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**5/19/2020**

## KETTLE FALLS SITE DEVELOPMENT PLAN



DRAFT | May 2020

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## **NOTE TO REVIEWERS AND RESPONDENTS**

Comments on this plan and/or environmental assessment may be submitted electronically at the NPS Planning, Environment and Public Comment (PEPC) website (<https://parkplanning.nps.gov/kettlefalls>) or you may mail written comments by the date noted on PEPC to the address listed below.

Before including personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Attn: Kettle Falls Site Development Plan  
Office of the Superintendent  
Voyageurs National Park  
360 Highway 11 East  
International Falls, MN 56649-8904

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## EXECUTIVE SUMMARY

Voyageurs National Park (park) encompasses 218,054 acres of land and water along the United States-Canada border in northern Minnesota. The park was legislatively designated by Congress in 1971 with a mission to preserve, protect, and enhance resources in the Rainy, Kabetogama, Namakan, and Sand Point Lake areas. Voyageurs National Park is a place of scenic landscapes and interconnected waterways and is rich in human history. The main body of land within the park's boundary, the Kabetogama Peninsula, is accessible by boat, seaplane, or snowmobile, and is where the popular Kettle Falls destination is located.

The purpose of Voyageurs National Park is to preserve, for the inspiration and enjoyment of present and future generations, the outstanding scenery and geology, biological diversity, and cultural resources, within its vast interconnected waterways that shaped the historic fur trade in North America and constituted a part of the historic route of the voyageurs.

The Kettle Falls location shows evidence of human use from its earliest people, to its former commercial uses, and to today's recreationists. One of those historic and scenic places is Kettle Falls and includes the namesake falls and dam, scenic trails, and docks for visitor access. The historic Kettle Falls Hotel and district anchors visitor services and provides lodging facilities.

The purpose of the Kettle Falls Site Development Plan is to enhance the visitor experience and the facilities that support visitors and to improve employee facilities in the Kettle Falls area while protecting vulnerable resources. A plan is needed to identify opportunities that would improve the visitor experience; protect cultural and natural resources; and address the potential impacts that could affect the resiliency of the Kettle Falls area.

The project area includes the approximately 30-acre cultural landscape area, historic district, and additional surrounding acreage that would address the purpose and need for the plan. Some structures or facilities within the project area are aging and in need of repair or replacement. Some of the existing site amenities, including the historic hotel, dam overlook, and some trails, do not meet universal accessibility standards. Likewise, trails and roads are showing signs of overuse.

This plan proposes to:

- Provide an adequate number of bedrooms and common living space for a sustainable concession operation at Kettle Falls.
- Reconfigure docks.
- Provide a range of overnight uses for Kettle Falls visitors.
- Improve circulation and accessibility to or at key locations.
- Improve day-use social spaces at Kettle Falls Hotel and guest villas.

A Planning Environment and Public Comment page was established and maintained throughout the planning process (<https://parkplanning.nps.gov/kettlefalls>). The park engaged in civic outreach events and preliminary stakeholder consultations throughout the planning phase. The park will continue this engagement throughout the compliance stage until it can conclude with a Finding of No Significant Impact.

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# CHAPTER 1: INTRODUCTION

## INTRODUCTION

Voyageurs National Park (park) encompasses 218,054 acres of land and water along the United States-Canada border in northern Minnesota. The park was legislatively designated by Congress in 1971 with the mission to preserve, protect, and enhance resources in the Rainy, Kabetogama, Namakan, and Sand Point Lake areas. The main body of land within the park's boundary, the Kabetogama Peninsula, is accessible by boat, seaplane, or snowmobile—including Kettle Falls.

Voyageurs National Park is a place of scenic landscapes and interconnected waterways and is rich in human history. Named for the French-Canadian canoe-men who traveled these waters in birchbark canoes from the Great Lakes to the interior of the Western United States and Canada, the park preserves one of the most important segments of the economically and culturally transformative North American fur trade route. This historic route contributed significantly to the opening of the northwestern United States during the late 1700s and early 1800s. More recently, this landscape was also home to people who sought to make their living off the land through logging, mining, commercial fishing, and recreation.

Well before the voyageurs, the first people to travel to this region came thousands of years ago, after the last of the glaciers had melted away and left this low landscape of expansive lakes and wetlands. The earliest people came from the Paleoindian and Archaic traditions, while the more extensively studied Woodland, post-contact American Indian, and Euro-American eras of park history occurred from approximately 2,150 years ago to the present. Nearly every major prehistoric and historic theme associated with human interaction and development of the northwestern United States is represented within park boundaries. This includes early hunters and gatherers, homesteaders, and immigrants who came to log, fish, hunt, trap, and mine. Hundreds of archeological sites remain as a record of the area's earliest human inhabitants.

One of those scenic places is Kettle Falls that was listed as a historic district in 1976. This location shows evidence of human use from its earliest people, to its commercial uses, and to today's recreationists.

## PROJECT BACKGROUND

Kettle Falls is located at the eastern terminus of the Kabetogama Peninsula (St. Louis County, Minnesota) in the SW  $\frac{1}{4}$  of Section 33, Township 70 North, Range 18 West (figure 1). Kettle Falls has been used by various peoples throughout history. American Indians once gathered and hunted near the falls, voyageurs paddled and portaged through the area with their goods and furs, and prospectors stopped at the falls on their way to gold mines at Rainy Lake.

The Kettle Falls Hotel was built during the 1910s soon after construction on the dam at Kettle Falls began. The hotel initially served those who worked on the dam, followed by lumberjacks, commercial fishermen, trappers, and traders. As commercial fishing declined over the years, tourists became the hotel's primary patrons. Today, Kettle Falls is a popular destination for tourists in Voyageurs National Park because of its docks, scenic trails, lodging options, and other amenities.

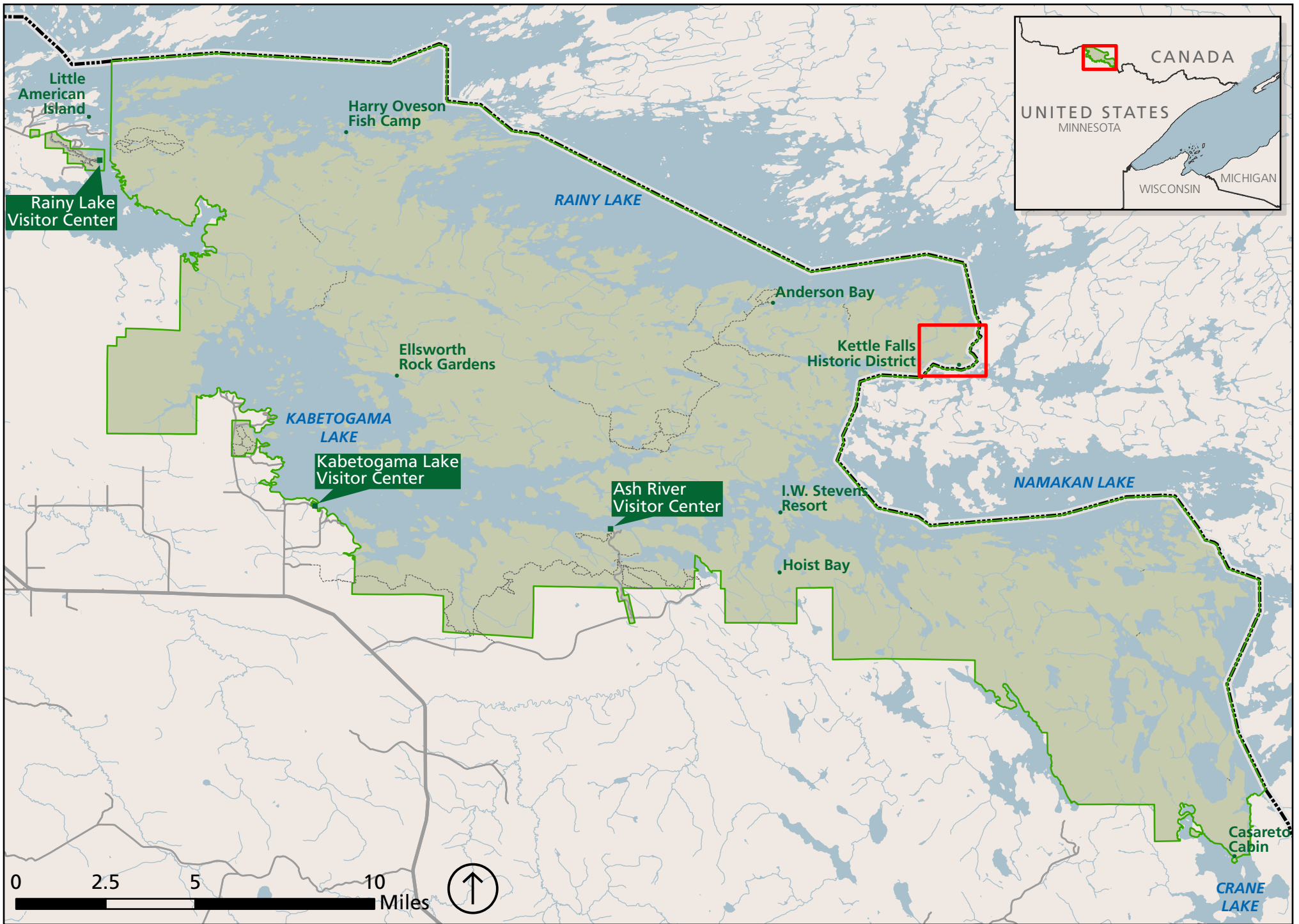


FIGURE 1: PARK AND KETTLE FALLS PROJECT AREA



Many of the visitor services such as food, lodging, gas and portage services are provided by a concessioner. The concessioner contract will expire December 31, 2020. Prospectus development for the new concession contract kicked off in May 2017 with a site visit for a comprehensive condition assessment of the concessions-assigned facilities. Improvements to Kettle Falls should in turn improve the viability of a successful concession operation.

## **PURPOSE AND NEED FOR A PLAN**

The **purpose** of the Kettle Falls Site Development Plan is to enhance the visitor experience and the facilities that support visitors, to improve concession employee facilities, to avoid unacceptable impacts to cultural and natural resources, and to address the potential impacts that could affect the resiliency of the Kettle Falls area.

The **need** for this planning document arose from the conditions, trends, threats and opportunities identified in the foundation document and other recent planning documents. The need was further refined during the pre-planning stage (Planning Process section) of this planning process by identifying areas for targeted development or improvement.

## **NPS MISSION, PARK PURPOSE, AND PARK SIGNIFICANCE**

### **NPS Mission**

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

### **Park Purpose**

The purpose statement identifies the specific reason(s) for establishment of a park and lays the foundation for understanding what is most important about the park. The purpose statement for Voyageurs National Park was drafted as part of its 2016 foundation document and through a careful analysis of its enabling legislation and the legislative history that influenced its development.

*The purpose of Voyageurs National Park is to preserve, for the inspiration and enjoyment of present and future generations, the outstanding scenery and geology, biological diversity, and cultural resources, within its vast interconnected waterways that shaped the historic fur trade in North America and constituted a part of the historic route of the voyageurs.*

### **Park Significance**

The foundation document developed significance statements for the park. These statements express why a park's resources and values are important enough to merit designation as a unit of the national park system. Briefly, those include references to the North American fur trade route; interconnected waterways and lake-based movement of people; ancient geologic features of global rarity and exposure; an abundance of historic structures, cultural landscapes, and archeological resources; extraordinary aquatic and terrestrial resources; and its rich ecosystem of northern boreal forest and woodlands.

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## CHAPTER 2: PLANNING PROCESS

### PLANNING PROCESS

This plan was developed and prepared in stages to maximize time and resources. Those stages included the following.

**Pre-planning.** The Department of the Interior Unified Regions 3, 4, and 5 Office (Regional Office) planning and compliance division worked with the park between October 2017 and September 2018 to identify the issues and needs associated with Kettle Falls and the level of effort needed to conduct a full planning process. A completion report was provided to the Washington Service Office (WASO) in October 2018 to detail the pre-planning exercise and to show the park's readiness for the next stage.

**Planning.** From October 2018 through approximately January 2020, the Regional Office planning and compliance division led the park through a planning process for Kettle Falls. This stage included refining the issues identified from pre-planning, developing a range of preliminary actions or development concepts, and developing civic engagement activities. During this time, data and information to support environmental compliance and consultation processes were also compiled.

**Compliance.** From approximately February 2020 to approximately July 2020, the Regional Office planning and compliance division led the park through the development of a compliance document, prepared materials for consultations with federal agencies and tribal governments, and outlined additional public outreach.

### SCOPE OF THIS PLAN

The goal of the site development plan is to provide comprehensive direction for the management of resources and visitor experience in the Kettle Falls area now and into the future. This plan will determine desired conditions and identify actions to improve the visitor experience and will address the following planning issues: overnight use, approach/access/docking, landscape changes/enhancements, circulation and accessibility. Additional planning issues were identified: interpretation, concessions/services, and utilities; however, these issues require additional research and would be addressed via independent processes yet remain important to the overall management concept for the project area.

The plan will consider the need for and possible locations of amenities such as, but not limited to, new overnight option(s) for visitors, winter uses, trails and roads, accessibility, signage and wayfinding, docking, and other amenities and supporting utilities. Concession employee housing will also be considered.

Additionally, the park has submitted several projects through the NPS PEPC and/or PMIS systems, the latter for funding approval. Some of those projects (e.g., trails, docks) will be included in the scope of this planning process to streamline staff efforts and available funding when practicable. Other needs, such as interpretation, will remain as independent projects.

This plan will update and supplement the 2002 general management plan (GMP) for resource preservation, development, and visitor experience and capacity for the Kettle Falls area. An environmental assessment is assumed; however, compliance needs may change as the project

progresses and other compliance tools will be considered. The compliance document will be produced as a separate document.

## **RELATED PLANNING AND DEVELOPMENT EFFORTS**

Voyageurs National Park existing general management planning documents continue to provide relevant guidance, which may be supplemented through development of additional planning documents, such as this one. The Kettle Falls Site Development Plan is a component of the park's planning portfolio and fulfills park planning for resource and visitor use management, and development guidance. This plan is consistent with the general guidance of the 2002 GMP and helps the park to better meet the statutory requirements of 54 USC 100502, specifically the requirement to address measures for preservation of resources, indications of types and general intensities of development, and the identification of visitor carrying capacities.

Planning for Kettle Falls development began in 1980 with a Historic Structures Report for the hotel and associated structures. Planning for visitor facilities began in 1985 with the Kettle Falls Development Concept Plan, followed by a more detailed development plan in 1986. Much of that development was completed between 1987 and 1990. More recent planning efforts include:

- The General Management Plan (2002) calls for expanding visitor services, particularly for people with disabilities.
- The Long-Range Interpretive Plan (2005) calls for the development of a comprehensive interpretive plan for the Kettle Falls area, to include improved wayfinding and wayside exhibits, orientation signs at each landing, and an amphitheater for programs.
- The Foundation Document (2016) identified the need for a Kettle Falls site development plan and additional concessioner employee housing as high priority planning needs.
- An archeological investigation (draft, 2020) identifies and describes known sites.
- A Cultural Landscape Report (draft, 2020) describes the significance of the sites uses and layout.

The Kettle Falls concession contract expires on December 31, 2020. Prospectus development for a new concession contract began in May 2017. The regional office concessions contracting staff and park staff are developing the prospectus for required and authorized visitor services for the next contract cycle that would begin January 1, 2021.

## **RELATIONSHIP TO OTHER LAWS, REGULATIONS, AND POLICIES**

The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service is bound by federal laws, including the Organic Act of 1916 (16 *United States Code* [USC] 1, 2, 3, and 4) and as amended, and 36 Code of Federal Regulations (CFR). The National Park Service also follows Executive Orders, Secretarial Orders, Director's Orders, and policies found within NPS *Management Policies* 2006.

NPS Director's Order 12 requires the National Park Service to make diligent efforts to involve the interested and affected public in the National Environmental Policy Act (NEPA) process and to fully analyze potential impacts. Likewise, throughout the development of this plan and/or its companion compliance document, the park will also abide by the National Historic Preservation Act (NHPA; 54 U.S.C. 300101 et seq.), specifically 54 U.S.C. 306108 (also referred



to as Section 106); the Endangered Species Act, specifically Section 7; and will follow Executive Orders 11988 and 11990, and the subsequent Director's Orders and handbooks derived from the orders regarding floodplains and wetlands, and other applicable laws, regulations, or policies.

### **COMPLIANCE COVERED BY THIS PLAN**

The compliance efforts associated with this plan are intended to contribute to and meet necessary compliance requirements for funding of the park's resource preservation and facility planning needs. The National Park Service consulted the Minnesota State Historic Preservation Officer (SHPO) and the affiliated Tribal Historic Preservation Officers (THPO) to discuss actions outlined in this plan that have the potential for adverse impacts on historic properties or other sites listed or eligible for listing on the National Register of Historic Places. Other consultations included US Fish and Wildlife Service (FWS) for Section 7 and/or with the US Army Corps of Engineers for Section 404 applicability.

Additional consultation may also occur on a project-by-project basis or as needed upon plan implementation. Further, if the scope of an action is substantially modified or the potential environmental effects described in this plan change after the compliance document(s) are finalized, additional NEPA/NHPA review may be required before the treatment or action can be implemented.

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## CHAPTER 3: EXISTING RESOURCE CONDITIONS

### GENERAL PROJECT SETTING

The Kettle Falls project area (or planning area) includes a historic hotel, guest villas, and boat docks located at the eastern end of the Kabetogama Peninsula and within sight distance of the Canadian border. The project area includes the approximately 30-acre cultural landscape area and historic district, and enough surrounding acreage (figure 2) to address the purpose and need (approximately 321 acres total). Many of the assorted structures and buildings contribute to its historic district designation and to the site's overall character.

Kettle Falls is reached primarily by the Rainy and Namakan basins. Kettle Falls is served by private vessels, tour boats, occasional seaplanes, and a concessioner's boat shuttle. It may be accessed by snowmobile along a designated trail during the winter months. There is a trail and portage road network that connects the various amenities or destinations within the project area.

The historic hotel, its restaurant and bar, plus the modern villas, portage services, boat fueling, and trading post/gift shop are operated each year through a concession contract that provides visitor services from May through October. Concessioner employees live on-site, using space in the historic hotel, the modern villas, and an employee-only housing unit.

Several of these structures or facilities are aging and in need of repair or replacement. Some of the existing site amenities, including the historic hotel, dam overlook, and some trails, do not meet universal accessibility standards. Likewise, trails and roads are showing signs of wear.





FIGURE 2: KETTLE FALLS PROJECT AREA



## MANAGEMENT AREAS AND SPECIAL DESIGNATIONS

The 2002 GMP divided the park into specific management areas: developed, lakecountry, backcountry trail, and primitive. The Kettle Falls area is located at the convergence of several management areas. The Kettle Falls area was determined to be a visitor destination in a high-density lakecountry area, adjacent to a developed area, and surrounded by primitive areas (figure 3). Each management area describes the type of experience the visitor may expect and what visitor uses and supporting facilities may be found in that area (table 1). These zones also depict what uses or experiences the visitor could expect in summer and winter. Kettle Falls maintains a winter use zone by way of a groomed snowmobile trail. Closure of the winter trail corridor is determined on an as-needed basis to maintain public safety.

Additionally, the “Kettle Falls Historic District” was established by the 1976 National Register of Historic Places (NRHP) nomination. The recommended district boundary may be adjusted in the future based on the 2020 draft cultural landscape report (CLR) recommendations. The historic district and historic landscape appear most similar to its period of significance of 1910–1934. The cultural landscape report provides treatment recommendations for the types of facilities or visitor activities are most appropriate to maintain the historic character and appearance of the district.



### FIGURE 3: GMP MANAGEMENT ZONES AND SPECIAL DESIGNATIONS

**Table 1. 2002 GMP Management Area Descriptions**

Land Management Area	Visitor Experience	Resource Condition	Appropriate Visitor Use and Facilities
Developed Area: Developed areas are set aside for visitor facilities (such as visitor centers, contact stations, or group campgrounds) or for park operations (such as administrative offices, maintenance facilities, or employee housing). The rehabilitation of historic properties is generally more acceptable in developed areas than in other land management areas. Cultural resources in developed areas are fully accessible to the public.	Facilities are convenient and accessible. These areas provide many social experiences through visitor contact and interpretive programs. The probability of encountering other visitors is high.	New facilities or modifications of existing facilities for visitor use or park operations are designed and implemented to be sensitive to the natural environment, the architectural character of the historic properties and cultural landscape features.	Appropriate facilities and their accompanying uses include buildings, interpretive exhibits, overlooks, concession services, paved and unpaved trails, docks, boat launches, picnic areas, roads, parking lots, small campgrounds, and park operations.
Lakecountry: This area includes the shoreline and islands of four major lakes within the park: Rainy, Kabetogama, Namakan, and Sand Point, as well as the north shore of Crane Lake.	The natural setting is the dominant experience, but visitors have access to developed park facilities. The lakecountry area offers moderate to a high degree of challenge and adventure for visitors. The probability of encountering other visitors and hearing noise is moderate to high during certain times of the year. A moderate level of interpretation is offered.	Natural resources are managed to maintain natural conditions. Visitor facilities are built to reduce the impact of use. Places that collectively illustrate the history of human relationships with the natural environment and the evolution of the landscape through time are preserved. Particularly sensitive or rare resources are protected from development and visitor use.	Appropriate uses include fishing, day use and overnight activities, cross-country skiing, and snowshoeing. The number of overnight and day use sites varies according to the sub-area defined below. Snowmobile safety portage cross some of this area. Visitors have opportunities to learn more about the park's natural and cultural resources through visits to destinations that illustrate specific interpretive themes. The level of development and kinds of facilities at visitor destinations are commensurate with the goals for the management area that it is located in and the ability of resources to withstand use and development.
High-density (sub-area of Lakecountry)	<i>n/a</i>	Generally, cultural resources are preserved in their existing condition.	This sub-area has a high density of day and overnight sites. There may be three or more sites within a five-mile radius. Typically, sites are found near shoreline areas that are protected from lake effects due to orientation and sheltered conditions.

Land Management Area	Visitor Experience	Resource Condition	Appropriate Visitor Use and Facilities
			A greater degree of development to provide access to the public is acceptable (e.g. docks, trails, vault toilets, exhibits).
Primitive Area: Primitive areas consist of both proposed wilderness and non-wilderness in the park's backcountry except for trails, including areas recommended for wilderness designation. Visitors can expect a "wild" experience, with few facilities.	Visitors feel fully immersed in nature. Primitive areas offer a high degree of challenge and adventure and a low probability of encountering other visitors. Human sounds are infrequent. No interpretive programs are offered.	These areas are managed as natural areas. Research and prescribed fires may occur, but other actions are limited. Impacts from use are low to none because of difficult access. Cultural resources in the primitive areas are protected from development or other situations that may impact their integrity and are not made accessible to the public.	Appropriate uses include at-large camping, hiking, snowshoeing, and cross-country skiing. A few campsites with minimal facilities may be appropriate.

Source: 2002 General Management Plan, pages 18-20.

## WEATHER AND CLIMATE CHANGE

### Weather

There are four distinct seasons within the park and surrounding area. The air is temperate during June, July, and August when periods of fine, mild weather prevail (table 2). Annual precipitation (rain and snow) averages 25-28 inches in the park and snowfall ranges from 55-70 inches, but is highly variable. The first measurable snowfall typically occurs in late October and the last snowfall in late April or early May. The frost-free season averages 120 days from June to mid-September.

**Table 2. Average Monthly Temperature and Precipitation**

-	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average High (°F)	14	22	35	51	67	74	79	76	65	52	33	18
Average Lows (°F)	-8	-1	12	27	40	49	54	51	42	31	16	-1
Average Precipitation (inches)	0.84	0.64	0.96	1.38	2.55	3.98	3.37	3.14	3.03	1.98	1.36	0.7

The average ice-out<sup>1</sup> date can occur between late April and early May but varies year-to-year and by water body (table 3). Weather conditions such as air temperature, water temperature,

1. The definition of "ice out" may vary but is generally when ice is sufficiently melted to allow movement on the water. Conversely, the definition for "ice on" generally indicates when the surface water is frozen. Always verify ice conditions prior to activity on the lake or its frozen surface.

wind, rain, and snow can have great effects on how the ice freezes in the fall and thaws in the spring. Visitors are advised to use caution at all times while traveling on the ice and to use extreme caution during the late fall and early spring when ice conditions can be unstable.

**Table 3. Average Ice-on and Ice-out Date Ranges**

Lake	Average Ice-on	Average Ice-out	Earliest Ice-out	Latest Ice-out
Rainy	December 9	May 3	April 6, 2012	May 22, 1950
Kabetogama	November 28	April 28	April 1, 2012	May 18, 1996

## Climate Change

Climate change has the potential to affect visitation patterns, infrastructure, and natural and cultural resources at Kettle Falls. The Fourth National Climate Change Assessment<sup>2</sup> (2018) details its models and potential future scenarios. Similarly, the U.S. Climate Resilience Toolkit<sup>3</sup> (Midwest) details the results of the models and offers potential scenarios. In summary, warmer temperatures are also predicted to bring more extreme weather events. Precipitation may increase but come in discrete events with longer dry spells in between.

These changes in precipitation patterns may affect lake levels. Because of the narrow natural constrictions on the outlets of these lakes, the dams can only control lake levels under moderate inflows. When inflows are extremely high or extremely low, water levels follow suit regardless of dam operation. If predicted increases in extreme weather patterns and events occur (more floods and droughts, for example), the water levels in these lakes would be above upper and below lower rule curve bounds more frequently.

Longer dry spells would also have profound impacts on upland plant communities, resulting in reduced growth and increased stress. Drought-intolerant trees will die at higher rates. Milder winters and longer growing seasons would lead to increases in populations of forest insect pests, both native and nonnative, killing more trees. The combination of drier soils and dead trees will increase the fire danger.

Warmer temperatures would have many effects on lake ecosystems. Increased temperatures would further shorten the period during which the lakes are ice-covered each year. This lengthens the growing season for plants and phytoplankton in the system, fueling overall increases in productivity. This may exacerbate the existing problem with toxin producing blooms of cyanobacteria (harmful algal blooms) in park lakes. Both the increase in temperature and the increase in productivity would cause a reduction in the coldwater fish habitat available in these lakes. Over time, this may lead to a decrease in populations of coldwater fish such as cisco and lake whitefish and an increase in coolwater and warmwater fish populations.

Shorter winters and longer growing season would likely shift the shoulder seasons to earlier in spring and later in the fall. This could lengthen the operating season of the hotel, particularly into fall and lengthening overall park operations. A longer visitation season may have an effect on cultural resources. The potential for a longer operating season at Kettle Falls means increased visitation. This can lead to an increase in the negative impacts related to increased

2. Fourth National Climate Change Assessment (2018), Chapter 21 Midwest, <https://nca2018.globalchange.gov/chapter/21/> as accessed November 14, 2019.

3. U.S. Climate Resilience Toolkit (Midwest), <https://toolkit.climate.gov/regions/midwest> as accessed November 22, 2019.

visitation such as compaction and/or erosion to soils with cultural deposits, the development of social trails leading through cultural sites, looting, physical decay to cultural resources through use and general wear and tear, as well as others. In turn, this increases the need for preservation and conservation of historic buildings and archeological sites.

Further, the more extreme weather events linked to climate change bring heavy rains, snow, strong winds, and storm run-off that threaten cultural resources and can increase their rate of decay. Particularly relevant at Voyageurs National Park is the potential for increased erosion to lakeshore sites because of stronger wave and surge activity. As indicated above, the dams are only able to control moderate flow levels. Extreme changes to water levels are a threat to archeological sites along the shoreline, particularly prehistoric sites that could be exposed or even destroyed. Erosion can also expose artefacts, making them susceptible to looting. The impacts of climate change on vegetation leads to the potential for weaker, dangerous hazard trees that could fall onto historic structures or archeological sites. The potential for increased fire danger is also a very real threat to both archeology above ground, including historic structures, and to subsurface deposits, which can be damaged because of the high temperatures associated with fire.

## **WATER RESOURCES**

### **Lake Levels**

Prior to the onset of the installation of dams in the early 1900s, Rainy and Namakan lakes existed as natural water bodies. Flows are now regulated to satisfy multiple uses, including power generation and recreation. The water levels in Rainy Lake and Namakan Lake are controlled by a privately owned hydropower dam at the outlet of Rainy Lake and by regulatory dams on the two outlets from Namakan Lake. Because these lakes are international waters, the International Joint Commission (IJC) has regulatory authority and stipulates water-management practices (rule curves) to the private-sector dam operators. Rule curves are bands of allowable high- and low-water levels throughout the year (appendix A). (During years in which a high risk of flooding is predicted, a separate rule curve is used for Rainy Lake prior to the spring melt and rains to reduce flooding.) Typically, Rainy Lake may fluctuate from about 1,105.5 to 1,107.7 feet above sea level throughout the year. Namakan Lake also may fluctuate from about 1,113.8 to 1,118.0 feet above sea level throughout the year.

### **Wetlands**

NPS water resources division staff performed a wetlands delineation in September 2019 (appendix B) and identified several small wetland areas. There are wetlands (forested and non-forested) interspersed within upland forests. Of note is the ash swamp and shrub wetland just south of the historic hotel that is bisected by the existing gravel entrance road (figure 4) and is the largest of the wetlands inventoried at just over 8 acres.



**FIGURE 4. WETLANDS 5 AND 6**

The delineation trip report identified six unique palustrine wetland habitats totaling 9.71 ac (3.93 ha) that were observed over the course of the inventory. Table 4<sup>4</sup> and figure 5 provide a summary of the wetland habitats, their size, and Cowardin class/description and primary wetland function and values based on a rapid qualitative assessment using the US Army Corps of Engineers – New England District (The Highway Methodology Workbook Supplement, September 1999). Of these six wetland habitats only one had been previously mapped at Kettle Falls (wetland-6); this site and its vegetative community had been included in the park's vegetation mapping (Hop, et al. 2001) and was comprised of three distinct forested/scrub-shrub community types: Northern Tamarack Rich Swamp, Black Ash-Mixed Hardwood, and Speckled Alder Swamp.

4. Summary table of identified and mapped wetland habitats from VOYA; sampling point identification codes correspond to the data points shown on park mapping and the data sheets found in the delineation report appendices.

**Table 4. Wetlands Delineation (2019)**

Wetland ID (Sampling Point ID)	Cowardin (revised FGDC, 2013) classification code	Wetland Function and Values (New England USACE Method)	Size	Size
			Acres	Hectares
Wetland-1 (WTP-1)	PSS1E	GW Recharge, Sediment Retention, Floodflow Alteration, Wildlife Habitat, Recreation/Educational Values	0.81	0.33
Wetland-2 (WTP-2)	PFO1E	GW Recharge, Sediment Retention, Floodflow Alteration, Wildlife Habitat, Recreation/Educational Values	0.16	0.07
Wetland-3 (WTP-3)	PEM2E	GW Recharge, Sediment Retention, Floodflow Alteration, Wildlife Habitat, Recreation/Educational Values	0.04	0.02
Wetland-4 (WTP-4)	PFO1E	GW Recharge, Sediment Retention, Floodflow Alteration	0.14	0.06
Wetland-5 (WTP-5)	PEM2E	GW Recharge, Sediment/Toxicant Retention	0.06	0.03
Wetland-6 (WTP-6)	PFO1E	GW Recharge, Sediment Retention, Floodflow Alteration, Wildlife Habitat, Recreation/Educational Values	8.36	3.38

The 2019 delineation report corrected previous vegetation mapping and data errors that incorrectly labeled an area near the tour boat landing as wetlands; this corrected information shall supersede those previous reports and previous National Wetlands Inventory reporting.

The delineation report also provided recommendations for potential onsite wetland restoration. In particular, wetland-6 presents a potential opportunity for on-site restoration. The park is also investigating another opportunity for wetland restoration.



