existing management actions												\$0		\$0		\$0	\$0	\$0	\$0	\$0	
	Maintain forestland as forest												\$0		\$0		\$0	\$0	\$0	\$0	\$0	
	Document high level forestry approach used by the DNR over the last reporting year for use in annual report	0.019										✓	\$3,198	50	\$159,913		\$0	\$0	\$3,198	\$159,913		
	Document any updates to FIA data for annual report	0.019										✓	\$3,198	50	\$159,913		\$0	\$0	\$3,198	\$159,913		
Objective 2.1: Implement retention guidelines in all forest habitat for bats beginning in year 1 and continuing throughout the permit term	Develop a guidance document for use by field staff	0.038									✓	\$6,397	50	\$319,825	\$10,000	1	\$0	\$10,000	\$6,597	\$329,825		
	Training for staff	0.019									✓	\$3,198		\$159,913	\$12,000	1	\$0	\$12,000	\$3,438	\$171,913		
	Implement retention guidelines											\$0		\$0			\$0	\$0	\$0	\$0		
	Audit a subset of harvested units annually											\$0		\$0			\$0	\$0	\$0	\$0		
Document audits for the annual report	0.010										✓	\$1,599	50	\$79,956			\$0	\$0	\$1,599	\$79,956		
Objective 2.2: Minimize impacts to roosting bats by avoiding 150 feet around known roost trees	Geolocate known maternity roost trees on DNR lands within year 1											\$0		\$0			\$0	\$0	\$0	\$0		
	Implement 150-foot buffer	0.010									✓	\$1,599	50	\$79,956					\$1,599	\$79,956		
	Incorporate new roosts trees on DNRs lands into state database as they are identified/geolocated									0.005	✓	\$565	50	\$28,233			\$0	\$0	\$565	\$28,233		
	Incorporate new roosts trees identified on private lands into state database as they are identified/geolocated									0.005	✓	\$565	50	\$28,233			\$0	\$0	\$565	\$28,233		
Objective 2.3: Minimize impacts to roosting Indiana bats by restricting activities around all known roosts	Implement 2.5-mile buffer around known Indiana roosts and capture locations.											\$0		\$0			\$0	\$0	\$0	\$0		
	Document that no harvest has occurred unless specifically conducted to benefit bats within the specified protective buffer for annual report											\$0		\$0			\$0	\$0	\$0	\$0		
Objective 3.1: Increase bat-friendly management practices in private, county, and municipal lands throughout the permit term	Develop and administer Landowner Enrollment Program	0.019									✓	\$3,229	50	\$161,471	\$20,000	1	\$0	\$20,000	\$3,629	\$181,471		
	Document participation in LEP and acreage of enrolled private lands for annual report	0.010									✓	\$1,599	50	\$79,956			\$0	\$0	\$1,599	\$79,956		
	Monitor LEP adherence to relevant conservation measures	0.010									✓	\$1,599	50	\$79,956	\$531	1	\$0	\$531	\$1,610	\$80,487		
Objective 3.2: Develop and implement a communication plan for educating public on covered bats	Develop a communication plan for bats and implement within 2 years	0.004	0.004								✓	\$1,138	50	\$56,918	\$12,000	1	\$0	\$12,000	\$1,378	\$68,918		
	Produce and update online content		0.010								✓	\$1,247	50	\$62,339			\$0	\$0	\$1,247	\$62,339		
	Development of a brochure, speaking engagements, webinars, and other public outreach		0.019	0.077							✓	\$15,287	50	\$764,328	\$10,000	1	\$0	\$10,000	\$15,487	\$774,328		
Objective 4.1: Remove obstructions at known hibernacula entrances on DNR lands by year 5 and continue throughout the permit term	Visit hibernacula to trim vegetation and remove obstructions once in first 5 years then every 10 years											\$0		\$0			\$0	\$0	\$0	\$0		
	Identify potential sites for creation or rehabilitation (optional)						0.019				✓	\$2,313	50	\$115,643	\$2,000	1	\$0	\$2,000	\$2,353	\$117,643		

