

Draft Environmental Assessment

Seney National Wildlife Refuge Structural Improvements to the Show Pool Historic Wildlife Observation/ Picnic Shelter (Show Pool Shelter)

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DRAFT

Environmental Assessment for Structural Improvements to Seney National Wildlife Refuge's Show Pool Shelter

Date: July 19, 2022

This Draft Environmental Assessment is being prepared to evaluate the effects associated with the proposed action and complies with the National Environmental Policy Act in accordance with Council on Environmental Quality regulations (40 CFR 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U. S. Fish and Wildlife Service (550 FW 3) regulations and policies. The National Environmental Policy Act (NEPA) requires examination of the effects of proposed actions on the natural and human environment.

Proposed Action

The U. S. Fish and Wildlife Service (Service) is *proposing* to complete structural improvements to the existing historic wildlife observation/picnic shelter in accordance with the Refuge's 2009 Comprehensive Conservation Plan and 2015 Visitor Services Plan. The structure was traditionally known as the Wigwams. The name was changed to the Show Pool Shelter in 2018 and will be referred to with this name throughout the document. To meet the National Historic Preservation Act requirements the Service must give consideration of potential adverse impacts to the historical integrity of the structure that is in need of critical repairs to the deteriorating and damaged roof. The Service is reevaluating the continued use of the tribal inspired architecture and proposes to alter the structure to better align with the refuge system mission and goal to provide higher quality recreational experiences for visitors. The Service proposes to change the design of the structure to provide more visibility for wildlife observation from within the structure while continuing to offer a shelter for visitors at the site to rest, eat and escape from rain and direct sunlight. The shelter is located at the Show Pool Public Access Area off of M-77, just north of the Refuge Entrance Road.

A proposed action may evolve during the NEPA process as the agency refines its proposal and gathers feedback from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The proposed action will be finalized at the conclusion of the public comment period for the Environmental Assessment.

Background

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (System), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

The Seney National Waterfowl Refuge was established in 1935 (renamed the Seney National Wildlife Refuge in 1937) as a refuge and breeding ground for migratory birds and other wildlife... (Executive Order 7246, dated Dec. 10, 1935)... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds (16 U.S.C. § 715d, Migratory Bird Conservation Act), ... conservation, management, and restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans...(16 U.S.C. § 668dd(a)(2) (National Wildlife Refuge System Administration Act).

The 1970 Omnibus Wilderness Act (Public Law 91-504) also designated 25,150 acres as the Seney Wilderness, to be managed as part of the National Wilderness Preservation System. “The Wilderness Act of 1964 (Public Law 88- 577) created an additional purpose for Seney National Wildlife Refuge. Section 2(a) of the Wilderness Act states in part that “...*it is hereby declared to be the intent of Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness ...*” and designated wilderness areas are to be managed “...*for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.*” The proposed action does not occur within the Wilderness Area of the refuge.

The mission of the National Wildlife Refuge System, as outlined by the National Wildlife Refuge System Administration Act, as amended by the National Wildlife Refuge System Improvement Act (16 U.S.C. 668dd et seq.), is “... *to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats*

within the United States for the benefit of present and future generations of Americans”

Additionally, the National Wildlife Refuge System Administration Act mandates the Secretary of the Interior in administering the System (16 U.S.C. 668dd(a)(4)) for:

- providing for the conservation of fish, wildlife, and plants, and their habitats within the System;
- ensuring that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans;
- ensuring that the mission of the System described at 16 U.S.C. 668dd(a)(2) and the purposes of each refuge are carried out;
- ensuring effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the System are located;
- assisting in the maintenance of adequate water quantity and water quality to fulfill the mission of the System and the purposes of each refuge;
- recognizing compatible wildlife-dependent recreational uses as the priority general public uses of the System through which the American public can develop an appreciation for fish and wildlife;
- ensuring that opportunities are provided within the System for compatible wildlife-dependent recreational uses; and
- monitoring the status and trends of fish, wildlife, and plants in each refuge.

Seney National Wildlife Refuge is within the 1836 Treaty boundary, a treaty that was signed between the federal government and the Bay Mills Indian Community, Sault Ste. Marie Tribe of the Chippewa Indians, Grand Traverse Band of Ottawa and Chippewa Indians, Little River Band Ottawa Indians and Little Traverse Bay Band of Odawa Indians. It is the policy of the Service to work together with Tribal Nations to improve and enhance conservation of fish and wildlife resources and shared natural and cultural resource goals and objectives. The Service shall meaningfully involve and work collaboratively with tribal governments in our actions when we determine the actions may affect their cultural or religious interests, including cultural resources (510 FW 1; USFWS Native American Policy).

The unique architecture and high visibility from the well-traveled state highway M-77 has made the shelter at Seney National Wildlife Refuge iconic to the refuge for many visitors and local community members, who often refer to them as the “Teepees”. The shelter sits on a 1.4-acre public access area that includes several picnic tables and grills, an outhouse, information kiosk and foot trails along the two wetland impoundments, North Show Pool and South Show Pool. The Works Progress Administration (WPA) and Civilian Conservation Corps (CCC) built many of the refuge’s first structures, including the Show Pool Shelter that was finished in 1938 (Johnson, 1938).

Like many “Roadside Americana” attractions from the Great Depression era, the design aesthetics were in the tradition of incorporating unique representations of regional flavor and design and Native American iconography. Although there have been alterations to the shelter over the years, it retains much of its historical integrity and is a significant contribution to the refuge’s eligibility as a potential historic district and protection under the National Historic Preservation Act.

The shelter is visible from M-77 and is one of the only structures visible for miles, it draws the public’s attention and curiosity. The Show Pool Access Area remains popular for tourists and anglers alike. Many people have fond memories of spending time there in their youth and continue the tradition with families of their own. Today the site’s purpose is to invite visitors to stop, promote wildlife observation, provide a picnic area, host environmental education opportunities, and inspire visitors to connect with the refuge’s natural and cultural history.

Purpose and Need for the Action

The general purpose of this action is to give consideration of potential adverse impacts to the historical integrity of the structure that needs structural repairs, improve opportunities for wildlife observation, improve visitor experience, reduce unauthorized use inside the structure and consider the appropriateness of the architecture inspired from Native American culture. This action will further the Service’s goals for enhancing the enjoyment and appreciation of the refuge’s natural and cultural heritage and align with the refuge’s mission and purpose. Currently, the existing historic Show Pool Shelter is deteriorating from woodpecker and insect damage, and the Service has been awarded funding from the Great American Outdoors Act to improve the shelter and public access area. Attention to the structure is necessary to initiate proper compliance and consideration to the National Historic Preservation Act. The Show Pool Shelter is a contributing asset to

the proposed Seney National Wildlife Refuge Historic District and is eligible for listing on the National Register of Historic Places.

The purpose and uses of the shelter are multifaceted. The refuge is large, and visitors can easily spend all day exploring the roads and trails. The structure offers a place for visitors to sit at tables and find some relief from uncomfortable weather which enables them to extend their stay before retreating to their vehicles or hiking back to the headquarters site. The trails connect to the main headquarters site and visitor center location, while also offering another destination location for visitors interested in exploring as much of the refuge as they can. For visitors exploring multiple access sites of the refuge, this location is one of two that offers a place to rest and eat, and if necessary, find some protection against rain or direct sunlight while still enjoying the natural landscape and wildlife. For the incidental user, it offers an easy and highly visible public access area to introduce visitors to the refuge.

The site has a history with people using it to gather with family and friends, share food as they cook on the grills around the shelter and have meaningful experiences that enhances their emotional connection to the site. In addition to these purposes, the Visitor Services Plan calls for the site to serve as a location to host environmental education groups as well as eventually offer an observation deck and fishing platform.

Despite the unknown designer's hopes, since being built the shelter has never been sufficiently conducive to wildlife observation in the pools while sitting inside (the fact that the rear windows and side doors were added in the 1940s and 1950s as an aid to observation is a testament to this problem). People tend to use the tables outside the shelter more often for this purpose. In recent years, the refuge staff have found that people use the opaque structure to camp overnight, use it as a toilet or leave trash behind. The enclosed nature of the structure and many angled support posts makes it feel cramped as well. It is not ideal for hosting environmental education groups or groups recreating as it is difficult to move around the picnic tables or host more than a few individuals.

An additional purpose of this project is to reevaluate the continued use of the tribal inspired architecture out of respect to tribal nations and within the intent of Service policy 510 FW 1 aimed at strengthening government-to-government relationships with tribes. The original appearance is taken from tribal cultures and is not symbolic of a typical authentic wigwam used in this region as the original name implies. When working with Bay Mills Indian Community and Sault Ste. Marie

Tribe of the Chippewa Indians on other projects, tribal staff were informally asked for input on how the agency should address the Show Pool Shelter. It was suggested at that time we change the name. Comments have indicated that the shape may be offensive to some tribal members, but likely not all. Rather, the conical components resemble traditional teepees, which were the homes of the nomadic tribes of the Great Plains and not known to occupy this region. Formal scoping occurred in April of 2021 when letters were sent via email to all tribal historic preservation officers and wildlife biologists within the 1836 Treaty ceded territory. Despite follow-up conversations with a few tribal members, no official tribal government recommendations have been made. However, comments may be received as part of this draft Environmental Assessment.

When this structure was built, the country was becoming enamored with Native American culture through Hollywood movies and frequently utilized Native American symbols without context or consultation with Tribes. As we look towards the future the Service feels it is important to recognize the role this structure might play in negative stereotypes and understand they conflict with the Service's efforts to build stronger relationships with Tribes as described in the Service's 510 FW 1 and Department of Interior Native American Policies.

The need of the proposed action is to meet the Service's priorities and mandates as outlined by the National Wildlife Refuge System Administrative Act to ensure the purposes of each refuge are carried out (16 U.S.C. 668dd(a)(4)) by:

- providing increased opportunities for families to experience compatible wildlife-dependent recreation, particularly opportunities for parents and their children to safely engage in traditional outdoor activities, such as fishing and hunting;
- ensuring effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the System are located.

Once an alternative is selected the structure will be evaluated and a treatment will be selected. Depending on the alternative selected through the Environmental Assessment process the structure may be repaired in a manner similar to its current configuration using National Historic Preservation Act rehabilitation standards (Technical Preservation Services). If the preferred alternative is selected the Service will work with the State Historic Preservation Office to identify

mitigation measures required for the resolution of any adverse effects on the historic structure.

The need for the proposed action aligns with the goals and objectives in the 2009 Seney National Wildlife Refuge Comprehensive Conservation Plan. Although the work is not expressly outlined in the Comprehensive Conservation Plan it identifies objectives and strategies that show a continued effort to support the access point including recreation structures. Additionally, the step-down Visitor Services Plan calls for the following:

- Strategy 6.7: Utilize the YCC building, Show Pool Shelter Access Area and pavilion for environmental education classrooms.
- Strategy 6.8: Provide and maintain tables for programs and nature study at the Environmental Education Pavilion and the Show Pool Shelter Access Area.
- The Visitor Services Plan also states, “Because of its historical significance and unique design, all efforts should be made to maintain this structure and its historic integrity.”

The Visitor Services Plan expressly supports the continued maintenance and protection of historical integrity of the Show Pool Shelter.

Alternatives

Alternative A – Continue Current Management – [No Action Alternative]

This alternative consists of continuing current management of the existing wildlife observation/picnic shelter as it appears today and is now identified as the Show Pool Shelter. See photographs of the building through the years in Appendix A. Deteriorated materials would be replaced with in-kind or similar looking materials to ensure the shelter remains structurally sound and that the remaining historic integrity of the building meets the National Register of Historic Places standards.

Initial maintenance to address deteriorated materials work would involve replacing the cedar shake roof, replacing any rotten log timbers in the frame or other wooden structural features, staining all lumber components, maintenance and repair of existing concrete floor foundation, cleaning and repairing the stone fireplace and repairing any other current deficiencies found upon further

inspection. Interpretive panels are present on the stone fireplace and would be upgraded as appropriate and needed. Additional regulatory, interpretational, and orientation signage in the vicinity of the structure would be upgraded and could reflect the Works Progress Administration (WPA)/Civilian Conservation Corps (CCC) history in developing the refuge.

The fireplace would remain closed/inoperable for cooking. This is the same for all alternatives.

Initial repairs would take approximately 1-3 months to complete and may occur in phases as funding and workers are available, starting as early as possible in 2022. Long term routine maintenance would involve monthly site inspections and mitigation for damage to the structure caused from pests, severe weather, or visitors as well as routine litter clean up and concrete cleaning. Eventually, the structure will require repainting again, a new roof, and perhaps concrete and stone repairs.

To provide for visitor and worker safety and site security during maintenance, demolition, and/or construction activities, the shelter and parking area would be closed to visitors. The site may be temporarily reopened between phases of work when visitor safety, worker safety, or site security is not at risk. Once initial repairs are complete, long term maintenance closures would range from a couple hours for minor repairs and up to several weeks for more extensive projects that may become necessary. This is the same across all alternatives.

When the site reopens and if other refuge access sites are closed, it will likely get more visitation. However, this visitation is not likely to increase substantially due to the small size of the site and limited site amenities. There are only four picnic sites outside of the shelter, one single toilet outhouse and a small parking lot supporting less than 10 vehicles. Increases in visitation at the Show Pool Shelter Site due to other refuge closures would also be short term and likely subside when other access areas reopen. This is the same for all alternatives.

Alternative B – Remove Walls and Conical Roofs (preferred alternative)

Under this preferred alternative, the Service proposes to remove the conical roof tops and walls of the Show Pool Shelter while retaining the central portion of the structure with the stone fireplace and existing roof. The roof would be extended to replace the conical roof portion. Cedar shakes would be replaced on the existing

roof, rotten log timbers in the frame or other features would be replaced with like materials, maintenance and repair of the existing concrete floor foundation, and cleaning and repairing the stone fireplace.

Initial repairs would take approximately 1-6 months to complete and may occur in phases as funding and workers are available. This alternative would include work on the shelter as soon as possible in 2022 but may be delayed with construction starting in 2023. Long term routine maintenance would be similar to Alternative A.

This alternative offers a compromise that will maintain some of the historical characteristics representing WPA and CCC significance of the structure while improving experience and access for wildlife-dependent recreational activities and eliminating problematic design for refuge compliance and cultural sensitivities.

Changes to the structural framing will require architectural engineering to design alterations that are structurally sound. The fireplace and central roofing structure would remain intact while the conical portions of the roof and walls of the building would be removed. The look and feel of the central portion of the roof with open rafters and whole logs would remain. The goal is to open the ends up in a way that allows the space to be better utilized for wildlife observation, environmental education programs, law enforcement compliance and a better-quality experience for the public. The look of the modified structure has not been designed and may include keeping a few angled support posts at either end as a legacy to the original teepee construction or by adding a wind break and/or additional interpretive panels to new vertical end posts. See two possible concept sketches in Appendix A.

Once the construction plans have been developed, the refuge will announce the specific duration and timing of any closures. This alternative re-evaluates and modifies or abandons the use of similar looking tribal teepee architecture and may help build more meaningful and stronger relationships with tribal governments by creating a more inclusive recreational facility.

This alternative fulfills the Service's mandate under the National Wildlife Refuge System Administrative Act. The Service has determined that removing the conical portions of the Show Pool Shelter (Alternative B) is compatible with the purposes of Seney National Wildlife Refuge and the mission of the System.

Alternative C – Retain Conical Base but Remove Cone Tops

This alternative consists of altering the framework of the shelter so that it remains unique but has less resemblance to teepees. This alternative would consist of

removing the cones from the roofline and retaining the conical base and original framing. This alternative retains the greatest amount of original construction from the WPA/CCC period of refuge development. This would include restoring an open viewing window that has since been closed for each conical component. New materials would be similar to those used currently. Interpretive panels are present on the stone fireplace and would be upgraded as appropriate and needed. Additional interpretational and orientation signage in the vicinity of the structure would be upgraded and could reflect the WPA/CCC history in developing the refuge. See a concept sketch in Appendix A.

Project duration and timing would be similar to Alternative B.

Alternative(s) Considered, But Dismissed from Further Consideration

Alternatives considered but dismissed include restoring the shelter to its original design and appearance which strongly resembles teepees of the nomadic tribes of the Great Plains (see Appendix A for 1937 photo). This option would not meet the purpose to improve wildlife observation, visitor experience, or reduce unauthorized uses. Additionally, it appears to have limited lighting, only one exit and it is unclear if it had any transparent windows for wildlife observation. Window and door alterations that were done not long after the structure was built support the idea that the original structure design wasn't optimal nor the materials durable and cost effective. Additionally, this design is not representative of the local tribes that utilized the refuge lands historically and continue to do so today.

Demolishing the entire structure was considered but dismissed as it would not meet the purposes and needs of the project to continue to offer recreational opportunities currently available at the site - a place for visitors to rest, eat, observe wildlife and escape from rain or direct sun. Additionally, it would clearly be an unnecessary significant adverse effect to the historic structure. Lastly, it would not further the objectives and strategies identified in the visitor services plan for this site.

Affected Environment and Environmental Consequences

This section is organized by affected resource categories and for each affected resource discusses both (1) the existing environmental and socioeconomic baseline

in the action area for each resource and (2) the effects and impacts of the proposed action and any alternatives on each resource. The effects and impacts of the proposed action considered here are changes to the human environment, whether adverse or beneficial, that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. Impact types included in each section include direct effects, indirect effects and cumulative impacts. Direct effects are those which are caused by the action and occur at the same time and place. Indirect effects are those which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Cumulative impacts result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts are presented under each affected resource in both the alternatives analysis and the environment trends and planned act section.

This Environmental Assessment includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Any resources that will not be more than negligibly impacted by the action have been dismissed from further analyses.

The refuge consists of approximately 148 square miles in Schoolcraft County, Michigan. (See map at Appendix B).

Seney National Wildlife Refuge is primarily a mosaic of wetland and forested habitats. The proposed action is located in Unit 1 along the refuge’s eastern boundary of state highway M-77 between the North and South Show Pools. (See map of the general area and proposed project site on the refuge at Appendix B).