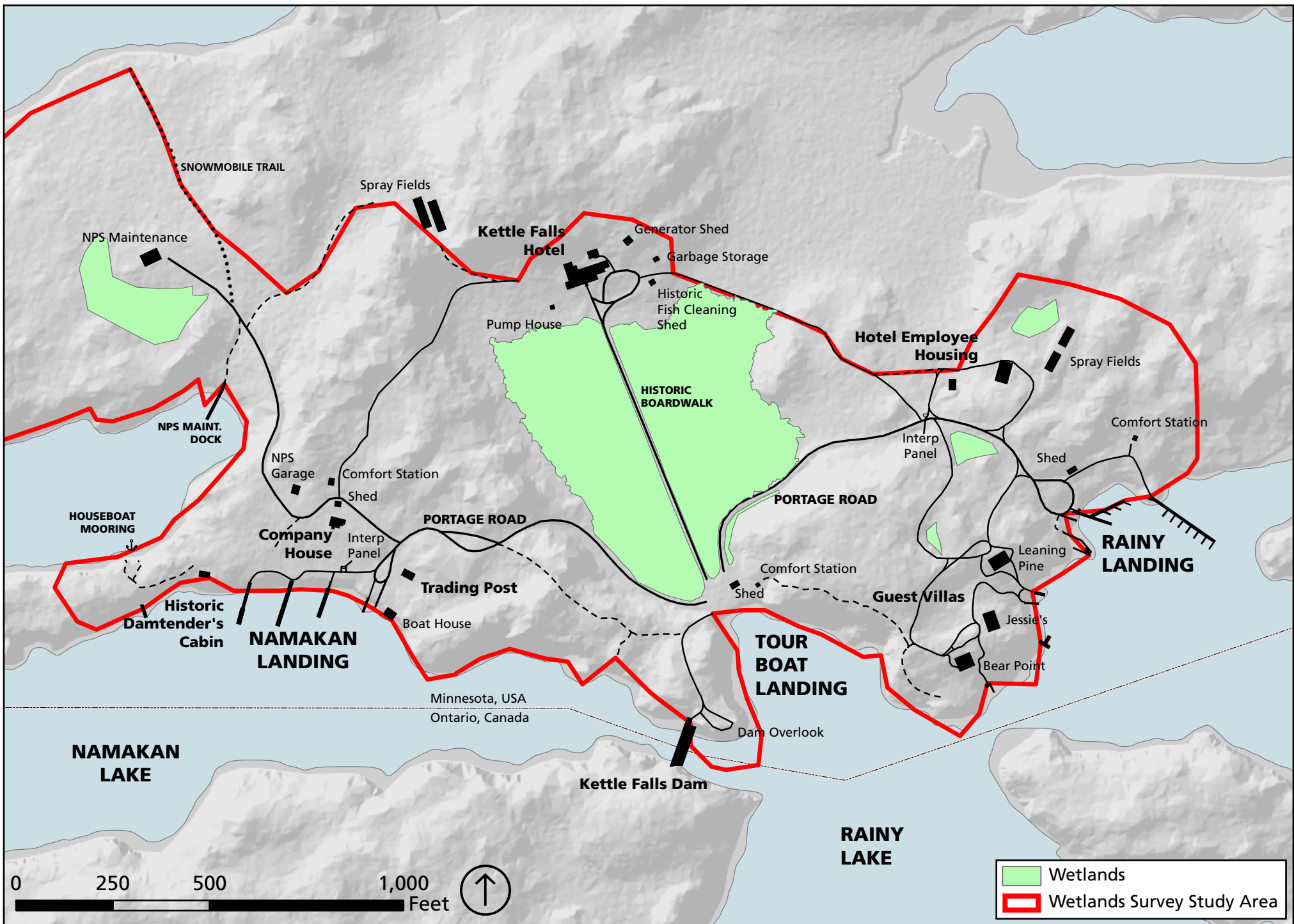


FIGURE 5: WETLAND DELINEATION (2019)

The draft 2020 CLR details the historical changes to the wetland-6 area over time. Briefly, figure 6 shows how the area looked circa 1930-1945 with an open view from the water to the hotel. The draft 2020 CLR notes that a regimen of restrained maintenance has led in part to the one major vegetation change over time: the gradual succession and infill of the wetland leading from Rainy Lake to the hotel. Since the 1960s, limited vegetation removal has occurred between the hotel lawn area and the landing. The road (sometimes referred to as a former boardwalk built of salvaged boom logs laid 4 feet apart with planks on top) from the Rainy Lake landing to the hotel also limits natural drainage in this area, and resulting standing water has facilitated the more recent growth of woody vegetation. An additional contributor to vegetation infilling of the bog was likely because of bathrooms being installed in the hotel in the 1950s and sewer outlets were run into the bog.<sup>5</sup> This addition of “organic matter” may also have accelerated the growth of vegetation. The dramatic growth resulted in the most visible change since the period of historic significance and has had the most dramatic impact on the property’s historic landscape character.

Historic aerial photographs of Kettle Falls show the former boardwalk crossing the bog, which at that time was open at the center with a ring of spruce or cedar trees circling the perimeter. The conifers were probably stunted species typical of this kind of bog. The hotel was constructed in 1910 before the photo (figure 6) was taken and there is no evidence that this area of the bog was logged. While the bog would not have included the species that companies were harvesting at that time, it appears that the area immediately around the hotel was cleared of trees. Descriptions from the 1930s through the 1940s are of a field or meadow. While the initially open view may have been unintentional, once the vegetation changed in the 1950s, the loss of the visual connection had a dramatic effect on how visitors experience the relationship between the hotel and the lake.

A 1991 summary from Clifford Wetmore,<sup>6</sup> included in the Cultural Landscape Inventory, describes the vegetative composition of the bog and seems to infer that prior to the construction of the hotel, the bog may have once been part of an old-growth forest. Wetmore also stated that “no cut stumps or burned logs were found” during his survey, which casts some doubt on the previous statement. Wetmore argued for minimizing further modification/clearing to allow for the return of mature trees and by extension, a favorable micro-climate for several rare lichen species initially identified in 1901. Future treatment options developed as part of the draft 2020 CLR strive for balancing natural and cultural resource concerns and a moderated treatment goal that allows continued wetland succession coupled with minimal clearing to partially open the historic vista.<sup>7</sup>

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5. Mary Graves, personal communication with Geoff Burt, 2005.

6. Summarized in the Cultural Landscape Inventory, this 1991 description comes from Clifford Wetmore and is attached to the 1991 Kettle Falls Area Management Plan.

7. Cultural Landscape Inventory, 2005.



**FIGURE 6. DAM OVERLOOK AND HOTEL LANDSCAPE VIEW (C.1930–1945)**

## **EARTH RESOURCES**

### **Soils**

Most soils within the project area consist primarily of sandy loam rich in gravel and cobbles; these soils typically range in thickness from 8 to 31 inches and are characterized by an O-A-Bw horizon stratigraphy (table 5, figure 7). Bedrock outcrops are common. In the central wetland and in some lakeshore areas, soils are greater than 80-inches thick and are variably composed of peat, muck, loam, silt loam, silty clay loam, clay loam, and silty clay. These soils are stratigraphically complex with upper O and A horizons and underlying gleyed E, B, and C horizons (USDA).

**Table 5. Soil Complex Descriptions**

<b>Soil Complex</b>	<b>Approximate Acres</b>	<b>Notes</b>
Insula-Conic-Wahlsten complex, 0 to 25 percent slopes, very stony, very rocky	42.3	Primarily sandy loam
Insula-Conic-Rock outcrop complex, 8 to 25 percent slopes, very bouldery	30.9	Primarily sandy loam
Insula-Conic-Wahlsten complex, 0 to 12 percent slopes, very stony, very rocky	19.6	Primarily sandy loam
Quetico-Insula, bouldery-Rock outcrop complex, 8 to 60 percent slopes	17.0	Primarily sandy loam
Brickton-Hassman complex, 0 to 2 percent slopes	12.6	Central wetland
Tacoosh and Sax soils, 0 to 1 percent slopes, frequently flooded	11.9	Certain shoreline areas
Quetico-Insula, bouldery-Rock outcrop complex, 3 to 18 percent slopes	3.7	Primarily sandy loam

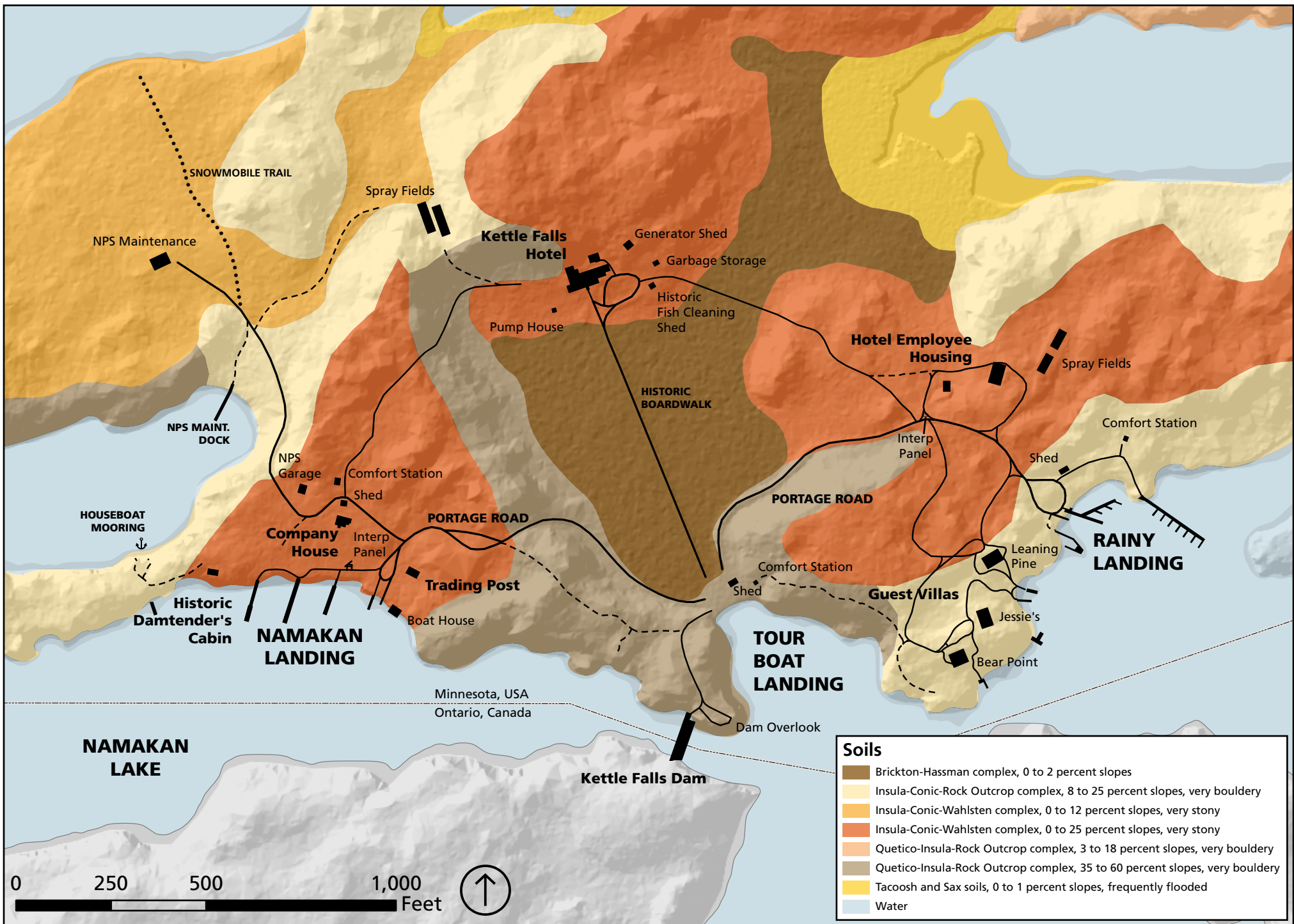


FIGURE 7: SOILS



## Geology (Topography)

The park is located at the southern end of the Canadian Shield formation. The bedrock underlying the park is among the most ancient in North America. Most of the geologic features are of Archean age (2.5 to 3.8 billion years old) and are of global significance due to rarity and exposure. The park contains the most complete and extensive Precambrian geologic features in the United States. The Kettle Falls area has low and flat biotite schist outcrops, with high cliffs forming at the lake edge. This rolling, hilly area with rock outcrops and sharp drop-offs are what presumably led to the appeal of this location for the hotel (figure 8).



FIGURE 8. GEOLOGY

## AIR QUALITY

Fundamental to the park is clean air. The park is one of only 48 Class I<sup>8</sup> areas designated by the Clean Air Act in the NPS system. Clean air contributes to the ecological health of the park's flora and fauna and is critical to maintaining a high-quality visitor experience from a human health perspective, as well as through the preservation of extensive vistas found throughout the park (NPS 2016). The majority of the mercury in Voyageurs National Park arrives via aerial

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8. The Clean Air Act gives special air quality and visibility protection to national parks larger than 6,000 acres and national wilderness areas larger than 5,000 acres in existence when it was amended in 1977.

deposition. Mercury levels are high enough to necessitate Minnesota Department of Health fish consumption advisories for Voyageurs National Park lakes.

## **VISUAL RESOURCES**

From the Rainy Lake Tour Boat Landing, the view of the historic hotel is framed by vegetation. Over the decades, the view has narrowed as vegetation encroaches inward toward the former plank boardwalk and the central ash swamp and shrub wetland area has filled in. The view around the historic hotel has changed slightly as accessory structures were added in the 1950s and 1960s. At the Namakan landing, historically significant views are found from multiple vantage points. The view, as one approaches the landing via boat, the 1910 Damtender's Cabin, boathouse, marina and garage/former trading posts, are still evident. Views from the primary buildings and outbuildings encompass the lawn in the foreground, scattered trees, shrubs, a spruce tree row, rocky outcrops, with the lake and a forested shoreline in the background. While the view of the lawn is more manicured than shown in historic photographs, the ability to visualize the landscape is still available to visitors. The Kettle Falls dam overlook area has historically remained important in terms of logging and sluicing activities, and since then the view has evolved to be an aesthetically pleasing destination and dam overlook for visitors.

Also important to the park is its view of night skies. Surrounded by miles of lakes and wilderness area, the skies above Voyageurs National Park are free of the excessive, misdirected, and obtrusive artificial light produced by the large urban cities across America. This provides park visitors views of meteors and aurora borealis, also known as the northern lights. (The park is pursuing dark skies certification independent of this project.)

## **BIOLOGICAL RESOURCES**

### **Vegetation**

The past vegetation of Voyageurs National Park was most likely a mix of the same species as today. The General Land Office surveyed the area in the late 1800s. As part of that effort, the surveyors identified and marked bearing trees at each subsection corner. Although there is some inherent bias with the selection of bearing trees, the records show a species mix that is quite similar to what grows in the area today—red, white, and jack pine, spruce, fir, aspen and birch.<sup>9</sup>

Logging began in the area around 1880 and continued until authorization of the park in 1971. In the early years, logging operations focused on the harvest of large white and red pines for saw timber. When the last of the large pines were cut in the 1930s, the focus shifted to the harvest of species such as aspen, spruce, and jack pine for pulp production. By mid-century, the forests around Kettle Falls would have been primarily composed of young, early successional species with very few large trees standing.

The resulting upland forests around Kettle Falls today are mostly mid-successional stands that are 60-120 years old. Pines tend to dominate on the drier hilltops and sites where the soil is thinner, while a mixed boreal community of spruce, fir, aspen, and birch comprise the remaining upland sites. These mixed boreal stands appear to have more conifers (spruce and fir) and less aspen and birch than the past vegetation before logging. This is likely a result of the forests getting older combined with decades of fire suppression in the area. As with the rest of

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9. NPSpecies, Park Species List, <https://irma.nps.gov/NPSpecies/Search/SpeciesList/VOYA> as accessed November 8, 2019.

Voyageurs National Park, there are wetlands (forested and non-forested) interspersed within these upland forests, as previously noted in the Wetlands section.

**Invasive Species (Vegetation).** Invasive plants are surprisingly sparse at Kettle Falls given the amount of development and visitation that the area supports. Canada thistles have been a problem in the spray fields but a concerted effort by NPS staff in recent years is controlling these infestations. Reed canary grass can be found in patches but most are small, dispersed populations. Hybrid cattails may be found in some of the shoreline marshes. There are also some historic ornamental shrubs in the Namakan landing area and along the east side of the pathway to the dam overlook but these do not appear to be spreading and are not currently considered a problem.

**Special Status Species (Vegetation).** There are no federally listed threatened or endangered plant species identified within St. Louis County, Minnesota at the time of this publication.

The State of Minnesota<sup>10</sup> recognizes 101 vegetation species<sup>11</sup> as endangered, threatened, or of special concern within St. Louis County. Of those 101 countywide species, table 6 describes those with the most potential to occur within the park boundary or specifically within the Kettle Falls project area, although there is no inventory specific for Kettle Falls at this time.

**Table 6. State of Minnesota Vegetation Species of Concern With Potential to Occur in the Park or Project Area**

Common name	Scientific name	Group	State status	Notes
Floating Marsh Marigold	<i>Caltha natans</i>	vascular plant	endangered	In park but not in Kettle Falls area.
Coastal Sedge	<i>Carex exilis</i>	vascular plant	special concern	Probably present in park.
Water Pygmyweed	<i>Crassula aquatica</i>	vascular plant	threatened	Present in park.
Three-stamened Waterwort	<i>Elatine triandra</i>	vascular plant	special concern	Present in park.
Northern Oak Fern	<i>Gymnocarpium robertianum</i>	vascular plant	special concern	Present in park.
Creeping Juniper	<i>Juniperus horizontalis</i>	vascular plant	special concern	Present in park.
Lapland Buttercup	<i>Ranunculus lapponicus</i>	vascular plant	special concern	Present in park.
Soapberry	<i>Shepherdia canadensis</i>	vascular plant	special concern	Present in park.
Awlwort	<i>Subularia aquatica</i> <i>ssp. americana</i>	vascular plant	threatened	On park list but unknown if subspecies is present
Torrey's Mannagrass	<i>Torreyochloa pallida</i>	vascular plant	special concern	Present in park.

10. Minnesota Department of Natural Resources, Minnesota List of Endangered, Threatened, and Special Concern Species, [https://files.dnr.state.mn.us/natural\\_resources/ets/endlist.pdf](https://files.dnr.state.mn.us/natural_resources/ets/endlist.pdf) as accessed August 20, 2019.

11. Including fungus, lichen, moss, and vascular plants.

Common name	Scientific name	Group	State status	Notes
Oregon Woodsia	<i>Woodsia oregana ssp. cathcartiana</i>	vascular plant	special concern	On park list but unknown if subspecies is present

## Wildlife

The park is home to more than 100 species of birds and more than 50 species of mammals.<sup>12</sup> At Kettle Falls, it is common to see white-tailed deer, black bears, bald eagles, and occasionally moose or gray wolves (figure 9). Lake sturgeon, a State of Minnesota<sup>13</sup> Species of Special Concern, and other fish species spawn below the Kettle Falls Dam.

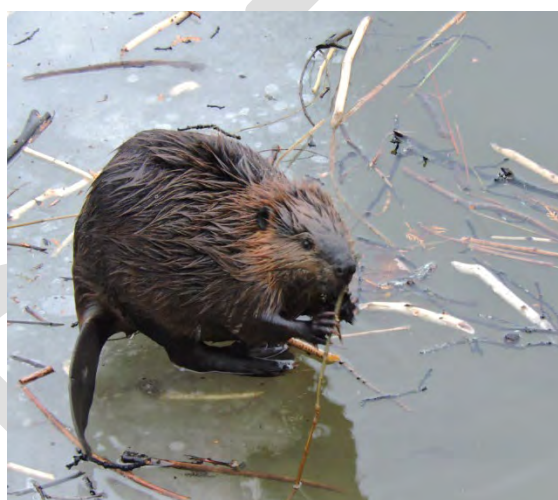


FIGURE 9: WILDLIFE

**Invasive Species (Wildlife).** There are no known invasive wildlife species identified within St. Louis County, Minnesota at the time of this publication.

### Special Status Species (Wildlife).

A US Fish and Wildlife Service (FWS) species by county report<sup>14</sup> includes the following federally threatened or endangered species that are known to or are believed to occur within St. Louis County. The same species also are known to or are believed to occur within the park or within the Kettle Falls project area.

- Canada Lynx (*Lynx Canadensis*) – threatened
- Gray Wolf (*Canis lupus*) – threatened
- Northern Long-eared Bat (*Myotis septentrionalis*) – threatened

12. NPSpecies, Park Species List, <https://irma.nps.gov/NPSpecies/Search/SpeciesList/VOYA> as accessed November 8, 2019.

13. Minnesota Department of Natural Resources, Minnesota List of Endangered, Threatened, and Special Concern Species, [https://files.dnr.state.mn.us/natural\\_resources/ets/endlist.pdf](https://files.dnr.state.mn.us/natural_resources/ets/endlist.pdf) as accessed August 20, 2019.

14. US Fish and Wildlife Service, Endangered Species, <https://ecos.fws.gov/ecp0/reports/species-by-current-range-county?fips=27137> as accessed May 15, 2019.



Although included on the federal list for St. Louis County, the following species have not yet been documented inside the park or at Kettle Falls:

- Piping Plover (*Charadrius melodus*) – endangered
- Red knot (*Calidris canutus rufa*) – threatened

St. Louis County also provides critical habitat for both the Canada Lynx and the Gray Wolf. The US Fish and Wildlife Service defines critical habitat, as “...a term defined and used in the Endangered Species Act. It is specific geographic areas that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery.”<sup>15</sup>

The State of Minnesota<sup>16</sup> recognizes 69 wildlife species<sup>17</sup> as endangered, threatened, or of special concern within St. Louis County. Of those 69 countywide species, table 7 describes those with the most potential to occur within the park as a whole or within the Kettle Falls project area.

**Table 7. State of Minnesota Wildlife Species of Concern With Potential to Occur in the Park or Project Area**

Common name	Scientific Name	Group	State Status	Notes
Lake Sturgeon	<i>Acipenser fulvescens</i>	fish	special concern	Present in park.
Canada Lynx	<i>Lynx Canadensis</i>	mammal	special concern	Present in park.
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	mammal	special concern	Present in park.
Moose	<i>Alces americanus</i>	mammal	special concern	Present in park.

**Migratory Birds.** Bald eagle (*Haliaeetus leucocephalus*) breeding season is December 1 to August 31 and its presence during the month of July is probable in the project area—although no nests have been detected in recent years. The US Fish and Wildlife Service does not consider the Bald eagle a “Bird of Conservation Concern” in this area, but it does warrant attention because of the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) or for potential susceptibilities in offshore areas from certain types of development or activities. The FWS has prepared Nationwide Bald Eagle Guidelines<sup>18</sup> (May 2007) to guide development activities within its range.

15. US Fish and Wildlife Service, Listing and Critical Habitat, Critical Habitat, Frequently Asked Questions, <https://www.fws.gov/endangered/what-we-do/critical-habitats-faq.html> as accessed May 15, 2019.

16. Minnesota Department of Natural Resources, Minnesota List of Endangered, Threatened, and Special Concern Species, [https://files.dnr.state.mn.us/natural\\_resources/ets/endlist.pdf](https://files.dnr.state.mn.us/natural_resources/ets/endlist.pdf) as accessed August 20, 2019.

17. Including mammals, amphibians, birds, mussels, fish, reptiles, snails, insects, and spiders.

18. US FWS, National Bald Eagle Management Guidelines, <https://www.fws.gov/northeast/ecologicalservices/eaglenationalguide.html> as accessed November 5, 2019.

## **CULTURAL RESOURCES**

### **Archeological Resources**

As a landmark, a portage, and as an excellent fishery, the Kettle Falls area has historically been a significant location for people living on and around the Kabetogama Peninsula. Undoubtedly, the falls were an important pre-contact location as well. For example, six pre-contact archeological sites have been located in the project area. Three of these date to the Archaic Period (circa 8000 BCE to 150 CE), one dates to the Woodland Period (circa 1000 BCE to 1700 CE), and two have undetermined dates. The Archaic sites are particularly significant; archeological sites dating to this time period are rare, with fewer than 20 recorded in the park.

There is also considerable potential for additional pre-contact sites to be present in the project area as:

1. The area has rich fishing opportunities and is located on a natural travel route.
2. Nearly all pre-contact sites in Voyageurs are located near shorelines.
3. Since the construction of the Kettle Falls Dam, lake levels are frequently several feet higher than natural pre-dam levels; there is a high potential for inundated sites to be present just offshore of the project area.
4. Portions of the project area are densely covered by forest; minimal ground visibility significantly restricts the ability of archeologists to detect sites.

Although post-contact cultural resources in the project area date primarily to the early 20th century or later, historic documents record Ojibwe, European, American, and Canadian use of the Kettle Falls well before this time. For example, from the late 17th to the mid-19th century, Kettle Falls was a portage on a major fur trade route and, as early as 1819, Ojibwe groups are reported as having lived, fished, and traded at the falls; at times, these groups consisted of several hundred individuals. Beginning in the late 19th century, the falls was a stopping-off place for steamboat travel between Namakan Lake and Rainy Lake and a market for commercial fishermen. Archeological resources associated with these activities may be present at Kettle Falls, especially in areas just off the modern shore.

In contrast to earlier periods, the 20th century is well represented by numerous buildings and structures composing the Kettle Falls Historic District, which is listed on the National Register of Historic Places. The district's period of significance is defined as from circa 1910-1934; events associated with this time include construction of the Kettle Falls dam, construction of the hotel, growth of a small residential community and supporting services, commercial fishing, logging, and recreation. The draft 2020 CLR proposes to extend the period of significance to 1964, which would capture the full hotel ownership and management by the Williams family who ran the Kettle Falls Hotel from 1918 to 1964. The extended period of significance would also capture additional buildings that figured prominently in the operation of the portage and hotel.

### **Historic District / Cultural Landscape**

There is little physical evidence of post-contact use before the early 20th century. However, the 20th century is well represented by numerous buildings and structures composing the Kettle Falls Historic District, which was listed on the National Register of Historic Places in 1978. The Historic District includes more than 50 archeological sites, 7 historic structures, and numerous cultural landscape features. The district's period of significance is defined as from 1910 to 1934, which includes the construction of the dam, the hotel, and other buildings related to

commercial logging and fishing, and includes the years of economic transition from commercial to recreational uses. Many of these structures are described in the 2015 Cultural Landscape Inventory (CLI).

The draft 2020 CLR uses information from the Cultural Landscape inventory and proposes to revise the end date to 1964, which would capture the continuation of ownership and management under the Williams family.. The extended period of significance would also capture additional buildings that figured prominently in the operation of the portage and hotel.

The most prominent built feature at Kettle Falls is the namesake Kettle Falls Hotel and its direct route to the water's edge. The first wing of the hotel was constructed in the 1910s by timber cruiser Ed Rose and has accommodated and entertained travelers ever since. Robert Williams bought the hotel in 1918 for \$1,000 and 4 barrels of whiskey beginning a long tradition of hearty home cooking and hospitality served by the Williams family. The hotel was renovated by the National Park Service between 1986 and 1987, allowing visitors to continue to enjoy the iconic hotel. In addition to the historic hotel, other facilities or sites that contribute to the historic district include:

- Damtender's Cabin (ca. 1910-1913)
- Kettle Falls Dam (ca. 1910-1914) — (currently owned by Package Corporation of America (PCA) on the United States side of the international boundary and H2O Power, an Ontario company, on the Canadian side)
- Horse barn ruin (ca. 1910-1919)
- Company House (1945)
- Fuel storage near Company House (1945)
- Dockhouse, Rainy Lake (1950)
- Kettle Falls laundry/storage (1955)
- Fuel storage, Rainy Lake (1960s)
- Boat house, Namakan (1964)
- Kettle Falls fish cleaning house (1964)

Additional buildings and structures at Kettle Falls throughout its history that have *not* survived, include a forge, a log customs house/post office, the Chris Monson trading post, the Jack Ryan trading post, the Bill Humphrey cabin at the dam, an ice house, a barn and log cabin near the hotel, and an ice house near the log damtender's cabin. The remains of several cabins are still visible near the dam including those of blindpiggers<sup>19</sup> John and "Jazzbo" Beaton and Charles and Nellie Kampman, Madame Carr, and Lumberjack Smith. More recent buildings that have been removed include a bunkhouse, rental cabins, annex/dormitory, a shower house, and a variety of sheds.<sup>20</sup>

The landscape retains its historic integrity, and with its mix of historic and modern buildings, it retains its spatial organization. The only notable exception is the gradual infilling of vegetation along the main entrance road, which has altered the view of the hotel from the Rainy Lake landing (figure 10).

19. A blind pig refers to an illicit speakeasy that sold alcoholic beverages during the Prohibition era.

20. NPS Cultural Landscapes Inventory, September 2005, Kettle Falls Historic District.



FIGURE 10. DAM OVERLOOK AND HOTEL LANDSCAPE VIEW (POST 1977)

## FACILITIES AND INFRASTRUCTURE

Over time, facilities have been added to Kettle Falls to modernize the visitor experience or to streamline park operations (figure 11). The National Park Service added guest and staff villas in 1988 and other facilities that improve the visitor experience like docks, trails, and comfort stations. Supporting facilities like maintenance buildings, fuel pumps, utilities and septic systems (appendix C), and other facilities were added or improved up through the 1990s and 2000s.

Some of these facilities are in need of repair or updating; the trail system has been rated as being in poor condition, the fueling stations are in fair to good condition, and the tour boat bulkhead is in need of repair. There are pending work orders to address these needs. The Dam Overlook is anticipated for replacement in 2020. Appendix C also contains a summary of a Kettle Falls condition assessment. Other work orders may be prepared in the interim before plan completion.