Biological Objectives	Potential associated action(s)	Additional Staff Time Needed to Implement the HCP										Direct Costs					Total Annual Costs	Total Over Permit Term				
		MN FTEs										New Commitment	Annual Cost in Yr 1	# of Years	Over Permit Term	Set Up Cost	Cost per Event	# of actions	Annual Cost in Yr 1	Over Permit Term	Minnesota	Minnesota
		HCP Administrator	HCP Implementation Team Member	Clerical Worker/ Web Admin	GIS Technician	Community Liaison	Senior Biologist	Forest Assistant Manager	Biologist	Field Supervisor	Field Crew Member											
Objective 4.2: Protect known hibernacula on DNR lands by implementing a 0.25-mile protective buffer and maintain or enhance habitat in those areas throughout the permit term	Implement a 0.25-mile buffer around known hibernacula	0.010										✓	\$1,599	50	\$79,956	\$804	1	\$0	\$804	\$1,615	\$80,760	
	Document that no harvest has occurred unless specifically conducted to benefit bats within the specified protective buffer for annual report	0.004										✓	\$640	50	\$31,983			\$0	\$0	\$640	\$31,983	
	Document additional known hibernacula on private forest lands enrolled in the HCP in state database	0.005										✓	\$800	50	\$39,978			\$0	\$0	\$800	\$39,978	
	Document any enhancements to core areas around hibernaculum on DNR lands and provide a before and after assessment in the annual report (optional)	0.005											\$800	50	\$39,978			\$0	\$0	\$800	\$39,978	
Objective 4.3: Maintain gates on all known entrances to occupied hibernacula on DNR lands (unless determined to be not needed or detrimental) throughout the permit term.	Assess all known hibernacula on DNR lands and prioritize gating efforts												\$0		\$0			\$0	\$0	\$0	\$0	
	Install gates on any nongated hibernacula where applicable												\$0		\$0			\$0	\$0	\$0	\$0	
	Repair existing gates												\$0		\$0			\$0	\$0	\$0	\$0	
	Survey hibernacula for covered bats												\$0		\$0			\$0	\$0	\$0	\$0	
Objective 4.4: Promote awareness and understanding of WNS through distribution of state-specific WNS response plans and collaboration with researchers throughout the permit term	Develop a state-specific WNS response plan by year 3											✓	\$0		\$0	\$20,000	1	\$0	\$20,000	\$400	\$20,000	
	Add content to website			0.010								✓	\$1,247	50	\$62,339			\$0	\$0	\$1,247	\$62,339	
	Establish a regional clearing house and collaborate with FWS and other entities on research												\$0		\$0			\$0	\$0	\$0	\$0	
	Provide permits (as appropriate) to continue WNS research on DNR lands												\$0		\$0			\$0	\$0	\$0	\$0	
Objective 5.1: Incorporate criteria within prescribed burn plans that minimize impacts on roosting and hibernating bats by year 5 and continue throughout the permit term	Update prescribed burn plans to reflect impact minimization criteria by year 5 and continue throughout permit term	0.004										✓	\$640	50	\$31,983	\$6,000	1	\$0	\$6,000	\$760	\$37,983	
	Develop and document training of prescribed fire staff on new criteria	0.010											\$1,599	50	\$79,956			\$0	\$0	\$1,599	\$79,956	
	Seasonally implement prescribed burn plans on modeled habitat												\$0		\$0			\$0	\$0	\$0	\$0	
Objective 5.2: Minimize impacts on covered bats from tree removal associated with construction of new, permanent roads and trails throughout the permit term	Identify and locate areas where seasonal restrictions apply				0.010								\$1,211	50	\$60,532			\$0	\$0	\$1,211	\$60,532	
	Communicate seasonal restrictions to relevant DNR staff												\$0		\$0			\$0	\$0	\$0	\$0	
	Report any road construction on DNR lands as well as the season and location of activity	0.004										✓	\$640	50	\$31,983			\$0	\$0	\$640	\$31,983	
	Total	0.198	0.000	0.043	0.010	0.077	0.019	0.000	0.000	0.000	0.010		\$55,904		\$2,795,242			\$0	\$93,335	\$57,772	\$2,888,577	
																		Total MN Cost	\$57,772	\$2,888,577		