For more information regarding the general characteristics of the refuge’s environment, please see section 3 of the refuge’s Comprehensive Conservation Plan, which can be found here: <https://ecos.fws.gov/ServCat/DownloadFile/1479>.

For more information on the environmental consequences of the proposed action with regards to the project site in general, see the Seney National Wildlife Refuge Comprehensive Conservation Plan Environmental Assessment and Finding of No Significant Impact here: <https://ecos.fws.gov/ServCat/DownloadFile/169001>. Therefore, this Environmental Assessment tiers from that Environmental Assessment and provides additional specific analysis of the proposed action.

The refuge has received funding to address deferred maintenance of several facilities over the next three years starting in 2022. These projects were determined to fall within the framework of the Seney National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment decision Finding of No Significant Impact and/or within agency categorical exclusions involving routine maintenance and repair (43 CFR 46.210 and 516 DM 8.5B2). They are not further evaluated here but are described below to consider the added cumulative effects the proposed project may have. These projects will be collectively referred to as “the Great American Outdoor Act deferred maintenance projects” throughout the rest of this document.

- A new combined administrative and visitor center building will replace the current facilities. The campus surrounding the new headquarters building will be altered with upgrading parking, walkways, and landscaping for the new building and site. The Refuge Entrance Road will be resurfaced.
- The Pine Ridge Nature Trail is scheduled for repairs and upgrades.
- Four bridge repairs will be completed on the Marshland Wildlife Drive and Fishing Loop beginning in April of 2022 and expected to be completed by the end of November of 2022.
- In addition to addressing the shelter, the Show Pool Access Area will see improvements. A new wheelchair accessible outhouse has been purchased and is expected to be installed during the summer of 2022. This will replace the current outhouse which will be removed and the vault filled. The parking area will be renovated and expanded slightly. The driveway will be truncated ending at the parking lot and the portion that wraps around the west side of the Show Pool Shelter will be removed to prevent cars from driving round the structure and disturbing or blocking the view of the pools. An accessible parking space will be added to the site as well as wheelchair accessible picnic tables and grills. Lastly, The North Show Pool dike was breached in April of 2018 and is planned to be repaired in the summer or fall of 2022. Repairs to the breach will enable this pool to retain water for wetland and inland lake habitats once again.

The following resources either (1) do not exist within the project area or (2) would either not be affected or only negligibly affected by the proposed action: geology and soils, air quality, water quality, habitat and vegetation, floodplains, and wilderness or other special designation. Geology and soils are not present within

the Show Pool Shelter itself and effects on the surrounding site are similar to what they currently are and would remain negligible. Air quality would remain as it currently is at the site. The project area including the area that could be temporarily disturbed from construction activities will not affect habitat or vegetation. The Show Pool Shelter is not in a floodplain, wilderness or special designation area. The Seney Wilderness boundary is approximately 9.5 miles from the Show Pool Shelter. The refuge contains several Research Natural Areas, Public Use Natural Areas and the Strangmoor Bog National Landmark, however the Show Pool Shelter is not within or adjacent to these special designation areas. The Whitefish Point Unit is designated as an Audubon Important Bird Area but is well over 50 miles from the Show Pool Shelter site.

Natural Resources

Terrestrial Wildlife and Aquatic Species

Affected Environment

Description of Affected Environment for the Affected Resource

The refuge is widely known for supporting an abundance and diversity of wildlife and aquatic species. More than 200 species of birds, 26 species of fish, 50 species of mammals, 22 species of reptiles and amphibians, and 420 plant species have been recorded.

The upland site where the shelter is located is primarily developed for visitors and likely gets terrestrial wildlife use from species willing to tolerate the routine disturbance during the spring, summer and fall when visitor use is highest. Various nesting bird species such as American robin, downy woodpecker or black-capped chickadee may utilize the trees and shrubs scattered among the site. The shelter itself gets occasional use from wildlife such as squirrels, mice or insects taking shelter in the structure. Additionally, one may encounter a garter snake basking on the concrete foundation. Woodpeckers have caused significant damage from pecking at the wooden roof shakes, beams and ceiling to access insects that have made them home. No bat surveys have been done at this site, but it is possible bats may roost in the roof of the structure or underneath the cedar shake roof shingles. Birds such as phoebes, starlings or robins may attempt to nest on the structure and can easily be spotted if present. Adjacent to the project area are the wetlands in the North and South Show Pools which host a variety of migrant and non-migrant wetland birds including trumpeter swans, Canada geese, wood ducks and other water birds. Other common wildlife species groups utilizing the wetland edge and

associated shrub habitat include perching birds such as yellow warblers, kingbirds or gray catbirds to name a few. The wetlands also host small mammals including beaver and otter as well as various reptiles and amphibians.

Description of Environmental Trends and Planned Actions

The changes proposed for the Show Pool Shelter would not increase or alter the footprint of the structure nor would it change the number of visitors predicted for this specific site. We do not anticipate long-term changes to the site that would affect terrestrial and aquatic species. The actions proposed in this plan are not expected to significantly change the current use of the access area. The Show Pool Shelter has stood on the site for decades and has varied in visitation from as low as 300 to just over 16,000 visitors per year. For the past 11 years the average number of visits per year is 7,706 and we expect the numbers to range from 6,500 to 11,000 most years. Since visitor numbers are not expected to change for the Show Pool Shelter access, current levels of noise and wildlife disturbance should remain similar to past years.

With regards to planned actions in or adjacent to the project area, management direction for Seney National Wildlife Refuge in general aims to preserve, conserve, and (where and when appropriate) restore the diversity of wildlife native to the Eastern Upper Peninsula of Michigan, with an emphasis on regional conservation priority species (see refuge species list in Appendix C). The Show Pool Shelter access is located in Unit one of the refuge where management focuses on conserving existing habitats and contains several manmade pools to promote successful nesting of common loons, trumpeter swans, osprey, and other native wildlife.

This project will not have an adverse cumulative effect on terrestrial and aquatic wildlife in consideration to the other refuge Great American Outdoor Act deferred maintenance projects occurring during this time period. The Service is not aware of any other specific planned actions in or adjacent to the project area from private, state, or local governments that could affect terrestrial and aquatic species using this site.

Climate change is generally expected to cause changes in habitats, communities and plant and animal species ranges. In 2019, Audubon related bird observations coupled with models to capture unique composition of each species suitable range under current climate and vegetation were mapped. Then using estimated projected range loss and gain from 2°C mean temperature rise worldwide, future

ranges were mapped and compared between 2010 and 2050 projections. The results indicated a turnover change in species at the refuge of 36%. The refuge may become or remain home to 66 species that stand to lose much more of their range than they have the potential to gain. While 24 new refuge species may find suitable conditions at the refuge, 42 species may become extirpated from the refuge during the summers by 2050 (USFWS, 2019) The refuge's 2016 Inventory and Monitoring Plan identifies monitoring of wildlife. Adjustments in refuge management direction may be necessary over the course of time to adapt to a changing climate.

Impacts on Affected Resource

Alternative A

Short term minor impacts to wildlife and aquatic species include disturbance and displacement when visitors or staff are on the site for recreational use and for construction. Visual and noise disturbances could disrupt normal wildlife behavior, however sufficient dispersal habitat exists surrounding the site to accommodate mobile wildlife for minimal affects. Although it is against refuge regulations, occasionally people may attempt to feed wildlife or leave food behind which habituates wildlife and attracts them to the site when people are present. Animals such as ducks, geese, swans, chipmunks and/or others may be susceptible to this type of human exposure and disturbance. Reports and observations of this have been limited in the past and therefore likely to result in only minor short-term effects. Mitigation measures can include information and regulatory signage at the adjacent site kiosk and staff or law enforcement contacts with visitors while at the site.

Short term impacts also include disturbance and displacement as well as possible direct mortality of small insects (i.e. ants, mosquitos, wasp nests, moth cocoons) or potentially baby deer mice during maintenance projects to replace or repair deteriorated materials such as roofing, timbers or stone grouting, although this is likely to have minor impacts to species populations in the area. Although unlikely, any monarch chrysalis found attached to the structure will be collected and reared for release.

A pair of Eastern phoebes have been observed nesting on the northern conical portion of the shelter. Empty nests will be removed prior to construction or construction will be delayed in the event incubating nesting birds are found within the shelter to ensure compliance with the Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21. The nesting season for eastern

phoebe in this region is typically May – June. Eastern phoebe populations within the United States have increased slightly between 1966 and 2019 according to the North American Breeding Bird Survey and they are considered a species of low conservation concern. No adverse direct or cumulative impacts are expected for this species.

Bats have not been observed roosting in the structure although it is possible; if so, they may be present April 1 through October 31st. Bat surveys could be done in advance to determine if bats are using the structure for roosting. If bats are detected, depending on the species and number of individuals present, cedar shake removal may be delayed to the inactive season (November-March) to avoid direct adverse impacts to individuals. If only a few individuals are detected and not a species of special concern, other mitigation measures would be explored to avoid and reduce incidental take of individuals that would result in negligible short- and long-term impacts to a species population.

There are no impacts to aquatic species as the shelter is located on an upland site.

Alternative B

The impacts to this alternative are similar to those for Alternative A, except short term impacts to wildlife may occur over a slightly longer duration during the initial remodeling construction. Construction and demolition activities may take one or more months to complete, but likely less than six months. Similar to Alternative A, demolition periods will be delayed as needed to mitigate for nesting birds or roosting bats if found present at the site.

Alternative C

The impacts to this alternative are similar to those for Alternative B.

Threatened and Endangered Species, and Other Special Status Species

Affected Environment

Description of Affected Environment for the Affected Resource

Several threatened, endangered or species of concern occur within the refuge for which the proposed action complies with the following laws:

- Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22
- Endangered Species Act of 1973 (ESA), as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450

- Fish and Wildlife Act of 1956, 16 U.S.C. 742 a-m
- Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21
- Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001).

Federally Threatened and Endangered species whose range overlaps with the proposed action area include Canada lynx (*Lynx canadensis*), gray wolf (*Canis lupus*), northern long-eared bat (*Myotis septentrionalis*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), dwarf lake iris (*Iris lacustris*), Houghton's goldenrod (*Solidago houghtonii*), and Pitcher's thistle (*Cirsium pitcher*). Only the gray wolf and northern long-eared bat occurs on the refuge and possibly may be present at times within the project area. Additional information on these species' historical presence in the project area is included in Appendix C.

Multiple packs of wolves use portions of the refuge throughout the year and breed within the refuge. The project site is likely within a wolf territory, which typically range in size in the upper peninsula of Michigan from 5 square miles to 221 square miles (Michigan DNR, 2015 p. 8). There are no den locations or previous indications of possible pup rendezvous sites within the 1.4-acre project area. Wolves are typically reported from vehicle drivers to be sighted crossing the M-77 highway. In 2019 the carcass of a young adult female (1.2 years old) hit by a car was collected on the refuge roadside of M-77 about a half mile north of Refuge Entrance Road near the South Show Pool.

Northern long eared bat surveys have not been completed at this site to date, but it is possible bats may roost in the roof of the structure or underneath the cedar shake shingles during the active season (April 1 through October 31st). The project area has no known hibernacula or maternity roost sites for northern long-eared bats.

The monarch butterfly (*Danaus plexippus*) is a Species of Special Concern and a candidate species for Endangered Species Act listing. Monarchs and other pollinators are declining in population which may be a result of habitat loss and degradation. Milkweed and other pollinator plant species do exist within the vicinity of the shelter, in the transitional areas from upland to wetland, within the wetland areas adjacent to the structure and in the ditch along the highway.

Several bird Species of Special Concern whose range overlaps with the Proposed Action and could occur within the 1.4-acre upland site and include bald eagle (*Haliaeetus leucocephalus*) and osprey (*Pandion haliaetus*). The following bird species of special concern are not likely to occur within the project area but may occur in surrounding wetlands or scrub/shrub habitat are trumpeter swan (*Cygnus buccinator*), LeConte's sparrow (*Ammodramus leconteii*), lesser yellowlegs (*Tringa flavipes*), common tern (*Sterna hirundo hirundo*), black-billed cuckoo (*Coccyzus erythrophthalmus*), bobolink (*Dolichonyx oryzivorus*) and wood thrush (*Hylocichla mustelina*). The latter three are not likely to be present as the habitat is not ideal for these species and black-billed cuckoo are uncommon on the refuge. One or two trumpeter swan pairs have traditionally nested on the Show Pools however this has not occurred in the past three years due to low water levels in the North and South Show Pools. Additional information on these species historical presence on the refuge is included in Appendix C.

Other Species of Special concern whose range overlaps with the refuge but are not known or likely to occur on the project area include wood turtle (*Glyptemys insculpta*), chorus frog (*Pseudacris illinoensis*), and Blanding's turtle (*Emydoidea blandingii*). Additional information on these species historical presence on the refuge is included in Appendix C.

Description of Environmental Trends and Planned Actions

American bald eagle populations have rebounded nationally and climbed to an estimated 316,700 individual bald eagles in the lower 48 states. (USFWS, 2020)

Gray wolf populations have also increased in the Upper Peninsula of Michigan since 1989 with 695 wolves counted in the winter of 2020. The 2015 Michigan Wolf Management Plan estimates of biological carrying capacity for the Upper Peninsula are imprecise but range from 600 to 1350 wolves (MDNR, 2015).

Northern long-eared bat populations have plummeted in recent years, with range wide summer occupancy declines by 80% from 2010–2019 (USFWS, 2022). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent.

Monarch butterfly populations are trending downward so sharply that their migration is threatened. Based on annual counts at overwintering sites, from 1996 to 2020, the eastern monarch population dropped 88 percent, from an estimated

383 million to just under 45 million. Loss of habitat in overwintering areas and throughout breeding and migration areas is a primary cause. (USFWS, 2020)

The changes proposed for the Show Pool Shelter would not increase or alter the footprint of the structure and only result in minor increases to visitation at the site over the long term. We do not anticipate long-term changes to the site that would affect threatened and endangered species.

The Great American Outdoor Act deferred maintenance project impacts to threatened and endangered species were evaluated in an informal consultation with the Service's Ecological Services program and determined to not effect Canada lynx, piping plover, red knot, dwarf lake iris, Houghton's goldenrod, and Pitcher's thistle. Gray wolves are not likely to be adversely affected and incidental take of northern long-eared bats is within the Service's January 5, 2016 biological opinion for northern long-eared bat and 4(d) Rule.

The Service is not aware of any other specific planned actions adjacent to the project area from private, state, or local governments that could affect listed species using this site.

Impacts on Affected Resource

Alternative A

Impacts of refuge management and visitor use have been evaluated previously in the Environmental Assessment for the refuge's 2009 Comprehensive Conservation Plan. Impacts were determined to not have an adverse impact on threatened or endangered species listed at the time. Species not included in the initial analysis include northern long eared bats and monarch butterflies.

Bald eagles and osprey are not known to nest on or near the proposed project site. Bald eagles and osprey may occasionally use trees on the site for perching and may forage in the area. An osprey nesting platform was installed in 2018 near the shelter, however it has never been used and the pools have not had adequate water levels to support fish species for foraging. Disturbance to osprey or bald eagles foraging or perching at the site would be temporary and negligible as suitable and higher quality habitat exists immediately outside the project area.

Although wolves may use the upland site and dams surrounding the Show Pool Shelter while traveling, they can easily avoid or freely move away from any disturbances caused from construction and/or visitors with ample habitat existing outside of the project area. The upland site surrounding the Show Pool Shelter is

only 1.4 acres and not likely for wolves to occupy for long periods of time given the close proximity to the road and limited prey. Since visitor numbers are not expected to change for the Show Pool Access Area, current levels of noise and wildlife disturbance should remain similar to past years.

Replacement of the deteriorated or damaged cedar shakes may disturb bats. Bat surveys could be done in advance to determine if northern long-eared bats are using the structure for roosting. If northern long-eared bats are detected utilizing the structure, cedar shake removal will be delayed to the inactive season. This would have no impact to the species.

Trumpeter swans have been tolerant to people accessing this area in the past when suitable nesting habitat existed near the project area and are likely to continue to tolerate such disturbance. However, they could become habituated to people feeding them. Reports and observations of this have been limited in the past and therefore likely to result in only a negligible affect to individual swans in the short term. The Show Pools freeze in the winter and the habitat surrounding the project area is not suitable for swans to be present during the winter. Feeding wildlife is against refuge regulations. The refuge monitors trumpeter swan presence at this site as part of its regular wildlife monitoring survey activities. The site is also inspected weekly during the summer for visitor use issues. Should feeding become an issue, mitigation measures can easily be implemented at the site to increase public awareness regarding the regulation and risks to feeding swans and other wildlife in general on the refuge and at this location.

Impacts to monarchs would be negligible and likely limited to visitors and staff observing them while on the upland site. The area immediately adjacent to the Show Pool shelter consists of gravel and maintained lawn grass. Monarchs are not likely to occur on or in the structure itself but rather foraging or laying eggs on milkweed along the highway and wetlands on the outer perimeter of the general project area.

Impacts to wood turtles, chorus frogs or Blanding's turtle are unlikely. These species are unlikely to occur within the shelter or the surrounding upland site where visitor and maintenance activities would occur.

Alternative B

The impacts to this alternative are similar to those for Alternative A, except short term impacts to wildlife may occur over a slightly longer duration during the initial

remodeling construction. Construction and demolition activities may take one or more months to complete, but less than 6 months.

The removal of the conical structure has the possibility of removing a bat roosting site. Specific mitigation measures will be explored and implemented per recommendations from Section 7 consultation with the Services Ecological Services program. Habitat is not a limiting factor for this species and suitable habitat remains on the shelter and in the surrounding area, therefore the impacts of this action would likely have a negligible long-term effect on the species population. None-the-less, a possible mitigation measure would be to add bat roosting boxes at the site. This could be used as an educational opportunity for the public and draw attention to bats, their conservation issues, and ways humans can help.

Alternative C

The impacts to this alternative are similar to those for Alternative B.