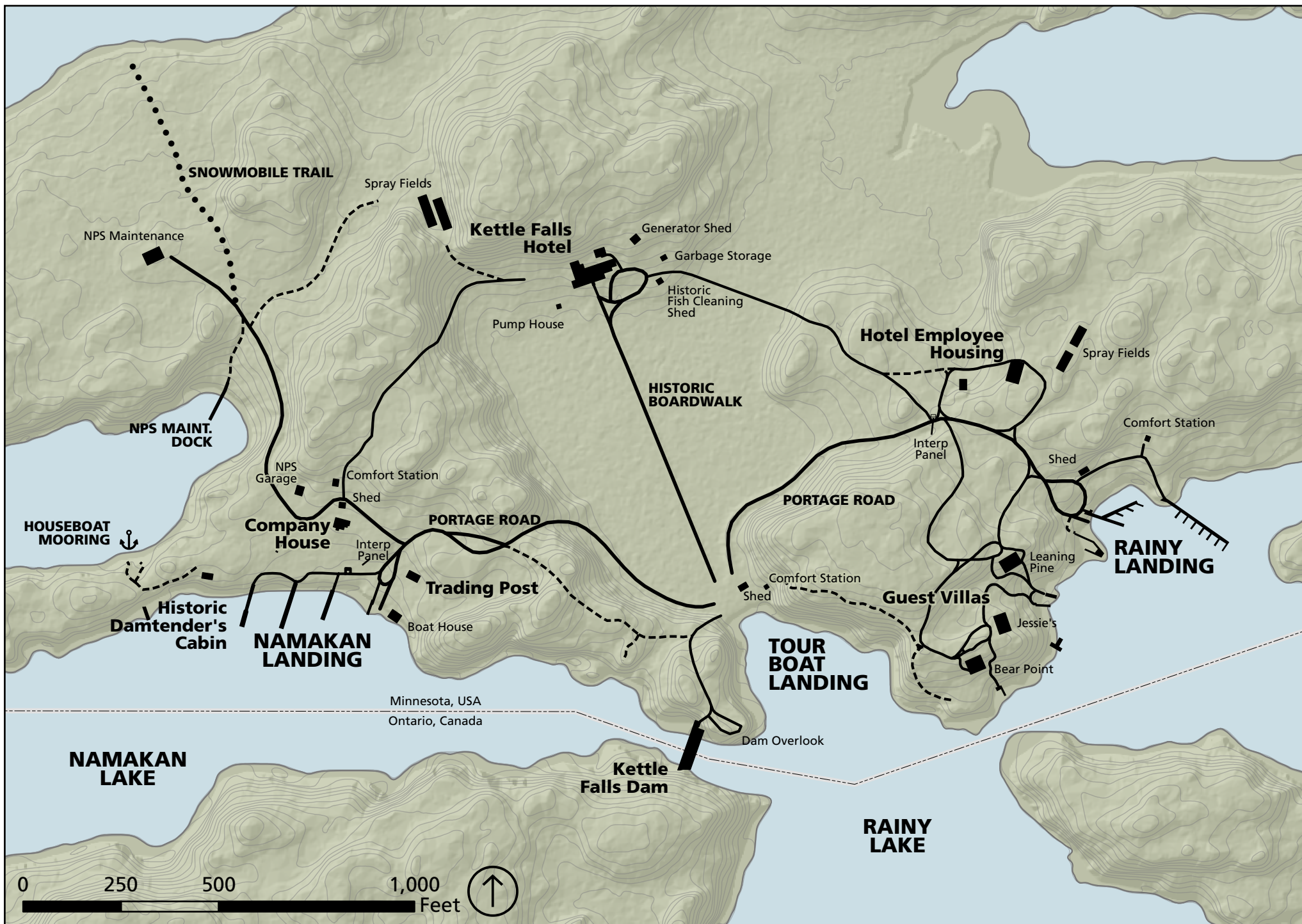


FIGURE 11: EXISTING FACILITIES & INFRASTRUCTURE (NO-ACTION)

## VISITOR SATISFACTION

Early results from an ongoing visitor survey measuring satisfaction with lodging, marina, food and retail areas of the park indicate general satisfaction. However, the condition or appearance of the lodging facilities rated slightly lower at 88 and marinas rated 58 (out of a maximum score of 100). One write-in comment suggested a need for additional dock space. An average length of stay was reported to be 2 to 5 days. More than 80% of people have visited the park previously, with 83% visiting more than once per year. The survey respondents' self-reported age range was 41-50 years old (or older) and were equally split between male and female. These informal results are based on a low response rate of 3 to 31 visitors per survey topic and may not be statistically valid but do reflect some aspects of the purpose and need for this plan.

## VISITATION AND SPENDING

Access to Kettle Falls is primarily by boat or float plane in the warmer months and by snowmobile in winter months. The hotel offers a ferry service for visitors that may be scheduled during the time of overnight reservations. Most visitation occurs during a 90-day period during the summer months. Although the historic hotel is only open from May to October, it is a winter destination point for snowmobilers.

### Visitation and Trends

The park welcomes about 230,000 visitors each year (table 8). The table below presents annual park visitation from 2009 to 2018; however, the visitor counting procedures were changed twice during this time frame. In 2010 and 2013, the National Park Service implemented new counting procedures, which may account for some of the variation in visitation rates. As previously noted, the majority of park visitation occurs between May and September (figure 12). Of the 230,000 visitors to Voyageurs National Park, approximately 4,000 overnight visitors to the Kettle Falls Historic District per year. Day use visitors to Kettle Falls include individual boaters and passengers who arrive on one of the park's guided tour boats. The historic district is located within the Kettle Falls developed area and is the only primary development area within the park not accessible by car.

**Table 8. Summary of Parkwide Visitor Use by Year (2009–2018)**

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
222,429	253,891	177,184	214,841	233,390	239,160	238,313	241,912	237,250	239,656	229,809

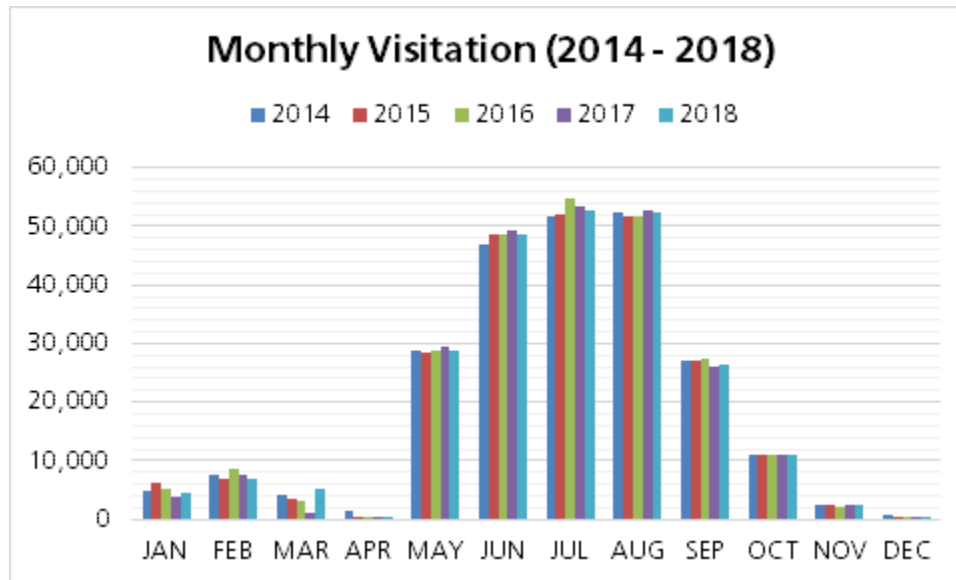


FIGURE 12. PARKWIDE MONTHLY VISITATION (2014–2018)

### Visitor Spending (2012–2018)

Park visitors helped create an overall economic impact within the state of Minnesota<sup>21</sup> totaling \$23.9 million and provided 283 jobs in 2018. More than 98.6% of visitor spending came from non-locals (defined as those who travel to NPS sites from outside the local gateway regions). Figure 13 illustrates annual visitor spending in local gateway communities while visiting Voyageurs National Park from 2012 to 2018.

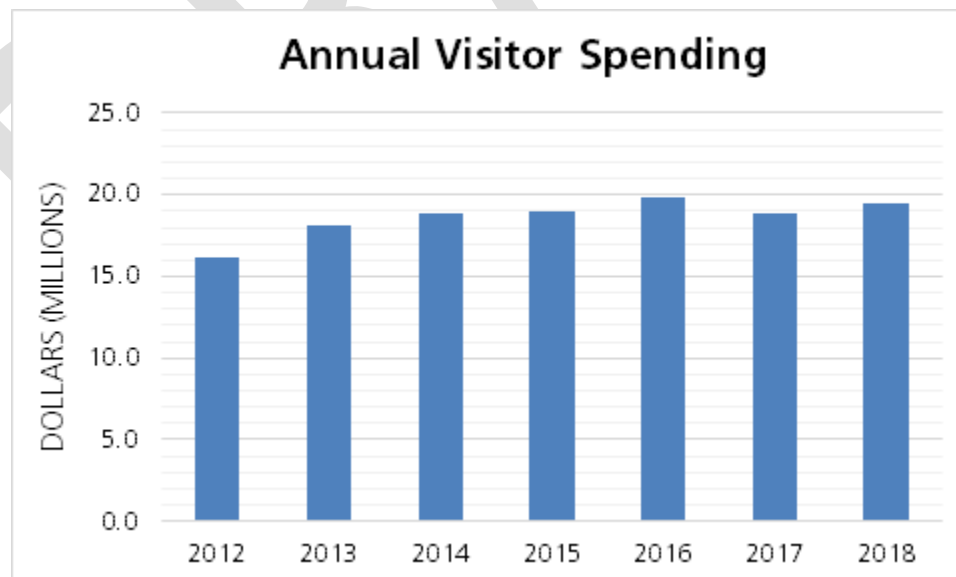


FIGURE 13. ANNUAL VISITOR SPENDING (2012–2018)

21. Visitor Spending Effects – Economic Contributions of National Park Spending, <https://www.nps.gov/subjects/socialscience/vse.htm> as accessed June 4, 2019.

### Day Use (2013–2018)

In 2018, there were two guided boat tours traveling to the Kettle Falls area, departing from both Kabetogama and International Falls, Minnesota (table 9). The Kabetogama cruise boards the *Amik* tour boat at the Kabetogama Lake Visitor Center and takes visitors on a cultural and natural history tour of the park; the total tour time is 5.5 hours. The tour generally operates from mid-June through the end of August, four times per week. In September, the tour runs for two weeks, three times per week.

The International Falls cruise boards the *Voyageur* tour boat (figure 14) at the Rainy Lake Visitor Center and is similar to the Kabetogama Lake cruise; total tour time is 6.5 hours. The tour generally operates from mid-June through the end of August, four times per week. In September, the tour runs for two weeks, three times per week. On either tour, visitors spend about two hours at Kettle Falls dining and touring the site and nearby dam.

**Table 9. Commercial Guided Boat Tours (Trips / Passengers) by Year (2013–2018)**

-	2013	2014	2015	2016	2017	2018	Annual Average
Kabetogama	33 / 549	30 / 402	50 / 402	47 / 801	62 / 997	76 / 1193	50 / 724
Rainy	0 / 0	15 / 411	10 / 411	3 / 130	6 / 114	66 / 2648	17 / 619
Total	33 / 549	45 / 813	60 / 813	50 / 931	68 / 1,111	142 / 3841	

Since 2013, an annual average of 50 trips have been offered from Kabetogama Lake Visitor Center, while an annual average of 17 trips have departed from the Rainy Lake Visitor Center. This is likely because of the different minimum number of passengers required from the departing locations. A minimum of six passengers are required for the tours departing from Kabetogama Lake, and a minimum of 22 passengers is required for tours departing from Rainy Lake. Therefore, while the tour may operate four times per week during the busy summer season, this rarely occurs at this frequency because of the failure to meet the minimum number of passengers required.

Between 2013 and 2018, guided tours departing from Kabetogama Lake Visitor Center hosted an average of 15 visitors, while tours departing from Rainy Lake hosted an average of 36 visitors per trip.





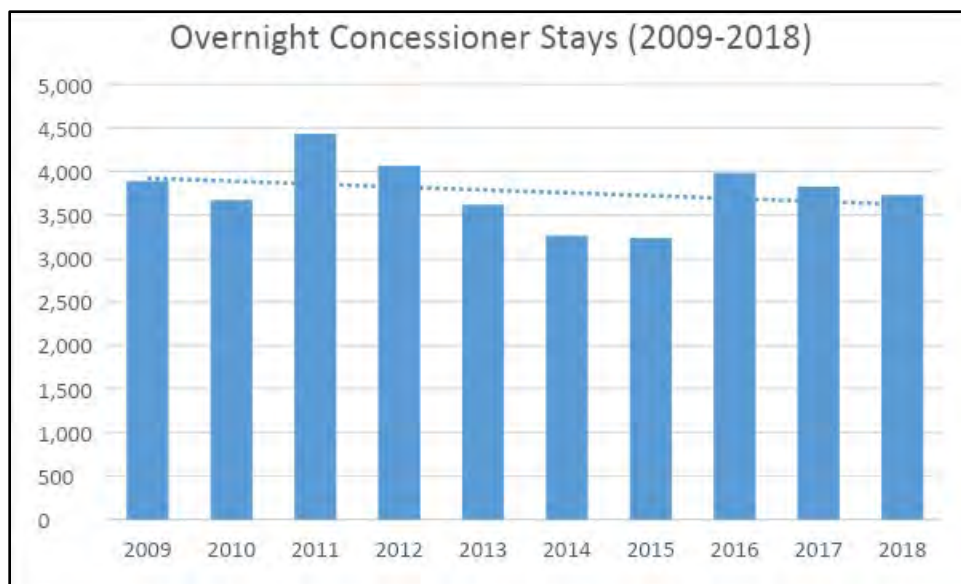
**FIGURE 14. THE VOYAGEUR TOUR BOAT AT THE KETTLE FALLS DOCK**

Four companies operate houseboat rentals inside the park. Two houseboat companies operate out of the Namakan basin (55 rental boats) and two companies out of Rainy basin (45 rental boats). There is an unknown level of privately-owned houseboat usage in the park; however, there is an active houseboat owner association. There are three houseboat tie-up spaces on the Namakan Lake side (Houseboat Bay) of Kettle Falls for day-use, limiting the number of houseboats docked at one time. There are no houseboat tie-up spaces on the Rainy Lake side of Kettle Falls.

Seaplane use is permitted but accounts for such a small percentage of overall visitation that details are not readily available.

### **Overnight Uses (2009-2018)**

The historic Kettle Falls Hotel and modern guest villas have welcomed an average of 3,700 overnight visitors each year between the months of May through September for the past 10 years. On average, July is the busiest month receiving nearly 1,000 overnight guests. Guests of the villas stay an average of three nights because of current reservation requirements; and guests of the hotel may book in one-day increments. In the past 10 years, overnight concessioner lodging stays have shown a slight decreasing trend (figure 15). Concessioner employees also utilize hotel and guest villa space for their on-site living accommodations, removing those rooms from availability to visitors. The hotel currently offers 11 rooms to visitors and can generally accommodate two people per room. The guest villas, on the other hand can be reserved in various configurations and can accommodate up to 24 beds per villa. Additional details can be found in the Visitor Use and Capacity section.



**FIGURE 15. OVERNIGHT CONCESSIONER STAYS (2009–2018)**

Parkwide, more than 36,000 backcountry campers per year visit the park, typically during 10 months of the year (table 10). Backcountry camping has not been available at Kettle Falls but remains a popular use throughout the rest of the park.

**Table 10. Parkwide Backcountry Camping by Year (2009–2018)**

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
17,776	35,560	21,915	28,837	21,807	31,941	50,462	46,451	53,539	59,499	36,779

### **Winter Uses (2009–2018)**

Snowmobile use (9,000 on average, annually) and cross-country skiing (700 on average, annually) are two popular winter uses that occur parkwide. Both activities typically occur only in January, February (peak month), and March, and occasionally in December.

A lack of winter-proofed facilities limits the park from fully capturing a range of winter uses at Kettle Falls, although some snowmobilers (figure 16) do access the Kettle Falls location via a designated snowmobile route. Opening and closure of the winter trail corridor is determined on an as-needed basis to maintain public safety.



**FIGURE 16: A VISITOR SNOWMOBILING ACROSS A LAND PORTAGE**

## **CONCESSION-BASED OPERATIONS**

Commercial services for the Kettle Falls area are operated under a concession contract generally from mid-May to mid-September each year. The concessioner provides required and/or authorized services as outlined in its contract to visitors. Required services include hotel management, villa management, full-service restaurant, round-trip boat transportation for guests from Ash River to Kettle Falls and back, marina services, retail sales of souvenir and camping supplies, and boat portage services. Some of those additional services include onsite sales of alcohol, fishing guide services, kayak and canoe rental, dockside electrical hookups, general merchandise sales, and others. This is a Category II contract, which stipulates that the concessioner perform annual upkeep on the facilities assigned to it, but it does not allow major improvements or expansion by the concessioner.

The remote location of Kettle Falls requires that concession employees live onsite. These staff currently reside in the hotel, an employee-only villa, portions of a guest villa that could be used for guest accommodation, seasonal rental of the Company House that is not assigned to the concessioner, and a temporary recreational vehicle belonging to the concession operator.

The existing concession contract expires on December 31, 2020. Prospectus development for the new concession contract commenced in May 2017 and will be released to the public in fall of 2020.

## **PARK ADMINISTRATION**

The park typically employs about 35 full-time employees. Additionally, the park may employ about 50 seasonal or temporary employees (depending on project funding) each year. Staff are distributed by region within the park or serve the entire park.

The park also benefits from volunteers and interns each year. Interpretive volunteers assist in staffing the visitor centers and in offering programs. Resource volunteers assist with cultural inventory work, natural resource management field studies, and with data gathering. In 2019, 102 Volunteers in Parks (VIPs) provided the park with about 15,800 hours of their time. The Independent Sector estimated the value of volunteer time for Minnesota was \$28.15 per hour in 2018<sup>22</sup>—this is a total value of nearly \$445,000 to the park.

The park's official partner is the Voyageurs National Park Association; they raise funds for the park, provide representation at social events, and assist in marketing efforts. Merchandise and educational materials are provided through a partnership with the Jefferson National Park Association.

## **PUBLIC SAFETY**

Parkwide, the staffing level for law enforcement and safety has ranged from five to nine personnel, increasing for the busier summer season.

- Summer staff: one Chief Ranger, one Field Operations Supervisor, three Field Permanent Rangers, four summer seasonal employees
- Off-season staff: one Chief Ranger, one Field Operations Supervisor, three Field Permanent Rangers

The park also has a fire technician and a fire program management assistant that are based at the park; those staff also serve the Regional Office and other border parks' wildland fire group.

Parkwide, law enforcement staff contact thousands of park visitors over the course of a year as they perform boat safety inspections, fishing compliance checks, and check campsites for violations. There are approximately six boat accidents reported in a typical summer (usually consisting of minor damage to the lower unit of the boat); about six emergency medical service calls; and about 12 to 20 search and rescue events.

At Kettle Falls, effective communications via radio repeater can be a challenge for law enforcement staff. There are no park repeaters nearby, and internet and phone service is limited within the Kettle Falls area.

## **FINANCES**

### **Operating Budget and Donations**

The park's operating budget was \$4,128,376 for FY2019. Annual donations come primarily from Voyageurs National Park Association; for example, in FY2019 the association donated \$13,800.

- There is one iron ranger at Ellsworth Rock Gardens. Currently, those funds are used for bulbs for planting at the gardens with the resource team.
- There are three donation boxes (one at each visitor center), and those funds are spent on interpretive programming needs and activities.

As of 2019, Jefferson National Parks Association holds the funds for the three visitor centers, and the park holds the funds for Ellsworth. However, the park is in the process of

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22. Independent Sector, Value of Volunteer Time (2018), State of Minnesota, <https://independentsector.org/value-of-volunteer-time-2018/> as accessed October 31, 2019.

switching over the signage on all the boxes, and Voyageurs National Park Association will collect and hold the funds in all donation boxes. The park is working towards getting a donation box at Kettle Falls and on the Voyageur tour boat.

### **Deferred Maintenance**

Parkwide deferred maintenance is \$9,843,565.<sup>23</sup> Of that total, about \$1,269,956 is attributed to the Kettle Falls area.

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23. Identifying and Reporting Deferred Maintenance, Fiscal Year 2018 Reports, <https://www.nps.gov/subjects/infrastructure/identifying-reporting-deferred-maintenance.htm> as accessed June 5, 2019.

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## CHAPTER 4: PRELIMINARY ALTERNATIVE(S)

The desired conditions demonstrate how visitors might experience Kettle Falls in the future. The preliminary alternative are ways that park can meet those conditions. The preliminary alternative describes the recreational and historic or interpretive opportunities that would be available to visitors in the future. The preliminary alternative also includes facilities that would be needed to support visitors, including docks and a range of lodging options, to support those future conditions. The preferred alternative will be identified within the environmental compliance document that will follow this plan.

### DESIRED CONDITIONS (OBJECTIVES)

The desired conditions are objectives meant to provide the National Park Service with guidance for fulfilling the park's purpose and for protecting the park's fundamental resources and values as well as addressing the management issues found at Kettle Falls. Desired conditions articulate the ideal conditions the National Park Service is striving to attain and express how resources should look and function in the future; desired conditions do not necessarily reflect what exists today. *It is important to note that some desired conditions would be achieved through the alternative(s) in this plan as well as through future actions outside of this planning effort.* The desired conditions are important to the overall management concept for the Kettle Falls area.

After review of the park's 2016 foundation document, 2002 GMP, and other similar planning documents, the National Park Service developed the following desired conditions for the Kettle Falls planning area. These conditions correspond to planning issues previously identified.

#### Overnight Use

- Visitor lodging
  - Provide a broader range of opportunities for visitors, both in stay type and cost.
  - Expand the shoulder season and types of uses for visitors.
- Concession employee housing
  - Provide an adequate number of bedrooms and indoor and outdoor living space for a sustainable concession operation at Kettle Falls. (Optimal number is 20-22 people, with no more than two people per bedroom.)
- NPS staff housing
  - Maintain the Company House as an NPS staff or volunteer living space during the summer months.

#### Approach, Access, and Docking

- Houseboat access
  - Identify suitable day and/or overnight locations at both Namakan Lake and Rainy Lake that avoid environmental constraints (e.g., water level, poor shoreline, trail access, avoidance of archeological sites, etc.).
  - Provide day-use sites at Surveyor's Island.
- Seaplane access
  - Provide access near the Kettle Falls site to accommodate private and commercial seaplanes.



- Docks
  - Improve and update docking at day-use area/finger docks at both Namakan Lake and Rainy Lake.
  - Improve and update the tour boat landing.
  - Improve welcoming messaging at both Namakan Lake and Rainy Lake.
- Emergency landing area
  - Identify an appropriate location for emergency helicopter landings, in or near Kettle Falls.

#### Landscape Changes or Enhancements

- Clarify zoning and appropriate uses
  - Maintain existing management zones from the 2002 GMP.
  - Use Cultural Landscape Report recommendations to maintain historic character.
  - Improve the overall look and feel of the three main visitor nodes (Kettle Falls Hotel, Namakan Lake side, Rainy Lake side) to include welcoming signage and information.
- Restrooms (Comfort Stations)
  - Provide adequate restroom facilities within the Kettle Falls area.
- Kettle Falls Hotel
  - Define appropriate outdoor space (by location and design) to serve as interpretive and/or social areas while maintaining the cultural landscape.
- Guest Villas
  - Improve and define outdoor spaces at all guest villas (upper and lower areas).
- Dam Overlook
  - Improve the viewing experience with an overlook design that blends into the surrounding landscape.
  - Allow non-motorized uses onto viewing platform only.
- Damtender's Cabin
  - Retain historic setting and character of the cabin and its cultural landscape.

#### Circulation and Accessibility

- Trails and Roads
  - Define and develop standards for roads, golf cart paths, and pedestrian trails.
  - Provide a trail system to connect tent campground to Surveyor's Island cove.
  - Provide an accessible trail to the Dam Overlook for visitors.
  - Allow motorized use on the trail to Dam Overlook that would accommodate dam owner's equipment and administrative uses.
  - Provide an access trail from villa docks to guest villas.
  - Identify a Beast Lake trail connection (separate process to develop a trail).
- Accessibility
  - Provide programmatic accessibility at all destination sites or physical accessibility where feasible and appropriate (example, restrooms and potable water sources).
  - Develop an accessibility transition plan for the Kettle Falls destination site (separate process).
- Signage
  - Provide updated and cohesive signage and wayfinding throughout Kettle Falls.

- Interpretation (*These conditions would be pursued via separate processes but are important to the overall management concept for the area.*)
  - Include tribal government partners when developing interpretive and educational materials for Kettle Falls.
  - Develop a detailed interpretive plan for the Company House that includes connections to the Dam Overlook and the Damtender's Cabin.

Concessions and Services (*these conditions would be pursued by ongoing research from concessions contracting staff and park staff but are important to the overall management concept for the area*)

- Research the types of summer-based opportunities available at Kettle Falls.
- Research the types of winter-based or shoulder season opportunities available at Kettle Falls.

Utilities (*these conditions would be pursued via multi-year research projects or other independent processes but are important to the overall management concept for the area*)

- Provide reliable utilities to serve visitors with minimal impacts to resources.
- Research drinking water and wastewater systems for potential upgrades to accommodate year-round visitation.

## PRELIMINARY ALTERNATIVES

This section details and compares the continuation of current management and maintaining existing facilities to the preliminary alternative. A preliminary alternative is the initial NPS proposal designed to meet the purpose and need for action, including resource protection, visitor use and experience, and site development needs and objectives for the Kettle Falls planning area. The draft preliminary concepts were presented to stakeholders and the public for initial feedback; they were then revised and developed into the alternative presented herein. The locations for site development or conceptual designs are provided by the figure(s) noted to demonstrate the action. *Note that some actions may require follow-up consultations with tribal historic preservation offices, state historic preservation offices, or other consulting agencies.*

### Alternative A: No Action - Existing Facilities, Infrastructure, and Management

This alternative represents a continuation of current management practices and maintaining existing facilities and infrastructure in its current condition. Some planned projects would continue to move forward. The continuation of current management practices are arranged by planning issue. *Figure 11 shows existing facilities.*

#### Overnight Use

- Visitor lodging
  - The Kettle Falls Hotel would continue to offer 11 hotel rooms for visitors, with shared restroom facilities.
  - The three guest villas would continue to be combined in multiple ways to accommodate visitors with a total of 8-10 units:
    - Two villas with four units (16 beds total);
    - One villa with two units (eight beds total).

- Camping
  - Limited tent camping would continue to occur within the Kettle Falls developed area.
- Concession employee housing would continue to occupy:
  - Hotel
    - One to two people in one “manager's room” and occupy one additional hotel room (one bed).
  - Guest Villas
    - Two units of a guest Villa (eight beds).
  - Employee-only Villa
    - One employee-only Villa (16 beds).
  - One temporary recreational vehicle (RV) or camper (currently with one bed and one loft) would be shuttled out to Kettle Falls starting in summer 2019 and 2020. The RV would be located near the employee villa/water treatment field. *Note: This RV is concession owned property and may be removed at the discretion of the owner.*
  - Company House
    - The Company House would continue to house concession employees during the summer concession operating season; three rooms and three beds would continue to be available for this purpose.
- NPS staff housing would continue to not be available.

Approach, Access, and Docking

- Houseboat access
  - Namakan
    - Continue to allow up to four houseboats to rope off at the designated rock location for day-use only with no overnight uses allowed.
  - Rainy
    - Continue to have no designated houseboat docking / houseboat anchoring areas.
    - Houseboats may continue to tie off near/at the American Channel; this allows some informal access for day-use only with no overnight use allowed.
  - Surveyors Island
    - Continue to have no designated houseboat sites, only informal day-use access.
- Seaplane access
  - All Lakes
    - Although all seaplanes would continue to use the Namakan Lake side for landings, fixed-wing aircraft (private and one commercial permit) would continue to be allowed on the four major lakes (per the 2002 GMP).
    - Seaplanes would continue to use open space on existing dockage.
- Docks: the total number of docks would not increase.
  - The Improvement of Docking Systems at Kettle Falls (PMIS 177888) project would continue through the funding process. Scope is for repairing existing dock systems in FY2021.

- Namakan Lake
  - Existing six docks, which includes the NPS maintenance dock, would continue to accommodate 30 boats, with 24 for visitor parking and the remaining six for NPS maintenance docking.
- Rainy Lake
  - The six docks, plus the tour boat bulkhead, would continue to accommodate 45 boats, of which 25 slips are for visitor boat parking. The remaining docks would continue to be reserved for concession operations including rental boats, gas dock area, and the villa's dock.
  - Houseboats would continue to lack access and would continue to dock elsewhere and take a runabout or skiff to visit Kettle Falls.
- Guest Villa Docks
  - The docks associated with the Villas would continue to be concession-only docks. The concessioner would continue to be required to maintain the docks to NPS standards.
- There would continue to be no identified emergency helicopter landing spot in or near Kettle Falls.

#### Landscape Changes or Enhancements

- Clarify zoning, appropriate use, operational and visitor area definitions
  - The summer use management zone for Kettle Falls would continue to be “developed area - high density” as stated in the 2002 GMP.
  - The winter use management zone for Kettle Falls would continue to be “developed area - motorized frozen lake area” as stated in the 2002 GMP.
  - Concession assigned area(s) would continue as defined and managed by the concession contract.
  - The cultural landscape report would continue to complement the management zones of the GMP with some additional clarification for acceptable uses within those zones.
- Kettle Falls Hotel area landscaping / Day-use site enhancements
  - Social areas outside of the Kettle Falls Hotel would continue to include two picnic tables, a fire pit on the front lawn, and a volleyball net on the side lawn but would otherwise offer few defined social opportunities for visitors.
  - Would continue to be an open grassy area with undefined use.
  - The Hotel area would continue to have undefined areas for concession employees to take breaks.
- Guest Villas area landscaping and exterior site improvements
  - Villas
    - Recreational and social opportunities associated with the villas will continue to be undefined.
    - Lower villas would continue to have an undefined exterior social use area with limited space.
    - Upper villas would continue to have a small exterior social use area.
  - Viewshed
    - Villas would continue to have hindered or blocked views.
  - Trails around villas
    - All villas would continue to have informal (unimproved) pedestrian social trails to the lake.

- Villas would continue to be serviced by a designated cart path.
- Bear Point Clearing (common social area to villas)
  - One undeveloped communal fire pit would continue to be used by all villa guests, although it is primarily associated with the Bear Lake Villa.
- Namakan Lake: day-use site enhancements
  - The Namakan Lake side would continue to offer a defined day-use area with a picnic area, dock, fire ring, and vault toilet.
  - The Trading Post would continue to offer limited seating in front of the building.
  - Visitors would continue to have access to a fueling station, concession-based canoes and kayak rentals.
- Rainy Lake: day-use site enhancements
  - Rainy Lake would continue to offer a vault toilet, fueling station, and concession-based canoes and kayaks rentals.
- Restrooms (Comfort Stations)
  - Kettle Falls would retain the current number and locations of restrooms
- Dam Overlook
  - The project to rehabilitate the Kettle Falls Overlook Viewing Platform Area (PMIS 207242) would continue through the funding and implementation processes.
  - Continue to provide access for dam owner/operator, including for motorized equipment uses (e.g., John Deere gator, portable welder, cherry picker).
- Damtender's Cabin
  - The project to stabilize the Damtender's cabin would continue through funding and implementation processes (PMIS 206401). The project includes:
    - Replace or repair rotting logs
    - Replace or repair roofing
    - Replace and stabilize foundation
    - Improve lighting
    - Treatment for insects
- Company House and area
  - The park would continue to receive special use permit revenue for renting the Company House during summer months to concession staff and in winter months to Dam employees.
  - The Company House would continue to serve as a winter safety backup for staff.

### Circulation and Accessibility

- Accessibility enhancements
  - Accessible options would continue to be available throughout Kettle Falls:
    - Ramp onto hotel veranda
    - Lifts (by request) at the Rainy and Namakan docks
    - Egress to and interior of upper Villas
    - Most vault toilet interiors on Namakan side
    - Vault restroom near dock on Rainy is accessible
    - Dam Overlook renovation (PMIS 207242) would include accessibility enhancements at the overlook
- Signage and Wayfinding
  - Existing signage will remain and would be updated as it becomes outdated or damaged.

- Trails and Roads
  - The project to rehabilitate Kettle Falls Hiking Trails (PMIS 204955) would continue through funding and implementation processes.
  - Generally, trails, cart paths, and designated roads would continue with existing layout, allowing for ongoing maintenance.
- Interpretation
  - Scheduled boat tours would continue to receive interpretive materials and ranger-led talks; however, interpretation on-site would continue to be limited non-personal signage (i.e., two kiosks).

#### Other issues

- Utilities
  - Utilities would generally not increase in capacity and routine maintenance would continue to occur as needed.
  - Electric: The National Park Service would study the replacement of approximately 13 miles of underwater electric line and explore sustainable and alternative options such as solar or hydro-power (this is a separate and ongoing multi-year feasibility study).