7.2.2.6 Wisconsin

Table 7-6. Wisconsin Conservation Program Costs

Biological Objectives	Potential associated action(s)	Additional Staff Time Needed to Implement the HCP											Direct Costs				Total Annual Costs	Total Over Permit Term			
		WI FTEs										New Commitment	Annual Cost in Yr 1	# of Years	Over Permit Term	Cost per Event	# of actions	Annual Cost in Yr 1	Over Permit Term	Wisconsin	Wisconsin
		HCP Administrator	HCP Implementation Team Member	Clerical Worker/ Web Admin	GIS Technician	Community Liaison	Senior Biologist	Forest Assistant Manager	Biologist	Field Supervisor	Field Crew Member										
Objective 1.1: Manage DNR-administered forestlands (currently over 9 million acres) sustainably such that habitat for covered bats is maintained over the permit term	Continue existing management actions												\$0		\$0		\$0	\$0	\$0	\$0	
	Maintain forestland as forest												\$0		\$0		\$0	\$0	\$0	\$0	
	Document high level forestry approach used by the DNR over the last reporting year for use in annual report								0.004			✓	\$486	50	\$24,303		\$0	\$0	\$486	\$24,303	
	Document any updates to FIA data for annual report											✓	\$0		\$0		\$0	\$0	\$0	\$0	
Objective 2.1: Implement retention guidelines in all forest habitat for bats beginning in year 1 and continuing throughout the permit term	Develop a guidance document for use by field staff								0.058			✓	\$4,552	1	\$4,552		\$0	\$0	\$91	\$4,552	
	Implement retention guidelines												\$0		\$0		\$0	\$0	\$0	\$0	
	Audit a subset of harvested units annually												\$0		\$0		\$0	\$0	\$0	\$0	
	Document audits for the annual report								0.004			✓	\$486	50	\$24,303		\$0	\$0	\$486	\$24,303	
Objective 2.2: Minimize impacts to roosting bats by avoiding 150 feet around known roost trees	Geolocate known maternity roost trees on DNR lands within year 1												\$0		\$0		\$0	\$0	\$0	\$0	
	Incorporate new roosts trees on DNRs lands into state database as they are identified/geolocated							0.004				✓	\$389	50	\$19,433		\$0	\$0	\$389	\$19,433	
	Incorporate new roosts trees identified on private lands into state database as they are identified/geolocated							0.004				✓	\$389	50	\$19,433		\$0	\$0	\$389	\$19,433	
Objective 2.3: Minimize impacts to roosting Indiana bats by restricting activities around all known roosts	Implement 2.5-mile buffer around known Indiana roosts and capture locations.												\$0		\$0		\$0	\$0	\$0	\$0	
	Document that no harvest has occurred unless specifically conducted to benefit bats within the specified protective buffer for annual report												\$0		\$0		\$0	\$0	\$0	\$0	
Objective 3.1: Increase bat-friendly management practices in private, county, and municipal lands throughout the permit term	Develop and administer Landowner Enrollment Program	0.021		0.002								✓	\$2,349	50	\$117,460	\$2,830	50	\$15,478	\$153,900	\$5,427	\$271,360
	Document participation in LEP and acreage of enrolled private lands for annual report	0.002										✓	\$194	50	\$9,717		\$0	\$0	\$194	\$9,717	
	Monitor LEP adherence to relevant conservation measures	0.038										✓	\$3,887	50	\$194,332		\$0	\$0	\$3,887	\$194,332	
Objective 3.2: Develop and implement a communication plan for educating public on covered bats	Develop a communication plan for bats and implement within 2 years							0.077				✓	\$5,826	2	\$11,652		\$0	\$0	\$233	\$11,652	
	Produce and update online content								0.010			✓	\$1,040	50	\$52,024		\$0	\$0	\$1,040	\$52,024	
	Development of a brochure, speaking engagements, webinars, and other public outreach	0.865										✓	\$87,450	1	\$87,450	\$10,000	1	\$200	\$10,000	\$1,949	\$97,450
Objective 4.1: Remove obstructions at known hibernacula entrances on DNR lands by year 5 and continue throughout the permit term	Visit hibernacula to trim vegetation and remove obstructions once in first 5 years then every 10 years							0.019				✓	\$1,456	21	\$30,586	\$2,000	21	\$840	\$42,000	\$1,452	\$72,586
	Identify potential sites for creation or rehabilitation (optional)							0.038				✓	\$2,913	1	\$2,913	\$10,000	1	\$200	\$10,000	\$258	\$12,913