Visitor Use and Experience

Affected Environment

Description of Affected Environment for the Affected Resource

The Show Pool Shelter was completed in 1938 by the WPA/CCC and has helped welcome visitors throughout most of the refuge's history. In 1994 the shelters were closed because picnicking was considered a low priority public use. The structures were deteriorating due to woodpecker damage and vandalism. Picknickers were stripping the shingles off of the structure and using them to start the grills. Many visitors would leave their waste behind or toss it into the outhouse septic tanks causing maintenance issues as well as detracting from the site's aesthetics and wildlife value. This was an unpopular decision, and the area was reopened in 2008 with the support of the Seney Natural History Association which is the refuge's Friends group. An agreement was signed by the Friends to clean the restrooms and pick up litter. By 2015 staff members had taken over this duty along with help from recreational volunteers, front desk volunteers, and the custodian that services the office and visitor center.

For the past 11 years the shelters have received an average of 7,706 visitors per year with 2021 being the highest visitation at 10,546 and 2011 being the lowest visitation at 5,803 visitors. The site is popular with single people, couples, and small family groups as well as larger groups including classes, family reunions, and groups of friends congregating.

Visitors use the site as a place to picnic, an access point to the refuge's South Show Pool, Show Pool Connector and Pine Ridge Nature Trails, fishing when there is water in the pools, wildlife observation and photography, and a place to escape sudden rainstorms and extreme heat. Some visitors also camp, although this is not an approved activity for the site.

The Show Pool Shelter is a pack in/pack out site. Trash cans or waste disposal are not offered. The refuge does not have the capacity to dispose of large amounts of waste generated by the public. A small percentage of the site's users do not follow the pack in/pack out policy. Litter can be an issue on the site. Staff and volunteers complete regular site visits to tidy the space. Some people also dispose of their trash in the outhouse by throwing it into the toilet. This causes issues because it can clog the sewage waste collection truck's hoses making it challenging to find companies willing to work with the refuge. Signage may help address this issue.

See Appendices A and B for photos and current maps of the area.

Description of Environmental Trends and Planned Actions

Impacts from visitor use and increased environmental education on the refuge regarding the Great American Outdoors Act deferred maintenance projects located outside of the project area are not further analyzed here. These projects were considered within the framework of the Seney Comprehensive Conservation Plan and Environmental Assessment decision Finding of No Significant Impact and/or within agency categorical exclusions involving routine maintenance and repair (43 CFR 46.210 and 516 DM 8.5B2). Impacts are not further evaluated here.

Given the Great American Outdoors Act deferred maintenance projects are occurring now and over the next few years, it is possible this site may get more use in the short term (through 2024) when other facilities are closed during construction. However, the site is self-limiting to the number of visitors due to the parking area size and the limited amenities will likely make it less appealing for some visitors. Additionally, the refuge will offer an alternate temporary visitor center during construction.

In general, Seney National Wildlife Refuge receives on average 87,735 visitors a year. These visits can be broken down into popular activities such as auto tour visits, whitefish point unit visits, visitor center, photography, hiking/cross country skiing and consumptive recreation such as hunting and fishing.

The Visitor Services Plan calls for the Show Pool Shelter to be used to support environmental education opportunities for hosting public schools that participate

in environmental education on the refuge. The primary location for larger groups (over 20 students) is at the headquarters and visitor center site where multiple bathrooms, running water and recreational facilities are available without having to have the students bussed further. The refuge does occasionally get use from smaller homeschools, charter schools or college groups that use the refuge to lead their own field trips and programs. These type of environmental education programs currently contribute a minimal portion of Show Pool public access area site visits.

Impacts on Affected Resource

Alternative A

There would be a closure of the structure while the repairs are made which would have temporary minor negative impacts to visitor access to the site, estimated to be one to three months. Once initial repairs are complete then long-term maintenance closures would range from a couple hours for minor repairs and up to several weeks for more extensive projects. Mitigation measures for extensive projects can easily be implemented to notify visitors using press releases, social media, and signage of the closures. Visitors can be redirected to other refuge recreational opportunities.

Wildlife observation opportunities would remain minimal. Currently, the conical portions of the shelter are largely enclosed except for a gap that serves as a door on both the north and south sides of the structure. The door gaps do not face the beautiful vistas available at the site, instead you can look across the lawn at a picnic table and grill, look at the stone fireplace, or look at the current outhouse and signage. The views of the pools where wildlife is most often seen are completely obscured by the shelter.

The opportunity and quality of experience for recreational use inside the structure for resting, eating and seeking shelter from rain and direct sunlight would remain the same and not be ideal for some users. The cones are effective for blocking wind, rain and offering a cool retreat on hot sunny summer days. The structure allows for two picnic tables in one cone and one accessible picnic table in the other cone. The slanted roofline limits access to the benches on the outer walls making it difficult for adults of average height to use and people must be able to duck their heads. Taller people are limited to the benches in the center.

The architecture of the shelter will not change and may not be welcoming and could cause offense to Native American visitors. These users may avoid the site or

refuge entirely. This would have a long term negative intermediate impact for improving visitors' experience of recreational uses on refuges and public participation at Seney National Wildlife Refuge. With tribal support and input, mitigation measures could be implemented to develop interpretive panels that discuss tribal history and the cultural sensitivities the structure may evoke for some users. If use of a tribal symbol is appropriately acknowledged at the site and tribal users are aware their government was counseled and supportive of this structure, they may be more willing to visit the site.

Visitors who have sentimental or nostalgic connections to the current appearance of the structure will be able to continue to enjoy and share with others who accompany them to the site. The site will be a place to remind visitors of the early development of the refuge by the CCC/WPA. Visitors particularly interested in the CCC/WPA history will continue to be able to visit the site and see the examples of the original craftsmanship.

Environmental education participation would likely remain at the level it currently receives.

Proper maintenance of the structure will support current and future visitation at the structure and Show Pool Access Area in general resulting in a negligible increase in visitation. This project will have a minor additive effect on the Great American Outdoors Act deferred maintenance projects occurring adjacent to the project area resulting in minor increases to visitation at the refuge over the long term.

Proper maintenance and repair to the Show Pool Shelter as it currently appears may help appeal to people's good nature and desire to do well and promote proper use and care of the structure. This may discourage some instances of vandalism such as carving into wood or graffiti resulting in minor improvements to reducing incidents of vandalism.

Although there may be a minor improvement to some vandalism occurrences of unauthorized camping, littering and occasionally using the shelter as a toilet that will likely continue and pose challenges for law enforcement and staff. For camping incidents (typically fewer than 6 per year) and sewage incidents (2 in last 8 years), the enclosed design hides occupants from view and from time-to-time people take advantage. Mitigation measures include utilizing onsite signage, personal contacts and regular site inspections by law enforcement and refuge staff.

Alternative B

This alternative would call for more significant alterations to the structure and therefore may take longer to complete than alternative B. This may lead to access to the site for visitors being closed for a longer period of time during initial repairs than Alternative A. The closures are still likely to be short term (1-6 months) and have a minor effect on visitor use. Closures for long term routine maintenance would be similar to Alternative A.

The altered design would increase wildlife viewing and observation opportunities by providing more open space under a pavilion roof on each side of the stone fireplace and removing the walls. Opening the shelter by removing walls facing the wetland pools would improve the views and opportunity to observe wildlife on the refuge while using the shelter. It would also make the structure more user friendly and accessible to families and other user groups by enabling people to sit under the shelter and observe other members of their group who may be fishing, hiking, taking photos or participating in other approved recreational opportunities. This would result in a positive long term intermediate affect for wildlife observation recreation.

The opportunity and quality of experience for recreational use inside the structure for resting, eating and seeking shelter from rain and direct sunlight would result in changes that would improve these experiences for more users. The changes will offer greater accessibility and mobility for visitors inside the shelter. By removing walls and retaining the current site footprint, visitors could more freely maneuver around the seating and tables making them more comfortable and accessible for people of various degrees of mobility. This would offer intermediate positive long-term effects on recreational experience for the site.

Changing the architecture of the shelter so that it no longer has a strong resemblance to teepees may have a positive impact on recreational experiences for visitors who may have otherwise been offended by the current or original design of the shelter. The proposed design alterations would offer a more welcoming and inviting experience to all visitors, particularly those who identify as Native Americans. This would have a long term positive intermediate impact for improving visitors' experience of recreational uses on refuges and public participation at Seney National Wildlife Refuge.

Visitors who have sentimental or nostalgic connections to the current appearance of the structure may feel a sense of loss to the proposed architectural changes.

Some visitors who have personal connections to the shelter and/or family traditions may be disappointed to see the shelter changed. Several individuals may feel priority should be given to preserving the greatest extent of history possible above all other purposes and needs for this project. Visitors particularly interested in the CCC/WPA history may be disappointed to see the loss of original craftsmanship work that would result from the proposed architectural changes. To mitigate and lessen the burden of loss, this alternative will preserve the sense of place of the structure by maintaining many of the original characteristics including the shelter location, stone fireplace and log timber construction. Continuing to offer a shelter with picnic tables and access to the site will ensure traditions can continue at the same location once improvements are finished. The site will continue to be a place to remind visitors of our cultural history and the early development of the refuge by the CCC/WPA. Interpretive panels at the site can help share this rich history. The recreational opportunities the site currently offers will continue to be offered but with improvements that overall result in a more positive experience for visitors recreating at the site.

Recordation of the layout, materials and photos of the existing structure will be completed prior to altering the structure to preserve historical information about the shelter. Some people may feel loss of an iconic refuge structure. From a distance, the shelter will appear less unique and perhaps less memorable to visitors passing by on the highway and therefore may draw in fewer incidental visitors. Although it may appear less unique from a distance, it will be visually appealing by retaining much of the natural and rustic features from the original skilled WPA laborers. To highlight its custom construction, interpretation of the site could draw visitor's attention to the skilled craftsmanship of the stone fireplace and log timbers as well directing them to other historical structures within walking distance of the site such as the South Show Pool rock spillway. With implementation of the mitigation measures, the recreational experience for these users is considered to have an intermediate negative affect over the long term.

Environmental education use may increase slightly at the site resulting in minor impacts to environmental education opportunities. The functionality of the redesigned structure may be more inviting and beneficial for small independently led groups such as scout leaders working with a troop on cooking, photography or other badges compatible with refuge visitor uses and wildlife management.

Compared to Alternative A, overall visitation and use of the Show Pool Shelter structure itself is expected to increase substantially in the long term with the

shelter changes aimed at improving wildlife observation, recreational experiences, and protecting some of the historical features. However, the overall visitation to the Show Pool Access Area site in general is only expected to have a minor increase overall given the limited amenities and parking capacity. Similar to Alternative A, this project will have an additive affect to the Great American Outdoors Act deferred maintenance projects occurring adjacent to the project area resulting in minor increases to refuge visitation.

Proper maintenance and repair will have similar affects to alternative A to reducing incidents of vandalism. Additionally, creating a more open shelter will reduce the ability for people to hide behind walls which may help reduce unauthorized camping or defecating inside when the site is closed. Similar to Alternative A, mitigation measures will include utilizing onsite signage, personal contacts and regular site inspections by law enforcement and refuge staff. This will result in an overall increase to visitor experience in the long term.

Alternative C

The initial project construction and long-term maintenance and repairs would have similar duration and closure impacts to visitors as Alternative B.

Similar to Alternative B, this option would increase opportunities for wildlife observation and result in a positive long term intermediate effect. Installation of windows facing the pools would increase wildlife observation opportunities within the structure. The shelter may function similar to an observation or photo blind where the walls may help conceal people and cause less disturbance to wildlife. This could lead to visitors seeing more wildlife activity.

The opportunity for recreational use inside the structure for resting, eating and seeking shelter from rain and direct sunlight would continue. Designating one side of the shelter to wildlife observation and installing benches while limiting the other side to one picnic table will improve accessibility and offer a more comfortable experience with space for maneuvering inside the shelter. This would offer intermediate positive long-term effects on recreational experience for the site.

Changing the architecture of the shelter so that it no longer has a strong resemblance to teepees would have similar impacts as alternative B on recreational experiences for visitors who may otherwise had been offended by the current or original design of the shelter. However, there may be some people who would remain offended by any remaining conical portions of the original design. It is

unclear the extent of potential refuge visitors this would include and therefore the degree of impact is unknown and assumed to be minor over the long term.

Impacts to architectural changes on visitors who have sentimental, nostalgic or historical appreciation would be similar to alternative B, but to a lesser extent. Retaining a greater amount of the current architecture in the future design will enable visitors to see the resemblance to the structure as it appears today. With implementation of the mitigation measures described in alternative B, the recreational experience for these users is considered to have a minor negative affect over the long term.

Impacts to environmental education at the site would be similar to Alternative A.

Impact to overall visitation and use is similar to Alternative B.

Proper maintenance and repair will have similar affects to alternative A to reducing incidents of vandalism. Since the windows would only be on the pool side, the walls facing the highway would still conceal people from high visibility of the site entrance road.

Cultural Resources

Affected Environment

Description of Affected Environment for the Affected Resource

The proposed action involves a historic structure (the Show Pool Shelter) and cultural symbols (teepee architecture). Since no tribal artifacts or remains are within the site, the following laws do not apply.

- American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 – 1996a; 43 CFR Part 7
- Antiquities Act of 1906, 16 U.S.C. 431-433; 43 CFR Part 3
- Paleontological Resources Protection Act, 16 U.S.C. 470aaa – 470aaa-11
- Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10
- Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)
- Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996).]

The historic context of the shelter stems from U.S. history during the Great Depression era, 1929-1939.

Hoping to lift the country out of the Great Depression, President Franklin D. Roosevelt authorized the Emergency Relief Appropriations Act in 1935. The Works Progress Administration (WPA) and Civilian Conservation Corps (CCC) were some of the New Deal programs intended to relieve the chronic and widespread unemployment within the nation. Workers from the program built highways, schools, hospitals, airports, roadside parks, and other structures. The men at the WPA and CCC camps were utilized by the Bureau of Biological Survey (the precursor to the U.S. Fish and Wildlife Service) to build and expand wildlife refuges around the nation, including at Seney. Structures were designed not just for administrative or housing purposes but also for encouraging the public's enjoyment of the resources. The Show Pool Shelter is an example of that effort. Similarly, Native Americans worked on their lands as part of the CCC – Indian Division run by the Bureau of Indian Affairs. The closest Indian CCC camp counterpart was in Marquette and a WPA project at Bay Mills (Cleland, C. 2004).

Also in 1935, congress passed the Indian Arts and Crafts Act. This law recognized the importance of American Indian art and put in place several mechanisms for its protection and promotion (Thompson, 2022). Also, American Indians were employed on work-relief projects to create pottery, rugs, blankets, and other goods and handicrafts and Indian artists were hired or commissioned by New Deal agencies to create art for public places across the country. (See, e.g., a Department of the Interior video showing American Indians on a WPA arts and crafts project: “The WPA on Indian Reservations”).

While there was this federal effort to recognize the importance of Native American art and culture, there are no records or notes regarding what motivated the designer to use tribal iconography on the construction of the wildlife observation/picnic shelter on the project site. Additionally, what limited records are available in the refuge's files do not indicate tribal members or tribal CCC camps were involved or consulted on its development. Whatever the motivation, the appearance is not symbolic of an authentic woodland wigwam used by indigenous people of the area as the original name implies, but rather the conical components resemble teepees, which were the homes of the nomadic tribes of the Great Plains who did not occupy this region.

When the Show Pool Shelter was built, the country was becoming enamored with Native American culture through Hollywood movies depicting Great Plains and Southwestern peoples and frequently utilized Native American symbols without context or consultation with Tribes. Also starting in the late 1920s, as automobiles

became more affordable, travelers began venturing out to rural areas on road trips. As such, they became in need of places to rest, consume food and use restrooms. The need and funding for roadside improvements grew. The aim for roadside parks was to create a context of place within the highway system and offer relief from travel. Their design from this era typically utilized natural materials and skilled labor to appear handmade rather than manufactured. This required a great deal of skilled labor that is not typical of today's roadside parks. "Creative developers designed shelters in forms that drew on regional imagery such as teepees, oil rigs and windmills and designed buildings that reflected the architectural heritage of indigenous people" (Rest Area History, 2022).

In the recently completed Historic Context and National Register of Historic Places Eligibility Evaluation for the Seney National Wildlife Refuge (July 2021), the Seney National Wildlife Refuge is significant under National Register of Historic Places Criterion A in the area of Politics/Government for its associations with the U.S. Fish and Wildlife Service and the New Deal, the CCC, and the WPA. It is also significant in the area of Conservation for its associations with the U.S. Fish and Wildlife Service's (then the Bureau of Biological Survey) large-scale habitat restoration efforts to convert land that had been cutover, burned, and drained for agriculture to land that provided wildlife habitat, starting in the 1930s, and in the area of Recreation for its associations with tourism, birding, hunting, and fishing in the central Upper Peninsula. The refuge represents changes in public land management in the 1930s, which were partially guided by President Franklin D. Roosevelt's emphasis on natural resource conservation.

The shelter is recommended as a contributing resource to the proposed Seney National Wildlife Refuge Historic District. Although the Show Pool Shelter has lost integrity of design and materials due to the replacement of wood shakes, new door opening, and loss of the window openings, the shelter retains the integrity of location, setting and workmanship, feeling and association. The surrounding landscape also retains much of its historic integrity and the trees were planted by the WPA and refuge staff. The shelter is a unique feature at the refuge and continues to reflect its associations with the WPA and CCC, the early development of the refuge, and the public's use of the refuge. Actions taken on this structure must be evaluated to comply with the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810 and in accordance with Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971).

Description of Environmental Trends and Planned Actions

To comply with the Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa – 470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7, an archeological survey was completed on June 15, 2021 for site improvements that include minor parking and road realignments and installing a new vault toilet facility. No artifacts were found, and the results indicated much of the area has been previously disturbed, likely from original construction.

Coordination and consultation with the State Historical Preservation Office for the associated site improvements including the installation of a new outhouse and alterations of the parking and road occurred in 2021. A determination of no adverse effect to cultural resources was made for the Show Pool Access Area improvements on July 22, 2021. Consultation specific to the Show Pool Shelter will be completed as part of the environmental assessment process.