### **Alternative B: Preliminary Proposal**

This alternative represents a modification to current management practices and to existing facilities and infrastructure as listed by planning issue. This alternative creates an additional overnight opportunity for visitors and additional day use areas, additional housing for concession employees, improved docking and houseboat mooring, and makes minor landscaping changes. Some previously planned projects to repair or rehabilitate existing structures would continue to move forward. *Figures 17a through 17h show the proposed facility locations or landscaping concepts.*

#### Overnight Use

- Hotel
  - The Kettle Falls Hotel would offer all if its 12 hotel rooms for visitors, with shared restroom facilities.
- Guest Villas
  - The three guest villas would continue to be combined in multiple ways to accommodate visitors with a total of 10 units:
    - Two villas with four units (16 beds total)
    - One villa with two units (eight beds total)
- Kettle Portage Primitive Campground
  - Construct a primitive tent campground (five sites total) with access to new/existing Kettle Falls Trail network and with boat-in access.
  - Location for primitive tent campground:
    - Near the current N16 Kettle Portage Campsite area (at Airplane Bay).
  - Key features of primitive tent campground include:
    - One large site (four tent pads)
    - Four small sites (two tent pads per site)
    - Fire ring (one per site)



- Picnic table (one per site)
  - Bear box (one per site)
  - Vault toilet (one per five sites, 750-gallon tank capacity) within a core area for use by all sites
  - Up to two additional docks (use existing finger docking to extent possible)
  - Accessible trail from the docks (similar to Kabetogama group site)
- Thin trees for fire management and to clear space for camping sites.
- Use the existing NPS reservation system
- Camper Cabins
  - One cabin campground containing up to four structures, each of which should accommodate four to six people.
  - Potential location for camper cabins:
    - The land mass between Airplane Bay and Houseboat Bay.
    - Combine the need to thin trees for fire management with campsite views.
  - Key features of camper cabin campground:
    - Camper Cabin design should be consistent with the “Northwoods Feel” of the surrounding region and includes a small patio space outside each.
    - Four-season opportunity: hard-sided and insulated.
    - Shared central social area with fire pit.
    - Shared vault toilet only. Toilet must be about 300 feet from shore for vault to be pumped out; must have shore access; must be accessible and have two stalls.
    - No running water service.
    - Electric for lighting and heating.
    - Routes to the site must be well defined with walk-in access and a trail from the shoreline.
    - One grill and one picnic table at each site.
    - Cabin guests can get food and drink at hotel.
- Concession Employee Housing
  - Concession employee housing would be modified to occupy existing housing:
    - Kettle Falls Hotel
      - One to two people maximum in one “manager's room” only. (This allows 12 rooms to remain available for visitors.)
    - Company House
      - Not used for concessioner employee housing. Instead used for NPS housing, VIP housing, and/or as a visitor contact station.
    - Employee-only Villa
      - One employee villa, to house eight people maximum (two per room, four rooms).
      - Two of four units have kitchenette (e.g., sink, refrigerator, microwave, stovetop)
      - All units have bathrooms
      - Couples or family appropriate
      - No carpet
      - Ability to dehumidify

- NPS would construct new concession employee housing and living spaces:
  - Common Living Area
    - Build a central “common living area” building that includes a common kitchen and common shower area that serves all concession employees.
  - Common Outdoor Space
    - Designate and develop a common outdoor space that serves all concession employees.
    - Key features of common outdoor space:
      - Fire pit
      - Grill
      - Picnic tables
      - Seating space
      - Multi-purpose lawn area for lawn games, hammocks, etc.
      - Screened-in area
  - New Concession Employee Housing
    - Develop new concession employee housing for up to 16 people. NPS would build this housing. (Category 2 contract stipulates that the concessioner is responsible for cyclic maintenance [e.g., painting, flooring, etc.] )
    - Key features of new concession employee housing:
      - Use NPS prototype housing options with the ability to match exterior finishes to match existing structures
      - To house 16 people maximum (two per room, eight rooms).
      - Dorm style; two-story building
      - Shared restrooms
      - Shared interior living spaces (e.g., lounge area and kitchen)
      - Building should have the ability to lock-up and secure personal belongings.
      - No carpet.
      - Ability to dehumidify.
      - Provide golf cart access and parking.
    - Potential sites for new concession employee housing:
      - Area southeast of existing employee villa spray fields.

#### Approach, Access, and Docking

- Houseboats: would continue to use the existing reservation system to obtain overnight permits.
  - Namakan Lake – Houseboat Bay
    - Designate up to four total dockings.
    - Clearly indicate, with improved signage, that up to two sites are for day use only, and up to two sites may be used for overnight use *or* day use.
    - Each site must be designed to allow reasonable egress from the boat and minimize resource damage.
    - At least one site meets accessibility guidelines, if practicable.

- Namakan Landing – near boat house and fueling station
  - If an accessible site at Houseboat Bay is not possible, provide an accessible drop-off point for “run-about” boat passengers. Day use only.
- Rainy Lake Landing area
  - Designate one houseboat mooring site for day use and overnight, if practicable.
  - Each site must be designed to allow reasonable egress from the boat.
  - Clearly indicate, with improved signage, that the site is for day use or overnight use.
- Rainy Lake – near Surveyors Island
  - Provide up to four total mooring sites near Surveyors Island.
  - Up to two sites may be used for overnight use.
- Seaplanes
  - All Lakes
    - Formalize seaplane use of existing docks.
- Docks
  - Namakan
    - Configure floating dock / finger dock opportunity consistent with existing bulkhead / crib docks. Use only one bulkhead and then configure floating finger docks off bulkhead. No new bulkhead development.
    - NPS maintenance dock retained, signed to clearly indicate for NPS use only.
  - Rainy Lake
    - Upgrade existing electric to marine-grade electric pedestals to allow charging at Rainy Lake docks.
    - Modify existing floating sections of docks to accommodate visitation. No new bulkheads; use two existing bulkheads to meet docking needs by only modifying floating dockage.
  - Rainy Lake Landing for Tour Boats
    - Rehabilitate or replace existing crib docking system. Potential for a floating gangway.
  - Guest Villa Docks
    - Upgrade or replace concession-built docks with docks built to NPS standards and using marine grade equipment for electricity. Use existing bulkheads at villas if practicable.
- Emergency Helicopter Landing
  - Rainy Lake
    - Located toward the end of the Hotel road, near the Tour Boat Landing.
    - Hand-trim vegetation or other obstacles along road to under 18 inches in height within a 75-foot circular safety area (no equipment driven into wetland areas).
    - Provide a 15 foot by 15 foot clear and level area for landing helicopter using the existing road and clear space as practicable. Would not require the installation or development of a formalized (i.e. concrete) landing pad.
    - Add a portable windsock to be deployed in advance of known flights.

Landscape Changes or Enhancements

- Clarify zoning, appropriate use, operational and visitor area definitions
  - Same as Alternative A
- Kettle Falls Hotel area landscaping / Day-use site enhancements
  - Visitor Social Area(s):
    - Fire Ring
      - Developed fire ring and social area that can be used for interpretive programming opportunities.
      - Located at the western edge of lawn (behind volleyball net).
    - Social Area
      - At least 50-feet away from building, at rear of hotel, in lawn area.
    - Established Picnic Area(s)
      - Develop soft-scaped, established picnic area(s) with period-appropriate picnic tables and sufficient trash receptacles.
    - Lawn Games
      - Use lower grassy area (where fire ring is currently) as a spot for lawn games.
    - Employee Break Area
      - Use area near or behind the laundry building as a break area.
      - Use building in annex (currently being used as storage) as break room.
      - Screen off with vegetation or white fencing. Harden this area or maintain grassy look but make ground resilient.
  - Designated Golf Cart Parking
    - Designated golf cart parking east of the hotel; may be located behind a gate or light shrubbery to conceal, keeping the historic character.
  - Landscaping
    - Overall improved landscaping is compatible with CLR recommendations.
    - Develop planting plan for whole yard (successional planting [i.e., ash tree]) through a separate process.
    - Maintain rolling turf lawn with some exposed rock outcrops at Kettle Falls Hotel.
    - Retain volleyball area. See draft 2020 CLR recommendations for other lawn-based activities.
    - Develop simple planting beds or shrub hedges around Kettle Falls Hotel using compatible plants; this could be used to disguise well-heads and other less attractive, administrative features.
    - Remove all modern (non-historic in appearance) lawn furnishings.
    - Reduce footprint of looped road that falls outside of the historic circulation pattern and width and naturalize unneeded road.
- Guest villas area landscaping and exterior site improvements
  - Lower level villas:
    - Build decks at lower villas / accessible to the extent practicable (lower level of Villa is not accessible, but new deck would need to be). *Note: only two of the villas have lower units (Jesse's villa does not have a lower unit).*
    - Key features of decks at lower villas:

- Decking to accommodate up to eight guests with either two small, four-person decks or one larger, eight-person deck.
  - Decks could be sited behind the villa or to the side of the villa.
  - Decks should be able to accommodate chairs, a small table, and grill.
- Upper level villas:
  - Improve picnic space and landscaping concept at upper villa areas, moving it away from the villa.
  - Key features of outdoor space at upper villas:
    - Same treatment for all three villas, but incorporate boulders at Leaning Pine into the landscape design. Remove smaller vegetation as needed.
    - Dimensions: approximately 8 feet wide and the length of the Villa.
    - Level and hardened access to picnic area with at least 3 feet of clear space on all sides.
    - Move grill away from roof overhang.
    - Accommodate up to eight guests in the upper villas with either two small, four-person picnic pads or one larger, eight-person picnic pad.
- Viewshed:
  - Improve views to lake, as practicable. Establish a viewshed from each villa to open up the view as practicable without removing substantial trees over a certain size (use selective thinning, not a full scale clear-cut). This would double as a firebreak and defensible boundary.
- Trails around villas:
  - Use smaller vehicles (currently use Polaris that spills over the trail, damages timbers) to reduce trail damage.
  - Formalize trails from villa docks to villas.
  - Establish more defined trail system by reducing current braiding; revegetate unnecessary loops.
  - Better define trail usage and set widths for: golf cart roads, utility vehicle roads, walking only.
  - Make a one-way trail to villas.
  - Retain timbers, level off and revegetate trails that will be decommissioned.
  - All external spaces and landscaping tie into trail system.
  - Level off the area between timbers and recreational space (picnic areas).
  - Formalize trail out to Bear Point (by hardening existing social trail or historical trail).
- Bear Point Clearing (common social area to villas):
  - This area along the shore would be used as the larger, formalized social gathering area.
  - Use existing fire pit, consider hardening area (timbers bordering the area with a crusher fines surface) around fire pit to reduce erosion and compaction.
  - Use existing picnic table.
  - Add log benches for seating.
  - Allow use as a wedding site by special use permit.

- Add signage to indicate Bear Point social area.
  - Ensure archeological site is avoided.
- Namakan Lake: day-use site enhancements
  - Same as Alternative A: No action; visitors would continue to have access to a Trading Post, fueling station, concession-based canoes, and kayak rentals; *plus*:
  - Welcome Area
    - Establish a visitor gathering space or “node” at Namakan Landing Trading Post with shade and benches, and a picnic area. Orientation of the welcoming “node” is directed toward the Trading Post.
    - Enhance the sense of arrival at the tour boat landing by providing a new NPS sign, shaded seating, and wayfinding information.
    - Relocate trails, picnic tables, kiosks, and new development off identified archeological resources.
  - Covered picnic shelter, screening is optional, with view of marina area. Approximately 20 by 40 feet.
  - Golf Carts
    - Establish golf cart parking area near Trading Post.
    - Establish clear indications of where golf carts can drive.
  - Damtender’s Cabin:
    - Same as alternative A
- Rainy Lake: day-use site enhancements
  - Same as alternative A, *plus*:
  - Welcome Areas
    - Marina
      - Install an updated NPS sign to celebrate a sense of arrival and provide better wayfinding from the marina to other important site amenities.
      - Formalize the picnic area currently in place.
    - Tour Boat Landing
      - Install an updated NPS sign to celebrate a sense of arrival and provide better wayfinding from the marina to other important site amenities.
- Restrooms (Comfort Stations)
  - Hotel area
    - Repurpose the 1978 “generator shed” behind hotel into an accessible restroom to be used by all visitors.
  - Namakan Landing – Company House area
    - Provide accessible route to comfort station behind Company House.
- Dam Overlook
  - Same as alternative A; *plus*:
  - Add an outdoor recreation access route, north of existing trail, for pedestrian use up to the viewing platform.
- Damtender’s Cabin
  - Same as alternative A, *plus*:
  - Selectively clear vegetation to open up view of Damtender’s Cabin to water.



- See GMP guidance for use of interior space and interpretation. (Interior space is outside of the scope of this plan.)
- Company House and area
  - Develop a landscaping plan for the Company House (through a separate process) that includes appropriate lawn furniture and vegetation.
  - Summer Use:
    - Overnight housing for volunteer or NPS staff.
      - One room for volunteers.
      - Two rooms for NPS maintenance or law enforcement.
    - Establish as an interpretive location (panels of information) - a more detailed interpretive wayside plan for site should guide this.
    - Establish as a visitor contact station during summer months (for book sales, visitor information, etc.)
      - Would need to be temporary or removable, as dam tenders will occupy house during winter.
      - Accessible to all visitors.
  - Winter Use
    - Overnight housing for damtenders

#### Circulation and Accessibility

- Accessibility enhancements
  - Same as alternative A, *plus*:
  - Accessible elements would be incorporated into all new construction projects as practicable, including trails.
  - Hotel
    - While maintaining existing ramp up to hotel veranda, concessioner would be allowed to offer bar service on veranda.
- Signage and wayfinding
  - Namakan Lake
    - Install wayfinding signs for visitors arriving from Namakan visitor dock or maintenance dock area to navigate the multiple destinations at Kettle Falls.
    - Relocate Namakan welcome kiosk off archeological site, closer to Trading Post.
  - Rainy Lake
    - Move Rainy Lake welcome kiosk closer to marina.
  - Trail signage
    - Install standard trail wayfinding signs along entirety of trail network (e.g., at every intersection).
- Trails and Roads
  - Same as alternative A (Rehabilitate Kettle Falls Hiking Trails (PMIS 204955)), *plus*:
  - Local Kettle Falls trail system:
    - Develop approximate 4-mile trail network to Rainy Lake houseboat mooring site, towards Surveyor's Island, to the Kettle Falls tent campground, connecting back to Kettle Falls Hotel area.

- Trail from Namakan Houseboat Mooring Sites:
  - Formalize trail from Houseboat Bay mooring sites to Namakan Landing area.
- Trail to Rainy Landing Houseboat Mooring Sites:
  - Develop trail from houseboat mooring sites Rainy Landing area.
- Key features of *all* trails and outdoor recreation access routes:
  - Ensure all outdoor recreation routes and trails are developed to Architectural Barriers Act (ABA) outdoor recreation facility guidelines, to the extent practicable.
  - Maximum width of 64 inches to accommodate light-duty vehicles such as “gators” or golf carts; or replace wider vehicles with narrower vehicles.
  - Pedestrian use only; except for light-duty utility vehicles such as “gators” or golf carts.
  - Remove and naturalize unneeded social trails.
- Roads and Shared-Use Paths
  - Ensure roads and paths, are developed or maintained to acceptable guidelines. Pedestrian and motorized uses are acceptable on roads and paths, except as noted.
    - Portage Road (historic): gravel or dirt surfacing; maximum 12-feet wide. Maintain road in current location and width. Pedestrians and all vehicle types permitted.
    - Kettle Falls Hotel Road (historic): gravel surfacing; maximum 12-feet wide; maintain a slight crown for drainage. Maintain road to historic location and width. Pedestrians and all vehicle types permitted.
    - Maintenance Roads: gravel or dirt surfacing; maximum 12-feet wide; raised edging to maintain width where needed. Pedestrians and all vehicle types permitted.
    - Pathways: gravel or dirt surfacing; maximum 64-inches wide; raised edging to maintain width where needed. Pedestrian and light-duty utility vehicles such as “gators” or golf carts are acceptable; full-size vehicles not permitted.
  - Key features of all roads and shared-use paths:
    - Most roads classified as Class IV: Primitive Park Road because of Kettle Falls location in a remote or primitive area (NPS Park Road Standards, p 4).
    - Some Kettle Falls roads would be classified as Class V or VI: Administrative Park Road due to the primary use by employees (NPS Park Road Standards, p 4).
    - Some park roads, parkways, or structures on them (e.g., bridges, walls and overlooks) are historic in themselves, and are in some instances may be listed on the National Register or a part of a historic landscape. Preservation or restoration may be the only option for such historic roadways or structures (NPS Park Road Standards, p 35).

- Interpretation
  - Develop a detailed interpretive plan, to include the Company House and other key locations. Include tribal government partners to participate in developing interpretive and educational materials (separate process, previously mentioned, see 2005 LRIP for additional recommendations).

Other issues

- Utilities: same as alternative A, *plus*:
  - Electric
    - Replace existing inefficient appliances, lightbulbs, etc. with energy efficient options.
  - Water
    - Apply new or additional filters to wells.
    - Study potential locations for well.
- Dark Skies
  - Use dark sky recommendations for replacement lighting.

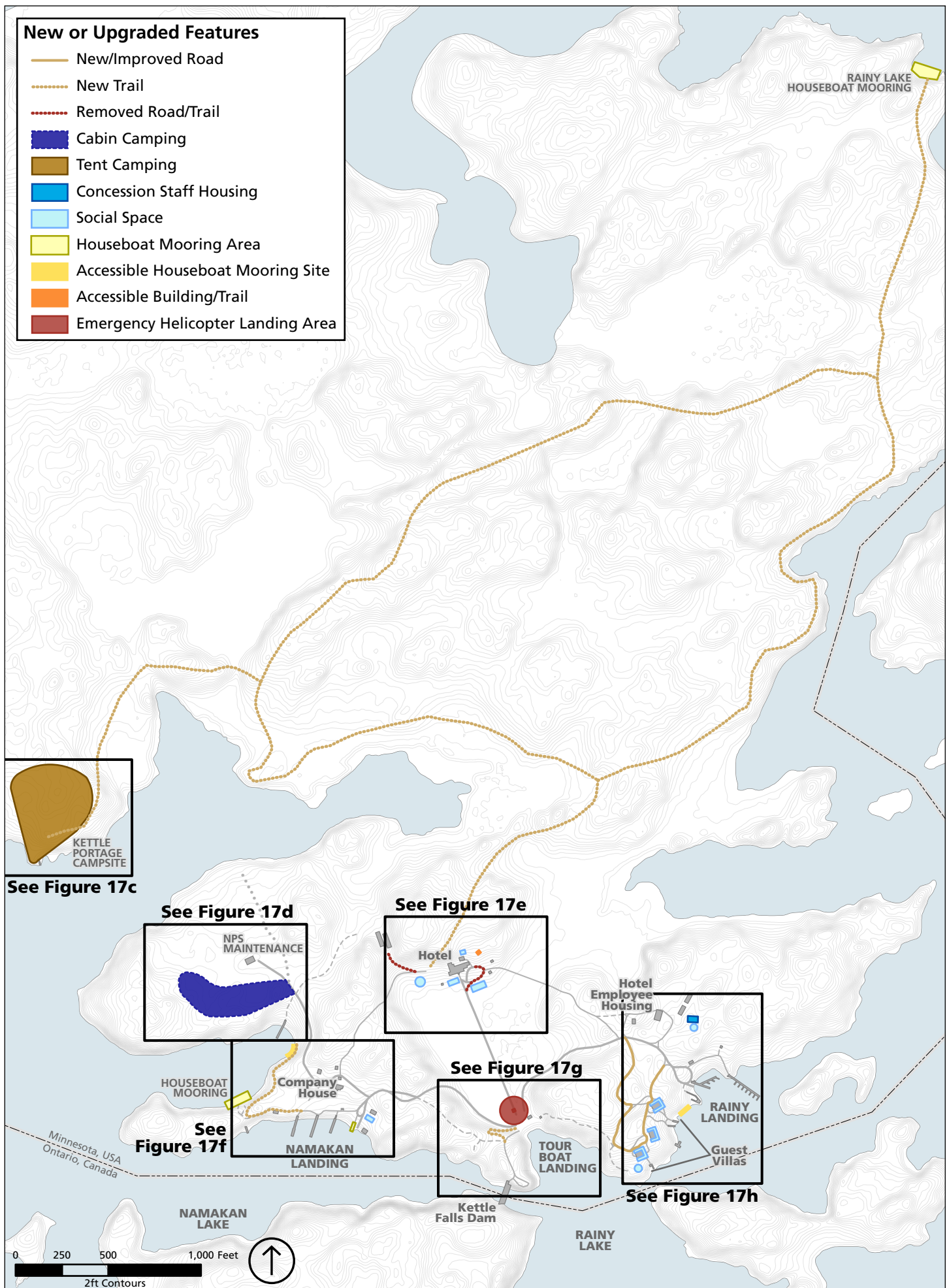


FIGURE 17A: ALTERNATIVE B: PRELIMINARY PROPOSAL

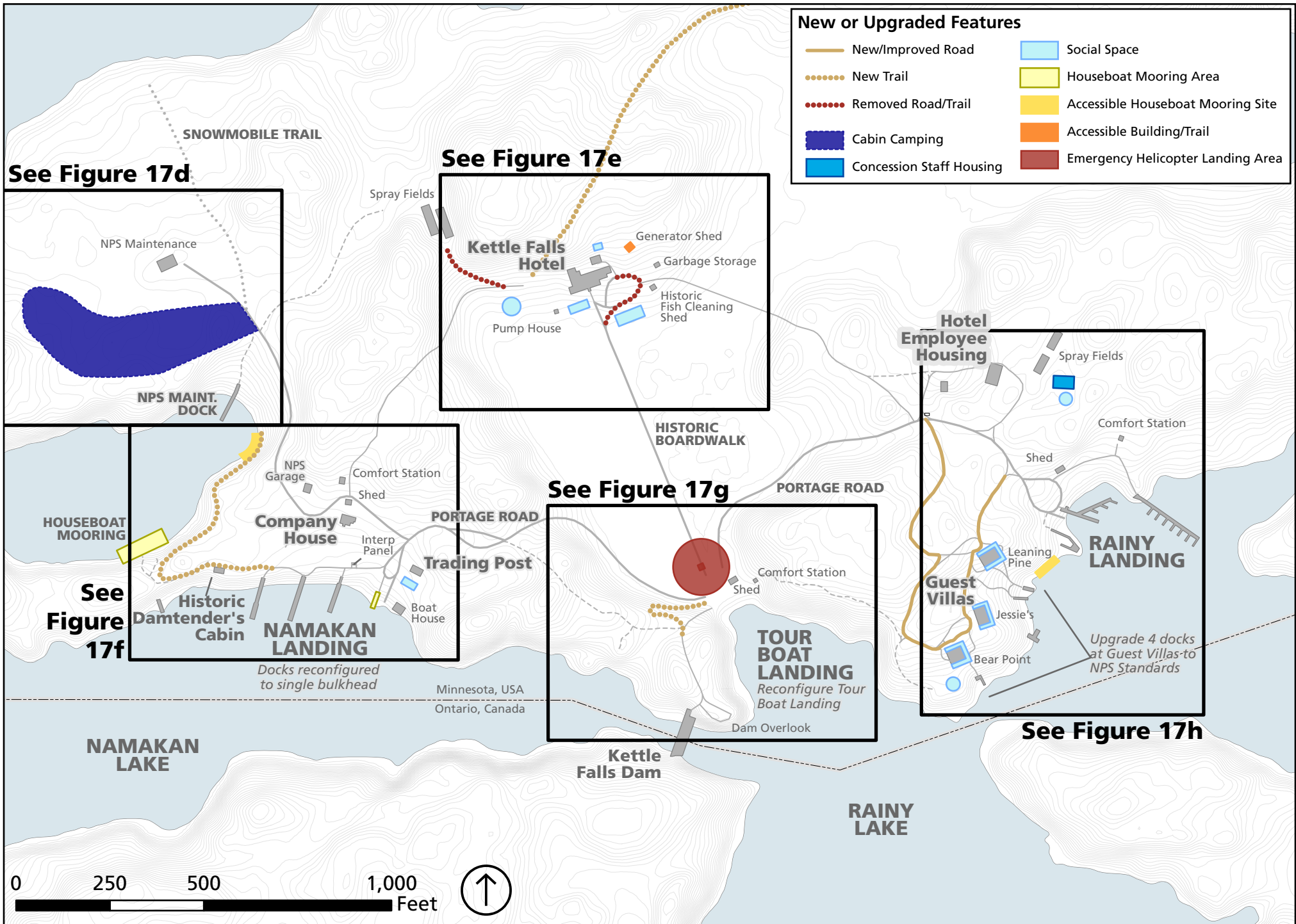


FIGURE 17B: ALTERNATIVE B: PRELIMINARY PROPOSAL





FIGURE 17C: ALTERNATIVE B: KETTLE PORTAGE PRIMITIVE CAMPGROUNDS - CONCEPTS





FIGURE 17D: ALTERNATIVE B: CAMPER CABINS - CONCEPTS



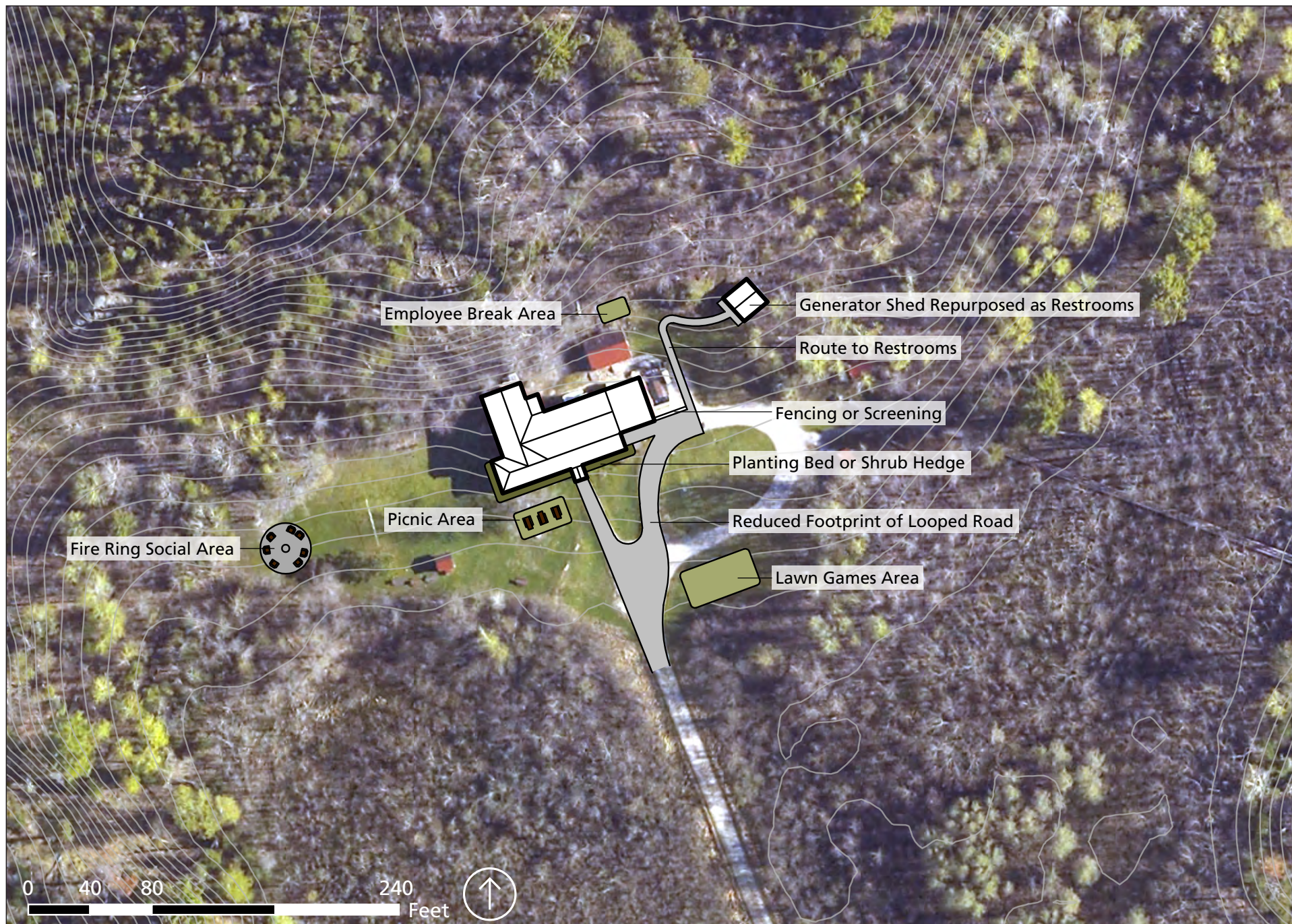


FIGURE 17E: ALTERNATIVE B: KETTLE FALLS HOTEL—CONCEPTS





FIGURE 17F: ALTERNATIVE B: NAMAKAN LANDING—CONCEPTS





FIGURE 17G: ALTERNATIVE B: RAINY LAKE TOUR BOAT LANDING—CONCEPTS



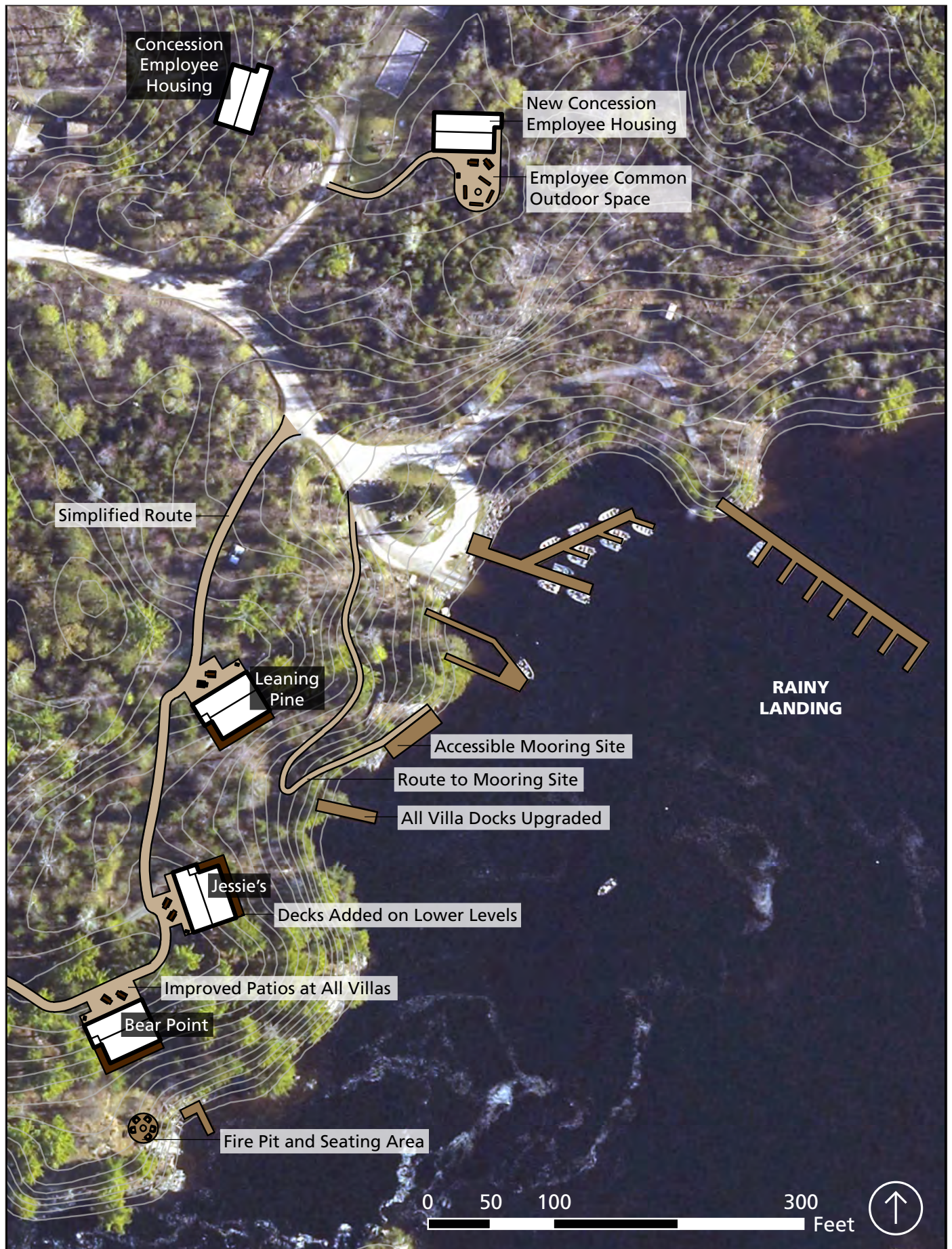


FIGURE 17H: ALTERNATIVE B: HOUSING AND VILLAS - CONCEPTS



## BEST MANAGEMENT PRACTICES

The following strategies or best management practices serve to protect the park's resources and values. They are considered practical, common sense approaches to park management and are grounded in NPS policy and mandates. This list is not intended to be all-inclusive but rather to identify key points for consideration and would be applicable regardless of what alternative is chosen.