Biological Objectives	Potential associated action(s)	Additional Staff Time Needed to Implement the HCP										Direct Costs				Total Annual Costs	Total Over Permit Term				
		WI FTEs										New Commitment	Annual Cost in Yr 1	# of Years	Over Permit Term	Cost per Event	# of actions	Annual Cost in Yr 1	Over Permit Term	Wisconsin	Wisconsin
		HCP Administrator	HCP Implementation Team Member	Clerical Worker/ Web Admin	GIS Technician	Community Liaison	Senior Biologist	Forest Assistant Manager	Biologist	Field Supervisor	Field Crew Member										
Objective 4.2: Protect known hibernacula on DNR lands by implementing a 0.25-mile protective buffer and maintain or enhance habitat in those areas throughout the permit term	Implement a 0.25-mile buffer around known hibernacula	0.010										✓	\$972	50	\$48,583			\$0	\$0	\$972	\$48,583
	Document that no harvest has occurred unless specifically conducted to benefit bats within the specified protective buffer for annual report				0.077							✓	\$6,383	50	\$319,142			\$0	\$0	\$6,383	\$319,142
	Document additional known hibernacula on private forest lands enrolled in the HCP in state database				0.010							✓	\$798	50	\$39,893			\$0	\$0	\$798	\$39,893
	Document any enhancements to core areas around hibernaculum on DNR lands and provide a before and after assessment in the annual report	0.019										✓	\$1,943	50	\$97,166			\$0	\$0	\$1,943	\$97,166
Objective 4.3: Maintain gates on all known entrances to occupied hibernacula on DNR lands (unless determined to be not needed or detrimental) throughout the permit term.	Assess all known hibernacula on DNR lands and prioritize gating efforts								0.010			✓	\$728	5	\$3,641			\$0	\$0	\$73	\$3,641
	Install gates on any nongated hibernacula where applicable								0.019			✓	\$1,456	5	\$7,282	\$10,000	5	\$1,000	\$50,000	\$1,146	\$57,282
	Repair existing gates								0.019			✓	\$1,456	20	\$29,130	\$3,000	20	\$1,200	\$60,000	\$1,783	\$89,130
	Survey hibernacula for covered bats		0.288									✓	\$29,150	50	\$1,457,492	\$2,000	50	\$2,000	\$100,000	\$31,150	\$1,557,492
Objective 4.4: Promote awareness and understanding of WNS through distribution of state-specific WNS response plans and collaboration with researchers throughout the permit term	Develop a state-specific WNS response plan by year 3	0.048										✓	\$4,858	1	\$4,858			\$0	\$0	\$97	\$4,858
	Add content to website				0.010							✓	\$1,040	1	\$1,040			\$0	\$0	\$21	\$1,040
	Establish a regional clearing house and collaborate with FWS and other entities on research	0.010										✓	\$972	1	\$972			\$0	\$0	\$19	\$972
	Provide permits (as appropriate) to continue WNS research on DNR lands	0.019										✓	\$1,943	1	\$1,943			\$0	\$0	\$39	\$1,943
Objective 5.1: Incorporate criteria within prescribed burn plans that minimize impacts on roosting and hibernating bats by year 5 and continue throughout the permit term	Update prescribed burn plans to reflect impact minimization criteria by year 5 and continue throughout permit term												\$0		\$0			\$0	\$0	\$0	\$0
	Document training of prescribed fire staff on new criteria	0.010										✓	\$972	5	\$4,858			\$0	\$0	\$97	\$4,858
	Seasonally implement prescribed burn plans on modeled habitat												\$0		\$0			\$0	\$0	\$0	\$0
Objective 5.2: Minimize impacts on covered bats from tree removal associated with construction of new, permanent roads and trails throughout the permit term	Identify and locate areas where seasonal restrictions apply	0.010										✓	\$972	50	\$48,583			\$0	\$0	\$972	\$48,583
	Communicate seasonal restrictions to relevant DNR staff	0.004										✓	\$389	50	\$19,433			\$0	\$0	\$389	\$19,433
	Report any road construction on DNR lands as well as the season and location of activity	0.004										✓	\$389	50	\$19,433			\$0	\$0	\$389	\$19,433
	Total	1.059	0.288	0.022	0.087	0.000	0.008	0.058	0.183	0.008	0.000	New	\$165,838		\$2,701,609	\$39,830		\$20,918	\$425,900	\$62,550	\$3,127,509
																			Total WI Cost	\$62,550	\$3,127,509