In April of 2021 formal letters were sent via email to all tribal historic preservation officers and wildlife biologists within the ceded territory to seek suggestions for how to address the shelter and how they might like to be involved. Additional follow up emails and phone calls were made to Bay Mills Indian Community and Sault Tribes. No official recommendations have been made, however personal communications indicate the structures do not resemble wigwams and therefore they do not feel comfortable making recommendations other than not to call them wigwams. Additional comments may be received as part of this draft Environmental Assessment.

On June 28, 2021, the refuge manager sent a meeting request to all Tribes in the ceded territories to check in on concerns and priorities with regards to lands the refuge administers and to discuss Seney National Wildlife Refuge infrastructure projects planned, including the Great American Outdoor Act deferred maintenance projects. Invitations were sent to the historic and natural resource staff and two Tribes responded. Informal meetings were held with the Bay Mills Tribe and Little River Band of Ottawa Indians, respectively on July 20 and 21, 2021, where the restroom and alteration of the parking and road were briefly reviewed to gather any initial concerns the Tribes may have. A written summary of refuge initiatives and a draft summary of visitor center interpretive themes and key messages were provided to participants. The Tribal members did not express concerns for the other infrastructure projects (which did not include the shelter project) and Bay Mills Indian Community confirmed in an email the location of all refuge infrastructure projects including this project site did not involve any known tribal

sacred sites. The refuge hopes to continue to learn more about tribal priorities and history relevant to refuge lands and incorporate where appropriate into future interpretive opportunities with help from tribal members.

For decades Native American communities all over the United States have been asking federal and state governments, businesses, and private citizens to evaluate their actions and take a deeper look into how they utilize Native American symbols and represent their culture.

Unique roadside rest areas or parks are disappearing across the country in general due to limited budgets from government agencies, automobiles are more comfortable and easier to drive, and commercial amenities are more widely available now (Byrnes, 2013).

Impacts on Affected Resource

Alternative A

This alternative would preserve the greatest extent of original historical attributes of the Show Pool Shelter by protecting and “like-for-like” repairing what remains of the original wood timber and stone craftsmanship design. The site will continue to be a place where people can see original craftsmanship of the CCC/WPA that reflects the cultural history, traditional skilled craftsmanship and early development of the refuge. This will protect the integrity of location, setting and workmanship, feeling and association which make the Show Pool Shelter a contributing asset to the refuge’s eligibility as a historic district within the state. This would be a major positive long-term impact on the shelter as a cultural resource. The Service would be proposing to the consulting parties to issue a “No Effect” determination in regard to compliance with Section 106 of the National Historic Preservation Act if this alternative is chosen.

While not changing the current appearance of the shelter, this alternative would present an opportunity to strengthen the government-to-government relationship with Tribal Nations should they agree to be involved. Looking to the future we hope to promote positive interactions with Native Americans and to move forward with cultural appreciation. This is accomplished when the Tribes are consulted regarding design and messaging pertaining to their communities. Involvement could include (but is not limited to) offering input for content development of interpretive panels that reflect the natural and tribal history of the region, the cultural sensitivities the structure may evoke for some users, as well as the CCC and WPA historical contributions in developing the refuge. This would result in a

positive impact to the government-to-government relationship and tribal refuge visitors. Without tribal support, at best this alternative may not add value to strengthen government-to-government relationships.

Alternative B

This alternative would protect the Show Pool Shelter's historic integrity of location, setting, and association, but result in loss of some workmanship and feeling qualities of the shelter. These terms are defined in the *Guidelines for Completing National Register of Historic Places Forms (National Register Bulletin 15; Page 44)*.

The architectural changes would result in the loss of some features of the original design and craftsmanship built by the CCC/WPA. Some of the sense of historical feeling the current design conveys would also be lost. The conical portions taken together with the stone fireplace and log timbers convey the shelter's historic character and sense of feeling. Removal of the walls which are distinguishing features may reduce the feeling that the shelter inspires as a reflection of the refuge's early development and time in history. However, this alternative will preserve the sense of place of the structure by maintaining many of the original skilled craftsmanship characteristics including the shelter location, stone fireplace and log timber roof construction.

The shelter would continue to serve its original purpose and use and be a place to remind visitors of the early development of the refuge by the CCC/WPA. Interpretive panels at the site can help share this rich history. To highlight its custom construction, interpretation of the site could draw visitor's attention to the skilled craftsmanship of the stone fireplace and log timbers as well directing them to other historical structures within walking distance of the site such as the South Show Pool rock spillway.

The Service would be proposing to the consulting parties to issue an "Adverse Effect" determination in regard to compliance with Section 106 of the National Historic Preservation Act if this alternative is chosen. Recordation of the layout, materials and photos of the existing structure would be completed prior to altering the structure to preserve historical information. Any adverse effects would be resolved in an agreement with the State Historical Preservation Office.

Conversely, changing the look of the structure may help to have more positive interactions with tribal partners in the future by removing the portions of the structures that were designed to represent teepees but called wigwams. This alternative would present an opportunity to strengthen the government-to-

government relationship with Tribal Nations and at worst would have no effect on current relationships since the structure would no longer have a strong resemblance to teepees.

Alternative C

The impacts to cultural resources of this alternative would be similar to Alternative B rather than Alternative A, but to a much lesser degree. Only the top cones would be removed. Retaining more of the original tribally inspired architecture by retaining the lower walls and reopening the windows would result in much less loss of workmanship and feeling than Alternative B. The structure would still retain its integrity of location, setting and workmanship, feeling and association with the CCC/WPA. The Service would be proposing to the consulting parties to issue a “No Adverse Effect” determination in regard to compliance with Section 106 of the National Historic Preservation Act if this alternative is chosen.

This approach may present a risk of the resulting aesthetics of the structure remaining too strong of a resemblance to the initial conical design or even being truer to wigwam form. It is unclear if or how this alternative may impact a government-to-government relationship with tribal nations.

Refuge Management and Operations

Land Use on the Refuge

Natural resource management of the refuge takes a gradient approach to stewardship with natural resource conservation being the focus in Unit 1, natural resource conservation and restoration in Unit 2, natural resource restoration and preservation in Unit 3 and natural resource preservation in Unit 4 (see the map in Appendix B). The shelter is within Unit 1 of the refuge along the eastern boundary defined by state highway M-77. Unit 1 of the refuge is the most heavily disturbed landscape with development of the low hazard dam pool system, refuge facilities, and visitor activities including trails, an auto tour, and the visitor center. This leaves Units 2, 3 and 4 (more than 75% of the refuge) set aside for more emphasis on natural resource restoration and preservation along with fewer roads, dams, and more limited access to visitors. In Unit 4, over 25,000 acres of Seney are Wilderness where no roads or recreational structures are present.

Affected Environment

Description of Affected Environment for the Affected Resource

The location of the shelter is on an upland site that has been established as a public access area since the refuge's early development in 1938. A short gravel road off the well-traveled state highway M-77 leads to the shelter along with a single toilet outhouse, picnic tables and grills on the 1.4 acres site. Visitors can access trails around the two Show Pools or connect with other refuge trails.

Refuge management and operations at the site would consist of the same activities as in the past. This project would not change the amount of public infrastructure for this site and is addressing necessary maintenance and repairs to existing public infrastructure.

Water management of the North and South Show pools are typically controlled with stop log water control structures and emergency spillways. These structures are located on the South Show Pool and Show Pool Connector trails. North and South Show Pool are to be managed to provide habitat for swans, osprey, and other wildlife native to the region.

The Show Pool Shelter would continue to provide the same use as it has since 1938 for visitors.

Description of Environmental Trends and Planned Actions

The Great American Outdoor Act deferred maintenance projects will be implemented concurrently with this project. Although the refuge will offer an alternate temporary visitor center during these projects, it is possible this site may get more use in the short term (through 2024) when other facilities are closed during construction. However, the site is self-limiting to the number of visitors due to the parking area size and the limited amenities will likely make it less appealing for some visitors. Visitors will likely seek out other access areas of the refuge.

There are four primary recreational access areas to the refuge for wildlife observation, with the Show Pools Shelter project site being one. The most heavily used is the main headquarters site. The entrance is one mile south of the Show Pool access area along the refuge's eastern boundary. Once current construction at the headquarters is completed, the headquarters site offers a visitor center, kiosks, after-hour restrooms with running water, Pine Ridge Nature Trail, pavilion with picnic tables and auto tour routes. Until construction is completed, a temporary visitor center will be located within an existing refuge facility on Manistique River Road, approximately 7 miles south of the Show Pool Access Area. Other site

facilities at the headquarters area will also be unavailable until construction is complete, and operations can resume. All construction is anticipated to be finished by December 2024.

Robinson Road Access Area is located about 4 miles south of the Show Pool Access area and Driggs River Road Access Area is 12 miles north and west of the Show Pool Access Area on the north refuge boundary along state highway M-28. There are also seven pull-off areas with kiosks along the refuge's boundary. All of these sites will not be impacted by other project work and will remain accessible to visitors for hiking, biking, and other wildlife observation opportunities.

Currently, the nearest roadside parks or rest areas offering restrooms and picnic tables are located south of the community of Germfask (approximately 4.25 miles) or north and west along state highway M-28 (approximately 8 miles). These facilities are anticipated to remain open to the public and would not cause an increase in traffic to the project area.

Impacts on Affected Resource

Alternative A through C

No new impacts to land use are expected. The shelter will remain and there will be no loss or gain in recreational facilities on the refuge. Refuge management and operations would be improved by the fact that the issues with the structural integrity of the shelters would be removed from the backlog of maintenance needs for the refuge. This would have a minor positive impact to the long-term management of the site by reducing maintenance .

Repairs to the North Show Pool as well as future water management of these pools would not be affected by this project and would continue. Visitor use may increase slightly resulting in minor increases to general maintenance and operation.

Increased visitor use of other sites is expected and would simply be redistributing land use to places where it already similarly occurs.

Administration

Affected Environment

Description of Affected Environment for the Affected Resource

Funding has been awarded for this project under a Presidential Initiative and with Congressional funding from the Great American Outdoor Act, Pub. L. 116-152, to address the deferred maintenance backlog on federal public lands. Seney National

Wildlife Refuge received \$11.2 million to work on the four major initiatives listed below.

1. Visitor Center Replacement and Enhancement Project
2. Bridges/Water Control Structures Repair Project
3. Show Pool Access Area Rehabilitation Project
4. Pine Ridge Nature Trail Improvement Project

Approximately \$27,000 of this funding is for the Show Pool Shelter rehabilitation. This initiative is to be completed by September 2023.

Aside from GAOA funding, in 2021 the refuge received approximately \$794,806 for salaries and general operations. A total of \$60,500 was set aside to address annual maintenance of existing infrastructure and facilities, which is consistent with previous years funding.

Currently, the refuge has three vacancies in permanent staff including a refuge law enforcement officer, biologist, and assistant refuge manager. The minimum staffing plan for the refuge calls for 11 full time employees and two career seasonal permanent staff. During the field season, the refuge typically doubles its employees and interns with the help of the Seney Natural History Association and regionally sponsored youth employment programs. In addition to paid staff, the refuge has a robust volunteer program with over 40 regularly scheduled volunteers each week to help with projects including assisting the public in the visitor center, landscaping work, maintenance projects or restocking brochures at the public access sites where they also pick up trash and check the restrooms for supplies or cleaning needs.

Maintenance staff typically spend six to eight hours at the beginning of a season opening the Show Pool Shelter Access site. This involves opening the entrance gate, removing fallen branches or trees from the lawn areas, sweeping out the shelter, unlocking the restrooms and cleaning, filling holes in the gravel parking area and road, and repairing any damages found to tables or the structure. Closing the site requires less time and only involves cleaning up litter, locking the gate, and restroom.

Once the site is opened, staff and volunteers monitor the site for maintenance, cleaning, and restocking supplies on a weekly basis from May 15 through October 20. Two volunteers typically spend 30 minutes at the Show Pool Access Site each week collecting trash left behind at the site, sweeping out the pit toilet facility,

sanitizing the seat, and replenishing toilet paper and hand sanitizer. Maintenance staff visit the site two to three times a week and spend 15 minutes to two hours depending on the activity. Typically, trash pickup can be done in 15 minutes, where mowing may take two hours.

Larger but less frequent reoccurring maintenance involves painting the wooden structure to preserve the log timbers. This is needed about every seven to 10 years and can be completed in a week by two to three workers at an estimated cost of \$300 for materials. A cedar shake shingle roof can last 30 years before it may need to be replaced if the shingles don't get damaged and are kept free from debris, moss or algae. Replacing the cedar shake shingles is estimated to take up to 21 days with a crew of three or four workers and may cost up to \$12,000 in materials. The vault toilet at the site is pumped out by a certified contractor every 3-4 years.

Occasionally, staff encounter sewage in the shelter or items in the pit toilet that the sewage disposal contractor can't remove from the vault with their hose. This happens once every two years. On these occasions, staff spend approximately three hours to done proper PPE and clean the mess.

Description of Environmental Trends and Planned Actions

The Service is not aware of any planned actions of the state or local governments that could effect available time, funding, or staff needed to implement this project.

Impacts on Affected Resource

Alternative A

No new impacts to refuge administration are expected. Initial one-time funding for the project will go toward staining the log timbers, replacing the cedar shakes, replacing any rotted materials and repairing the stone fireplace grout and missing stones. Increased use of the Show Pool Shelter would increase time spent at the site for cleaning trash left behind and restocking toilet supplies having a negligible impact on administration. However, the overall visitation to the Show Pool Access Area is only expected to have a minor increase overall given the limited amenities and parking capacity.

Future administration will be similar in time and cost of current administration described above. It may add 10 to 20 minutes more time to weekly inspections if more trash is left behind.

Alternative B

Minor impacts to refuge administration are expected in the short term. Funding for the project may require additional design and construction costs as the structural changes would be more substantial and require safety review by engineering. The Service may also need to spend additional funding to contract work to meet mitigation requirements for an adverse effect determination on a historical structure. The Service's current budget and staffing for this project is expected to allow for these types of additional costs. Additional time and administration will be necessary to complete this alternative as opposed to the time and administration required for Alternative A.

Long term maintenance costs would be slightly less than Alternative A as the surface area for cedar shake shingles and stain would be less since there would be no walls to cover. This may also eliminate the occasional sewage disposal cleanup need.

Alternative C

The impacts to this alternative are similar to those for Alternative B. However, long term maintenance costs would be slightly higher and more similar to the long-term maintenance described in Alternative A.

Socioeconomics

Local and Regional Economies

Affected Environment

Description of Affected Environment for the Affected Resource

Seney National Wildlife Refuge is located in northern Schoolcraft County. One of 15 counties in Michigan's Upper Peninsula, it stretches from the shores of Lake Michigan north to within four miles of Lake Superior. Its poor soils and cold climate contribute to low populations and limit economic activities. Only 8,047 people live in the 1,171-square-mile Schoolcraft County (7.2 people per square mile). The population decreased slightly by 438 residents between 2010 and 2020. The two nearest towns, Germfask and Seney, host 463 and 101 people, respectively. The median value of owner-occupied housing units in the county from 2015-2019 was \$109,900. The closest towns with a population greater than 2,000 people are Manistique, Munising and Newberry, all of which are 40 miles away from the refuge.

In 2019, there were 216 employer establishments with 1,781 workers and 447 non-employer establishments. The civilian labor force is 47.4% with total accommodation and food services sales in 2012 at \$11,573. Total manufacturers' shipments were at \$104,366 and retail sales were \$124,635 (U.S. Census Bureau, 2020).

The largest industries in Schoolcraft County, Michigan are Health Care and Social Assistance (466 people), Accommodation and Food Services (366 people), and Retail Trade (358 people). The highest paying industries are mining, quarrying, oil and gas extraction (\$61,071), transportation and warehousing (\$55,417) and transportation and warehousing and utilities (\$52,500). The most common jobs held by residents of Schoolcraft County by number of employees are office and administration support occupations, food preparation and serving related occupations, and sales and related occupations (DataUSA, 2022).

Much of the area is forested and attracts summer visitors who enjoy hunting, hiking, camping and fishing supporting ecotourism industries. Riding trails with off road utility vehicles and snow machines is also a big attraction to the region surrounding the refuge. The refuge's outdoor recreational opportunities contribute to the regions ecotourism industry and helps to attract new visitors. Many refuge visitors plan to visit other popular regional destinations including Pictured Rocks National Lake Shore (815,308 visitors), Hiawatha National Forests, Tahquamenon State Park (500,000 visitors) and Whitefish Point Historical Shipwreck Museum and birding hot spot (175,000 visitors), all within 2 hours or less of the refuge. These well-known area attractions often draw people to discover the National Wildlife Refuge System at Seney.

Seney National Wildlife Refuge helps define the region's character and maintain its quality of life, and thus is important for the promotion of a diverse regional economy. Seney National Wildlife Refuge was one of the sample refuges investigated in a national study of the economic benefits to local communities of national wildlife refuge visitation (Laughland and Caudill, 2004). This study found that in 2004, resident and non-resident visitors to the refuge spent about \$547,300 in the refuge for expenditures on either non-consumptive recreation, hunting, or fishing. When this spending had cycled through the economy, the refuge had generated \$671,800 in final demand, \$235,000 in job income, 11 jobs, and \$112,600 in total tax revenue. The study concluded that Seney National Wildlife Refuge had a net economic value of \$538,700 for that year.

Description of Environmental Trends and Planned Actions

Adjacent site work occurring over the next few years associated with the Great American Outdoor Act Deferred Maintenance Projects fall within the framework of the Seney Comprehensive Conservation Plan and Environmental Assessment decision Finding of No Significant Impact and/or within agency categorical exclusions involving routine maintenance and repair (43 CFR 46.210 and 516 DM 8.5B2). They are not further evaluated here.

The Service's 2019 Banking on Nature Report found national wildlife refuges are seen widely as travel-worthy destinations: 83 percent of refuge spending was done by visitors from outside the local area, up 9 percent from earlier studies done in 2011. The national survey found trip-related spending generated \$3.2 billion of economic output in regional economies. An increase of 20 percent from 2011.

Impacts on Affected Resource

Alternative A

Initial funding for repairing the shelter will go toward purchasing materials to replace or repair deteriorated structural components which would have minor financial benefits to local businesses. Over the long term, a properly maintained shelter will need occasional supplies purchased locally and again provide a minor financial boost to local suppliers.