### General

- Use Architectural Barriers Act guidelines for recreation facilities to the extent practicable.
- Use “dark skies” recommendations on new development or when replacing lighting to the extent practicable.
- Use visitor use indicators and threshold criteria to monitor resource conditions.

### Construction Staging and Access

- All new construction activity, including material use and storage, would not be allowed outside predetermined, marked construction/staging zones and would be within 100 yards of the project area to the extent practicable.
- Use best management practices to decontaminate or dry heavy equipment or other construction materials to prevent the spread of invasive species.

### Biological

- All work will follow best practices to avoid introduction of aquatic and/or terrestrial invasive species to the extent practicable.
- The US Fish and Wildlife Service has prepared Nationwide Bald Eagle Guidelines (May 2007) that would be reviewed prior to commencing development activities at Kettle Falls.
- All vegetation trimming required in wetland areas would be done by hand with no equipment driven into those wetland areas.
- Identify areas for wetland restoration to the extent practicable.

### Cultural/Historic Resources

- Perform a cultural resource and/or archeological survey (may include shovel testing) in the areas of proposed ground disturbance prior to commencing these activities.
- Use existing design standards to maintain historic character for new facilities located within cultural landscape. For example, comfort stations are white structures with red rooftops.
- In the event that American Indian human remains, funerary objects, sacred objects, or objects of cultural patrimony are unintentionally exposed by some aspect of the proposed construction projects, procedures identified in “Guidance for National Park Service Compliance with the Native American Graves Protection and Repatriation Act (NAGPRA), NPS Cultural Resource Management Guideline, Appendix R” will be followed.<sup>24</sup>

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24. Guidance for National Park Service Compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) – NPS Cultural Resource Management Guideline, Appendix R, [https://www.nps.gov/archeology/sites/print/AppendixR\\_020806.pdf](https://www.nps.gov/archeology/sites/print/AppendixR_020806.pdf) as accessed June 5, 2019.



## VISITOR USE AND CAPACITY

Visitor use management (VUM) involves the proactive and adaptive process of planning for and managing characteristics of visitor use and its physical and social setting (using a variety of strategies and tools) to sustain desired resource conditions and visitor experiences. Proactively planning for visitor use maximizes the ability of the National Park Service to encourage access, improve experiences, and protect resources and values. Managing visitor use for visitor enjoyment and resource protection is inherently complex. It requires that officials analyze not only the number of visitors but also where they go, what they do, their impacts on resources and visitor experiences, and the underlying causes of those impacts. Park officials acknowledge the dynamic nature of visitor use, the vulnerabilities of natural and cultural resources, and the need to be responsive to changing conditions.

For this Kettle Falls planning effort, visitor use refers to human presence in an area for recreational purposes, including education, interpretation, inspiration, and physical and mental health. Visitor use also includes the amount, timing, and distribution of visitor activities and behaviors. The Kettle Falls planning process integrates the VUM framework that was established by the Interagency Visitor Use Management Council (IVUMC 2016). This VUM framework<sup>25</sup> guides national park units and other federally protected areas in developing long-term strategies for managing visitor use and it fulfills the legal requirement to identify visitor capacity as specified in the National Parks and Recreation Act of 1978.

Visitor capacity is a component of visitor use management and defined as the maximum amount and types of visitor use that an area can accommodate while sustaining desired resource conditions and visitor experiences, consistent with the purpose for which the area was established (as well as purpose, need, and objectives for this plan). By establishing and implementing visitor capacities, the National Park Service can help ensure that resources are protected and that visitors have the opportunity for a range of high-quality experiences. Appendix D details visitor capacity considerations and the process used to identify visitor capacity for the Kettle Falls area.

To monitor any changes in visitor use and/or experience, indicators and thresholds were identified as potential management strategies. Indicators translate desired conditions of the Kettle Falls project into measurable attributes that may be tracked over time and allow park staff to evaluate changes in resource or experiential conditions. Thresholds are the minimally acceptable condition associated with each indicator and are an important component to ensure desired conditions are achieved.

The following indicators and thresholds were identified as part of the Kettle Falls development plan:

- *Indicator:* Number of incidents per year that visitors access Kettle Falls via park-operated tour boat above the facility supply guidelines.
- *Threshold:* No more than two incidents per year for each the *Amik* and the *Voyageur*.
- *Indicator:* Number of incidents per operational season that overnight accommodation | at the Kettle Falls Hotel, campgrounds, camper cabins; and houseboats exceed the facility supply.

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25. Please visit <http://visitorusemanagement.nps.gov/> for a full description of the Interagency Visitor Use Management Council and framework guidance.

- *Threshold:* No more than two incidents per operational season.
- *Indicator:* Number of roads that exceed the desired road width of 12 feet.
- *Threshold:* No more than one road within the Kettle Falls project area shall exceed a width of 12 feet.
- *Indicator:* Number of trails that exceed the desired trail width of 64 inches.
- *Threshold:* No more than one trail within the Kettle Falls project area shall exceed a width of 64 inches.

## COST ANALYSIS

The summary of one-time costs presented in table 11 represent conceptual cost estimates for implementing each element of the preliminary alternative (as described in the Alternative B: Preliminary Proposal section). One-time costs may include deferred maintenance (such as bringing structures up to standard), new construction, the cost of removal or divestiture of resources, the cost of restoration of resources, the cost of rehabilitation, or any costs associated with documentation and research on the resources.

*Note: Additional costs may be incurred in order to perform cultural resource surveys or investigations prior to ground disturbing activities.*

Costs would continue to be refined outside of this planning process as each individual project moves through the design and engineering process. Projects that meet or exceed regional criteria would be presented to the National Park Service and/or Regional Development Advisory Board(s) or Investment Review Board for additional project refinement or final funding approvals. By estimating the costs, assumptions were made, including:

- Approval of this plan does not guarantee funding for future actions.
- All actions start in Year 1 after approval of the plan. (In actuality, they could be funded at any time and as the opportunity presents itself.)
- Some elements of the proposal may never be funded within the life of this plan.
- Funding for some aspects of the plan may be provided by partners, donations, or other non-federal funding sources.
- All costs are shown in 2020 dollars.
- Actual costs may vary from the conceptual estimate.

**Table 11. Alternative B: Conceptual Cost Analysis**

Planning Issue	Project Description	Quantity	Unit Cost	FY20 Non-Escalated NET Cost
<b>Visitor Lodging</b>	Primitive campsite (small)	4 EA	\$112,413	\$449,653
	Primitive campsite (large)	1 EA	\$147,475	\$147,475
	Camper cabin	4 EA	\$185,507	\$742,026
<b>Concession Employee Housing</b>	Common community building	1055 SF	\$859	\$906,659
	Common outdoor space	240 SF	\$1,190	285,481
	Housing two-story dorm	4,284 SF	\$791	\$3,388,575
<b>Houseboats</b>	Namakan Houseboat Bay moorings	4 EA	\$29,599	\$118,397
	Rainy Lake moorings	2 EA	\$31,520	\$63,020
	Surveyor's Island moorings	4 EA	29,599	118,397
<b>Docks</b>	Namakan floating docks	4 EA	\$136,980	\$547,921
	Rainy Lake dock	2 EA	\$58,861	\$117,722
	Tour Boat Landing crib dock	1,700 SF	\$391	\$664,623
	Guest Villa docks	3 EA	\$121,078	\$363,235
<b>Helicopter Landing</b>	Emergency helicopter landing spot	43,560 SF	\$1	\$45,240
<b>Visitor Social Area</b>	Visitor social area	1,000 SF	\$165	\$165,082
<b>Guest Villas Area Landscaping and Exterior Site Improvements</b>	Lower level villas	500 SF	\$391	\$195,425
	Upper level villas	1 EA	\$98,630	\$98,630
	Trails around villas	400 LF	\$272	\$108,772
	Bear Point clearing	1,000 SF	\$29	\$28,920
<b>Namakan Lake Day Use</b>	Welcome area at Namakan Landing	1,500 SF	\$302	\$452,716
<b>Rainy Lake Day Use</b>	Welcome area at marina	1 EA	\$63,475	\$63,475
<b>Restrooms</b>	Hotel area restroom (generator building)	400 SF	\$803	\$321,272
<b>Signage and Wayfinding</b>	Namakan wayfinding signs	5 EA	\$17,390	\$86,952
	Rainy Lake kiosk relocation	1 EA	\$7,950	\$7,950
	Trail signage	20 EA	\$1,071	\$21,427
<b>Trails and Roads</b>	Accessible trail behind Company House	60 LF	\$689	\$41,340
	Accessible trail up to Dam Overlook	500 LF	\$411	\$205,378
	Trail from Namakan houseboat mooring	500 LF	\$280	\$140,133
	Trail to Rainy Lake houseboat mooring	60 LF	\$280	\$16,816
—	<b>TOTAL NET</b>			<b>\$10,664,265</b>

## **PLAN AMENDMENTS OR UPDATES**

Once finalized, this plan will guide the Kettle Falls area for the near future; however, the plan can and should be amended or updated as critical needs arise. Minor plan amendments can be prepared using a categorical exclusion for plan amendments (other categorical exclusions are available for other purposes). A categorical exclusion does not require a full assessment of environmental factors; however, it may require consultation under Section 106 of the National Historic Preservation Act or other compliance measures. A major plan amendment would require the planning process to start anew; the appropriate level of NEPA compliance would be revisited as a part of that process.

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## **CHAPTER 5: CIVIC ENGAGEMENT, CONSULTATION, AND COORDINATION**

### **CIVIC ENGAGEMENT AND PUBLIC OUTREACH**

A Planning Environment and Public Comment (PEPC) page was established and maintained throughout the planning process (<https://parkplanning.nps.gov/kettlefalls>). A periodic newsletter was developed to provide additional updates to the public and interested parties and was hosted on the PEPC project page or emailed to interested parties. Social media was used to notify the public of upcoming events. Park staff also participated with local media, such as recorded interviews with Minnesota Public Radio News, regarding project planning and outreach efforts.

Park staff met with local community groups (e.g., rotary club, chamber of commerce, etc.), including Voyageurs National Park Association, on a periodic basis throughout the planning process to discuss the current conditions at Kettle Falls and the ongoing planning process and other park issues. These discussions allowed park staff to discuss preliminary ideas and to gauge the level of public interest.

The park issued a press release on October 16, 2019, to announce two civic engagement opportunities (November 5, 2019, at Kabetogama Town Hall and November 6, 2019, at the park's headquarters building). Local schools were encouraged to attend. These public workshops were intended to share an update on the project and to gauge sentiment towards preliminary and potential management concepts for Kettle Falls. Approximately 20 people attended these two events. The park received 21 correspondences in PEPC<sup>26</sup> representing at least eight states across the country. Many comments supported the addition of a new overnight opportunity for visitors, additional employee housing, improved docking, and day use enhancements. Two comments expressed concern for an emergency helicopter landing within a historic area. Other comments were outside the scope of this plan.

### **TRIBAL GOVERNMENT OUTREACH AND CONSULTATIONS**

The park distributes an annual letter and description of all park projects that have the potential to cause effects to historic properties to 18 affiliated tribal governments and tribal historic preservation officers (THPO). These annual letters request feedback on any projects of interest and offer direct conversations with the superintendent, should a tribal government representative request such a conversation. A Kettle Falls project description was included in annual letters sent in 2018 and 2019.

The park sent a letter and preliminary project materials to its affiliated tribes on October 3, 2019, and received feedback via email from Spirit Lake Tribe in North Dakota to incorporate tribal stories and history into future educational and interpretive materials. The Bois Forte Band of Chippewa THPO attended the civic engagement workshop on November 5, 2019, and park staff met with the same officer on November 18, 2019, for additional discussions. Leech Lake THPO indicated on December 16, 2019, that they had reviewed materials. A request for consultation was sent March 18, 2020. The park will remain in contact with tribal historic preservation officers throughout the project.

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26. Comments were accepted in the PEPC system from October 15, 2019 to November 16, 2019.



Government-to-government consultation will be initiated with the same tribal governments during the first half of 2020. Details of which will be presented in the compliance documentation that will follow this plan or noted in the project record.

## **AGENCY OUTREACH AND CONSULTATIONS**

### **State Agencies**

The park distributes an annual letter and description of all upcoming park projects that have the potential to cause effects to historic properties to the Minnesota State Historic Preservation Office. This Kettle Falls project was included in annual letters sent in 2018 and 2019. These annual letters request feedback on any projects of interest and offer direct conversations with the park superintendent, should the historic preservation officer request such a conversation. Additionally, the park sent a letter and preliminary project materials to the SHPO office on October 3, 2019, and November 20, 2019. The park held a phone call with the SHPO office on December 9, 2019, and a request for consultation was sent March 18, 2020. The park will remain in contact throughout the project.

Minnesota Department of Natural Resources was contacted on February 28, 2020, with a Natural Heritage Information System data request in order to identify the specific vegetation and wildlife species of state concern within the Kettle Falls project area.

*Consultations with required state agencies will be initiated during the first half of 2020. Details of which will be presented in the compliance documentation that will follow this plan or noted in the project record.*

### **Federal Agencies**

The Environmental Protection Agency (Region 5) reviewed the preliminary concept materials available for public review on PEPC and submitted a comment letter dated November 14, 2019. The Army Corps of Engineers (St. Paul District) was provided with wetland delineation data February 13, 2020. Once prepared, the required federal agencies will receive a copy of the environmental compliance document for further review.

*Consultation with other federal agencies will be initiated during the first half of 2020. Details of which will be presented in the compliance documentation that will follow this plan or noted in the project record.*

## **CONGRESSIONAL OUTREACH**

Periodic briefings are distributed to elected congressional representatives via the NPS Washington District Office's weekly update report. The offices of elected congressional representatives for District 8 were notified in advance of public meetings and to the availability of documents for public review through those briefings.

## REFERENCES

Hop, K., et al.

- 2001 Vegetation Information for the Voyageurs National Park Vegetation Inventory Project. La Crosse, WI. NPS-IRMA:  
<https://irma.nps.gov/DataStore/Reference/Profile/2167389>

**Interagency Visitor Use Management Council (IVUMC)**

- 2016 Visitor Use Management Framework,  
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## LIST OF ACRONYMS

Term	Definition
ABA	Architectural Barriers Act
ASL	above sea level
BCE	Before the Common Era (or Before the Current Era)
BWSR	Board of Water and Soil Resources (Minnesota)
CE	Common Era (or Current Era)
CE (or CX)	categorical exclusion
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CLR	Cultural Landscape Report
GMP	general management plan
DAB	Development Advisory Board
DFC	desired future condition (or desired condition)
DO	Director's Order
DOI	Department of the Interior
EA	environmental assessment
EO	Executive Order
°F	degrees Fahrenheit
FRV	fundamental resources and values
FONSI	Finding of no Significant Impact
FY	fiscal year
in	inch(es)
IRB	Investment Review Board
IVUMC	Interagency Visitor Use Management Council
LF	Linear Feet
LRIP	Long-Range Interpretive Plan
MNHS	Minnesota Historical Society
VOYA (or park)	Voyageurs National Park
MN-DNR	Minnesota Department of Natural Resources

Term	Definition
MOU	Memorandum of Understanding
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act (Section 106)
NPS	National Park Service
PEPC	Planning, Environment, and Public Comment
SHPO	State Historic Preservation Office
Secretarial Order	SO
SF	Square Feet
Statement of Findings	SOF (or WSOF for Wetlands Statement of Findings)
THPO	Tribal Historic Preservation Office
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS (or FWS)	United States Fish and Wildlife Service
USDA	United States Department of Agriculture

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## APPENDIX A: WATER RESOURCES

**Table A-1. Rainy Lake Elevations Under 2018 Rule Curves (Meters/Feet Above Sea Level)**

Date	Minimum Meters	Feet	Date	Maximum Meters	Feet
01-Jan	336.99	1105.61	01-Jan	337.25	1106.46
15-Mar	336.89	1105.28	15-Mar	337.18	1106.23
01-Apr	336.71	1104.69			
			15-Apr	337.20	1106.30
01-May	336.80	1104.99	01-May	337.40	1106.96
01-Jun	337.30	1106.63	01-Jun	337.60	1107.61
01-Jul	337.50	1107.28	01-Jul	337.75	1108.10
15-Jul	337.49	1107.25	15-Jul	337.73	1108.04
		—	22-Sep	337.64	1107.74
30-Sep	337.31	1106.66			
22-Nov	337.07	1105.87	22-Nov	337.26	1106.50
30-Nov	337.04	1105.77	30-Nov	337.26	1106.50
22-Dec	337.00	1105.64	22-Dec	337.27	1106.53
31-Dec	336.99	1105.61	31-Dec	337.25	1106.46

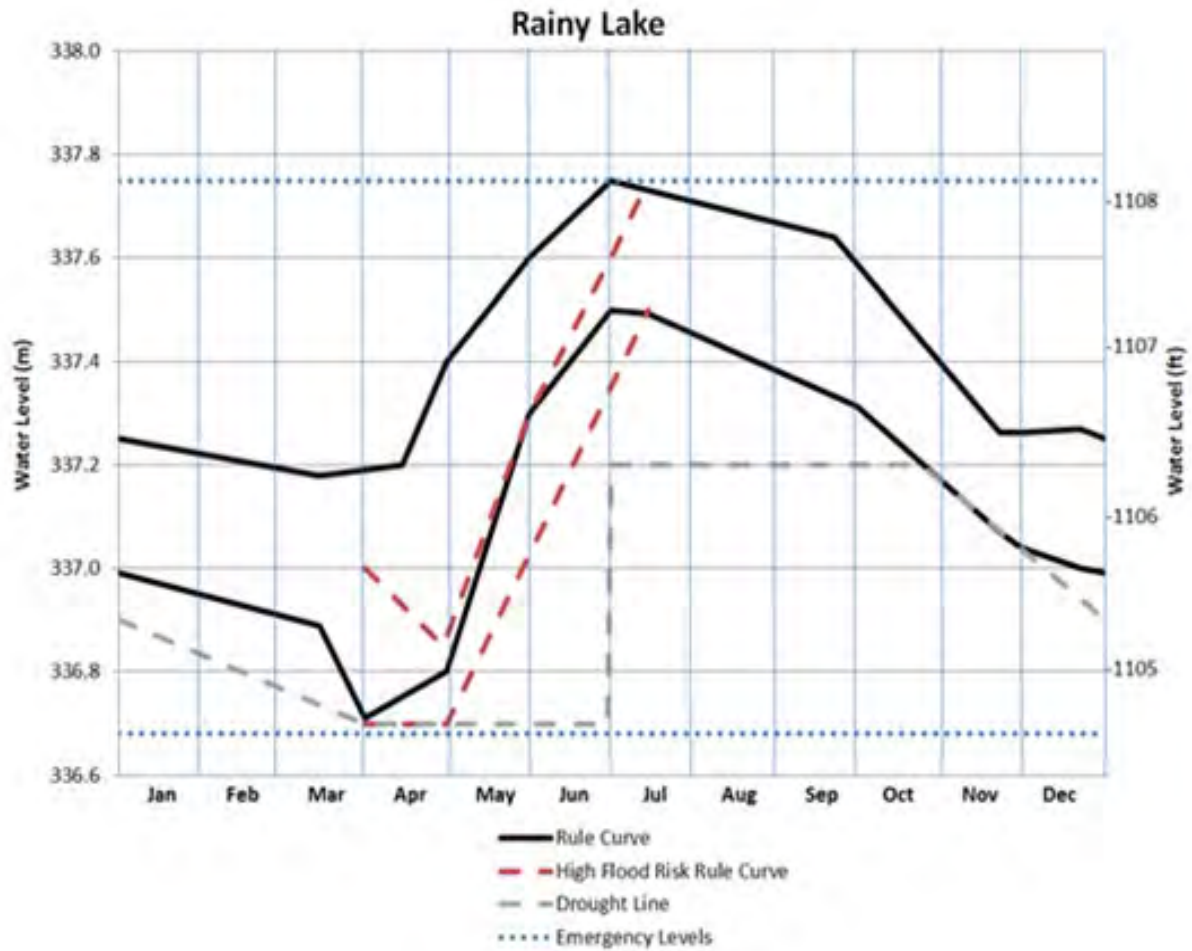
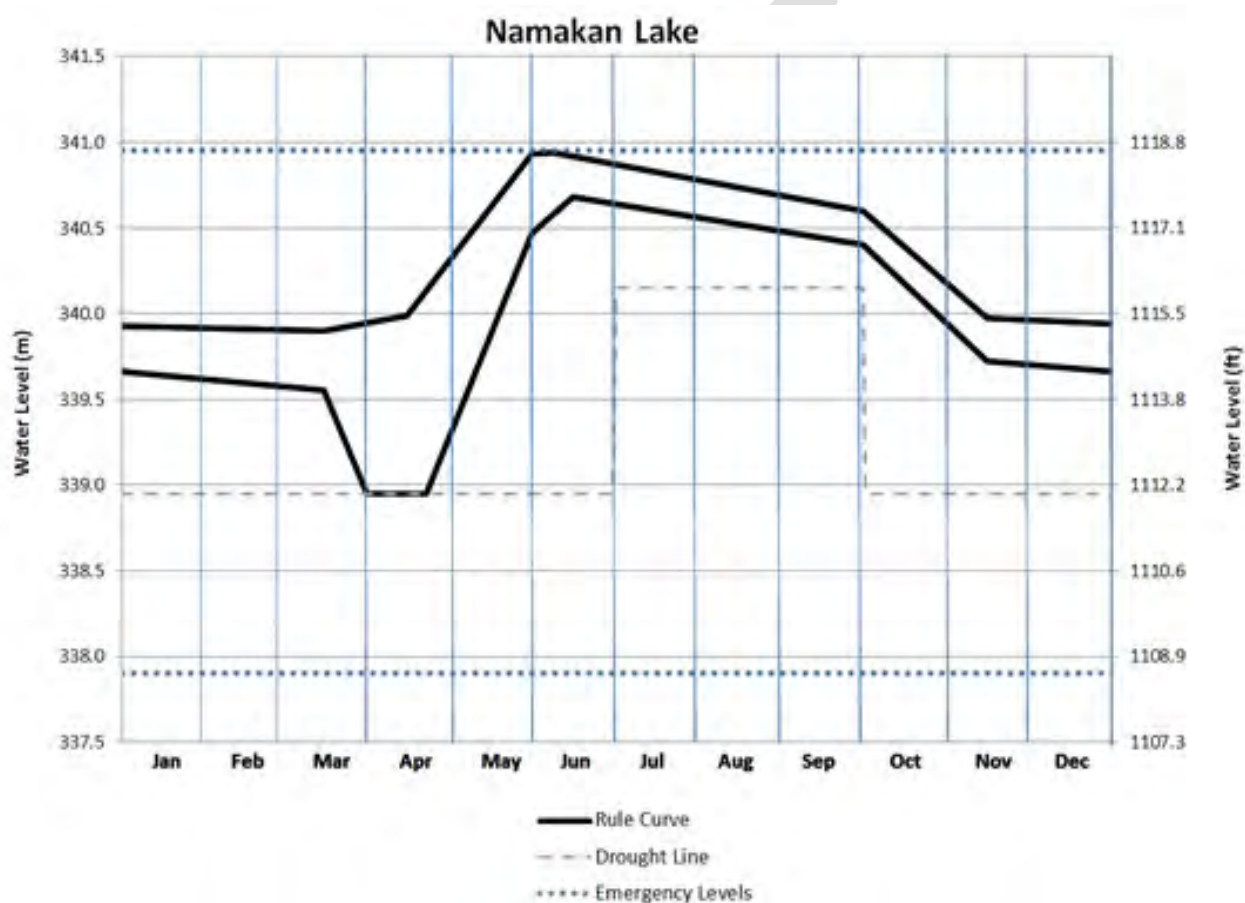


FIGURE A-1. 2018 RULE CURVES FOR RAINY LAKE

Table A-2. Namakan Lake Elevations Under 2018 Rule Curves (Meters/Feet Above Sea Level)

Date	Minimum Meters	Feet	Date	Maximum Meters	Feet
01-Jan	339.66	1114.37	01-Jan	339.93	1115.26
15-Mar	339.56	1114.04	15-Mar	339.90	1115.16
31-Mar	338.95	1112.04			
			15-Apr	339.99	1115.45
22-Apr	338.95	1112.04			
31-May	340.47	1117.03	31-May	340.93	1118.54
			8-Jun	340.94	1118.57

Date	Minimum Meters	Feet	Date	Maximum Meters	Feet
15-Jun	340.68	1117.72			
30-Sept	340.40	1116.80	30-Sept	340.6	1117.45
15-Nov	339.73	1114.60	15-Nov	339.98	1115.42



**FIGURE A-2. 2018 RULE CURVES FOR NAMAKAN LAKE**

During years in which a high risk of flooding is predicted, a separate rule curve is used for Rainy Lake prior to the spring melt and rains to reduce flooding (table A-3) below. (This portion of the 2018 Rule Curves for Rainy Lake is labeled the, “High Flood Risk Rule Curve,” and is also shown in figure A-2.)

**Table A-3. Rainy Lake High Flood Risk Elevations Under 2018 Rule Curves (Meters/Feet Above Sea Level)**

— Date	Minimum Meters	— Feet	— Date	Maximum Meters	— Feet
01-Apr	336.70	1104.66	01-Apr	337.00	1105.64
01-May	336.70	1104.66	01-May	336.85	1105.15
			01-Jun	337.30	1106.63
			01-Jul	337.60	1107.61
15-Jul	337.50	1107.28	15-Jul	337.75	1108.10
31-Dec	337.20	1106.30	31-Dec	337.45	1107.12

## APPENDIX B: WETLANDS DATA

### WETLANDS DATA (STATE LEVEL DATA)

The Minnesota Department of Natural Resources<sup>27</sup> National Wetlands Inventory identified several wetland types within the Kettle Falls area (table B-1; figure B-1), totaling about 35 acres. (This information was suitable for preliminary planning purposes; however, a wetlands delineation was also completed by NPS staff in September 2019 and is included in the Wetlands section.)

**Table B-1. Wetland Types (Source: MN-DNR, National Wetlands Inventory)**

NWI Code	Wetland Type	Acres	Hydro-geomorphic Code	Hydro-geomorphic Description	Simplified Plant Community	Circular 9 Type
PSS1C	Freshwater Shrub Wetland	3.48	TEBAVR	Terrene Basin Vertical	Shrub Wetland	6
PSS1C	Freshwater Shrub Wetland	7.74	LEBABI	Lentic Basin Bi-directional	Shrub Wetland	6
PFO2Dq	Freshwater Forested Wetland	1.20	TEPTVR	Terrene Peatland Vertical	Coniferous Bog	8
PFO4Dq	Freshwater Forested Wetland	1.70	TEPTVR	Terrene Peatland Vertical	Coniferous Bog	8
PEM1F	Freshwater Emergent Wetland	6.74	LEFRBI	Lentic Fringe Bi-directional	Shallow Marsh	3
L2EMH2	Lake	4.88	LELKVR	Lentic Lake Vertical	Deep Marsh	5
L2EMH2	Lake	2.69	LELKVR	Lentic Lake Vertical	Deep Marsh	5
PEM1C	Freshwater Emergent Wetland	6.18	LEBABI	Lentic Basin Bi-directional	Shallow Marsh	3
PFO1D	Freshwater Forested Wetland	0.55	TESLOU	Terrene Slope Outfall	Hardwood Wetland	7
	Total Acres	35.16				

27. Minnesota Department of Natural Resources, National Wetlands Inventory, wetlands mapping tool, <https://arcgis.dnr.state.mn.us/ewr/wetlandfinder/> as accessed June 3, 2019.

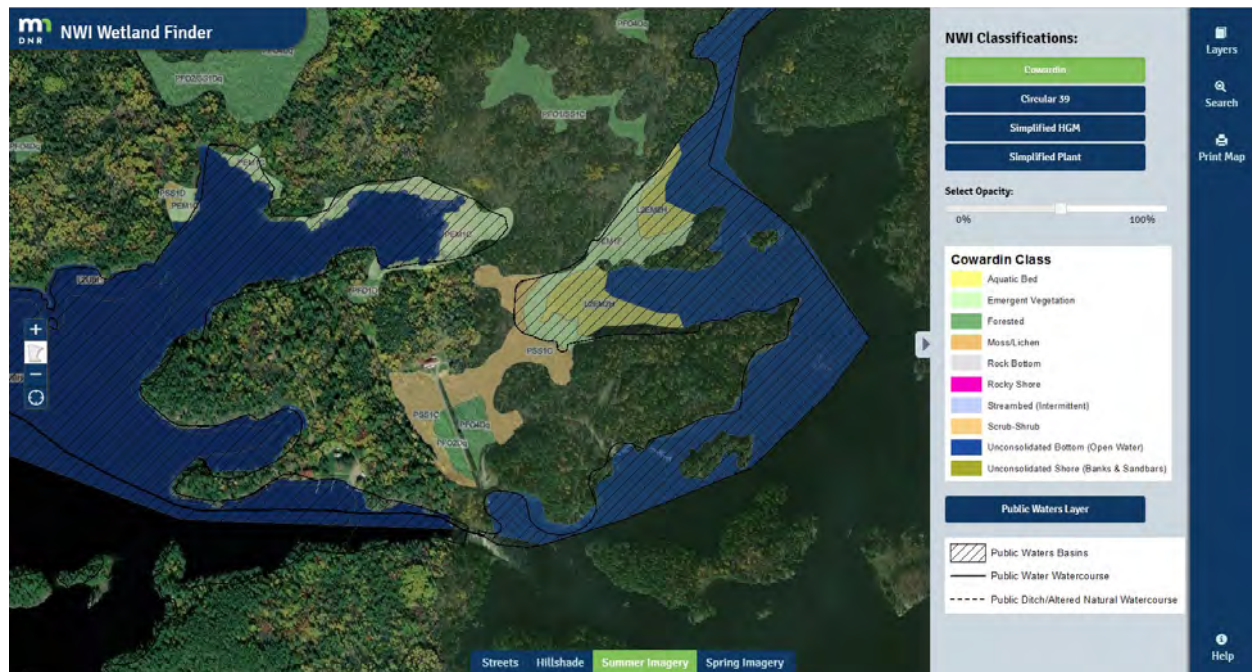


FIGURE B-1. MINNESOTA DEPARTMENT OF NATURAL RESOURCES, STATE LEVEL WETLANDS DATA





## United States Department of the Interior

NATIONAL PARK SERVICE  
423 Forest Resources Building  
State College, PA 16803

December 2019

### Memorandum

To: Leigh Johnson, Community Planner, DOI Unified Regions 3, 4, and 5  
CC: John Snyder, Biologist, VOYA  
From: Peter Sharpe Ph.D., PWS, Interior Region 1, North Atlantic - Appalachian/WRD  
Subject: Wetland Delineation Report, Voyageurs National Park – Kettle Falls Area

### Summary

The objective of this investigation was to respond to a request for technical assistance for a comprehensive delineation of wetland habitats subject to jurisdiction under Section 404 of the Clean Water Act (CWA) and all wetlands subject to National Park Service (NPS) procedures for implementing *Director's Order #77-1: Wetland Protection* for National Park Service lands within the Kettle Falls recreation area of Voyageurs National Park. This work utilized the U.S Army Corps of Engineers (USACE) Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Version 2.0 (January 2012) as the primary methodology for making wetland determinations in the field. A total of 6 palustrine wetlands encompassing 9.57 ac (3.88 ha) of land were identified and delineated within the Kettle Falls study area boundary (70 acres) (Fig. 1). Wetland habitats within the Kettle Falls study area could be generally described as a mixture of forested, broad-leaved deciduous, scrub-shrub, and emergent wetlands with seasonally flooded/saturated hydrologic water regimes. These wetlands bordered existing roads, trails, buildings, or other infrastructure within the study area. With the exception of Wetland-6 which extended beyond our study area boundary to the Northeast the majority of the wetland systems appeared to be "isolated" in terms of meeting the U.S. Army Corps of Engineers criteria for potential jurisdiction, however, all of these wetlands system would fall under NPS policy jurisdiction under DO #77-1, therefore the park is encouraged to share this report and recommendations with our service wide wetland leads (Joel Wagner and Kevin Noon). With regards to recommendations, the park should explore the possibility of avoiding or minimizing ( $\leq 0.10$  ac) impacts to the mapped wetland systems described and delineated in this report. Should wetland impacts arising from a proposed action occur Kevin Noon or Joel Wagner will be able to provide an official determination of DO #77-1 compliance and provide requirements upon receipt of this report, mapping, and supporting data.