7.2.3 Adaptive Management and Changed Circumstances

In addition to costs associated with program administration and the conservation program, the HCP will also have additional costs associated with the adaptive management program. There may also be costs for remedial actions should any changed circumstances occur. These costs have a high degree of uncertainty because the level of adaptive management and the need for remedial measures is difficult to predict. Because of this uncertainty, these costs are estimated in this HCP as a percentage of the total cost of the conservation program and monitoring.

Chapter 5, Section 5.4, *Adaptive Management*, describes the processes for addressing the specific uncertainties associated with the conservation strategy. Proposed adaptive management measures must be documented in the HCP so they can subsequently affect changes to the operating conservation program, as needed. The cost of adaptive management measures is calculated as 8% of the cost of each state's HCP conservation program. As noted above this cost has a high degree of uncertainty; however, this assumption is consistent with the contingency amount that has been allocated in other HCPs and has been demonstrated to be adequate for these plans in implementation (Santa Clara Valley Habitat Agency 2018; East Contra Costa County Habitat Conservancy 2018).

Chapter 6, Section 6.5.1, *Changed Circumstances*, describes the actions and remedial measures associated with anticipated and possible circumstances that could change during implementation and that may affect the status of the covered species. Remedial measures may also be necessary if foreseeable changes occur that may alter the assumptions or information upon which the HCP is based (see Chapter 6, *HCP Implementation and Assurances*, for a description of changed circumstances). The cost of remedial measures is calculated as 5% of the cost of the HCP conservation program of each state. This assumption is consistent with the contingency amount that has been allocated in other HCPs and has been demonstrated to be adequate for these plans in implementation (Santa Clara Valley Habitat Agency 2018; East Contra Costa County Habitat Conservancy 2018).

7.2.4 Summary of HCP Implementation Costs

Table 7-7 summarizes the different cost elements and presents the total costs of HCP implementation. Note that all implementation costs were annualized over the permit term; however, not all implementation activities will occur on an annual basis and, therefore, not all costs will occur on an annual basis. In addition to the costs outlined above, winter habitat for covered bats will be set aside and primarily managed for bat habitat. While not represented quantitatively in this chapter, these lands are associated with some loss of annual revenue due to the timber harvest restrictions outlined in the Lake States HCP.