Proper maintenance of the structure will support current and future visitor use which will have negligible minor benefits to local ecotourism and service industry businesses with the majority of visitors coming from outside the local area (USFWS, 2019).

This project will have a minor additive affect to the Great American Outdoor Act deferred maintenance projects on the refuge that are occurring at the same time. Collectively, the initial project work will provide a minor boost to local economies for the short term and lead to a minor addition of increased spending in local economies by visitors in the long term.

Alternative B

The impacts to this alternative are similar to those for Alternative A, but to a slightly or minor greater degree. Although material costs may be less initially and in the long term, architectural engineering design and mitigation for adverse effects on the historic structure would make initial project costs higher than Alterative A.

Better opportunities for wildlife observation within the shelter may result in negligible increases to the site's visitation and overall economic benefit.

Alternative C

The impacts to this alternative are similar to those for Alternative A.

Environmental Justice

Affected Environment

Description of Affected Environment for the Affected Resource
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

The median income for a household in Schoolcraft County was \$45,500 (in 2019 dollars) from 2015-2019 with 16.7% of the population living below the poverty line (DataUSA, 2022). Schoolcraft County has a higher percent of families below the poverty level in comparison to the state average of 9.53% and the states median household income of \$57,144. The racial makeup of the county is 86.2 percent white alone, 9.3 percent Native American, and 3.8% two or more races. Other races contribute less than 1 percent. (U.S. Census Bureau, 2020).

Description of Environmental Trends and Planned Actions

The Service is not aware of any adverse environmental trends or planned actions that would cause a disproportionally high adverse human health or environmental effect on minority and low-income populations.

Impacts on Affected Resource

Alternative A

No new impacts to environmental justice are expected for this alternative. The public access area to the refuge will remain available to minority and low-income visitors free of charge and is not contributing to disproportionally high adverse effects in the region.

Alternative B

The impacts to this alternative are similar to those for Alternative A.

Alternative C

The impacts to this alternative are similar to those for Alternative A.

Monitoring

As identified in the Inventory and Monitoring Plan, staff will continue to conduct reoccurring surveys for nesting loons, trumpeter swans, and osprey during the nesting season for the North and South Show Pools. During construction, project managers will ensure all work follows requirements of permits, mitigation measures and remains within the scope of the project impacts as described.

The site will be monitored while the structure is open to the public. Visitation is tracked using a pneumatic counter placed near the entrance gate which counts vehicles entering and leaving the site. The counter is calibrated using a formula which takes into account a vehicle driving over the tube twice and the number of people in each vehicle. This gives staff an estimate of the number of visitors using the access area. Staff members and volunteers will visit the site regularly to check the facilities for cleanliness, resupply, vandalism, litter, and maintenance needs. Refuge law enforcement will continue to conduct periodic patrols that will include this site.

Summary of Analysis

Table 1: Summary of Impacts on the Terrestrial Wildlife and Aquatic Species.

Terrestrial Wildlife and Aquatic Species	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Disturbance	Short term minor impacts to wildlife from disturbance from maintenance construction or recreation activities. Sufficient dispersal habitat exists surrounding the site.	Similar as Alternative A except short term impacts to wildlife may occur over a slightly longer duration (1-6 months) during the initial remodeling construction.	Same as Alternative B
Wildlife Habituation	Short term minor effects to wildlife becoming habituated to human feeding. Mitigation measures can include information and regulatory signage at the adjacent site kiosk and staff or law enforcement contacts with visitors while at the site.	Same as Alternative A	Same as Alternative A
Less mobile wildlife	Negligible impacts to refuge populations caused from mortality of individual small insects (i.e. ants, mosquitos, wasp nests, moth cocoons) or potentially baby deer mice during maintenance projects. Project mitigations measures will be implemented to avoid take of active nesting birds or bats using the structure.	Same as Alternative A	Same as Alternative A

Table 2: Summary of Impacts on the Threatened and Endangered Species.

Threatened and Endangered Species	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Disturbance	Disturbance from construction or visitors would be temporary and have negligible impacts as sufficient dispersal habitat exists surrounding the site for bald eagles, osprey, gray wolves, monarchs and trumpeter swans.	Similar to Alternative A except short term impacts to wildlife may occur over a slightly longer duration (1-6 months) during the initial remodeling construction.	Same as Alternative B
Northern long-eared bats	No impact. Replacement of the deteriorated or damaged cedar shakes may disturb bats. Bat surveys could be done in advance to determine if northern long-eared bats are using the structure for roosting. If northern long-eared bats are detected utilizing the structure, cedar shake replacement will be delayed to the inactive season.	Negligible long-term affect. The long-term removal of the conical structure has the possibility of removing a bat roosting site. Habitat is not a limiting factor for this species and suitable habitat exists in the shelter and surrounding area. Mitigation measures will be determined based on Section 7 consultation.	Same as Alternative A

Table 3: Summary of Impacts on the Visitor Use and Experiences.

Visitor Use and Experience	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Site Access	Site closures for up to three months would have temporary negative impacts to visitor access. Mitigation measures can easily be implemented to notify visitors using press releases, social media, and signage of the closures. Visitors can be redirected to other refuge recreational opportunities.	Similar to Alternative A but site closures up to six months would have a slightly more negative short-term impact than Alternative A.	Same as Alternative B
Wildlife Observation	No change to current opportunities for Wildlife Observation.	Intermediate positive long-term benefit to wildlife observation experience from within the structure.	Same as Alternative B
Visitor Experience	No change to current visitor experience.	The intermediate positive long-term benefits of this alternative to visitors who may be offended by the current architecture would be countered by the intermediate negative impacts to visitors who value the historical integrity of the current structure.	Similar to Alternative B, minor positive and negative impacts would cancel each other out.
Environmental Education	No change to current levels of use at the shelter for environmental education.	Environmental education use may increase slightly at the site resulting in minor impacts to environmental education opportunities.	Same as Alternative A
Visitation	Negligible increase in visitation at the Show Pool Access Area.	Similar to Alternative A but use of the shelter is expected to increase substantially over the long term (not necessarily the access area in general)	Same as Alternative B
Law Enforcement	Positive minimal impacts to reducing vandalism occurrences while unauthorized camping, littering and occasionally using the shelter as a toilet will continue. Mitigation measures will (continued on next page) include utilizing onsite signage, personal contacts and regular site inspections by law enforcement and refuge staff.	Similar to Alternative A, but with minor improvements over the long term to decreasing unauthorized activities.	Same as Alternative A

Visitor Use and Experience	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Cumulative	This project will have a minor additive effect on the Great American Outdoors Act deferred maintenance projects occurring adjacent to the project area resulting in minor increases to visitation at the refuge over the long term.	Same as Alternative A	Same as Alternative A

Table 4: Summary of Impacts on the Cultural Resources.

Cultural Resources	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Historical value	Properly maintaining the structure would have a major positive long-term impact on the shelter as a historical cultural resource. A No Effect determination.	Altering the structure will cause an Adverse Effect and require mitigation measures. This alternative would protect the Show Pool Shelter's historic integrity of location, setting, and association, but result in loss of some workmanship and feeling qualities of the shelter.	The impacts to cultural resources of this alternative would be similar to alternative B, but to a lesser degree. A No Adverse Effect determination.
Tribal	With tribal involvement this opportunity would result in a positive impact to the government-to-government relationship and tribal refuge visitors. On the contrary, without tribal input or support, at best pursuing this alternative may not add value to strengthen government to government relationships.	This alternative may have a minor positive impact in the long term to fostering a positive government-to-government relationship with tribes and to tribal visitors. At worst, it would have no effect on current relationships since the structure would no longer have a strong resemblance to teepees.	This approach may present a risk of the resulting aesthetics of the structure remaining too strong of a resemblance to the initial conical design or even being truer to wigwam form. It is unclear if or how this alternative may impact a government-to-government relationship with tribal nations.

Table 5: Summary of Impacts on Refuge Land Use.

Refuge Land Use	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Cumulative	Minor positive impact to reducing deferred maintenance backlog.	Same as Alternative A	Same as Alternative A

Table 6: Summary of Impacts on Refuge Administration.

Refuge Administration	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Short Term	Minor positive impact to reducing deferred maintenance backlog.	Similar to Alternative A, but minor negative impacts are expected in the short term due to increased initial costs and compliance administration.	Same as Alternative B
Long Term	There would be negligible increases to cleaning maintenance of the site with minor increases to visitation over the long term.	Long term maintenance costs would be slightly less than Alternative A and have a minor positive impact on administration.	Long term maintenance costs would be slightly higher than Alternative B but lower than Alternative A having a negligible impact on refuge administration.

Table 7: Summary of Impacts on Refuge Administration.

Local and Regional Economies	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Maintenance and Repair	Initial funding for repairing the shelter will go toward purchasing materials which would have minor financial benefits to local businesses. Over the long term, a properly maintained shelter will need occasional supplies purchased locally and again provide a minor financial boost to local suppliers.	The impacts to this alternative are similar to those for Alternative A, but to a slightly minor positive greater degree. Although material costs may be less initially and in the long term, architectural engineering design and mitigation for adverse effects on the historical structure would make initial project costs higher than Alternative A.	Same as Alternative B
Increased	Negligible minor benefits to local ecotourism and service industry businesses from visitors coming from outside the local area to site.	Similar to Alt A but to a negligible greater degree as a result of better opportunities for wildlife observation within the shelter.	Same as Alternative B
Cumulative	Minor additive effect to concurring maintenance projects on the refuge where work will provide a minor boost to local economies for the short term and lead to a minor addition of increased spending in local economies by minor increases of visitors in the long term.	Same as Alternative A	Same as Alternative A

Table 8: Summary of Impacts on Environmental Justice.

Environmental Justice	Alt A - Continue Current Management	Alt B - Remove Walls and Conical Roof	Alt C - Remove Conical Roof and Retain Conical Base
Cumulative	No change	Same as Alternative A	Same as Alternative A

Alternative A – Continue Current Management – [No Action Alternative]

In conclusion, the most beneficial impact of this alternative is that it would preserve what remains of the historical integrity of the shelter. It would also require less time and administration to implement work to repair deteriorating materials. However, this alternative would fail to meet all purpose and needs of the Service as described in this Environmental Assessment because the design does not promote wildlife observation. Furthermore, initial scoping has not indicated whether the Service would have the support from any tribal government to appropriately interpret the structure's teepee design from an indigenous people's perspective. For some, the shelter may continue to reflect a history of disregard and lack of understanding of Tribal Nations and their culture and could be damaging to the Service's relationships with tribes.

Alternative B – Remove all conical components– [Proposed Action Alternative]

In conclusion, this alternative helps to meet the purpose and needs of the Service to promote wildlife observation from within the shelter, improve recreational experience, decrease unauthorized activities inside the shelter, and consider historic integrity. Additionally, this alternative balances the retention of some of the history of the refuge's development from the skilled labor of the WPA and CCC, while being more culturally sensitive and respectful to tribal members going forward in an effort to strengthen the government-to-government relationships.

This alternative may have an adverse effect on the historical structure. The Service would enter into an agreement with the State Historical Preservation Office to mitigate the effects.

Alternative C – Retain conical base but remove cone tops

As described above, the most beneficial impacts of this alternative are that it would preserve more of the original structure of the shelter and maintain its unique appearance while also providing for better wildlife observation.

This approach may still have adverse effects to the historical structure. It would also not significantly improve visitor use of the shelter for wildlife observation or hosting environmental education programs. This approach may present a risk of the resulting aesthetics of the structure remaining too strong of a resemblance to the initial conical design or even being truer to wigwam form. It is unclear if or how

this alternative may impact a government-to-government relationship with tribal nations.

List of Sources, Agencies, and Persons Consulted

List of Preparers and Reviewers

Sara Siekierski, Refuge Manager

Sara Giles, Visitor Services Manager

James Myster, Regional Historic Preservation Officer/Archaeologist

Kristin Rasmussen, Conservation Planner

State Coordination

In a meeting on March 24, 2021 The State Historic Preservation Office provided review and expressed general support of the findings (with some minor technical adjustments) to the Historic Context and National Register of Historic Places Eligibility Evaluation for the Seney National Wildlife Refuge (July, 2021).

Tribal Outreach

The Service requested staff recommendations from Bay Mills Indian Community and Sault Ste. Marie Tribe of the Chippewa Indians during coordination meetings in the previous years for how the agency should address the structures. In April of 2021 letters were sent via email to all tribal historic preservation officers and wildlife biologists within the ceded territory to seek suggestions for how to address the shelter and how they might like to be involved. Additional follow up emails and phone calls were also made to Bay Mills Indian Community and Sault Ste. Marie Tribe of the Chippewa Indians. No official recommendations have been made, however personal communications with a couple staff members from those two tribes indicate the structures do not resemble wigwams and therefore they do not feel comfortable making recommendations other than not to call them wigwams. Overall, there was a lack of response from the initial scoping effort in April of 2021.

Public Outreach

This project tiers from the 2009 Seney National Wildlife Refuge Comprehensive Conservation Plan. Public input during the development of the refuge's Comprehensive Conservation Plan shaped the management direction of the refuge including the purpose and need for this work. Initial scoping began in March 2006 and concluded in October 2006 with approximately 30 written submissions

received from the public. These were considered in the development of the Seney National Wildlife Refuge Draft Environmental Assessment which presented a range of alternatives for future management and identified the preferred alternative. The draft plan and environmental assessment were released for public review on September 3, 2008; the comment period lasted 35 days and ended October 8, 2008. During the comment period the Refuge hosted an open house event to obtain comments. By the conclusion of the comment period we received 14 written responses by organizations and individuals. All respondents who expressed an opinion endorsed the selection of preferred alternative and the general approach of the proposed future management of the refuge. The alternative that was selected became the final 2009 Comprehensive Conservation Plan. This plan lays out the general approach to managing habitat, wildlife, and people at Seney National Wildlife Refuge and directs day-to-day decision-making and actions.

This draft Environmental Assessment will be made available for a 45-day comment period. The draft documents will be available online at the refuge website. Meetings with tribal governments and local government entities are welcomed and will be honored upon request. All comments received during this public comment period will be incorporated into the Final Environmental Assessment and Final Cultural Resource Management Plan as appropriate. Any action put forth in this environmental assessment must meet Section 106 requirements of the National Historic Preservation Act. To meet these requirements consultation with required parties will occur during the Environmental Assessment process. A final determination on action cannot occur without completion of the Section 106 process.

Determination

This section will be filled out upon completion of the public comment period and at the time of finalization of the Environmental Assessment.

- The Service's action will not result in a significant impact on the quality of the human environment. See the attached "*Finding of No Significant Impact*".
- The Service's action *may significantly affect* the quality of the human environment and the Service will prepare an Environmental Impact Statement.

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DRAFT

Appendix A – Photos and Drawings



Photo 1: The Show Pool Shelter in 1937.



Photo 2: The Show Pool Shelter in the 1940s.



Photo 3: The Show Pool Shelter in 1955. The end doors have been added. It is now covered in asphalt shingles.



Photo 4: The Show Pool Shelter in the 1960s. The shelter appears to have lost its window openings.



Photo 5: The Show Pool Shelter in 1974 when it was being covered with cedar shakes for the first time.



Photo 6: The Show Pool Shelter in 1974 after the work was completed.



Photo 7: Current Structure as seen in 2015.



Photo 8 of stone fireplace in 2022.



Photo 9. looking through doorways of structure in 2022.



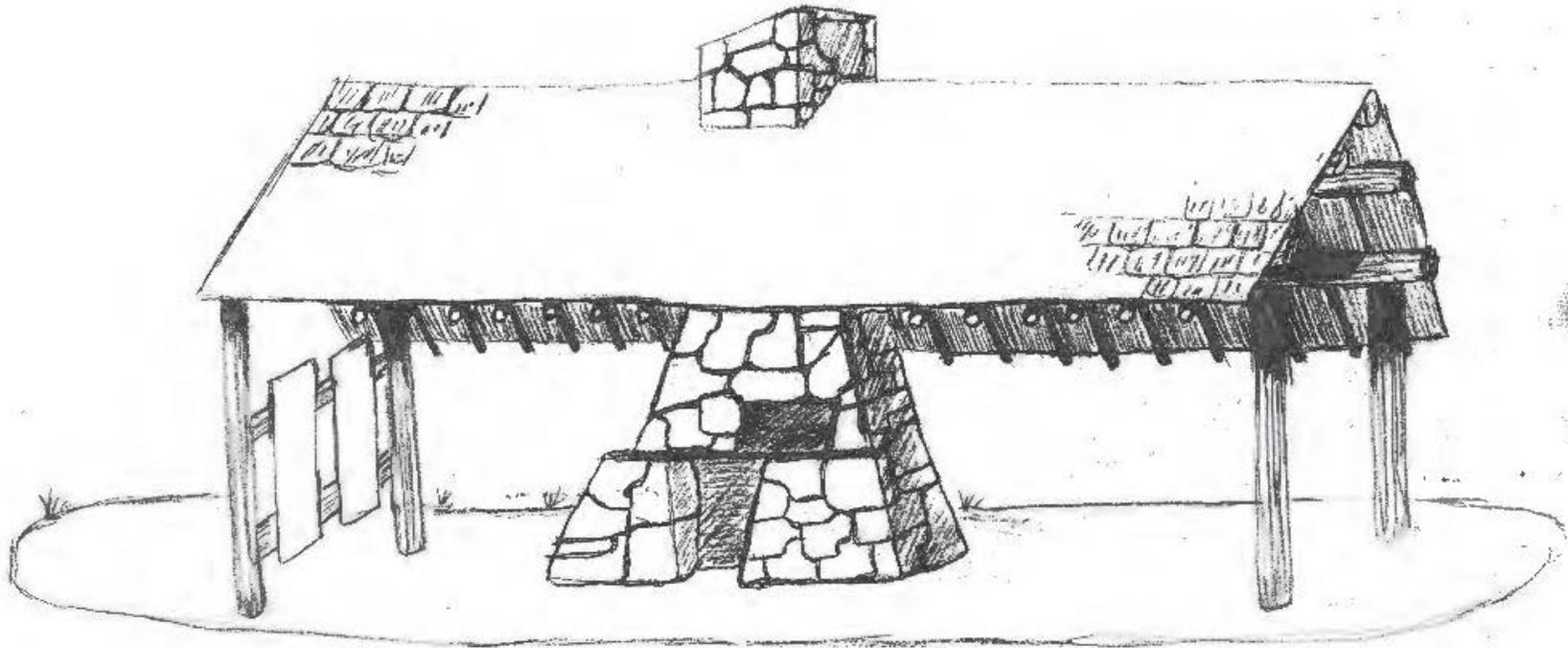
Photo 10. Interior View of Shelter in 2022.