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## APPENDIX C: FACILITIES AND INFRASTRUCTURE

**Table C-1. Kettle Falls Utility Matrix**

-	Wastewater	Potable Water	Electric – Light	Electric – Heat
# of linear feet	310 LF (60 4" galv, 250 2" galv)  2690 LF (20 4" pvc, 320 LF 6" pvc drain, 2100 LF 2" pvc, 250 2" galv)  30 LF 4" pvc  1190 LF (840 2" galv, 350 2" pvc	120 LF .5" copper  150 LF pvc  102 LF ?  100 LF pvc  840 LF 2" poly	68640 LF or 13 miles	NA
Location(s)	18782 18786 18788 18792	18781 18783 18784 18788 18790	108793/ Under water	All occupied locations at Kettle Falls
Type	Septic Systems with lift stations  2 Sprayfields	Groundwater/ground water under the influence of surface water	3 phase 3 #2 alum plastic insulated conductors, wrapped with a bare neutral. No exterior insulation protecting the neutral wrap.	Electric baseboard heat.
Age/DM	1982/ \$0.00 1987/ \$0.00 1994/ \$0.00 1988/2019/ \$137,906.40	1942/ \$8766.04 1984/ \$0.00 1901/ \$0.00 1990/ \$0.00 1988/2013/ \$0.00	1986/ \$0.00	Varies
Capacity	300 gal lift station, 1000 gal septic  300 gal grease trap, 300 gal dousing chamber, 300 gal lift station, 3000 gal septic  1500 gal septic  3-300 gal lift station 4000 gal septic 5000 gal septic	18781 220 gal 18790 4000 gal	7200V	15A, 240V

## Kettle Falls Site Development Plan

-	Wastewater	Potable Water	Electric – Light	Electric – Heat
Future changes	18792 - work currently underway to replace lift stations and 840 LF of 2" galvanized with 840 LF of 2" poly tubing		Feasibility study to inquire about either replacing the 13-mile cable with solar or microhydro power tied to our existing electrical infrastructure to eliminate any future reliance on the existing 13-mile cable and savings to the park by selling excess power back to the electric provider.	



## Deficiency Work Orders by Location

Region: MWR  
Park: VOYA  
Asset Code: Not Selected  
Facility Type: Not Selected  
Optimizer Band: Not Selected  
Occupant: Not Selected  
Location: 00002811, 101581, 108793, 114641, 18353, 18354, 18355, 18356, 18357, 18361, 18362, 18363, 18364, 18365, 18366, 18367, 18371, 18373, 18512, 18513, 18514, 18515, 18516, 18517, 18518, 18519, 18520, 18779, 18780, 18781, 18782, 18783, 18784, 18786, 18787, 18788, 18790, 18792, 21865, 21866, 21867, 21868, 21869, 21870, 21871, 21938, 22136, 22137, 22138, 237818, 242184, 249083, 2687, 37509, 37512, 39615, 46646, 52637, 56147, 75930, 79567, 87481, 94680, 94681  
Work Order Classification: Not Selected  
Date Type: Not Selected  
Group By: Asset Code  
Summary: No

**Built-in filters have been added to this report to show only DM work orders:**

- Status of DM ALL OPEN- All except CLOSED, CAN, WAPPR, and WACOST
- Work Type of FM
- Sub Work Types of DM, CRDM, or RMDM.

### The Data Begins on the Next Page

This report is useful for project planning and for tracking progress on reducing the maintenance backlog.

Utilizing the Work Order Classification parameter will provide information useful for project planning and assets deficiency information.

This report provides a list of active deficiency (DM) work orders organized by location.

The report shows the total Work Order Estimated Cost by asset code or optimizer band. The Work Order Estimated Cost and Location DM also identified for each individual location.

There are columns for PMIS project numbers and Classification information.

Also included in the report are the API, FCI, and CRV for each location.

DM for each FMSS Location is documented in the Deferred Cost field in the FMSS Locations application. Location DM is calculated as the sum of Open Deficiency work order (sub work types DM, CRDM and RMDM) cost estimates, except for paved roads, paved parking areas, bridges and tunnels. Deferred maintenance (DM) for paved roads, paved parking areas, bridges, and tunnels is calculated per the Roads Working Group Business Practices and stored in the Deferred Cost field.



## Deficiency Work Orders by Location

Region: MWR  
 Park: VOYA  
 Location: 00002811, 101581, 108793, 114641, 18353, 18354, 18355, 18356, 18357, 18361, 18362, 18363, 18364, 18365, 18366, 18367, 18371, 18373, 18512, 18513, 18514, 18515, 18516, 18517, 18518, 18519, 18520, 18779, 18780, 18781, 18782, 18783, 18784, 18786, 18787, 18788, 18790, 18792, 21865, 21866, 21867, 21868, 21869, 21870, 21871, 21938, 22136, 22137, 22138, 237818, 242184, 249083, 2687, 37509, 37512, 39615, 46646, 52637, 56147, 75930, 79567, 87481, 94680, 94681  
 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type			PMIS#	Classification	CS	Report Date	WO Est cost Total
VOYA	(P005) - Voyageurs National Park									\$4,229,852
1100	Roads									\$9,882
37509	RKF Kettle Falls Portage Rd, Unpaved, RT 403	OPERATING	NPS		0.013	93	3	\$733,604	\$9,882	\$9,882
23672369	Kettle Falls Road Maintenance	COSTED	FM	RMDM		307543	A	Y	11/21/2019	\$9,882
	Total for FM RMDM:									\$9,882
2100	Trail									\$236,594
114641	RKF Kettle Falls Trail System	OPERATING	NPS		0.411	60	3	\$154,552	\$63,529	\$63,529
14356216	Rehabilitate kettle falls tread surface	COSTED	FM	RMDM		204955	A	Y	11/26/2013	\$8,878
14356236	Rehabilitate kettle falls trail timbers	COSTED	FM	RMDM		204955	A	Y	11/26/2013	\$54,650
	Total for FM RMDM:									\$63,529
21938	NNL Mica Bay to Kettle Falls Snowmobile Safety Portage	OPERATING	NPS		0.039	77	1	\$1,335,018	\$52,615	\$53,041
14544202	Replace snowmobile portage signs	COSTED	FM	DM				N	12/23/2013	\$6,340
	Total for FM DM:									\$6,340
18537118	Repair Trail Tread Surface on Mica to Kettle Portage	COSTED	FM	RMDM		236618	A	Y	01/18/2017	\$46,701
	Total for FM RMDM:									\$46,701
56147	RKF Kettle Falls Overlook and Boardwalk	OPERATING	NPS		0.362	44	2	\$331,566	\$120,024	\$120,024
14561957	Rehabilitate Kettle Falls Overlook	COSTED	FM	DM		207242	A	Y	12/26/2013	\$39,798
17023126	Rehabilitate Kettle Falls Overlook	COSTED	FM	DM		207242	A	Y	03/31/2016	\$20,216
17026642	Rehabilitate Kettle Falls Overlook	COSTED	FM	DM		207242	B	Y	04/01/2016	\$39,809
17026643	Rehabilitate Kettle Falls Overlook	COSTED	FM	DM		207242	B	Y	04/01/2016	\$20,202
	Total for FM DM:									\$120,024
4100	Building									\$647,482

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# Deficiency Work Orders by Location

Region: MWR  
 Park: VOYA  
 Location: 00002811, 101581, 108793, 114641, 18353, 18354, 18355, 18356, 18357, 18361, 18362, 18363, 18364, 18365, 18366, 18367, 18371, 18373, 18512, 18513, 18514, 18515, 18516, 18517, 18518, 18519, 18520, 18779, 18780, 18781, 18782, 18783, 18784, 18786, 18787, 18788, 18790, 18792, 21865, 21866, 21867, 21868, 21869, 21870, 21871, 21938, 22136, 22137, 22138, 237818, 242184, 249083, 2687, 37509, 37512, 39615, 46646, 52637, 56147, 75930, 79567, 87481, 94680, 94681  
 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type		PMIS#	Classification		CS	Report Date	WO Est cost Total
00002811	RKF BH067 Kettle Falls Hotel Historic	OPERATING	CONCESSION		0.205	93	1			
20229774	Upgrade Fire Alarm System at Kettle Falls Hotel	COSTED	FM	CRDM	245277	A		N	10/25/2017	\$40,164
20290462	Repair Kitchen Flooring at Kettle Falls Hotel	INPRG	FM	CRDM	246468	A		N	11/02/2017	\$58,202
20388387	Repair Kitchen Walls in Kettle Falls Hotel Kitchen	INPRG	FM	CRDM	246468	A		Y	11/20/2017	\$30,655
20388403	Install conduit, wire,outlets and fixtures at Kettle Falls Kitchen	INPRG	FM	CRDM	246468	A		Y	11/20/2017	\$71,472
20469154	Repair Kettle Falls Hotel Kitchen Plumbing	INPRG	FM	CRDM	246468	A		N	12/05/2017	\$30,078
20469171	Replace Fire Suppression System in Kettle Falls Hotel Kitchen	INPRG	FM	CRDM	246468	A		N	12/05/2017	\$11,009
20516023	Replace walk in freezer/Cooler at Kettle Falls Hotel	COSTED	FM	CRDM	247277	A		N	12/12/2017	\$14,028
20799697	Replace Gutter & Downspout	COSTED	FM	CRDM				Y	10/05/2018	\$690
	Total for FM CRDM:									\$256,299
20799615	Secure Handrail	COSTED	FM	DM				N	10/05/2018	\$185
20799619	Repair Leaking Pipes	COSTED	FM	DM				N	10/05/2018	\$179
20799651	Replace Door Closer at rear bar exit	COSTED	FM	DM				Y	10/05/2018	\$345
20799658	Repair Panel Door	COSTED	FM	DM				N	10/05/2018	\$44
20799686	Repair Chimney	COSTED	FM	DM	290711	A		Y	10/05/2018	\$278
20799692	Repair Electrical Outlet	COSTED	FM	DM				N	10/05/2018	\$44
20799699	Repair Baseboard Heater	COSTED	FM	DM				Y	10/05/2018	\$131
20799705	Replace Baseboard Trim	COSTED	FM	DM				N	10/05/2018	\$94
20799708	Replace Damaged Flooring	COSTED	FM	DM				N	10/05/2018	\$1,209
	Total for FM DM:									\$2,509
23055067	Prep, Repair and Paint Historic Kettle Falls Hotel Veranda (Porches)	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$22,392

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## Deficiency Work Orders by Location

Region: MWR  
 Park: VOYA  
 Location: 00002811, 101581, 108793, 114641, 18353, 18354, 18355, 18356, 18357, 18361, 18362, 18363, 18364, 18365, 18366, 18367, 18371, 18373, 18512, 18513, 18514, 18515, 18516, 18517, 18518, 18519, 18520, 18779, 18780, 18781, 18782, 18783, 18784, 18786, 18787, 18788, 18790, 18792, 21865, 21866, 21867, 21868, 21869, 21870, 21871, 21938, 22136, 22137, 22138, 237818, 242184, 249083, 2687, 37509, 37512, 39615, 46646, 52637, 56147, 75930, 79567, 87481, 94680, 94681  
 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type		PMIS#	Classification		CS	Report Date	WO Est cost Total
23055074	Prep, Repair and Paint Doors of Historic Kettle Falls Hotel	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$5,378
23055080	Prep, Repair, and Paint Windows of Kettle Falls Historic Hotel	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$7,348
23055084	Repair, Prep and Paint Siding of Historic Kettle Falls Hotel	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$51,884
<b>Total for FM RMDM:</b>										<b>\$87,001</b>
<b>18356</b>	<b>RKF BH058 Kettle Falls Hotel Generator Building Historic</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.200</b>	<b>85</b>	<b>4</b>	<b>\$47,121</b>	<b>\$9,434</b>	<b>\$9,434</b>
20799632	Replace Damaged Framing	COSTED	FM	DM				Y	10/05/2018	\$172
<b>Total for FM DM:</b>										<b>\$172</b>
23055098	Prep, Repair, and Paint Historic Kettle Falls Hotel Generator Shed	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$9,263
<b>Total for FM RMDM:</b>										<b>\$9,263</b>
<b>18357</b>	<b>RKF B068 Kettle Falls Hotel Pump House</b>	<b>OPERATING</b>	<b>NPS</b>		<b>1.270</b>	<b>30</b>	<b>3</b>	<b>\$24,858</b>	<b>\$31,568</b>	<b>\$31,568</b>
23667287	Reconfigure Kettle Falls Hotel Pump House	COSTED	FM	CRDM	307337	A		N	11/20/2019	\$4,800
23667311	Replace Aging Pressure Tank	COSTED	FM	CRDM	307337	A		N	11/20/2019	\$1,800
23667348	Replace Old Water Pressure Pump	COSTED	FM	CRDM	307337	A		Y	11/20/2019	\$2,400
23667349	Replace Kettle Falls Main Well Pump Controls	COSTED	FM	CRDM	307337	A		N	11/20/2019	\$2,950
23671955	Replace Kettle Falls Pump House Chlorinator	COSTED	FM	CRDM	307337	A		Y	11/21/2019	\$2,250
23671959	Replace Kettle Falls Pump House Jet Pump	COSTED	FM	CRDM	307337	A		Y	11/21/2019	\$4,042
23671971	Construct 4' x 8' Addition on Kettle Falls Pump House	COSTED	FM	CRDM	307337	A		N	11/21/2019	\$10,375
<b>Total for FM CRDM:</b>										<b>\$28,617</b>

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## Deficiency Work Orders by Location

Region: MWR  
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 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type		PMIS#	Classification		CS	Report Date	WO Est cost Total
23055096	Prep, Repair and Paint Historic Kettle Falls Hotel Pump House	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$2,952
	<b>Total for FM RMDM:</b>									<b>\$2,952</b>
<b>18361</b>	<b>RKF B069 Kettle Falls Generator Building Namakan Side</b>	<b>OPERATING</b>	<b>CONCESSION</b>		<b>0.002</b>	<b>42</b>	<b>4</b>		<b>\$46,838</b>	<b>\$83</b>
20799700	Repair Non-Working Outlets	COSTED	FM	DM				N	10/05/2018	\$83
	<b>Total for FM DM:</b>									<b>\$83</b>
<b>18371</b>	<b>RKF B161 Kettle Falls Garbage Storage Block Building</b>	<b>OPERATING</b>	<b>CONCESSION</b>		<b>0.275</b>	<b>53</b>	<b>4</b>		<b>\$37,420</b>	<b>\$10,302</b>
20799650	Repair Exterior Wall Leak	COSTED	FM	DM				Y	10/05/2018	\$12
	<b>Total for FM DM:</b>									<b>\$12</b>
23055130	Prep, Repair and Paint Kettle Falls Hotel Garbage Storage Building	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$10,289
	<b>Total for FM RMDM:</b>									<b>\$10,289</b>
<b>18512</b>	<b>RKF B056 Kettle Falls Hotel Annex Building</b>	<b>OPERATING</b>	<b>CONCESSION</b>		<b>0.094</b>	<b>42</b>	<b>3</b>		<b>\$124,143</b>	<b>\$11,637</b>
23055127	Prep, Repair and Paint Historic Kettle Falls Hotel Annex	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$11,637
	<b>Total for FM RMDM:</b>									<b>\$11,637</b>
<b>18513</b>	<b>RKF BH060 Kettle Falls Fish Cleaning House Historic</b>	<b>OPERATING</b>	<b>CONCESSION</b>		<b>0.250</b>	<b>85</b>	<b>3</b>		<b>\$58,002</b>	<b>\$14,495</b>
20671254	Repair Metal Panel	COSTED	FM	DM				N	10/05/2018	\$915
	<b>Total for FM DM:</b>									<b>\$915</b>
23055132	Prep, Repair and Paint Historic Kettle Falls Hotel Fish House	COSTED	FM	RMDM	290711	A		Y	08/01/2019	\$13,581
	<b>Total for FM RMDM:</b>									<b>\$13,581</b>
<b>18516</b>	<b>RKF BH063 Kettle Falls Log Cabin Historic</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.774</b>	<b>93</b>	<b>3</b>		<b>\$216,096</b>	<b>\$167,249</b>





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 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type		PMIS#	Classification		CS	Report Date	WO Est cost Total
4716617	Repair Roof of Kettle Falls Log cabin Hist.	COSTED	FM	CRDM	206401	A		Y	12/08/2009	\$50,401
4837200	Repair Foundation on Kettle Falls Log Cabin	COSTED	FM	CRDM	206401	A		Y	12/23/2009	\$52,513
<b>Total for FM CRDM:</b>										<b>\$102,914</b>
15942540	Repair Windows at Dam Tenders Log Cabin	COSTED	FM	DM	206401	A		Y	12/15/2014	\$4,720
15942552	Repair Door on Dam Tenders Cabin	COSTED	FM	DM	206401	A		N	12/15/2014	\$5,629
15942562	Repair and Replace Logs and Crowns at Dam Tenders Cabin	COSTED	FM	DM	206401	A		Y	12/15/2014	\$53,986
<b>Total for FM DM:</b>										<b>\$64,336</b>
<b>18517</b>	<b>RKF BH064 Kettle Falls Garage Namakan Side Historic</b>	<b>OPERATING</b>	<b>CONCESSION</b>		<b>0.006</b>	<b>85</b>	<b>3</b>		<b>\$171,055</b>	<b>\$1,004</b>
20799709	Repair Deck	COSTED	FM	DM				N	10/05/2018	\$1,004
<b>Total for FM DM:</b>										<b>\$1,004</b>
<b>18518</b>	<b>RKF BH065 Kettle Falls Namakan Boat House Historic</b>	<b>OPERATING</b>	<b>CONCESSION</b>		<b>0.349</b>	<b>85</b>	<b>3</b>		<b>\$138,665</b>	<b>\$48,387</b>
20799678	Repair Plank Floor	COSTED	FM	DM	256627	A		N	10/05/2018	\$240
20799707	Replace Missing Shingles	COSTED	FM	DM	256627	A		Y	10/05/2018	\$48
22346254	Prep & Paint Exterior Siding on Namakan Boat House	COSTED	FM	DM	256627	A		Y	11/29/2018	\$4,432
22346265	Replace Decking on Namakan Lake Boat House	COSTED	FM	DM	256627	A		N	11/29/2018	\$6,541
22346280	Replace Rotted Wall Framing on Namakan Boat House	COSTED	FM	DM	256627	A		Y	11/29/2018	\$14,795
22346312	Prep and Paint Windows	COSTED	FM	DM	256627	A		Y	11/29/2018	\$5,515
22346322	Prep and Exterior Door on Namakan Boat House	COSTED	FM	DM	256627	A		Y	11/29/2018	\$1,087
22346334	Replace Shingles on Namakan Boat House	COSTED	FM	DM	256627	A		Y	11/29/2018	\$15,729

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 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type			PMIS#	Classification	CS	Report Date	WO Est cost Total
	Total for FM DM:									\$48,387
18519	RKF BQH106 Kettle Falls Boise House Historic	OPERATING	PRIVATE		0.023	85	3	\$300,928	\$7,008	\$7,513
22315281	Prep and Paint Exterior Siding on Kettle Falls Boise House	COSTED	FM	DM				Y	11/20/2018	\$4,604
22315303	Prep and Paint Exterior Windows	COSTED	FM	DM				Y	11/20/2018	\$2,421
22315337	Prep and Paint Wood Exterior Doors at Kettle Falls Boise House	COSTED	FM	DM				N	11/20/2018	\$487
	Total for FM DM:									\$7,513
5100	Water System									\$8,766
18781	RKF Kettle Falls Boise House Drinking Water System	OPERATING	PRIVATE		0.087	57	1	\$101,256	\$8,766	\$8,766
18252546	Replace Water Filtration Sysytem Boise House	INPRG	FM	CRDM		236621	A	N	11/21/2016	\$8,766
	Total for FM CRDM:									\$8,766
5200	Waste Water System									\$293,101
18786	RKF Kettle Falls Hotel Wastewater System	OPERATING	NPS		0.109	88	1	\$882,071	\$96,027	\$96,027
23736362	Replace .5 HP Sewage Pump	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$18,236
23736367	Replace .5 HP Lift Pump	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$12,471
23736369	Replace Sewage Pump Control	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$6,236
23736373	Replace 300 gal Concrete Lift Station Tank	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$11,636
23736379	Replace 300 gal Dousing Chamber	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$11,236
23736384	Replace 300 gal Concrete Grease Trap	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$12,536
23736389	Replace 250 LF of 2" Galvanized Sewer Pipe	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$15,707
23736408	Replace Spray Field Irrigation Heads	COSTED	FM	CRDM		307358	A	Y	12/04/2019	\$7,971

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 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type			PMIS#	Classification	CS	Report Date	WO Est cost Total
	Total for FM CRDM:									\$96,027
18792	RKF Kettle Falls Villa Wastewater System	OPERATING	NPS		0.212	88	1	\$929,242	\$197,074	\$197,074
16775649	Upgrade Controls Three Lift Stations on Kettle Falls Villa Waste Water System	INPRG	FM	CRDM		225151	A	Y	10/29/2015	\$7,833
18226510	Replace Piping Kettle Falls Villa Lift Station	INPRG	FM	CRDM		225151	A	Y	11/15/2016	\$15,633
18226518	Replace Lift Station Tanks Kettle Falls Villas	INPRG	FM	CRDM		225151	A	Y	11/15/2016	\$10,805
20208579	Replace 2 " Galvanized Pipe at Kettle Falls Villa Waste Water Lines	INPRG	FM	CRDM		245512	A	Y	10/23/2017	\$83,390
20387605	Replace 2" PVC wastewater line	INPRG	FM	CRDM		245512	A	Y	11/20/2017	\$20,246
23661522	Rehabilitate The Kettle Falls Villa's Wastewater System Spray Field	COSTED	FM	CRDM		305751	A	N	11/19/2019	\$34,932
23739884	Replace 6 .6 HP lift station, dosing chamber and septic submersible pumps	COSTED	FM	CRDM		305751	A	Y	12/05/2019	\$24,236
	Total for FM CRDM:									\$197,074
5400	Electrical System									\$2,592,890
108793	NKF Kettle Falls Primary Three Phase Electric Cabl	OPERATING	NPS		1.308	65	2	\$1,982,414	\$2,592,890	\$2,592,890
22950919	Replace 214377 ft of High Voltage 3 Phase Underwater Cable	COSTED	FM	CRDM		306890	A	Y	06/21/2019	\$2,592,890
	Total for FM CRDM:									\$2,592,890
5700	Fuel System									\$23,714
18520	RKF F156 Kettle Falls Fuel Station Namakan Side	OPERATING	NPS		0.171	80	2	\$65,866	\$11,270	\$11,270
23772391	Replace Fuel Hose at Kettle Falls Namakan Fuel Station	COSTED	FM	CRDM		307873	A	Y	12/12/2019	\$1,606



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 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type			PMIS#	Classification	CS	Report Date	WO Est cost Total
2601448	RKF Replace Fuel Station Pumps at KF Namakan Side	INPRG	FM	CRDM		152098	A	Y	12/03/2008	\$9,664
	<b>Total for FM CRDM:</b>									<b>\$11,270</b>
<b>18779</b>	<b>RKF F157 Kettle Falls Fuel Station Rainy Side</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.158</b>	<b>80</b>	<b>3</b>	<b>\$71,406</b>	<b>\$11,270</b>	<b>\$11,270</b>
23772396	Replace Fuel Hose at Kettle Falls Rainy Fuel Station	COSTED	FM	CRDM		307873	A	Y	12/12/2019	\$1,606
2601450	RKF Replace Pumps at Kettle Falls Rainy Fuel station	INPRG	FM	CRDM		152098	A	Y	12/03/2008	\$9,664
	<b>Total for FM CRDM:</b>									<b>\$11,270</b>
<b>18780</b>	<b>RKF B105 Kettle Falls Fuel Station Maintenance Building</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.086</b>	<b>63</b>	<b>3</b>	<b>\$13,593</b>	<b>\$1,173</b>	<b>\$1,173</b>
673235	RKF Prep & Paint Exterior of Tank Kettle Falls Maint. Fuel System	INPRG	FM	RMDM		152098	A	Y	03/16/2005	\$1,173
	<b>Total for FM RMDM:</b>									<b>\$1,173</b>
<b>6300</b>	<b>Marina/Waterfront System</b>									<b>\$417,425</b>
<b>21865</b>	<b>NNL Kettle Falls Gas Namakan Marina/Waterfront System</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.217</b>	<b>77</b>	<b>2</b>	<b>\$122,671</b>	<b>\$26,634</b>	<b>\$26,634</b>
16813990	Repair Kettle Falls Gas Dock	COSTED	FM	CRDM		225962	A	Y	11/23/2015	\$26,634
	<b>Total for FM CRDM:</b>									<b>\$26,634</b>
<b>21866</b>	<b>RRE Kettle Falls Gas Rainy Marina/Waterfront Syste</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.154</b>	<b>77</b>	<b>2</b>	<b>\$177,447</b>	<b>\$27,360</b>	<b>\$27,360</b>
23763418	Repair RRE Kettle Falls Gas Rainy Marina/Waterfront Syste	COSTED	FM	CRDM		307556	A	Y	12/10/2019	\$27,360
	<b>Total for FM CRDM:</b>									<b>\$27,360</b>
<b>21867</b>	<b>RRE Kettle Falls Guest Marina/Waterfront System</b>	<b>OPERATING</b>	<b>NPS</b>		<b>0.033</b>	<b>67</b>	<b>2</b>	<b>\$327,392</b>	<b>\$10,925</b>	<b>\$10,925</b>
16813996	Repair Kettle Falls Guest Dock	COSTED	FM	CRDM		225962	A	Y	11/23/2015	\$10,925
	<b>Total for FM CRDM:</b>									<b>\$10,925</b>

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 Group By: Asset Code  
 Summary: No

Location	Description	Status	Occupant		FCI	API	OB	CRV	Location DM	WO Est cost Total
Work Order	Description	Status	Work/Sub Type		PMIS#	Classification		CS	Report Date	WO Est cost Total
21868	NNL Kettle Falls Maintenance Marina/Waterfront System	OPERATING	NPS		0.195	42	2	\$114,381	\$22,283	\$22,283
23725480	Replace bumper on Kettle Falls Maint. Dock	COSTED	FM	CRDM	307531	A		N	12/02/2019	\$3,040
23725482	Replace timbers and decking on Kettle Falls Maint. Dock	COSTED	FM	CRDM	307531	A		Y	12/02/2019	\$19,243
	Total for FM CRDM:									\$22,283
21869	NNL Kettle Falls Picnic Marina/Waterfront System	OPERATING	NPS		0.079	67	2	\$131,419	\$10,321	\$10,321
16813998	Repair Kettle Falls Picnic Dock	COSTED	FM	CRDM	225962	A		Y	11/23/2015	\$10,321
	Total for FM CRDM:									\$10,321
21870	NNL Kettle Falls Kalispel Marina/Waterfront System	OPERATING	NPS		0.126	77	2	\$176,179	\$22,212	\$22,212
16814001	Repair Kettle Falls Kalispel Dock	COSTED	FM	CRDM	225962	A		Y	11/23/2015	\$22,212
	Total for FM CRDM:									\$22,212
21871	NNL Kettle Falls McGill Marina/Waterfront System	OPERATING	NPS		0.122	77	2	\$176,179	\$21,487	\$21,487
16814003	Repair Kettle Falls McGill Dock	COSTED	FM	CRDM	225962	A		Y	11/23/2015	\$21,487
	Total for FM CRDM:									\$21,487
237818	RRE Kettle Falls Tourboat Bulkhead Marina/Waterfront System	OPERATING	NPS		1.218	77	2	\$207,250	\$252,443	\$252,443
18280121	Replace Lakewall Timbers	COSTED	FM	CRDM	236746	A		Y	11/28/2016	\$102,569
18280387	Rehabilitate Tread Surface for Kettle Bulkhead	COSTED	FM	CRDM	236746	A		Y	11/28/2016	\$94,173
18280621	Replace Tourboat Cleats	COSTED	FM	CRDM	236746	A		N	11/28/2016	\$2,281
23763408	Repair RRE Kettle Falls Tourboat Bulkhead Marina/Waterfront System	COSTED	FM	CRDM	307556	A		Y	12/10/2019	\$53,420
	Total for FM CRDM:									\$252,443

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Work Order	Description	Status	Work/Sub Type		PMIS#	Classification		CS	Report Date	WO Est cost Total
79567	RRE Kettle Falls Boat Ramp West Marina/Waterfront System	OPERATING	NPS		0.077	77	3	\$308,031	\$23,760	\$23,760
23763378	Repair RRE Kettle Falls Boat Ramp West Marina/Waterfront System	COSTED	FM	CRDM	307556	A		Y	12/10/2019	\$23,760
Total for FM CRDM:										\$23,760

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## **APPENDIX D: VISITOR USE MANAGEMENT AND CAPACITY**

### **VISITOR CAPACITY**

#### **Overview**

Visitor capacity is a component of visitor use management defined as the maximum amount and types of visitor use that an area can accommodate while achieving and maintaining the desired conditions and visitor experience, consistent with the purpose for which the area was established (IVUMC 2016). By establishing and implementing visitor capacities, the NPS can help ensure that park resources are protected while providing visitors the opportunity for a range of high-quality experiences.

Identifying visitor capacities is directed by the National Parks and Recreation Act of 1978 (54 U.S.C. 100502), which requires the National Park Service to identify and implement commitments for visitor capacities for all areas of a park unit. The approach for identifying visitor capacities is based on the Interagency Visitor Use Management Council's (council) Visitor Use Management Framework and associated publications. The approach to visitor capacity identification in this plan is consistent with guidance from the council, which states that visitor use planning and visitor capacity identification is determined on a sliding scale depending on the complexity and context of the project. This analysis fulfills the requirements of the 1978 National Parks and Recreation Act (54 USC 100502) to identify visitor capacity for all areas that this planning effort addresses. Based on best practices, the process for identifying capacity follows four key guidelines: 1) determine the analysis area, 2) review existing direction and knowledge, 3) identify the limiting attribute(s), and 4) identify visitor capacity.

#### **1. Determine the Analysis Area**

The amount, timing, distribution, and types of visitor use at Kettle Falls influence both resource conditions and visitor experiences. For the purpose of this plan, visitor capacity was identified for the entire project area, which includes the approximate 30-acre cultural landscape area and additional surrounding acreage (approximately 321 acres total) to address the purpose and need for this plan (see chapter 3, figure 2). On-water visitor use and capacity is not included in the scope of this plan or in this analysis.

#### **2. Review Existing Direction and Knowledge**

The National Park Service reviewed prior planning and guidance to inform the identification of visitor capacity. The National Park Service also reviewed current visitor use levels and experiences and how these compare to desired conditions of the analysis area, as described in chapter 4 in the Desired Conditions (Objectives) of this plan. Visitor activities within the project area include boating, hiking, fishing, and sightseeing at and around the Kettle Falls Hotel. The project area is used for both day use and overnight use and includes the Kettle Falls Historic District and surrounding area. Because of the difference in visitation trends between day and night, this plan identified the need to establish both a day use and overnight visitor capacity. Visitor use in the Kettle Falls area is relatively low compared to other areas of the park. The area is remote, located in the northern portion of Minnesota, and difficult to access. Consequently, the natural and cultural resources are in a stable condition with little to no significant impacts from visitor use. In addition, because the area receives the majority of its visitation during the

summer months, the resources have an opportunity to recover during low periods of visitation in the late fall, winter, and early spring.