Table 7-7. Summary of HCP Implementation Costs

Cost	Annual Cost in Year 1 ^a			Annual Cost Over Permit Term		
	Michigan	Minnesota	Wisconsin	Michigan	Minnesota	Wisconsin
Program admin. costs	\$127,084	\$73,038	\$79,035	\$6,354,192	\$3,651,912	\$3,951,733
Conservation program	\$111,715	\$57,772	\$62,550	\$5,585,725	\$2,888,577	\$3,127,509
Adaptive management ^b	\$8,937	\$4,622	\$5,004	\$446,858	\$231,086	\$250,201
Changed circumstances ^c	\$5,586	\$2,889	\$3,128	\$279,286	\$144,429	\$156,375
Total Cost Per State	\$253,321	\$138,320	\$149,716	\$12,666,061	\$6,916,004	\$7,485,819
Total Cost of HCP (All States Combined)	\$541,358			\$27,067,885		

^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 The cost of adaptive management is calculated as 8% of the cost of the HCP conservation program of each state. This assumption is consistent with the amount that has been allocated in other HCPs and has been demonstrated to be adequate for these plans in implementation (Santa Clara Valley Habitat Agency 2018; East Contra Costa County Habitat Conservancy 2018).

^c The cost of remedial measures is calculated as 5% of the cost of the HCP conservation program of each state. This assumption is consistent with the contingency amount that has been allocated in other HCPs and has been demonstrated to be adequate for these plans in implementation (Santa Clara Valley Habitat Agency 2018; East Contra Costa County Habitat Conservancy 2018).

7.3 Funding Assurances

The DNRs are funded through a legislative process and procedures that allow them to spend their money. This section describes the budgeting and appropriations process in each state and the authority given to each DNR to ensure adequate, sufficient, and reliable funding for the duration of the permit term.

7.3.1 Michigan

Michigan DNR had an annual budget of approximately \$438 million dollars in fiscal year 2019. Michigan DNR is primarily funded by State Restricted Revenue (68%) through the sale of hunting and fishing licenses; camping and recreation fees; timber sales; watercraft fees; and oil, gas, and minerals revenue. In addition, Michigan DNR receives 11% of its budget through a General Revenue

Fund (state taxes). Federal funding (19%) comes from the Pittman-Robertson Act² collected from an excise tax on sporting arms and ammunition and the Dingell-Johnson Act from sales of fishing equipment and boats. A small amount of private revenue (7%) comes from grants or reimbursements from private industry and gifts for specific programs or purposes.

Michigan DNR spending authority is granted through an annual legislative process with fiscal years beginning October 1. At the beginning of each budgeting cycle, Michigan DNR submits the proposed budgets and spending request for the upcoming integration into the governor's annual budget. The Executive Budget is then reviewed by the joint subcommittees and then the House Appropriations Committee and Senate Appropriations Committee for possible revision and eventual passage by both the Michigan House and the Senate. Part of the Legislature's budgeting responsibilities is authorizing the expenditure of federal funds, including grants and appropriations. When the Legislature is not in session, the Office of the Budget reviews and approves spending authority for any new federal funds.

Because Michigan DNR's funding is not set by state law, and the state constitution mandates a balanced budget, a portion of funding depends on sufficient General Fund revenues. Budget deficits—either due to lower-than-expected revenues or unforeseen increased expenditures in other programs—may require state agencies, including Michigan DNR, to reduce spending to less than what was originally appropriated, thereby maintaining a balanced budget statewide. Conversely, for years in which revenues exceed budget needs, Michigan DNR may request and receive additional funds appropriated from the resulting available discretionary funds.

As a result of this budget process, Michigan DNR cannot guarantee state funds, which are not yet appropriated by the Legislature, for the requirements set forth in the HCP over its permit term. However, as a commitment of this Lake States HCP, Michigan DNR will incorporate in its annual budget request to the Legislature a budget that will be adequate to fulfill its obligations under the Lake States HCP, including all costs associated with the administration of the HCP, implementation of the conservation program, monitoring, reporting, adaptive management, changed circumstances, and all contingency costs. Each year's requests will be adjusted for inflation of hard and soft costs, including salaries and benefits.