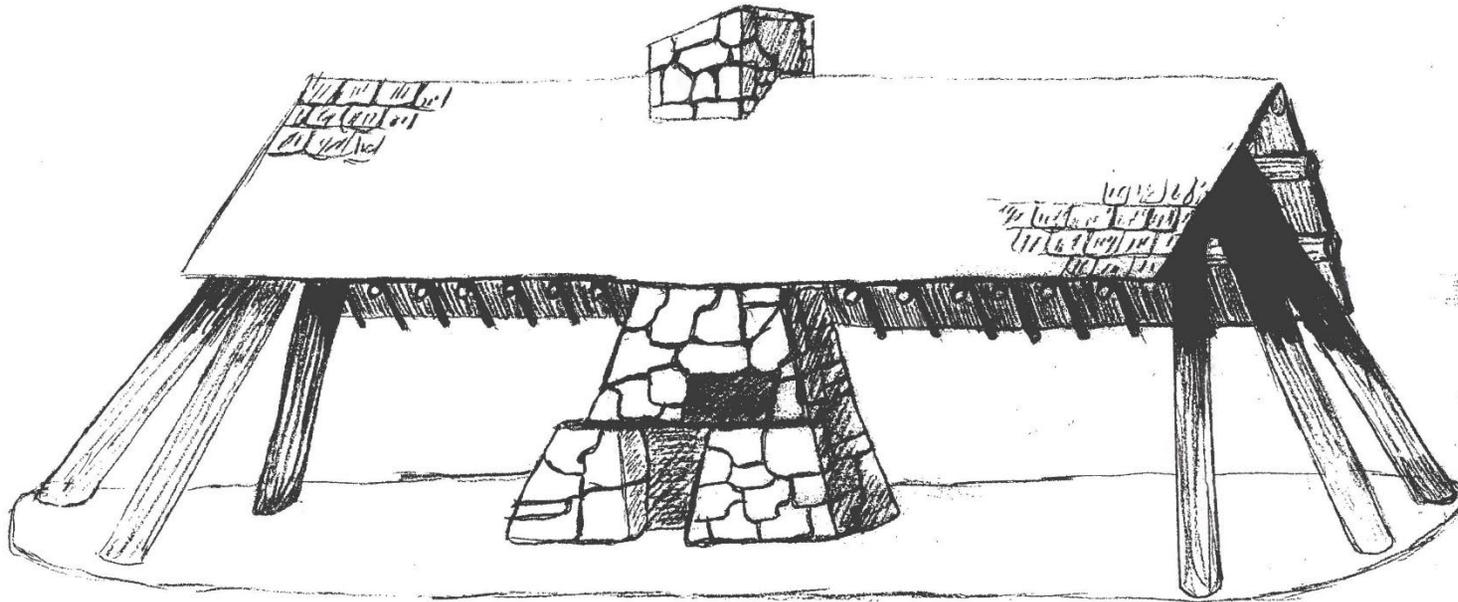
Photo 11. View from Highway M-77 looking west towards the shelter and general access site in 2021.



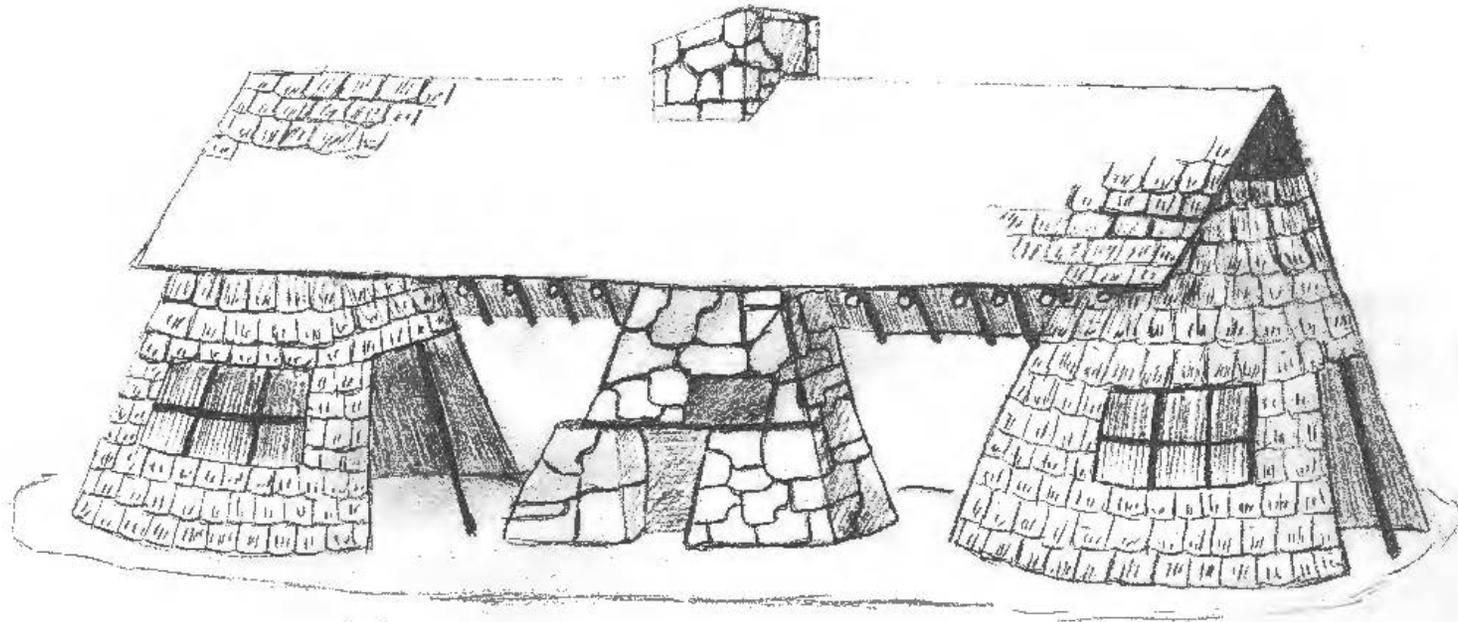
Photo 12. View from Shelter looking east to Highway M-77 in 2021.



Concept Drawing 1 for Alternative B – With vertical posts, a wind break and interpretive panels.



Concept Drawing 2 for Alternative B – Keeping some angled support timbers.



Concept Drawing for Alternative C – Retain conical base but remove cone tops and open up front and back windows.

Appendix B – Project Maps

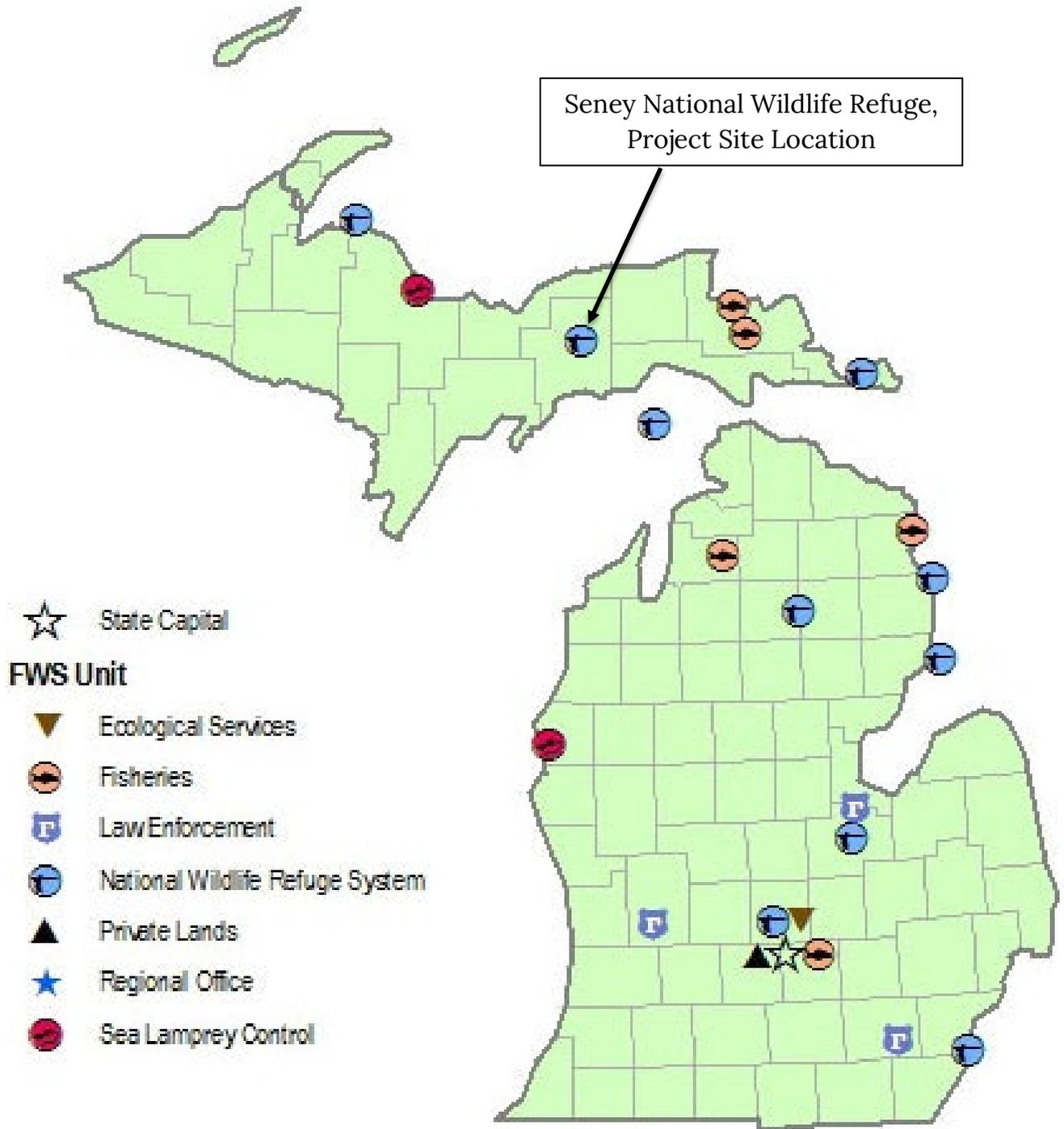


Figure 1. Michigan General Refuge Vicinity Map.

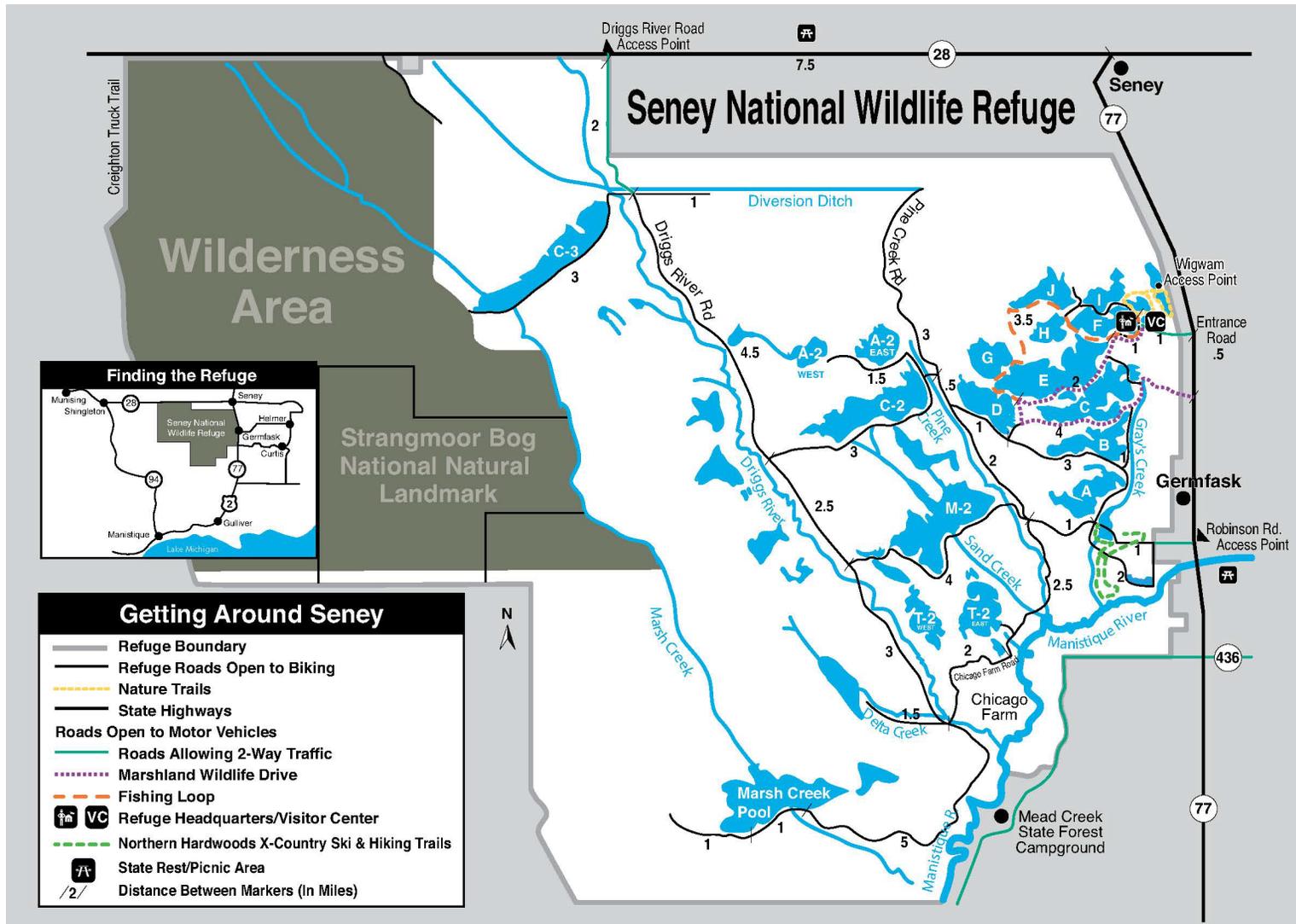


Figure 2. General project location map. See Show Pool Access Area (Wigwam Access Point).