Several previous plans informed the identification of visitor capacity including the General Management Plan (GMP 2002) and the Cultural Landscape Inventory (CLI 2017). According to the 2002 GMP, Kettle Falls and the surrounding area is a destination site that includes various management areas: development zone, high-density lakecountry, and primitive. The development zone, which constitutes the Kettle Falls facility, provides opportunities for social encounters among visitors and among visitors and park staff. Specifically, Kettle Falls was identified as a high-density lakecountry management area (see chapter 3, table 1). Within this zone, the probability of encountering other visitors is high. The area outside of the development zone and lakecountry management area is zoned primitive, where visitors can expect a “wild” experience with few facilities. Based on current monitoring of resource assessments, public input and best professional management judgement, the National Park Service has determined that these desired conditions are currently being met within the project area. The 2017 CLI determined that the landscape retains significant features associated with the period of significance such as the dam, the hotel, and the surrounding forest and remote location. Little development has occurred within the historic district since its designation, providing visitors with an opportunity to experience the historic character of the area.

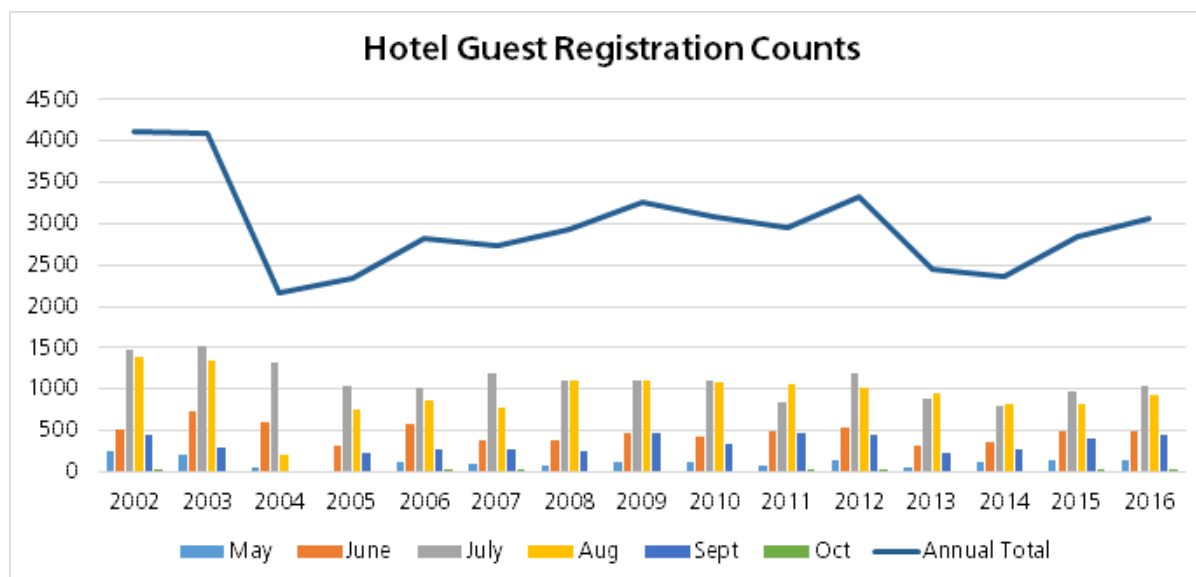
Most visitors access Kettle Falls via boat, either on a private vessel, through one of the park-operated daily tour boats, or through the transportation service offered by the concessioner. Peak visitation during the day occurs around lunchtime, when visitors may dine at the hotel. The concessioner also operates a restaurant and bar within the hotel, portage services, boat fueling, kayak rentals, and a trading post/gift shop. These services are offered mid-May through mid-October each year.

Data sources used to identify the visitor capacity include the public use statistics accessed from <https://irma.nps.gov/STATS/Reports/Park/VOYA>. Data collection included hotel guest counts from the concessioner and annual use of the park-operated tour boats. To identify the appropriate amount of types of use at key areas, a variety of data was reviewed to understand current conditions compared to goals and objectives for the area for overnight use and day use, separately.

The desired conditions within the zones mentioned above and the associated plans, including the actions in the proposed alternative(s) of this plan (see chapter 4), influence the ability of the area to accommodate use, and therefore influence the identification of visitor capacity. The rationale for this analysis is presented below.

### **Overnight Visitor Use**

Currently, overnight visitor use levels are directly related to the maximum number and occupancy rate of bedrooms within existing facilities. The current facility supply is consistent with desired conditions of the project area. The majority of overnight visitors stay at the Kettle Falls Hotel or in one of the guest villas, the only lodging offered within Voyageurs National Park. Both facilities are operated by the same concessioner. Figure D-1 illustrates the trends of overnight use at the hotel and villas within the project area. Annual overnight visitation rarely exceeds 3,500 visitors, with majority of overnight use occurring during July and August.



**FIGURE D-1. HOTEL AND VILLA GUEST REGISTRATION MONTHLY AND ANNUAL (2002–2016)**

Alternatives B proposes to increase the range of overnight opportunities for visitors by adding campsites, camper cabins, and providing limited houseboat mooring sites, among other things. These additional opportunities are consistent with and protective of desired resource conditions and visitor experiences. Table D-1 below outlines the number of visitors that these facilities can accommodate on a nightly basis. Each of these facilities may not reach full capacity every night.

Preliminary alternative B proposes five primitive campsites, with one of them being a group campsite and the remaining four designated as individual campsites. According to the 2002 GMP, small campsites within a lakecountry zone can accommodate nine people per site, while large campsites can accommodate 18 people per site. Alternative B, as proposed and presented in table D-1, show four camper cabins could accommodate four to six people each. Overnight visitor capacity within each camping area was identified using this information.

Preliminary alternative B proposes that the houseboat mooring sites provide additional overnight accommodation. Based on current use levels and management strategies, two houseboat sites would be offered for overnight use at each location: Rainy and Namakan Lake. If visitor use levels show a greater demand, park staff may elect to increase the number of overnight houseboats to four per site. For the purpose of overnight visitor capacity and accommodating future trends, the analysis assumed the maximum of four houseboats per site. This plan amends the 2002 GMP and decreases the number of people per houseboat from 12 to 6 at each of the Kettle Falls houseboat docking sites; therefore, this number was used to identify the maximum overnight capacity for houseboats.

Because of the remote location of Kettle Falls, many of the concession employees live in the hotel, or in guest villas, or in an employee-only villa during the operating season. This plan proposes to develop additional housing for concession employees, thereby returning some overnight accommodations back to visitors that cannot currently use the rooms occupied by employees.

**Table D-1. Summary of Overnight Facilities, Maximum Group Size, and Facility Visitor Accommodation—Alternative B – Preliminary Proposal**

Facility Type	Unit	Max Group Size	Proposed Facility Accommodation
<b>Visitor Lodging</b>			
Kettle Falls Hotel	12 rooms	2 people per room	24
Guest Villas	10 villas	4 people per villa	40
Kettle Portage Primitive Campground	5 campsites (1 large; 4 small)	18 people per large campsite; 9 people per small campsite	54
Namakan Houseboats	4 overnight	6 people per boat	24
Rainy Houseboats (including Surveyor's Island)	4 overnight	6 people per boat	24
Camper Cabins	4 cabins	6 people per cabin	24
<b>Total (visitor)</b>			<b>190</b>
<b>Concession Employee Housing</b>			
KF Hotel Manager's Room	1 room	2 people per room	2
Employee-only Villa	4 rooms	2 people per room	8
New Concession Housing	8 rooms	2 people per room	16
<b>Total (concession employee)</b>			<b>26</b>
<b>Total Daily Overnight Facility Supply (visitors and concession employee)</b>			<b>216</b>

**Day Use**

As stated in chapter 3, Day Use (2013-2018 section), there are two park-operated tour boats: the Kabetogama cruise on the *Amik* tour boat and the Rainy Lake cruise on the *Voyageur* tour boat. The *Amik* operates up to four times per week during summer months (mid-June to September) and up to three times per week for two weeks in September. The boat tour runs on Monday, Tuesday, Friday, and Thursday evenings. The *Voyageur* offers tours up to five times per week during the summer months on Sunday, Tuesday, Wednesday, Friday, and Saturday. Tour boat passengers spend a couple hours at the site, they may eat lunch, and then they return to the tour boat and depart the site.

Each tour boat requires a minimum number of passengers to operate. The *Amik* requires a minimum of six passengers per trip, while the *Voyageur* requires at least 22 passengers per trip. While the *Amik* can hold 18 passengers, park staff only allow 16 to ensure visitor comfort and a high quality experience; the *Voyageur* can accommodate 49 passengers. As noted above, the tour boats both operate on two of the same days of the week during the summer months: Tuesday and Friday. Therefore, daily visitor use levels could only be maximized on these two days assuming both of the tour boats are full.

From 2013 to 2018, the average number of passengers per trip was approximately 28 for *Voyageur* and 16 for the *Amik* (a combined total of 44). Table D-2 illustrates that current use levels are within the desired conditions for visitor experience for the park-operated tour boats and do not currently exceed capacity. Based on accommodation size of the tour boats, the use levels being delivered from the park-operated tour boats would not exceed 65 people per day.

**Table D-2. Passenger and Park-Operated Boat Tour Numbers from 2013 to 2018—Tour Boat Passengers**

Year	Rainy Lake (Voyageurs)	Kab. Lake (Amik)
2013	0	17
2014	27	13
2015	31	16
2016	43	17
2017	24	16
2018	40	16
Annual Average	28	16

Currently, the two existing boat docks offer a total of 49 slips for private boaters. Namakan docks accommodate 24 visitor boats, Rainy Lake docks accommodate 25 visitor boats, while the guest villa docks are for concessioner use only. While the plan proposes a more efficient docking system, overall use levels of the docks by private boaters are unlikely to increase. For the purposes of this analysis, the plan assumes a 10% increase to account for any trends. Therefore, the plan assumes there can be no more than 55 boats docked at the boating slips at one time. According to the National Recreation Boating Survey (2012),<sup>28</sup> the average number of people aboard power, sail, and pontoon boats per day is approximately three people. As a result, the boating slips may accommodate 165 people per day during the summer months.

The plan proposes to allow overnight houseboat docking at two of the four locations. Because capacity for four houseboats is already being evaluated as part of the overnight capacity, the plan identifies day use capacity at Namakan houseboat mooring sites to be 12 visitors. At the Rainy Lake houseboat mooring site, the plan proposes to allow one houseboat to use the area for day use. Therefore, day use capacity at this site would be six visitors.

Visitors may also access the Kettle Falls area via seaplane by landing on the water and docking at one of the available spaces. The National Park Service consulted park staff and determined that this occurs only a few times per year and therefore does not need a day-use visitor capacity identified.

### 3. Identify the Limiting Attribute

This section identifies the limiting attribute(s) that most constrains the analysis area's ability to accommodate visitor use. Identification of the most limiting attribute(s) is important given that a location could experience a variety of challenges regarding visitor use. The most limiting attributes constraining visitor use in the Kettle Falls area are topography and visitor access options, the quality of visitor experience, and the extent that facilities can be expanded for overnight accommodation given operational, resource, and visitor experience considerations.

*Topography and Visitor Access Options:* Kettle Falls is located in a remote eastern area of Voyageurs National Park on the Minnesota/Canadian border. Surrounded by water on three sides, primary visitor access to Kettle Falls is by boat, which directly affects the amount of visitors that can access the island for both day use and overnight use. Visitors may choose from

28. <https://www.uscgboating.org/library/recreational-boating-survey/USCG-2012-NRBS-Report.pdf>



transportation options including the hotel ferry service, park-operated tour boat, houseboat, or private boat. Other modes of transportation that are used less frequently include seaplane or snowmobile in winter. There are no roads to Kettle Falls and access by private car is not feasible.

*Quality of Visitor Experience:* As described in the 2002 GMP, the desired conditions for visitor experience in a developed area include social experiences through visitor contact and interpretive programs. The probability of encountering other visitors is high. Within the lakecountry management area, visitors should have access to developed park facilities. The landscape should offer moderate to high degree of challenge and adventure for visitors. The probability of encountering other visitors and hearing noise is moderate to high during certain times of the year. Current conditions are providing this type of experience during peak visitation hours during the summer months. Visitor use is concentrated within and surrounding the Kettle Falls Hotel where visitors may dine and shop.

Outside of the daily peak visitation time, visitors are less likely to encounter other visitors and therefore the desired conditions are still met. However, it is possible that potential increase in use levels may negatively impact the visitor experience; therefore, quality of visitor experience was identified as a limiting attribute.

*Ability to Expand Infrastructure:* This plan proposes to develop infrastructure such as improving boating docks, rehabilitating an existing trail network, and establishing campgrounds based on NPS's determination that these changes achieve visitor experience and operational goals and are unlikely to have significant resource impacts. The preliminary alternative(s) do not propose any additional options for visitor access as on-water use is outside the scope of this plan and car routes are not feasible.

The number of docks in Kettle Falls directly affects the number of visitors who access the area via private boats. The two park-operated tour boats dock at the tour boat landing, which is for day-use only. Although this plan proposes boating dock rehabilitation, the goal is to create a more efficient docking system.

As described in the general management plan, the Kettle Falls area is a visitor destination of the park located at a confluence of management areas including a development area, a high-density lakecountry area, and a primitive area. Desired conditions for visitor experience and resources vary across these management areas. The limiting attributes mentioned above most influence the ability of the area to accommodate visitor use and inform the identification of visitor capacity to help ensure that desired conditions are met within each area.

### **Indicators, Thresholds, and Management Strategies**

To monitor any changes in visitor use and/or experience, indicators and thresholds were identified as potential management strategies to address the limiting attributes. Indicators translate desired conditions for the Kettle Falls project area into measurable attributes that may be tracked over time and allow park staff to evaluate changes in resource or experiential conditions. Thresholds are the minimally acceptable condition associated with each indicator and are an important component to ensure desired conditions are achieved. The following indicators and thresholds were identified as part of the Kettle Falls Site Development Plan:

**Table D-3. Indicators, Thresholds, and Management Strategies**

<b>Strategy</b>		<b>Park-operated tour boat accommodation</b>
Indicator		Number of incidents per year that visitors access Kettle Falls via park-operated tour boat above the facility accommodation guidelines
Threshold		No more than two incidents per year for each the <i>Amik</i> and <i>Voyageur</i>
Rationale for Indicator and Threshold		The indicator helps ensure that the visitor experience onboard the park-operated tour boats and within the Kettle Falls project area is reflective of the desired experiential and resource conditions.
Monitoring and Management Strategies		<ul style="list-style-type: none"> <li>• Use the existing NPS reservation system for park-operated tour boats</li> </ul>
<b>Strategy</b>		<b>Overnight facility accommodation</b>
Indicator		Number of incidents per operational season that overnight accommodation at the Kettle Falls Hotel, campgrounds, camper cabins, and houseboats exceeds the facility accommodation guidelines
Threshold		No more than two incidents per operational season for each type of facility
Rationale for Indicator and Threshold		This indicator helps ensure that overnight visitor experience helps maintain desired experiential and resource conditions within the Kettle Falls project area
Monitoring and Management Strategies		<ul style="list-style-type: none"> <li>• Use the existing concession-operated reservation system for the Kettle Falls Hotel and guest villas</li> <li>• Formalize the houseboat mooring sites to meet accessibility guidelines</li> <li>• Monitor impacts to natural and cultural resources by survey or inventory every 3 to 5 years, or as reported, to ensure significant degradation from visitor use does not occur</li> </ul>
<b>Strategy</b>		<b>Road conditions</b>
Indicator		Number of roads that exceed the desired road width of 12 feet
Threshold		No more than one historic road within the Kettle Falls project area shall exceed a width of 12 feet
Rationale for Indicator and Threshold		The portage roads within the project area are historic and park staff identified the need to maintain road conditions to their existing historic width
Monitoring and Management Strategies		<ul style="list-style-type: none"> <li>• Monitor road width once per year</li> <li>• Develop PMIS project to restore road width, if exceeded</li> </ul>
<b>Strategy</b>		<b>Trail conditions</b>
Indicator		Number of trails that exceed the desired trail width of 64 inches
Threshold		No more than one trail within the Kettle Falls project area shall exceed a width of 64 inches
Rationale for Indicator and Threshold		Trails should primarily accommodate pedestrian access, but also park maintenance vehicles such as golf carts or other small utility vehicles
Monitoring and Management Strategies		<ul style="list-style-type: none"> <li>• Monitor trail width once per year</li> <li>• Develop PMIS project to restore trail width, if exceeded</li> </ul>

#### **4. Identify Visitor Capacity**

During the site development planning process, the team identified the maximum appropriate level of visitor use within the project area. Visitor capacities were established for overnight use visitors and day use visitors.

##### **Overnight Use Visitor Capacity**

Given current use levels at the Kettle Falls Hotel and the surrounding project area, the change in facility supply as result of the actions in this plan, and the limiting attributes of the Kettle Falls project area, the National Park Service identified the visitor capacity can increase, while still achieving and maintaining desired conditions.

Through this plan, the overnight capacity has been identified as 216 people (representative of both visitors and concession employees) and is consistent with the current amount of facility supply that has been determined to be protective of desired conditions. Identifying the capacity that includes concession employees allows for future adaptive management in the scenario that employees no longer reside within the project area and the park or concessioner wants to use the facilities to accommodate visitors.

##### **Day Use Visitor Capacity**

Current day use levels are not close to exceeding the amount of use provided for by access options and supporting facilities (e.g., boat docks) within the project area. Given an assessment of current conditions for resources and visitor experiences as noted above, it is anticipated that an increase in day use levels can be accommodated while still achieving and maintaining desired conditions. In summary, given current day use patterns in the Kettle Falls project area and with the associated limiting attributes, the NPS identified that visitor capacity can increase while achieving and maintaining desired conditions.

As illustrated in table D-4, day-use visitor capacity for the Kettle Falls area was identified as 230 people per day. This evaluation included the number of people who may visit Kettle Falls via park-operated tour boat, day use houseboat mooring sites, and private boaters.

**Table D-4. Summary of Day-Use Facilities, Estimated Maximum Group Size, and Facility Visitor Accommodation—Alternative B – Preliminary Proposal**

Facility Type	Unit	Estimated Max Group Size	Proposed Facility Accommodation
<b><i>Park-operated tour boats</i></b>			
Amik (Kab. Lake)	1	16	16
Voyageur (Rainy Lake)	1	49	49
<b><i>Day-use private docks</i></b>			
Namakan docks	24 boating slips	3 people per boat	72
Rainy Lake docks	25 boating slips	3 people per boat	75
<b><i>Day-use houseboat sites</i></b>			
Namakan	2 mooring sites	6 people per boat	12
Rainy Lake	1 mooring site	6 people per boat	6
<b>Total Day Use Visitor Capacity</b>			<b>230</b>

### Maximum Visitor Capacity

Although some visitors who access Kettle Falls by private boat may elect to stay overnight, the purpose of this analysis was to identify maximum capacity. Therefore, for this analysis, the NPS assumed that day-use and overnight-use visitors are mutually exclusive. Through this plan, total visitor capacity per day of the Kettle Falls project area was identified as a maximum of 446 visitors. Should the park elect to expand facilities or increase visitor accommodation in the future, visitor capacity may be re-evaluated at that time.

### **Management Strategies**

Additional strategies to implement visitor capacity for day and overnight visitor use within the Kettle Falls project area include:

- Improved signage, interpretation, and visitor education
- Use the existing NPS reservation system for park-operated tour boats (recreation.gov)
- Use the existing reservation system for the Kettle Falls Hotel and guest villas (concession-operated)
- Formalize the houseboat mooring sites to meet accessibility guidelines
- Formalize seaplane use of the existing docks
- Park staff would continue to monitor impacts to natural and cultural resources to ensure significant degradation from visitor use does not occur
- Certain visitor capacities, such as overnight accommodation, would be enforced through the reservation system

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**5/19/2020**

## **KETTLE FALLS SITE DEVELOPMENT PLAN**

### **ENVIRONMENTAL ASSESSMENT**



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# CHAPTER 1: INTRODUCTION, PURPOSE, AND NEED

## INTRODUCTION

Voyageurs National Park (park) encompasses 218,054 acres of land and water along the United States-Canada border in northern Minnesota (Koochiching and St. Louis counties). The Kettle Falls project area (St. Louis County) includes a historic hotel and its associated features located at the eastern end of the Kabetogama Peninsula and within sight distance of the Canadian border. The project area includes an approximately 30-acre cultural landscape and Historic District, plus enough additional surrounding acreage (figure 1) to address the purpose and need for action (approximately 321 acres total). Chapters 1 and 2 of the Kettle Falls Site Development Plan (plan) detail the scope of the project and the extent of the project area.

Kettle Falls is reached primarily via the Rainy and Namakan basins by watercraft (e.g., private vessels, tour boats, concessioner's boat shuttle) and the occasional seaplane. The project site may be accessed by snowmobile along a designated trail during winter months. A trail and portage road network connects the various destinations within the immediate vicinity. The historic hotel, its restaurant and bar, plus the modern villas, portage services, boat fueling, and trading post/gift shop are operated through a concession contract to serve visitors during the months of May through October of each year. Concessioner employees live on-site, using space in the historic hotel, the modern villas, and an employee-only housing unit.

## PURPOSE AND NEED FOR ACTION

The **purpose** of the plan is to enhance the visitor experience and the facilities that support visitors, to improve concession employee facilities, to avoid unacceptable impacts to cultural and natural resources, and to address the potential impacts that could affect the resiliency of the Kettle Falls area.

The **need** for this planning document arose from the conditions, trends, threats and opportunities identified in the foundation document and other recent planning documents and during preliminary discussions about development in the Kettle Falls area. This plan is needed to determine how to manage several structures within the project area that are aging and in need of repair or replacement; to bring some of the existing amenities, including access to the dam overlook and some trails or other features, into compliance with accessibility standards; and to identify concession staff housing options that would meet the needs of the concessioner and thereby improve visitor experience.

Additionally, the Desired Conditions section in the plan notes the objectives for the planning area. Those objectives were taken into consideration when developing the proposed alternative and other alternatives in order to achieve the desired outcome.



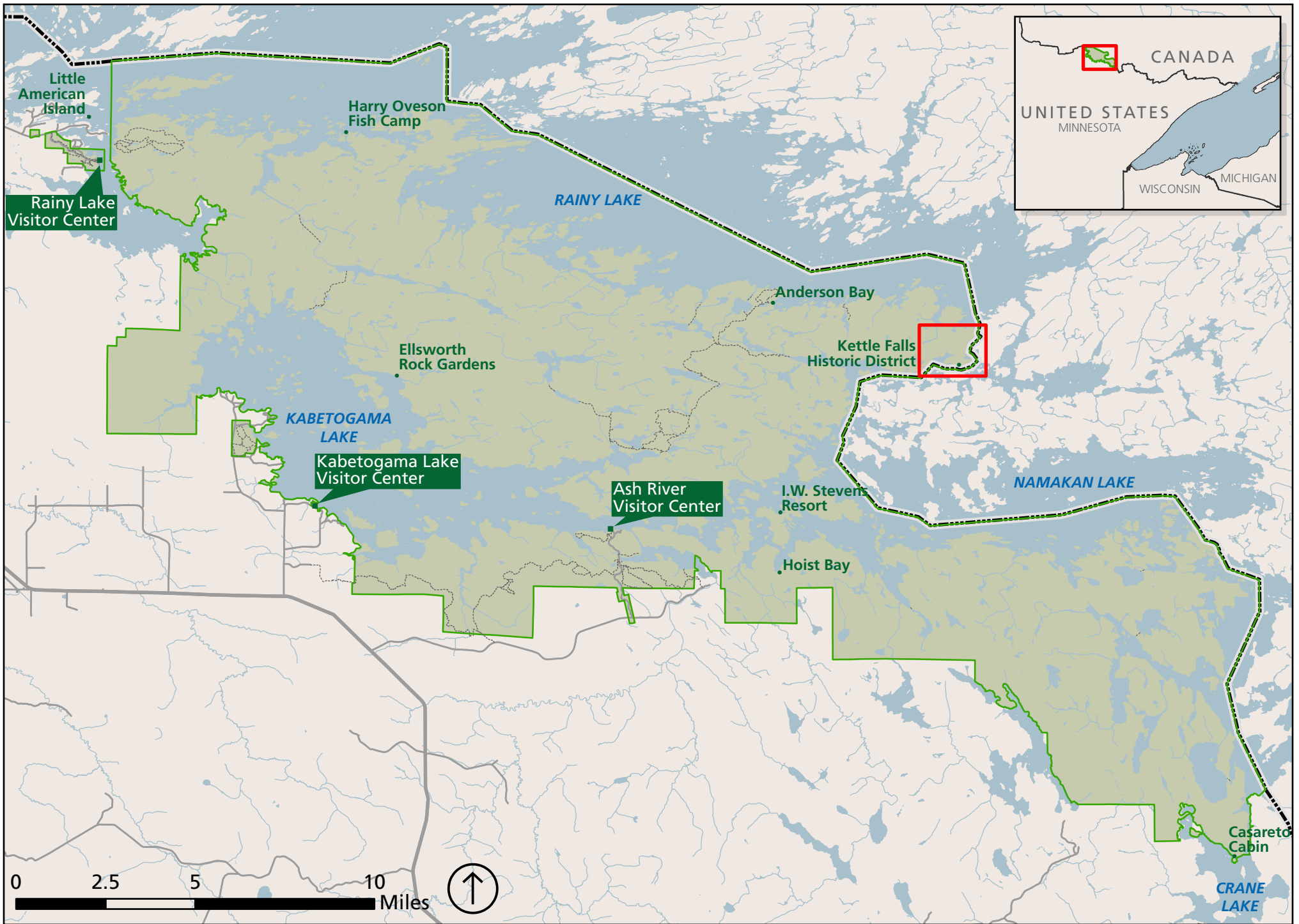


FIGURE 1: PARK AND KETTLE FALLS PROJECT AREA



## CHAPTER 2: DESCRIPTION OF ALTERNATIVES

The National Environmental Policy Act (NEPA) requires federal agencies to conduct a careful, complete, and analytical study of the impacts resulting from proposals that have the potential to affect the environment and to consider alternatives to those proposals well before any decisions are made. The following is a summary description of the alternatives selected for analysis (including a no-action alternative), alternatives or actions considered but dismissed, and the agency preferred alternative. (Appendix A of this document shows a detailed comparison table of the differences between alternatives.) Stipulations, best management practices, and mitigation measures are also included in this chapter.

### ALTERNATIVE A – NO-ACTION ALTERNATIVE

A summary of the continuation of current management practices is arranged by planning issue. This alternative represents a continuation of current management practices, including maintaining existing facilities and infrastructure in their current condition. Some previously planned projects to repair or rehabilitate existing structures would continue to move forward. *Figure 9 in the plan shows existing facilities.*

#### Overnight Use

**Visitors.** The Kettle Falls Hotel would continue to offer 11 hotel rooms for visitors. The three guest villas would continue to be combined in multiple ways to accommodate visitors with a total of 8 to 10 units. Camping would continue to be limited in the Kettle Falls vicinity to the existing sites located at N16 Kettle Portage campsites.

**Staff.** Concession employee housing would continue to be in short supply, occupying the employee villa (16 beds); the “manager’s room” (one bed) in the hotel and one additional room (one bed); and up to two units of the guest villa (eight beds). This ad-hoc arrangement is above NPS housing guidance of a maximum of two beds per room and removes one hotel room and two units of the guest villas from visitor rental. A temporary (and concessioner-owned) recreational vehicle would continue to be used for staff at the discretion of the concessioner. The Company House would continue to offer three beds for staff on a temporary basis. No NPS staff housing would be available.

#### Approach, Access, and Docking

Houseboat access would continue to be offered at Namakan Lake’s Houseboat Bay for day-use only. There would continue to be no designated houseboat mooring at Rainy Lake, although some informal mooring would continue to be used near the American Channel. Surveyor’s Island would continue to offer informal houseboat mooring access. Seaplane access would continue as outlined in the 2002 GMP and utilize any open dock space. Existing docks would continue to be repaired or replaced per standard maintenance cycles, without increasing capacity. Guest villa docks, built by the concessioner, would continue to offer docking for villa guests. There would continue to be no identified emergency helicopter landing spot in or near Kettle Falls.

## **Landscape Changes or Enhancements**

**Zones.** Zoning would continue to be consistent with the zones described on pages 18 through 20 of the 2002 general management plan (GMP).

**Hotel area.** The Kettle Falls Hotel area would continue to offer its open grass lawn and undefined social areas. Concession staff would continue to have undefined break areas. The Guest villas would continue to have limited exterior social and recreational space in front of and behind the villas, and blocked views of the water. Social trails would continue to degrade soils and vegetation use or expansion. Both the Namakan Lake and Rainy Lake landing areas would continue to offer existing facilities and amenities. Proposals to rehabilitate the Dam Overlook and to stabilize the Damtender's Cabin would be implemented through separate projects (as noted in cumulative impacts).

## **Circulation and Accessibility**

Circulation would continue with existing roads, trails (with basic maintenance), and signage. Interpretation would continue to occur from tour boats and non-personal signage. Existing accessible features would continue to be offered, including a ramp onto the hotel veranda, lifts (by request) at Rainy and Namakan docks, and vault toilet interiors.

## **Other Issues**

Utilities would generally not increase in capacity and routine maintenance would continue to occur as needed. The National Park Service would continue to study the replacement of approximately 13 miles of underwater electric line and explore sustainable and alternative options such as solar or hydro-power (this is a separate and ongoing multi-year feasibility study).

## **ALTERNATIVE B – PROPOSED ACTION (PREFERRED ALTERNATIVE)**

This alternative would modify current management practices by creating additional overnight opportunities for visitors and day-use areas, improving docking and houseboat mooring, and making minor landscaping changes at the hotel and guest villas. This alternative would reallocate existing bedroom space capacity and provide additional housing for concession employees to fulfill that demand. Some previously planned projects to repair or rehabilitate existing structures would continue to move forward. *Refer to figures 17a through 17h in the plan, which show the proposed facility locations or landscaping concepts.*

## **Overnight Use**

**Visitors.** The Kettle Falls Hotel would offer all its 12 hotel rooms for visitor use. Likewise, all three Guest villas would accommodate visitors with all 10 units. *Refer to figure 17e in the plan.*

Kettle Portage Primitive Campground would be developed as a primitive tent campground (one large site and four small sites), with a vault toilet and other small-scale amenities, and with access to both the proposed and existing Kettle Falls Trail network and boat-in access. Some trees or vegetation would be trimmed for both fire management and to clear space for the camping sites. *Refer to figure 17c in the plan.*

One cabin campground containing up to four camper cabin structures, each of which should accommodate four to six people, would be developed on the land mass between Airplane Bay and Houseboat Bay. Key features of this cabin area would include a shared vault toilet and a shared social area with fire pit. The cabins would not offer running water but would include electricity for lighting and heating. *Refer to figure 17d in the plan.*

**Staff.** The National Park Service would construct a new, two-story, dorm-style housing structure to accommodate up to 16 people in the vicinity of the existing Employee Villa. Additionally, the National Park Service would construct common living and outdoor spaces to provide an improved quality of life for employees. Concession employee housing would be modified to occupy existing housing only at the employee villa (four rooms, two people per room) and discontinue using the hotel, Company House, guest villas, and temporary solutions (such as the RV and Company House) as concession employee housing. *Refer to figure 17h in the plan.*

### **Approach, Access, and Docking**

**Houseboats.** Visitors would continue to use the existing reservation system to obtain overnight permits for all mooring sites that allow overnight use. At Namakan Lake's Houseboat Bay there would be up to four total houseboat dockings, two of which would be for day-use only and the other two for either day-use or overnight use (at least one site meeting accessibility requirements, as practicable). Each site would include reasonable egress from the boat to minimize shoreline damage. In the event accessibility requirements are not possible at Houseboat Bay, an accessible drop-off point for day-use "run-about" boat passengers would be provided at Namakan Landing nearest the boat house and fueling station. *Refer to figure 17f in the plan.* At the Rainy Lake Landing area, one houseboat mooring site would be provided for day use and overnight use, if practicable, allowing reasonable egress from the boat to the shoreline. Near Rainy Lake's Surveyors Island, up to four total houseboat mooring sites would be provided with up to two sites that may be used for overnight use. *Refer to figure 17a in the plan.*

**Seaplanes.** The National Park Service would formalize the use of docks for seaplane docking.

**Docks.** On the Namakan Lake side and at its main landing area, the National Park Service would reconfigure floating dock/finger dock portions using the existing bulkhead, and crib docks would be designed and implemented (*refer to figure 17f in the plan*). The NPS maintenance dock would be retained and signed to clearly indicate for NPS use only. The Rainy Lake docks would be reconfigured to accommodate visitation needs by using the two existing bulkheads and modifying the floating dockage (*refer to figure 17h in the plan*). At the Rainy Lake Landing for Tour Boats, the existing landing would be rehabilitated or replaced with a crib docking system with the potential for a floating gangway (*refer to figure 17g in the plan*). The smaller concession-built guest villa docks would be upgraded or replaced with docks built to NPS standards, utilizing the existing bulkheads if practicable (*refer to figure 17h in the plan*). Docks would be upgraded with marine-grade electric pedestals as needed to provide charging areas.