Michigan DNR will provide to USFWS evidence of both 1) its annual budget requests to the Legislature; and, 2) that the Legislature has appropriated sufficient funding to implement this HCP. In addition, HCP commitments will be reflected in the dedication of staff resources through Michigan DNR's annual budget, adjusted for inflation, and documented in the HCP Annual Report. Michigan DNR recognizes that failure to annually ensure adequate funding to implement the Lake States HCP may be grounds for suspension or partial suspension of the incidental take permit until adequate funding is restored.

² With respect to the use of federal funds, DNRs use of these funds is not unfettered or unlimited. For example, grants and license revenues under the Pittman-Robertson Wildlife Restoration Act are strictly regulated. Both the Act and the Service's regulations implementing it stipulate the purposes for which funds and license revenues can be used, and by which state entities (see 16 United States Code [U.S.C.] §§ 777-777n, except § 777e-1 and g-1; and 50 Code of Federal Regulations (CFR) Part 80. Given that misuse of these funds and diversion of license revenue affect each State Department of Natural Resources' (DNR's) eligibility for participation in the Wildlife Restoration Program, the DNRs will closely coordinate with the U.S. Fish and Wildlife Service (USFWS) prior to expending funds on permit implementation.

7.3.2 Minnesota

Minnesota DNR enacts budgets for a 2-year cycle (a biennium), beginning on July 1 of each odd-numbered year. The budget process begins in even-numbered years, with Minnesota Department of Management and Budget issuing Biennial Budget Instructions to state agencies in early summer. Minnesota DNR had a biennial budget of \$1.1 billion in fiscal years 2018–2019. The Minnesota DNR budget is managed across 50 funds with most fiscal activity occurring in four primary funds: General Fund (26%), Game and Fish Fund (20%), Natural Resources Fund (18%), and Outdoor Heritage Fund (15%). Together, these account for 79% of Minnesota DNR spending. Included in these funds are federal grants and funds from the Pittman-Robertson Act and the Dingell-Johnson Act.

Minnesota DNR spending authority is granted through the biennial legislative process with fiscal years beginning July 1 of each odd-numbered year. At the beginning of each budgeting cycle, Minnesota DNR submits the proposed budget and spending request for the upcoming integration into the Governor's budget. The Executive Budget is then reviewed by the legislative Ways and Means Committee and Finance Committee for possible revision and eventual passage by both the Minnesota House and the Senate. Part of the Legislature's budgeting responsibilities is authorizing the expenditure of federal funds, including grants and appropriations. When the Legislature is not in session, the Department of Management and Budget reviews and approves spending authority for any new federal funds.

Because Minnesota DNR's funding is not set by state law, and the state constitution mandates a balanced budget, a portion of funding depends on sufficient General Fund revenues. Budget deficits—either due to lower-than-expected revenues or unforeseen increased expenditures in other programs—may require state agencies, including Minnesota DNR, to reduce spending to less than what was originally appropriated, thereby maintaining a balanced budget statewide. Conversely, for years in which revenues exceed budget needs, Minnesota DNR may request and receive additional funds appropriated from the resulting available discretionary funds. Once enacted by the Legislature, the budget can be modified in the "off-year" legislative session. As a result of state forecasts and other changes, it has become common for the Legislature to enact annual revisions to the state's biennial budget. These revisions are referred to as supplemental budgets.

As a result of this budget process, Minnesota DNR cannot guarantee state funds, which are not yet appropriated by the Legislature, for the requirements set forth in the HCP over its permit term. However, as a commitment of this Lake States HCP, Minnesota DNR will incorporate in its budget request to the Legislature a budget that will be adequate to fulfill its obligations under the Lake States HCP, including all costs associated with the administration of the HCP, implementation of the conservation program, monitoring, reporting, adaptive management, changed circumstances, and all contingency costs. Each biennial request will be adjusted for inflation of hard and soft costs, including salaries and benefits.