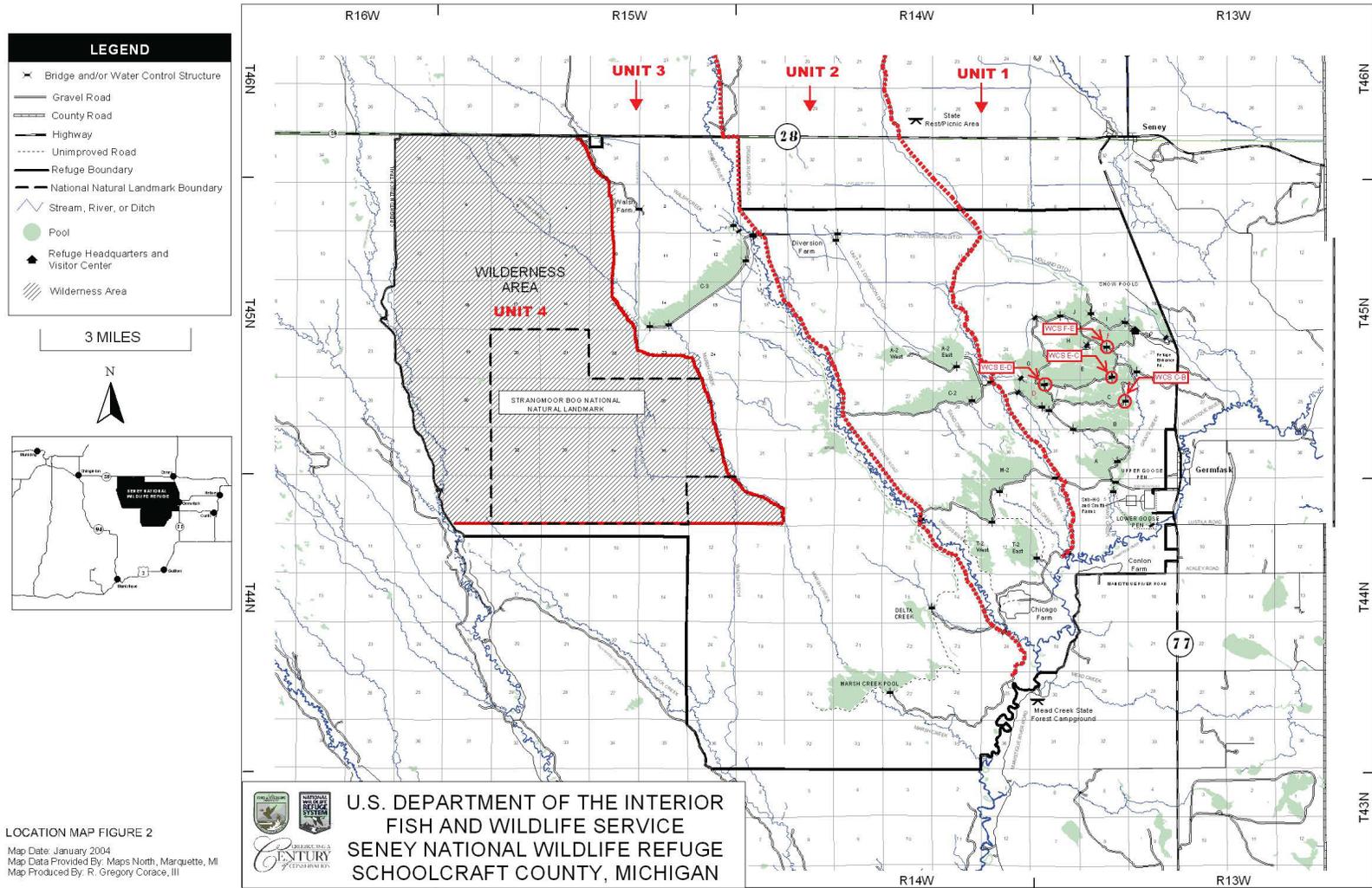


Figure 3. Refuge Unit Map

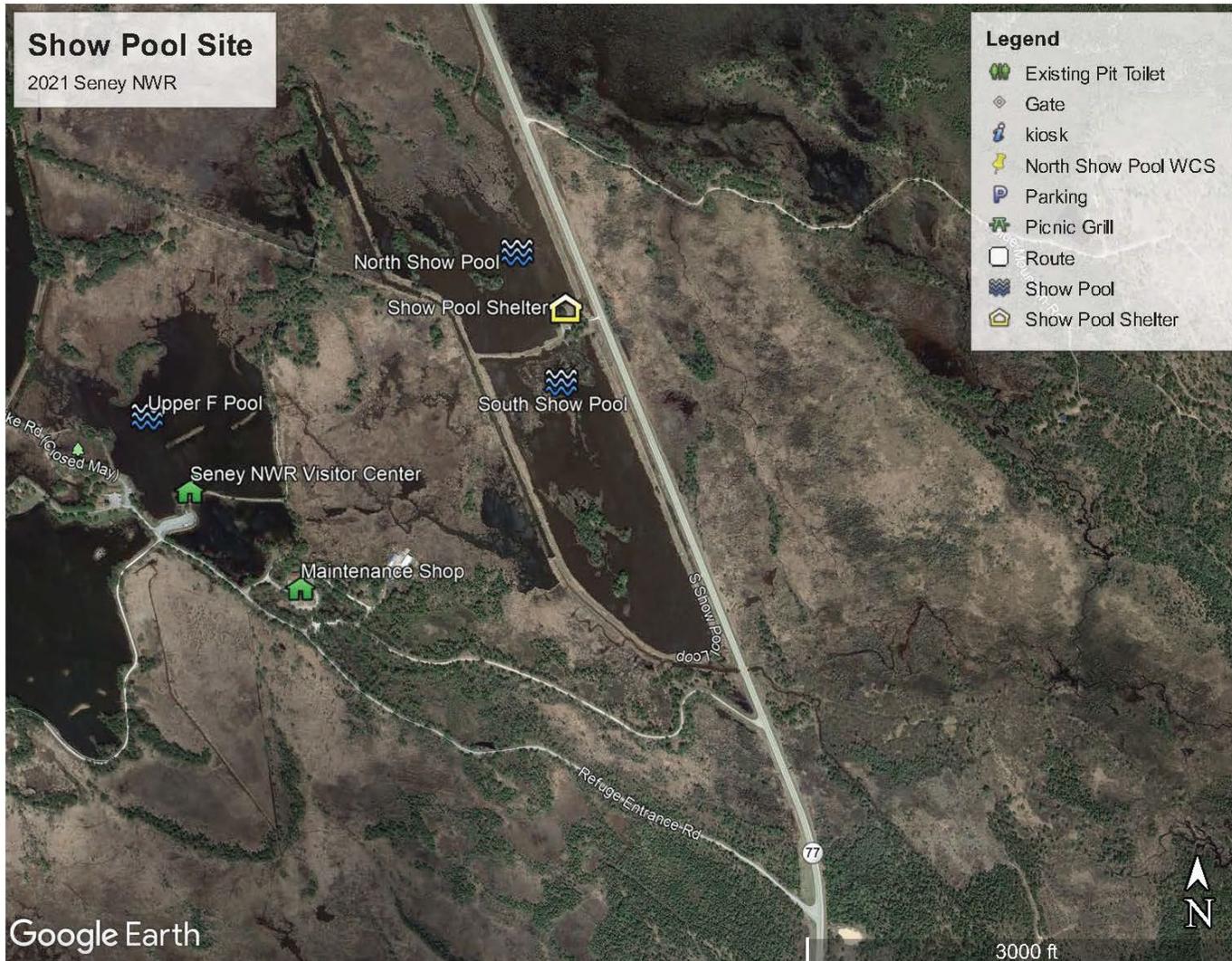


Figure 4. Aerial photo view of general project site location, Show Pool Shelter

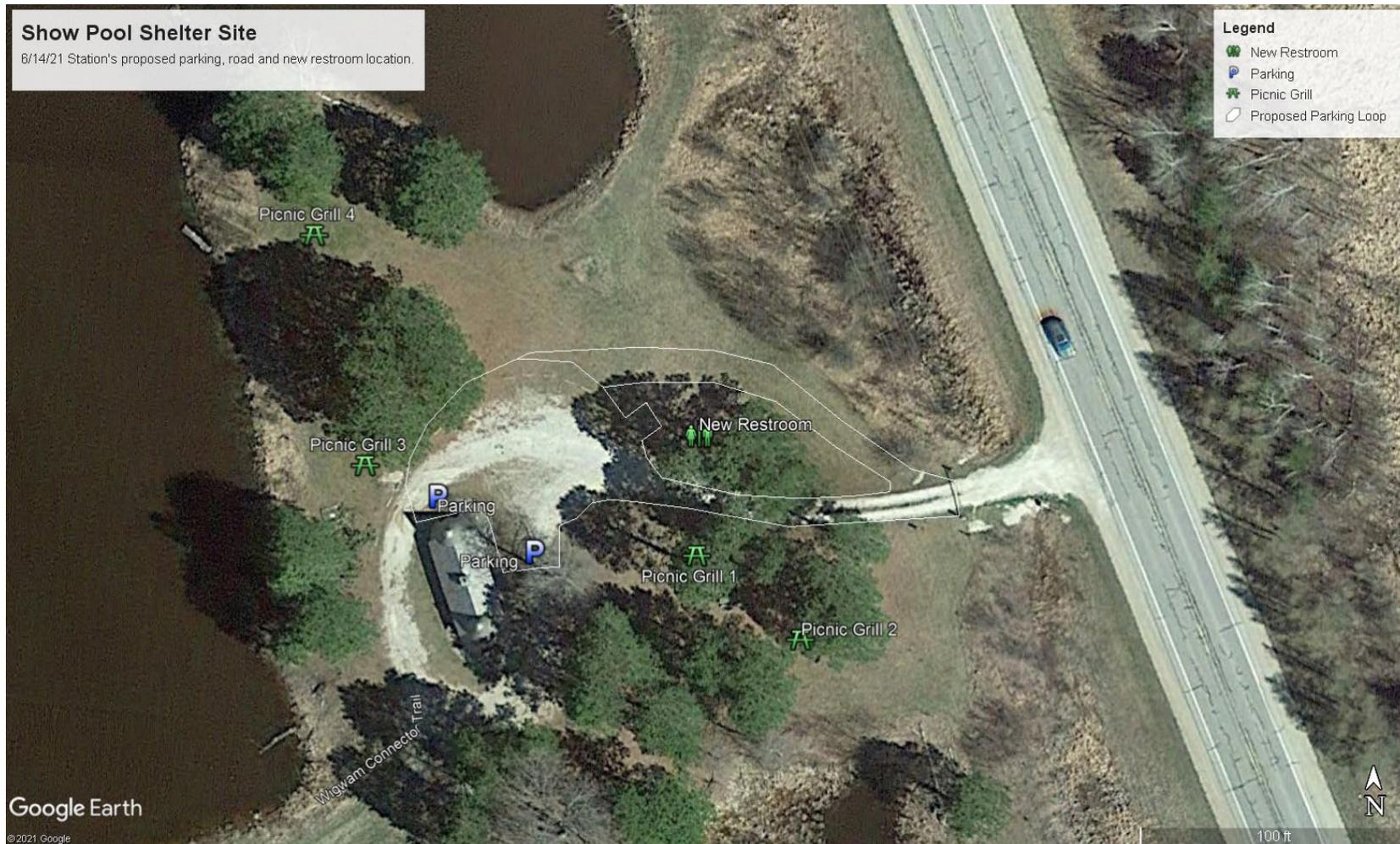


Figure 5. Proposed site changes to parking, road, and outhouse in the surrounding environment of the historic picnic shelter.

Appendix C. Species Lists and Occurrence

Birds of Seney National Wildlife Refuge

What do the designations mean?

- * known to nest in the area
- Spring - March to May
- Summer - June to August
- Fall - September to November
- Winter - December to February
- abundant: a common species which is very numerous
- common: certain to be seen or heard in suitable habitat, not in large numbers
- uncommon: present but not always seen
- occasional: seen only a few times during the season
- rare: seen every 2 to 5 years

Grouse and Turkeys

Common Name	Spring	Summer	Fall	Winter
Ruffed Grouse *	common	common	common	abundant
Spruce Grouse *	occasional	occasional	occasional	occasional
Sharp-tailed Grouse *	common	common	common	common
Wild Turkey	occasional	rare	rare	-

Grebes

Common Name	Spring	Summer	Fall	Winter
Pied-billed Grebe *	common	abundant	abundant	-
Horned Grebe	rare	rare	occasional	-
Red-necked Grebe	rare	occasional	occasional	-

Pigeons and Doves

Common Name	Spring	Summer	Fall	Winter
Rock Pigeon	occasional	occasional	occasional	-
Mourning Dove	common	common	common	common

Cuckoos

Common Name	Spring	Summer	Fall	Winter
Yellow-billed Cuckoo	-	occasional	-	-
Black-billed Cuckoo *	rare	uncommon	rare	-

Swans, Geese and Ducks

Common Name	Spring	Summer	Fall	Winter
Snow Goose	rare	-	-	-
Greater White-fronted Goose	-	-	rare	-
Canada Goose *	abundant	abundant	abundant	rare
Trumpeter Swan *	abundant	abundant	abundant	abundant
Tundra Swan	occasional	rare	rare	-
Wood Duck *	common	abundant	abundant	-
Blue-winged Teal *	abundant	common	common	-
Northern Shoveler	uncommon	rare	occasional	-
Gadwall	occasional	occasional	common	-
Eurasian Wigeon	rare	-	-	-
American Wigeon *	uncommon	occasional	common	-
Mallard *	abundant	abundant	abundant	-
American Black Duck *	uncommon	common	common	-
Northern Pintail	rare	-	occasional	-
Green-winged Teal	common	uncommon	common	-
Canvasback	rare	rare	rare	-
Redhead	occasional	rare	common	-
Ring-necked Duck *	abundant	abundant	abundant	-
Greater Scaup	rare	rare	occasional	-
Lesser Scaup	uncommon	occasional	common	-
White-winged Scoter	-	-	rare	-
Long-tailed Duck	-	-	rare	-
Bufflehead	common	rare	occasional	-
Common Goldeneye *	occasional	rare	rare	-
Hooded Merganser *	abundant	common	abundant	-
Common Merganser *	common	common	common	-
Red-breasted Merganser	occasional	uncommon	occasional	-
Ruddy Duck	rare	rare	occasional	-

Nightjars

Common Name	Spring	Summer	Fall	Winter
Common Nighthawk *	-	occasional	r	-
Eastern Whip-poor-will *	occasional	rare	rare	-

Swifts

Common Name	Spring	Summer	Fall	Winter
Chimney Swift	occasional	rare	-	-

Hummingbirds

Common Name	Spring	Summer	Fall	Winter
Ruby-throated Hummingbird *	uncommon	common	occasional	-

Coots and Rails

Common Name	Spring	Summer	Fall	Winter
Yellow Rail *	occasional	occasional	-	-
Virginia Rail *	common	uncommon	rare	-
Sora *	common	uncommon	rare	-
American Coot	occasional	occasional	common	-

Plovers

Common Name	Spring	Summer	Fall	Winter
Black-bellied Plover	occasional	rare	occasional	-
American Golden-Plover	-	-	occasional	-
Killdeer *	common	common	occasional	-
Semipalmated Plover	occasional	occasional	occasional	-

Gulls and Terns

Common Name	Spring	Summer	Fall	Winter
Bonaparte's Gull	rare	rare	-	-
Ring-billed Gull	abundant	abundant	abundant	-
Herring Gull	uncommon	common	occasional	-
Caspian Tern *	abundant	abundant	common	-
Black Tern *	rare	occasional	-	-
Common Tern *	abundant	abundant	rare	-

Cranes

Common Name	Spring	Summer	Fall	Winter
Sandhill Crane *	abundant	abundant	abundant	-

Sandpipers

Common Name	Spring	Summer	Fall	Winter
Upland Sandpiper *	occasional	occasional	occasional	-
Marbled Godwit	rare	-	-	-
Stilt Sandpiper	rare	rare	rare	-
Sanderling	-	-	rare	-
Dunlin	occasional	-	rare	-
Baird's Sandpiper	-	rare	rare	-
Least Sandpiper	occasional	rare	rare	-
White-rumped Sandpiper	-	rare	-	-
Buff-breasted Sandpiper	-	-	rare	-
Pectoral Sandpiper	rare	rare	occasional	-
Semipalmated Sandpiper	-	occasional	occasional	-
Short-billed Dowitcher	uncommon	rare	rare	-
American Woodcock *	uncommon	occasional	rare	-
Wilson's Snipe *	abundant	common	occasional	-
Spotted Sandpiper *	common	common	occasional	-
Solitary Sandpiper	occasional	occasional	occasional	-
Lesser Yellowlegs	uncommon	uncommon	occasional	-
Greater Yellowlegs	common	uncommon	common	-

Loons

Common Name	Spring	Summer	Fall	Winter
Common Loon *	abundant	abundant	abundant	-

Cormorants

Common Name	Spring	Summer	Fall	Winter
Double-crested Cormorant	common	common	common	-

Pelicans

Common Name	Spring	Summer	Fall	Winter
American White Pelican	occasional	occasional	rare	-

Vultures

Common Name	Spring	Summer	Fall	Winter
Turkey Vulture *	common	common	common	-

Hérons and Bitterns

Common Name	Spring	Summer	Fall	Winter
American Bittern *	common	abundant	occasional	-
Least Bittern *	-	rare	-	-
Great Blue Heron *	common	abundant	abundant	-
Great Egret	rare	uncommon	common	-
Little Blue Heron	-	rare	-	-
Green Heron	rare	occasional	occasional	-
Black-crowned Night-Heron	-	rare	-	-

Osprey

Common Name	Spring	Summer	Fall	Winter
Osprey *	abundant	abundant	common	-

Hawks and Eagles

Common Name	Spring	Summer	Fall	Winter
Golden Eagle	rare	-	-	-
Northern Harrier *	common	common	common	-
Sharp-shinned Hawk *	rare	occasional	occasional	-
Cooper's Hawk *	rare	rare	occasional	-
Northern Goshawk *	rare	rare	rare	-
Bald Eagle *	abundant	abundant	abundant	common
Red-shouldered Hawk	rare	rare	occasional	-
Broad-winged Hawk *	common	uncommon	common	-
Red-tailed Hawk *	uncommon	uncommon	common	rare
Rough-legged Hawk	rare	-	rare	-

Falcons

Common Name	Spring	Summer	Fall	Winter
American Kestrel *	common	uncommon	occasional	-
Merlin *	common	common	common	-
Peregrine Falcon	rare	occasional	occasional	-

Kingfishers

Common Name	Spring	Summer	Fall	Winter
Belted Kingfisher *	abundant	abundant	abundant	-

Owls

Common Name	Spring	Summer	Fall	Winter
Great Horned Owl *	rare	rare	rare	-
Snowy Owl	rare	-	rare	rare
Northern Hawk Owl	rare	-	-	rare
Barred Owl *	-	rare	rare	-
Great Gray Owl *	rare	occasional	rare	rare
Long-eared Owl	occasional	occasional	occasional	-
Short-eared Owl	occasional	occasional	occasional	-
Boreal Owl	occasional	-	occasional	occasional
Northern Saw-whet Owl *	rare	rare	-	-

Woodpeckers

Common Name	Spring	Summer	Fall	Winter
Red-headed Woodpecker	rare	rare	rare	-
Red-bellied Woodpecker	occasional	occasional	occasional	-
Yellow-bellied Sapsucker *	uncommon	uncommon	occasional	-
Black-backed Woodpecker *	occasional	uncommon	common	common
Downy Woodpecker *	common	common	abundant	common
Hairy Woodpecker *	common	common	abundant	abundant
Northern Flicker *	abundant	abundant	abundant	-
Pileated Woodpecker *	common	common	common	abundant

Shrikes

Common Name	Spring	Summer	Fall	Winter
Northern Shrike	rare	-	rare	common

Larks

Common Name	Spring	Summer	Fall	Winter
Horned Lark *	rare	-	occasional	-

Flycatchers

Common Name	Spring	Summer	Fall	Winter
Great Crested Flycatcher *	occasional	uncommon	-	-

Common Name	Spring	Summer	Fall	Winter
Eastern Kingbird *	abundant	abundant	common	-
Olive-sided Flycatcher *	rare	occasional	-	-
Eastern Wood-Pewee *	occasional	common	occasional	-
Yellow-bellied Flycatcher *	rare	occasional	rare	-
Alder Flycatcher *	common	common	-	-
Least Flycatcher *	common	common	rare	-
Eastern Phoebe *	abundant	abundant	common	-

Vireos

Common Name	Spring	Summer	Fall	Winter
Yellow-throated Vireo	-	rare	-	-
Blue-headed Vireo *	uncommon	uncommon	occasional	-
Philadelphia Vireo	abundant	rare	rare	-
Warbling Vireo	occasional	uncommon	rare	-
Red-eyed Vireo *	common	abundant	common	-

Jays and Crows

Common Name	Spring	Summer	Fall	Winter
Canada Jay *	rare	rare	occasional	rare
Blue Jay *	abundant	abundant	abundant	abundant
American Crow *	abundant	abundant	abundant	abundant
Common Raven *	abundant	abundant	abundant	abundant

Swallows

Common Name	Spring	Summer	Fall	Winter
Purple Martin *	-	rare	-	-
Bank Swallow *	rare	rare	rare	-
Tree Swallow *	abundant	common	-	-
Northern Rough-winged Swallow *	rare	occasional	-	-
Barn Swallow *	common	uncommon	-	-
Cliff Swallow *	rare	rare	-	-

Chickadees

Common Name	Spring	Summer	Fall	Winter
Black-capped Chickadee *	abundant	abundant	abundant	abundant
Boreal Chickadee *	-	-	rare	-

Nuthatches

Common Name	Spring	Summer	Fall	Winter
Red-breasted Nuthatch *	common	abundant	abundant	abundant
White-breasted Nuthatch *	occasional	uncommon	common	-

Creepers

Common Name	Spring	Summer	Fall	Winter
Brown Creeper *	uncommon	uncommon	occasional	common

Wrens

Common Name	Spring	Summer	Fall	Winter
House Wren	rare	occasional	-	-
Winter Wren *	occasional	uncommon	rare	-
Sedge Wren *	common	common	rare	-
Marsh Wren *	uncommon	common	-	-

Gnatcatchers

Common Name	Spring	Summer	Fall	Winter
Blue-gray Gnatcatcher *	rare	rare	-	-

Kinglets

Common Name	Spring	Summer	Fall	Winter
Golden-crowned Kinglet *	common	uncommon	common	-
Ruby-crowned Kinglet *	common	occasional	occasional	-

Mockingbirds and Thrashers

Common Name	Spring	Summer	Fall	Winter
Gray Catbird *	common	abundant	common	-
Brown Thrasher *	common	uncommon	-	-
Northern Mockingbird	rare	rare	-	-

Thrushes

Common Name	Spring	Summer	Fall	Winter
Eastern Bluebird *	uncommon	uncommon	occasional	-
Veery *	rare	occasional	-	-
Gray-cheeked Thrush	rare	-	rare	-
Swainson's Thrush *	occasional	occasional	occasional	-
Hermit Thrush *	common	common	occasional	-

Common Name	Spring	Summer	Fall	Winter
Wood Thrush *	occasional	uncommon	-	-
American Robin *	abundant	abundant	abundant	-

Starlings

Common Name	Spring	Summer	Fall	Winter
European Starling *	common	common	occasional	-

Pipits

Common Name	Spring	Summer	Fall	Winter
American Pipit	-	-	occasional	-

Waxwings

Common Name	Spring	Summer	Fall	Winter
Bohemian Waxwing	rare	-	-	-
Cedar Waxwing *	common	abundant	common	common

Old World Sparrows

Common Name	Spring	Summer	Fall	Winter
House Sparrow *	occasional	rare	-	-

Longspurs

Common Name	Spring	Summer	Fall	Winter
Lapland Longspur	-	-	occasional	-
Snow Bunting	rare	-	occasional	-

Finches

Common Name	Spring	Summer	Fall	Winter
Evening Grosbeak *	rare	occasional	rare	-
Pine Grosbeak	-	-	rare	rare
House Finch	rare	occasional	rare	-
Purple Finch *	uncommon	common	occasional	-
Common Redpoll	rare	-	occasional	common
Hoary Redpoll	-	-	-	rare
Red Crossbill *	rare	rare	rare	common
White-winged Crossbill	rare	-	rare	-
Pine Siskin	occasional	occasional	occasional	common
American Goldfinch *	common	abundant	common	common

Sparrows

Common Name	Spring	Summer	Fall	Winter
Grasshopper Sparrow	rare	rare	-	-
Lark Sparrow	rare	-	-	-
Chipping Sparrow *	common	abundant	common	-
Clay-colored Sparrow	occasional	occasional	occasional	-
Field Sparrow	rare	occasional	occasional	-
Fox Sparrow	rare	-	-	-
American Tree Sparrow	common	-	common	-
Dark-eyed Junco *	common	uncommon	common	-
White-crowned Sparrow	common	rare	common	-
Harris's Sparrow	rare	-	-	-
White-throated Sparrow *	common	common	common	-
Vesper Sparrow *	common	common	occasional	-
LeConte's Sparrow *	occasional	occasional	rare	-
Savannah Sparrow *	common	common	occasional	-
Song Sparrow *	abundant	abundant	abundant	-
Lincoln's Sparrow *	occasional	uncommon	occasional	-
Swamp Sparrow *	abundant	abundant	abundant	-
Eastern Towhee	rare	uncommon	-	-

Wood Warblers

Common Name	Spring	Summer	Fall	Winter
Ovenbird *	common	common	occasional	-
Northern Waterthrush	occasional	rare	rare	-
Golden-winged Warbler *	rare	rare	-	-
Blue-winged Warbler	-	rare	-	-
Black-and-white Warbler *	common	common	occasional	-
Tennessee Warbler	occasional	occasional	occasional	-
Orange-crowned Warbler	occasional	-	rare	-
Nashville Warbler *	common	common	common	-
Connecticut Warbler	rare	rare	-	-
Mourning Warbler *	rare	occasional	occasional	-
Common Yellowthroat *	abundant	abundant	common	-
American Redstart *	common	common	common	-
Cape May Warbler *	uncommon	occasional	occasional	-
Northern Parula *	occasional	uncommon	rare	-
Magnolia Warbler *	rare	uncommon	occasional	-
Bay-breasted Warbler	rare	rare	occasional	-
Blackburnian Warbler *	occasional	uncommon	occasional	-
Yellow Warbler *	abundant	abundant	rare	-
Blackpoll Warbler	uncommon	rare	occasional	-
Chestnut-sided Warbler *	uncommon	uncommon	rare	-
Black-throated Blue Warbler *	occasional	occasional	-	-
Palm Warbler *	common	occasional	common	-
Pine Warbler *	abundant	abundant	abundant	-
Yellow-rumped Warbler *	abundant	abundant	abundant	-
Black-throated Green Warbler *	common	common	occasional	-
Canada Warbler	occasional	rare	occasional	-
Wilson's Warbler	uncommon	rare	occasional	-

Blackbirds and Orioles

Common Name	Spring	Summer	Fall	Winter
Bobolink *	occasional	occasional	rare	-
Eastern Meadowlark	occasional	rare	rare	-
Western Meadowlark	-	rare	rare	-
Orchard Oriole	-	rare	-	-
Baltimore Oriole *	uncommon	occasional	-	-
Red-winged Blackbird *	abundant	abundant	common	-
Brown-headed Cowbird *	common	common	-	-
Rusty Blackbird	occasional	-	occasional	-
Brewer's Blackbird *	rare	uncommon	-	-
Common Grackle *	abundant	abundant	occasional	-

Tanagers and Buntings

Common Name	Spring	Summer	Fall	Winter
Scarlet Tanager	occasional	occasional	rare	-
Northern Cardinal	occasional	occasional	occasional	-
Rose-breasted Grosbeak *	occasional	uncommon	-	-
Indigo Bunting	rare	uncommon	rare	-

Seney National Wildlife Refuge Species Checklist (Mammals, Reptiles, and Amphibians, Invertebrates and Fish).

Mammals

Even-toed Ungulates

- White-tailed Deer
- Moose

Canines

- Gray Wolf
- Coyote
- Gray Fox
- Red Fox

Felines

- Bobcat

Skunks

- Striped Skunk

Mustelids

- Least Weasel
- Short-tailed Weasel
- Long-tailed Weasel
- American Mink
- Fisher
- American Marten
- North American River Otter

Raccoons

- Common Raccoon

Bears

- American Black Bear

Bats

- Little Brown Bat

- Northern Long-eared Bat
- Hoary Bat
- Eastern Red Bat
- Big Brown Bat
- Silver-haired Bat

Shrews

- Northern Short-tailed Shrew
- Masked Shrew
- American Water Shrew
- Arctic Shrew
- American Pygmy Shrew

Moles

- Star-nosed Mole

Rabbits

- Snowshoe Hare

Opossums

- Virginia Opossum

Beavers

- American Beaver

Mice, Voles, Lemmings and Rats

- Muskrat
- Woodland Deer Mouse
- White-footed Mouse
- Southern Red-backed Vole
- Meadow Vole
- Southern Bog Lemming

Old World Mice and Rats

- House Mouse
- Norway Rat

Jumping Mice

- Woodland Jumping Mouse
- Meadow Jumping Mouse

Porcupines

- Common Porcupine

Squirrels

- Woodchuck
- Eastern Gray Squirrel
- Fox Squirrel
- American Red Squirrel
- Thirteen-lined Ground Squirrel
- Eastern Chipmunk
- Least Chipmunk
- Northern Flying Squirrel
- Southern Flying Squirrel

Fish

Refuge fish may be found in pools or rivers.

Sunfishes

- Pumpkinseed Sunfish
- Bluegill
- Rock Bass
- Smallmouth Bass
- Black Crappie

Sturgeon

- Lake Sturgeon

Pikes and Mudminnows

- Northern Pike
- Central Mudminnow

Trout and Salmons

- Brown Trout
- Brook Trout

Sticklebacks

- Brook Stickleback

Minnows and Suckers

- Northern Redhorse
- White Sucker
- Creek Chub
- Speckled Dace
- Golden Shiner
- Northern Redbelly Dace
- Bigmouth Shiner
- Mimic Shiner
- Fathead Minnow
- Blacknose Shiner
- Buntnose Minnow
- Common Shiner
- Finescale Dace
- Sand Shiner
- Longnose Dace
- Pugnose Shiner

Cods

- Burbot

Perches and Darters

- Walleye
- Yellow Perch
- Blackside Darter
- Fantail Darter
- Johnny Darter
- Iowa Darter
- Northern Logperch

Mail-cheeked Fishes

- Mottled Sculpin

Catfishes

- Brown Bullhead

Lampreys

- Silver Lamprey
- Northern Brook Lamprey
- American Brook Lamprey
- Sea Lamprey

Reptiles and Amphibians

Turtles

- Wood Turtle
- Midland Painted Turtle
- Western Painted Turtle
- Common Snapping Turtle
- Blandings Turtle

Snakes

- Eastern Smooth Green Snake
- Northern Water Snake
- Northern Red-belly Snake

- Eastern Garter Snake
- Northern Ring-neck Snake
- DeKay's Brown Snake
- Western Fox Snake

Frogs and Toads

- Western Chorus Frog
- Northern Spring Peeper
- Eastern Gray Treefrog
- Cope's Gray Treefrog
- Northern Green Frog
- Northern Leopard Frog
- Mink Frog
- Wood Frog
- Eastern American Toad

Salamander

- Mudpuppy
- Blue-spotted Salamander
- Spotted Salamander
- Eastern Tiger Salamander
- Red-spotted Newt
- Eastern Newt
- Eastern Red-backed Salamander.
- Four-toed Salamander

Insects

This list of insects is not exhaustive. It is taken from Seney National Wildlife Refuge insect collection records and

observations reported on
iNaturalist.org.

Grasshoppers, Crickets, Katydid

- Two-striped Grasshopper

Beetles

- Typocerus sparus
- Lepturopsis biforis
- Scirtes orbiculatus
- Typocerus sparsus
- Red Milkweed Beetle
- Green Immigrant Leaf Weevil
- Forked Fungus Beetle
- White-spotted Sawyer Beetle
- Northeastern Pine Sawyer Beetle
- Big Sand Tiger Beetle
- Pustulated Carrion Beetle
- American Carrion Beetle
- Needle-duff Click Beetle
- Bee-mimic Beetle
- Red-milkweed Beetle
- Asian Lady Beetle
- Dogbane Leaf Beetle
- Swamp Milkweed Leaf Beetle
- Oblique-lined Tiger Beetle
- Harry-necked Tiger Beetle

Earwings

- European Earwig

Flies

- Transverse-banded Flower Fly
- Hunch-back Fly
- Phantom Crane Fly
- Goldenrod Gall Fly
- Narrow-headed Marsh Fly
- Lepidophora lutea
- Eastern Calligrapher
- Orange-legged Drone Fly
- Short-tailed Aphideater

True Bugs, Hoppers and Aphids

- Large Milkweed Bug
- Brown Water Scorpion
- Nepa apiculate
- Cryptococcus fagisuga
- Pale Green Assassin Bug

Ants, Bees, Wasps and Sawflies

Ants

- Ant - Formica ulkei

Bees

- Western Honey Bee
- Tri-colored Bumble Bee
- Brown-belted Bumblebee
- Red-belted Bumble Bee
- Common Eastern Bumble Bee
- Northern Amber Bumble Bee
- Perplexing Bumble Bee
- Broad-headed Leafcutter

Wasps

- Common Aerial Yellowjacket
- Giant Ichneumon Wasp
- Black Giant Ichneumonid Wasp
- Long-tailed Giant Ichneumonid Wasp
- American Peleciniid Wasp
- Dark Paper Wasp
- American Sand Wasp
- Spiney Leaf Gall Wasp

Sawflies

- Diprion similis
- Northern American Elm Sawfly

Damselflies

Jewelwings

- River Jewelwing
- Ebony Jewelwing

Sprite s

- Sedge Sprite

Spreadwings

- Northern Spreadwing
- Swamp Spreadwing

Forktails

- Eastern Forktail

Bluet s

- Familiar Bluet
- Marsh Bluet

Aurora s

- Aurora Damsel

Dragonflies

Darner s

- Fawn Darner
- Common Green Darner

Clubtails

- Horned Clubtail
- Lancet Clubtail
- Ashy Clubtail
- Dusky Clubtail
- Pronghorn Clubtail
- Zebra Clubtail
- Black-shouldered Spineyleg
- Dragonhunter
- Riffle Snaketail

Spike tails

- Twin-spotted Spiketail

Cruiser s

- Stream Cruiser

Emerald s

- American Emerald
- Racket-tailed Emerald
- Brush-tipped Emerald
- Common Baskettail
- Spiny Baskettail
- Beaverpond Baskettail
- Ringed Boghaunter

Skimmer s

- Common Whitetail

- Chalk-fronted Corporal
- Four-spotted Skimmer
- Twelve-spotted Skimmer
- Widow Skimmer
- Calico Pennant
- Frosted Whiteface
- Dot-tailed Whiteface
- Hudsonian Whiteface
- Verigated Meadowhawk
- White-faced Meadowhawk
- Ruby Meadowhawk
- Cherry-faced Meadowhawk
- Saffron-winged Meadowhawk
- Autumn Meadowhawk
- Band-winged Meadowhawk
- Black Meadowhawk

Butterflies

Swallowtails

- Canadian Tiger Swallowtail
- Eastern Tiger Swallowtail
- Black Swallowtail

Whites and Sulphurs

- Cabbage White
- Olympia Marble
- West Virginia White
- Mustard White
- Checkered White
- Large Marble

- Clouded Sulphur
- Orange Sulphur
- Pink-edged Sulphur
- Little Yellow

Harvesters, Coppers, Hairstreaks, and Blues

- American Copper
- Bronze Copper
- Purplish Copper
- Bog Copper
- Dorcas Copper
- Small Copper
- Harvester
- Northern Spring Azure
- Eastern Tailed-blue
- Western Tailed-blue
- Northern Blue
- Greenish Blue
- Silvery Blue
- Early Hairstreak
- Acadian Hairstreak
- Banded/Falacer Hairstreak
- Striped Hairstreak
- Coral Hairstreak
- Western Brown Elfin
- Eastern Pine Elfin
- Western Pine Elfin
- Henry's Elfin

- Hoary Elfin

Brush-footed Butterflies

- Monarch
- American Snout (Stray)
- Meadow Fritillary
- Great Spangled Fritillary
- Bog Fritillary
- Bog Silver-bordered Fritillary
- Frigga/Saga Fritillary
- Freija Fritillary
- Variegated Fritillary
- Aphrodite Fritillary
- Atlantis Fritillary

Brush-footed Butterflies

- Atlantis Fritillary
- Great Spangled Fritillary
- Common Buckeye
- Painted Lady
- American Lady
- Hoary Comma
- Eastern Comma
- Satyr Comma
- Grey Comma
- Green Comma
- Question Mark
- Mourning Cloak
- Harris's Checkerspot
- Gorgone Checkerspot

- Baltimore Checkerspot
- Silvery Checkerspot
- Northern Crescent
- Tawny Crescent
- Pearl Crescent
- Milbert's Tortoiseshell
- Compton Tortoiseshell
- Red Admiral
- White Admiral
- Red-spotted Admiral
- Red-spotted Purple
- Viceroy

Satyrs, Wood Nymphs, and Arctic

- Northern Pearly-eye
- Eyed Brown
- Little Wood-Satyr
- Common Ringlet
- Inornate Ringlet
- Common Wood Nymph
- Red-disked Alpine
- Macoun's Arctic
- Chryxus Arctic
- Jutta Arctic

Skippers

- Northern Cloudywing
- Dreamy Duskywing
- Sleepy Duskywing
- Juvenal's Duskywing

- Columbine Duskywing
- Arctic Skipper
- Least Skipper
- Common Branded Skipper
- European Skipper
- Leonard's Skipper
- Indian Skipper
- Peck's Skipper
- Delaware Skipper
- Tawny-edge Skipper
- Crossline Skipper
- Long Dash
- Hobomok Skipper
- Two-spotted Skipper
- Dun Skipper
- Dion Skipper
- Pepper and Salt Skipper
- Common Roadside Skipper
- Essex Skipper
- Large Gray Dagger
- Black-patched Clepsia Moth
- Clearwinged Hummingbird
- Isabella Tiger Moth
- Banded Tussock Moth
- Milkweed Tussock Moth
- Ruby Tiger Moth
- Spotted Tussock Moth
- Columbia Silk Moth
- Pandora Sphinx Moth
- Modest Sphinx
- Twin-spotted Sphinx
- Brown-bordered Owlet
- White Underwing Moth
- Bruce Spanworm Moth
- Chain-dotted Geometer
- Bracken Borer
- Ribbed Pine Borer
- Horrid Zale Moth
- Red-edged Acleris Moth
- Common Bag Worm Moth
- Variable Narrow Wing
- Pink Underwing

Moths

- Forest Tent Caterpillar Moth
- Eastern Tent Caterpillar Moth
- Virginia Ctenuch Moth
- Polymorphic Pondweed Moth
- Chestnut-marked Pondweed Moth
- Yellow-collared Scape Moth
- Fingered Dagger

Arachnids

Spiders

Orbweavers

- Furrow Orbweaver
- Marbled Orbweaver

- Arabesque Orbweaver
- Giant Lichen Orbweaver

Jumping Spiders

- Flea Jumping Spider

Ticks

- American Dog Tick

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