Minnesota DNR will provide to USFWS evidence of both 1) its annual budget requests to the Legislature; and, 2) that the Legislature has appropriated sufficient funding to implement this HCP. In addition, HCP commitments will be reflected in the dedication of staff resources through Minnesota DNR's annual budget, adjusted for inflation, and documented in the HCP Annual Report. Minnesota DNR recognizes that failure to annually ensure adequate funding to implement the Lake States HCP may be grounds for suspension or partial suspension of the incidental take permit until adequate funding is restored.

7.3.3 Wisconsin

Wisconsin DNR also enacts budgets for a 2-year cycle (a biennium), beginning July 1 of each odd-numbered year. Wisconsin DNR had a biennial budget of \$1.1 billion for years 2017–2019. Wisconsin DNR is primarily funded by the Conservation Fund (44%), through the sale of hunting and fishing licenses, camping and recreation fees, timber sales, watercraft fees, and other permit revenue. In addition, Wisconsin DNR receives 20% of its budget through General Purpose Revenues (state taxes). Federal funding (15%) comes from the Pittman-Robertson Act collected from an excise tax on sporting arms and ammunition and the Dingell-Johnson Act from sales of fishing equipment and boats. Funds from the Environmental Fund (12%) are generated from tipping fees from the disposal of waste.

Wisconsin DNR spending authority is granted through the biennial legislative process with fiscal years beginning July 1 of each odd-numbered year. Development of the biennial budget involves a nearly year-long process. In the fall of the even-numbered year, Wisconsin DNR submits a budget request to the Department of Administration for the upcoming integration into the Governor's budget. The Governor's state budget is then reviewed by the Joint Finance Committee for possible revision and eventual passage by both the Wisconsin State Assembly and the Senate. Part of the Legislature's budgeting responsibilities is authorizing the expenditure of federal funds, including grants and appropriations. When the Legislature is not in session, the State Budget Office reviews and approves spending authority for any new federal funds.

Because Wisconsin DNR's funding is not set by state law, and the state constitution mandates a balanced budget, a portion of funding depends on sufficient General Purpose revenues. Budget deficits—either due to lower-than-expected revenues or unforeseen increased expenditures in other programs—may require state agencies, including Wisconsin DNR, to reduce spending to less than what was originally appropriated, thereby maintaining a balanced budget statewide. Conversely, for years in which revenues exceed budget needs, Wisconsin DNR may request and receive additional funds appropriated from the resulting available discretionary funds. Once enacted by the Legislature, the budget can be modified in the "off-year" legislative session. As a result of state forecasts and other changes, it has become common for the Legislature to enact annual revisions to the state's biennial budget. These revisions are referred to as supplemental budgets.

As a result of this budget process, Wisconsin DNR cannot guarantee state funds, which are not yet appropriated by the Legislature, for the requirements set forth in the HCP over its permit term. However, as a commitment of this Lake States HCP, Wisconsin DNR will incorporate in its annual budget request to the Legislature a budget that will be adequate to fulfill its obligations under the Lake States HCP, including all costs associated with the administration of the HCP, implementation of the conservation program, monitoring, reporting, adaptive management, changed circumstances, and all contingency costs. Each biennial request will be adjusted for inflation of hard and soft costs, including salaries and benefits.

Wisconsin DNR will provide to USFWS evidence of both 1) its annual budget requests to the Legislature; and, 2) that the Legislature has appropriated sufficient funding to implement this HCP. In addition, HCP commitments will be reflected in the dedication of staff resources through Wisconsin DNR's annual budget, adjusted for inflation, and documented in the HCP Annual Report. Wisconsin DNR recognizes that failure to annually ensure adequate funding to implement the Lake States HCP may be grounds for suspension or partial suspension of the incidental take permit until adequate funding is restored.