**Emergency access.** An emergency helicopter landing area would be established on the Rainy Lake side, toward the end of the hotel road, near the Tour Boat Landing. Vegetation or other obstacles along the road would be hand-trimmed to under 18-inches in height within a 75-foot circular area (no equipment would be driven into wetland areas). A 15 foot by 15 foot clear and level area for landing would be provided using the existing road and clear space as practicable.

No formalized (i.e., concrete) landing pad would be installed. A portable windsock would be deployed in advance of known flights. *Refer to figure 17g in the plan.*

## **Landscape Changes or Enhancements**

**Zones.** Same as alternative A.

**Hotel area.** The National Park Service would define Kettle Falls Hotel area landscaping and plantings. The National Park Service would develop new day-use enhancements including a fire ring, social area, and picnic area for visitors. A screened and separated break area would be established behind the laundry building for concession staff. Golf cart parking would be designated east of the hotel and could be located behind a gate in keeping with the historic character of the district or light shrubbery. The footprint of looped road that falls outside of the historic circulation pattern and width would be minimized and naturalized. The draft cultural landscape report (CLR) would continue to be used to guide landscaping and vegetation plantings, and other uses of this area. *Refer to figure 17e in the plan.*

**Guest Villas, Lower Areas.** The villas would be made accessible to the extent practicable. Exterior site improvements such as decks would be added at the lower villas and sited behind the villa or to the side of the villa. Decks at lower villas would accommodate up to eight guests with either two small, four-person decks or one larger, eight-person deck with enough space to accommodate deck chairs, a small table, and grill. *Refer to figure 17h in the plan.*

**Guest Villas, Upper Areas.** Improvements to picnic space and landscaping at upper villa areas would include moving the social space away from the villa. The National Park Service would provide level and hardened access to picnic area with at least 3 feet of clear space on all sides and move grills away from the roof overhang. These social spaces would accommodate up to eight guests at the upper villas and could be configured as two small, four-person picnic pads or one larger, eight-person picnic pad. Key features of outdoor space at upper villas would include using the same treatment for all three villas but incorporate existing boulders at Leaning Pine into the landscape design. The National Park Service would remove smaller vegetation as needed to clear an area approximately 8 feet wide, and the length the villa. *Refer to figure 17h in the plan.*

**Guest Villa Viewshed.** The National Park Service would improve views to the lake, as practicable, by establishing a viewshed from each villa to open the view to the water (using selective thinning, not a full scale clear-cut). This would double as a firebreak and defensible boundary. *Refer to figure 17h in the plan.*

**Trails around Guest Villas.** The National Park Service would establish a more defined trail system by reducing current braiding, revegetating unnecessary loops, leveling high points, retaining timber edging, and defining trail usage, width, and direction of travel. The National Park Service would formalize trails from villa docks to villas and to Bear Point (by hardening existing social trail or historic trail). *Refer to figure 17h in the plan.*

**Bear Point Clearing.** The National Park Service would continue to use the existing fire pit and picnic table. The National Park Service would harden the area around the fire pit using timber borders and a crusher-fines surface material. The NPS would place log benches for seating and signage to indicate Bear Point as a social area. *Refer to figure 17h in the plan.*

**Namakan Lake, day-use site enhancements.** The National Park Service would provide the same amenities as alternative A and would develop a Welcome Area to serve as a visitor gathering area and provide an enhanced sense of arrival directed toward the Trading Post. The National Park Service would relocate the Namakan welcome kiosk closer to the Trading Post, moving it off archeological resources that were later discovered. The National Park Service would develop a covered picnic shelter (approximately 20 by 40 feet), with optional screening, to provide a view of the marina area. *Refer to figure 17f in the plan.*

**Rainy Lake, day-use site enhancements:** same as alternative A, plus the National Park Service would develop a Welcome Area near the marina and tour boat landing area. Near the marina, the National Park Service would move kiosks or install updated signage to celebrate a sense of arrival and provide better wayfinding from the marina to other important site amenities and would formalize the existing picnic area. At the Tour Boat Landing area, the National Park Service would install updated signage to celebrate a sense of arrival and provide better wayfinding from the marina to other important site amenities. *Refer to figure 17g in the plan.*

**Restrooms (Comfort Stations).** At the hotel area, the National Park Service would repurpose the 1978 “generator shed” into an accessible restroom to be used by all visitors (*refer to figure 17e in the plan*). At the Namakan Landing Company House area, the National Park Service would provide an accessible route to the comfort station located behind Company House (*refer to figure 17e in the plan*).

**Dam Overlook.** Same as alternative A, plus the National Park Service would develop an accessible route, north of existing trail, for pedestrian use up to the viewing platform. *Refer to figure 17g in the plan.*

**Damtender’s Cabin.** Same as alternative A, plus the National Park Service would selectively clear vegetation to open the view to the water. *Refer to figure 17e in the plan.*

**Company House and area— Summer Use.** The National Park Service would provide overnight housing for volunteer or NPS staff (one room for volunteers and two rooms for NPS staff). The National Park Service would use this area as an interpretive location by establishing a visitor contact station during summer months (for book sales, visitor information, etc.). Winter Use: the National Park Service would continue to provide overnight housing for current damtender staff. *Refer to figure 17e in the plan.*

## **Circulation and Accessibility**

**Accessibility enhancements.** Same as alternative A, plus the National Park Service would incorporate accessible elements into all new construction projects as practicable, including trails. Using the existing ramp up to hotel veranda, the concessioner would be allowed to offer bar service on the veranda.

**Trails and roads.** Same as alternative A, plus the National Park Service would develop an approximate 4-mile trail network from the Kettle Falls Hotel area to Rainy Lake houseboat mooring site (near Surveyor’s Island) and to the Kettle Falls tent campground, connecting back to the Kettle Falls Hotel area. *Refer to figure 17a in the plan.* Other trails and roads within the Historic District would maintain historic circulation patterns and widths.

**Trail from Namakan and Rainy Landing Houseboat Mooring Sites.** The National Park Service would develop trails from houseboat mooring sites back to each landing areas.

**Signage and wayfinding.** At Namakan Lake, the National Park Service would install wayfinding signs for visitors at the maintenance dock to navigate back to multiple destinations at Kettle Falls. The National Park Service would install standard trail wayfinding signs along the entirety of the trail network (e.g., at every intersection).

### **Other Issues**

**Utilities.** Same as alternative A, plus the National Park Service would replace existing inefficient appliances, lightbulbs, etc. with energy-efficient options. Water: the National Park Service would apply new or additional filters to wells during scheduled maintenance activities. Study potential locations for well. (Existing utility capacity is sufficient to supply power, water, and water treatment for the proposed new facilities.)

**Dark Skies.** The National Park Service would implement dark sky recommendations for replacement lighting.

### **BEST MANAGEMENT PRACTICES, STIPULATIONS, AND MITIGATION MEASURES**

The Best Management Practices section in the plan details the strategies or best management practices that would be considered prior to initiating the preferred alternative. This section details additional stipulations or mitigation measures that would be initiated to further reduce potential impacts to resources before, during, or after the implementation of the preferred alternative.

#### **General:**

- Implement monitoring strategies based on visitor use indicators and thresholds.
- Perform construction or maintenance activities during less-than-peak visitation times to the extent practicable.
- Winterize facilities used in winter season; this may include burying exposed water lines.

#### **Biological:**

- All work will follow best practices to avoid introduction of aquatic and/or terrestrial invasive species to the extent practicable.
- Consult US Fish and Wildlife Service prior to implementing any action with the potential to affect listed species or species proposed for listing.
- Consult Minnesota Department of Natural Resources on any action with the potential to affect a state-listed species of concern.
- All vegetation trimming required in wetland areas would be done by hand with no equipment driven into those wetland areas.

#### **Cultural/Historic Resources:**

- Avoid impacts to historic properties outside of the Kettle Falls Historic District when feasible.
- Ensure that changes within the Kettle Falls Historic District are compatible with its historic character.
- Perform a cultural resource and/or archeological survey (may include shovel testing) in the areas of proposed ground disturbance prior to commencing these activities.



- Notify and consult with state historic preservation offices and tribal historic preservation offices prior to implementing any action in the plan that would result in ground disturbing activities or for activities that include historic properties.
- Provide an on-site archeologist to monitor ground-disturbing activities.

## ALTERNATIVES OR ACTIONS CONSIDERED BUT DISMISSED

During the pre-planning and planning phases, many ideas or actions were discussed, but not all are feasible or desirable in this national park unit. Table 1 represents those that were dismissed because of resource concerns, prevailing market standards, or other reasons. Actions were also dismissed if they did not support the legislative mandates of the park, the purpose and need, and/or the goals (desired conditions) for the Kettle Falls project area.

**Table 1. Alternatives or Actions Considered but Dismissed**

### Overnight Use

Issue	Action	Rationale for Dismissal
Houseboats (HB)	Mooring balls (in protected bay area)	Not supported by HB rental companies; need HBs to tie-up to land.
Houseboats	Allow HB docking at existing dock system	Not appropriate, dock not set up appropriately and not supported by HB rental companies.
Camping	Camping on lawn near or adjacent to hotel	Resource concerns and proximity to hotel guests.
Camping	Camping at isolated backcountry sites	Adequate locations for this type of use exist, away from Kettle Falls, and not a priority for this location.
Visitor lodging additions	Lodge (hotel) addition	Not reasonable with a historic structure, and lodge (hotel) rooms not in high demand.
Visitor lodging additions	Repurpose the employee break room as lodging	Not desirable for visitor experience.
Visitor lodging additions	Anchor season-long HB to be rented as lodging	HB opportunities better in other parts of parks; not desirable to clean/service houseboats.
Concession employee housing	Allow employees to stay in HB docked at Kettle Falls	HB docking potential at Kettle Falls inadequate and would be expensive.
Concession employee housing	Construct new employee housing on NPS-owned grounds on mainland	Employees commuting to Kettle Falls from mainland or from other remote sites is time consuming and expensive.
Concession employee housing	Allow employees to stay at the Hoist Bay houses and provide boats to shuttle	Employees commuting to Kettle Falls from mainland or from other remote sites is time consuming and expensive.
Concession employee housing	Off-site concessionaire housing	Employees commuting to Kettle Falls from mainland or from other remote sites is time consuming and demands high fuel usage.

Issue	Action	Rationale for Dismissal
Concession employee housing	Tent or yurt camping for employees	Not adequate housing for a full season.
Concession employee housing	Allow employees to stay at the dam tender's house	Loss of current special use permit (SUP) revenue.
Concession employee housing	Utilize additional hotel rooms for employee housing (and use villas for guest lodging)	Limits the types of opportunities and quality of stay for visitors and for staff.

### Approach / Access / Docking

Issue	Action	Rationale for Dismissal
HB access	Move HB docking at Namakan to the existing boat docks	Limited area, safety to other boaters, nexus to dam.
HB access	Use mooring balls in open/bay water	HB companies do not tend to like this idea; they prefer docks or shoreline tie-ups which are more secure for the boat.
Seaplane access	No seaplane access to KFs area	Seaplanes are not widely used, but it remains an acceptable use.
Seaplane access	Landing on Rainy Basin	No good spot for landing because of dam channel from falls.
Emergency landing for helicopters	Use cleared area within Namakan Landing area	Road to hotel provides more space, away from existing amenities.
Guest Villa Docks	Abandon docks and remove. Villa guests to dock personal boats at designated Rainy Lake slip.	Visitor amenity that is well used.

### Landscape Changes / Enhancements

Issue	Action	Rationale for Dismissal
Concession staff break area	Develop joint employee/visitor gathering space	Visitors may mistake employees on break for ignoring visitor needs.
Concession staff break area	Create employee break area within vicinity of visitors	Visitors may mistake employees on break for ignoring visitor needs.
Day-use enhancements	Develop Rainy Landing	Little need or space for much more than existing features.
Guest Villas area landscaping and exterior site improvements	Lower level villas: Utilize existing developed space and social trails outside of Leaning Pine villa.	Social spaces would be provided elsewhere for villas.
Restrooms	Abandon restroom in hotel bar	Public sentiment during November 2019 workshops favored retaining this restroom.
Damtender Cabin	Utilize as overnight facility for visitors	Would require extensive renovations to be suitable for overnight occupation.
Damtender Cabin	Lock to visitors	Locked doors tend to encourage vandalism in this region.

Issue	Action	Rationale for Dismissal
Company House	Use as staff housing	Provides SUP revenue. Not currently in park housing plan.
Trails and Roads	Allow golf carts on path to Damtender Cabin	Resource damage concern.
Trails and Roads	Allow golf carts from Company House to houseboat landing	Resource damage concern.
Trails and Roads	Create Kettle Falls to Beast Lake Connector trail to Beast Trail conceptual level (corridor) alignment (approx. 5 miles).	Outside the scope of this plan.

## AGENCY PREFERRED ALTERNATIVE

The NPS preferred alternative is determined after thoroughly reviewing the proposed alternative(s), gathering stakeholder review and public comment, completing the NEPA process, and is then adopted by issuing a formal decision. The agency preferred alternative is alternative B, which “would best accomplish the purpose and need of the proposed action while fulfilling the NPS statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors” (43 CFR 46.420(d)).

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## **CHAPTER 3: AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

The National Environmental Policy Act requires that environmental documents discuss the environmental impacts of a proposed federal action, feasible alternatives to that action, and any adverse environmental effects that cannot be avoided if a proposed action is implemented. This analysis is the basis for comparing the beneficial and adverse effects of implementing the alternatives. By examining the environmental consequences of all alternatives on an equivalent basis, decision makers can evaluate which approach would create the most desirable combination of benefits with the fewest adverse effects on the park. (Methodology for analyzing impacts is found in appendix B of this environmental assessment.)

This chapter begins with a brief explanation of the projects that may have cumulative effects for impact topics, followed by the affected environment by each impact topic, and finally the impact analysis. Each of the alternatives, including the no-action alternative, is analyzed for adverse or beneficial changes that could occur to the existing conditions of each impact topic. Adverse effects are not significant unless specifically stated. If negligible impacts would result from the proposed action(s), the impacts to those resources were dismissed from further analysis; those that were dismissed are found in appendix C of this environmental assessment.

Environmental issues or impact topics are used to define and focus the discussion of specific resources that have the potential to be affected by the alternatives or actions under consideration. Issues related to the proposed alternatives include:

- New construction and some landscaping actions could result in disturbances to soils and vegetation.
- New construction and some landscaping actions could result in unearthing archeological sites or artifacts.
- The emergency helicopter landing would be located on the edge of a cultural landscape and historic district and may intrude on the viewshed. Other small-scale landscaping actions around the hotel would enhance the cultural landscape.
- The temporary sights, sounds, or closures as a result of construction activities to Kettle Falls features or amenities would cause minor disruptions to the visitors' ability to fully use and experience the site.
- Replacing or repairing docks or houseboat mooring sites could have adverse impacts to water resources.

The impact topics directly related to one or more environmental issue and retained for analysis include:

- Soils and Vegetation
- Archeological and Historic Resources
- Cultural Landscape and Historic District
- Visitor Use and Experience
- Water Resources

## **CUMULATIVE IMPACTS**

Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such other actions. Because of the remote location of Kettle Falls, the geographic scope of the analysis includes actions only within the project area where overlapping resource impacts are possible. Any potential cumulative impacts would come from park-initiated projects. Cumulative impacts can result from individually minor, but collectively important actions, in the reasonably foreseeable future.

The projects or actions noted in table 2 below have potential to impact one or more of the impact topics listed above. The cumulative impact scenarios described below includes the impacts of the alternatives in this document combined with the potential impacts of other past, present, and reasonably foreseeable future actions. (Unfunded and unapproved conceptual plans that broadly focus on long-term goals and objectives have not been included in the cumulative impacts scenarios.)



**Table 2: Past, Present, and Reasonably Foreseeable Future Actions with Potential to Have Cumulative Impacts to Resources**

Projects	Past	Present	Future
Damtender's log cabin rehabilitation: replace or repair rotting logs and chink; repair or replace windows, doors, and roofing. Replace rotting timber foundation with poured concrete foundation. Apply insect repellent to structure.	N/A	x	x
Rehabilitate the Kettle Falls Overlook Viewing Area: remove 2,800 square feet of deteriorated wood observation viewing deck. Construct a new overlook on the same site. Interpretive waysides and benches will be incorporated into the design.	N/A	x	x
Replace 214,377 ft High Voltage Under Water Power Distribution Line: replace underwater high voltage cable that runs from the mainland 13 miles to supply Kettle Falls. The project includes hiring a consultant to help establish a plan of action for alternative energy options such as solar power, hydroelectric, single phase or a combination all. It will allow for the purchase of a backup generator to minimize power outages in the future.	N/A	x	x
Dock rehabilitation (multiple docks throughout park, including at Kettle Falls): includes dock maintenance and rehabilitation of non-historic docks. Replace damaged or rotted deck boards, stringers, cribbing, bumpers, cleats, and floats. Use existing bulkheads to the extent practicable.	N/A	N/A	x
Rehabilitate Kettle Falls Hiking Trails: repair approximately 4,140 SF of raised trail surface by replacing rotted timbers and adding fill and crusher fines in eroded sections of trail.	N/A	N/A	x
Kettle Falls Villas Wastewater Rehab: Replace 350 feet of 2-inch PVC and 1,025 feet of 2-inch galvanized pipe with new 2-inch ABS plastic pipe at our Kettle Falls Villa wastewater system within the same utility corridor. This project will replace 6 grinder pumps, 80 feet of galvanized piping, 18 valves, 3 duplex pump controls, and 3 rail systems for lifting pumps out of the wet well.	x	N/A	N/A
Rehab 2 Obsolete Wastewater System Spray Fields at Kettle Falls Hotel & Villa Housing Complex: Replace wastewater lift station pumps, mounting hardware, valves, effluent spray heads and all piping on hotel's wastewater system and villa wastewater system. Spray field lines will be changed from raised lines installed on posts to pipes installed at ground level with elevated standpipes for the spray heads. Chlorination systems will be replaced, and non-corrosive aluminum covers will replace all existing deteriorated steel covers.	x	N/A	N/A
Replace Comfort Station at Kettle Falls Rainy Side: Remove composting toilet at Kettle Falls Rainy side at tour boat dock area. New comfort station will be a unisex, 6 x 8 foot structure with 750 gallon holding tank. Access trail will be improved with crusher fines aggregate tread surface.	x	N/A	N/A

## SOILS AND VEGETATION

### Affected Environment – Soils and Vegetation

Voyageurs National Park encompasses 218,054 acres of land and water along the United States–Canada border in northern Minnesota. The project area includes approximately 321 acres (figure 1) to address the purpose and need for action.

Soils types at Kettle Falls are described in the Soils section in the plan using USDA soil survey data. Briefly, soils are generally sandy loam rich in gravel and cobbles; these soils typically range in thickness from 8 to 31 inches. Bedrock outcrops are common. In the central wetland and in

some lakeshore areas, soils are greater than 80 inches thick and are variably composed of peat, muck, loam, silt loam, silty clay loam, clay loam, and silty clay.

Vegetation is described in the Vegetation section and Historic District /Cultural Landscape section in the plan using NPS species lists and Minnesota Department of Natural Resources data. Past records show a species mix that is quite similar to what grows in the area today—red, white, and jack pine, spruce, fir, aspen and birch. Logging began in the area around 1880 and continued until authorization of the park in 1971. The resulting upland forests around Kettle Falls today are mostly mid-successional stands that are between 60 and 120 years old. Pines tend to dominate on the drier hilltops and sites where the soil is thinner, while a mixed boreal community of spruce, fir, aspen, and birch comprise the remaining upland sites. These mixed boreal stands appear to have more conifers (spruce and fir) and fewer aspen and birch than the past vegetation before logging. Invasive species are minimal and considered controlled. There are no federally listed threatened or endangered species in the park within the project area. The State of Minnesota<sup>29</sup> recognizes 101 vegetation species<sup>30</sup> as endangered, threatened, or of special concern within St. Louis County; of those, 16 are thought to have the potential to be present within the project area. The historic view from the water's edge to the hotel was once widely open as seen in figures 6 and 10 in the plan. In recent years, the vegetation has encroached towards the roadway, enclosing that view. Stands of trees surround the guest villas and other scenic viewpoints, limiting the lake views.

### **Environmental Consequences on Soils and Vegetation—Alternative A**

Minor adverse impacts to soils would continue to occur within the approximately 30 acres of the historic district of Kettle Falls. The lack of a holistic development plan for the Kettle Falls area has led to the creation of trails that are poorly marked and that do not clearly indicate appropriate use. This has also led to the creation of social trails in sensitive areas, some of which would continue to be used or created by visitors and become more pronounced; some of which developed prior to NPS management of the area. Roads would continue to receive a mix of motorized and pedestrian use and road surfaces would continue to widen. Vegetation would continue to limit the scenic views from the water's edge, guest villas, or other scenic points of interest. The park would need to develop an alternative strategy for dealing with the impacts of visitor and staff use on soils and vegetation.

### **Cumulative Impacts on Soils and Vegetation—Alternative A**

The cumulative impacts of alternative A in addition to past, present, and future actions would be long-term, localized, and have minor impacts to soils and vegetation.

### **Environmental Consequences on Soils and Vegetation—Alternative B**

New construction and some landscaping actions would result in minor adverse disturbances to soils and vegetation for foundations or utility lines. Alternative B has the potential to impact soils and vegetation within the approximate acreages shown in table 3 below and up to variable depths. Vault toilets installed in camping areas would require excavation of a 6-foot by 8-foot area and at a varying depth down to ledge rock, placing the vault, and backfilling with soil and riprap. Decorative vegetation near the hotel would cause minor ground disturbance up to 24

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29. Minnesota Department of Natural Resources, Minnesota List of Endangered, Threatened, and Special Concern Species, [https://files.dnr.state.mn.us/natural\\_resources/ets/endlist.pdf](https://files.dnr.state.mn.us/natural_resources/ets/endlist.pdf) as accessed August 20, 2019.

30. Including fungus, lichen, moss, and vascular plants.

inches in depth in order to plant or seed flowers or shrubs. Installing decks at guest villas, improving views at guest villas, developing tent campsites, and concession staff housing would require vegetation disturbance by selectively thinning or removing vegetation; some of the thinning would improve views to the water and serve as a firebreak. Clearing an emergency helicopter landing area would require clearing a 75-foot circular area by trimming vegetation or other obstacles to 18-inches in height and maintaining that short vegetation within the circular area, resulting in a small-scale loss of tall or mature growth vegetation. New trails would adversely impact soils, while naturalizing social trails would improve soils in those locations. Overall impacts of alternative B to soils and vegetation would be long-term but localized and negligible in comparison to the project area and to the park as a whole.

**Table 3: Approximate Area of Soil and/or Vegetation Disturbance**

Action	Area (approx.)	Depth (approx.)
4 small tent camping areas, trail	6,600 square feet (0.1515152 acre)	3 to 5 feet deep
1 large tent camping area, trail	4,000 square feet (0.09182736 acre)	3 to 5 feet deep
Camper cabin area, trail	22,180 square feet (0.50918274 acre)	—
Common community building	21,780 square feet (0.5 acre)	Up to 12 inches deep
Common outdoor space	10,890 square feet (0.25 acre)	Up to 12 inches deep
Concession staff housing	43,560 square feet (1.0 acre)	Up to 12 inches deep
Namakan Houseboat mooring	272 square feet (0.00624426 acre)	—
Rainy Lake Houseboat mooring	272 square feet (0.00624426 acre)	—
Surveyors Island Houseboat mooring	272 square feet (0.00624426 acre)	—
Namakan Floating Dock (land side)	300 square feet (0.00688705 acre)	—
Rainy Floating Dock (land side)	300 square feet (0.00688705 acre)	—
Tour Boat Landing (land side)	1,700 square feet (0.03902663 acre)	—
Emergency helicopter landing area	4,356 square feet (0.1 acre)	n/a
Visitor social area	1,000 square feet (0.0229568 acre)	Up to 6 inches deep
Lower level villas (two with decking)	1,000 square feet (0.0229568 acre)	—
Upper level villas (landscaping)	1,749 square feet (0.04017447 acre)	Up to 8 inches deep
Trails around villas	1,200 square feet (0.02754821 acre)	—
Bear Point clearing	1,000 square feet (0.0229568 acre)	n/a
Welcome area at Namakan Landing	1,500 square feet (0.03443526 acre)	Up to 3 inches deep
Covered picnic shelter at Namakan	800 square feet (0.0183655 acre)	—
Welcome area at Rainy Landing	1,500 square feet (0.03443526 acre)	—
Kettle Falls area-wide trail	84,480 square feet (1.9393939 acre)	—
Accessible trail to comfort station behind Company House	240 square feet (0.00550964 acre)	—
Accessible trail to Dam Overlook	2,000 square feet (0.04591368 acre)	—
Trail from Nam Houseboat mooring	2,000 square feet (0.04591368 acre)	—
Trail from Rainy Houseboat mooring	240 square feet (0.00550964 acre)	—
<i>TOTAL</i>	<i>215,191 square feet (4.94 acres)</i>	<i>Variable</i>
<i>Kettle Falls Project Area</i>	<i>321 acres</i>	<i>n/a</i>

## Cumulative Impacts on Soils and Vegetation—Alternative B

The impacts of alternative B described in table 3, in addition to the cumulative impacts of past, present, and future actions would be long-term, localized, and have minor impacts to soils and vegetation. Total area of land disturbance is noted in table 3 above and is minimal compared to the project site (approximately 321 acres) and the park (218,054 acres).

## ARCHEOLOGICAL AND HISTORIC RESOURCES

### Affected Environment—Archeology

Voyageurs National Park encompasses 218,054 acres of land and water along the United States-Canada border in northern Minnesota. The Kettle Falls (St. Louis County, Minnesota) project area includes a historic hotel and its associated features located at the eastern end of the Kabetogama Peninsula and within sight distance of the Canadian border. The project area includes the approximately 30-acre cultural landscape and Historic District, plus enough additional surrounding acreage (figure 1) to address the purpose and need for action. In all, the 54 U.S.C. 306108 (commonly referred to as Section 106 of the National Historic Preservation Act) area of potential effects is approximately 274 acres (figure 2 below).

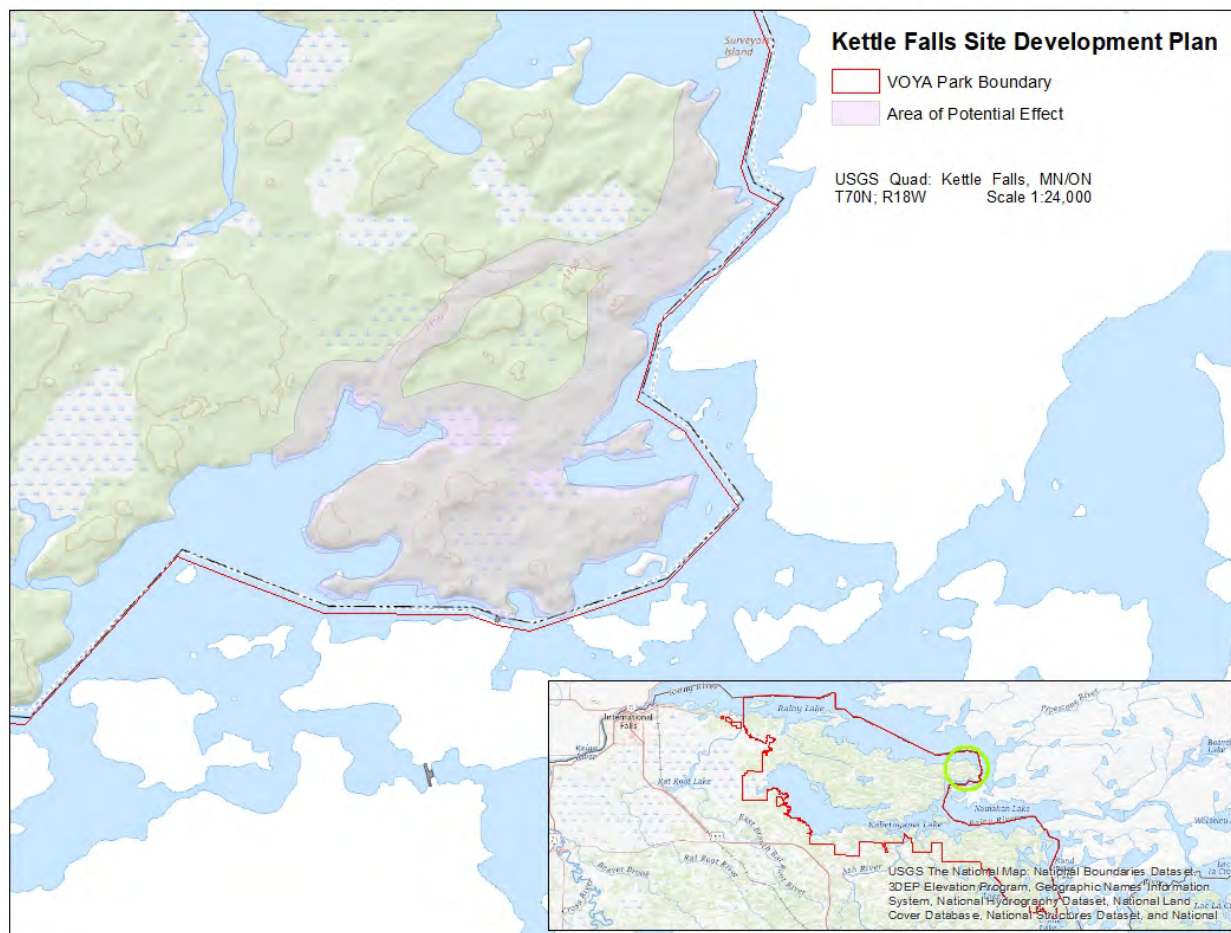


FIGURE 2: KETTLE FALLS — AREA OF POTENTIAL EFFECTS

Multiple archeological investigations, historic research, oral history collection, and geophysical prospection of or in the Kettle Falls area have identified 70 historic properties (as defined by 36 CFR 800.16(l)(1)) and potential historic properties in the APE. Most of this work and these resources are synthesized in a Kettle Falls archeology report (LaBounty, in preparation); several additional resources are described in the summary Section 106 document produced specifically for this EA (Wallace and Harmon 2020).

Most properties are early- to mid-twentieth century buildings and structures associated with dam construction and operation, logging, fishing, and tourism. These properties range from foundation remnants to standing buildings in good condition and in active use. Although most buildings and structures are contributing elements of the Kettle Falls Historic District (see the Kettle Falls Cultural Landscape and Historic District section below), which is listed on the National Register of Historic Places, several of them are outside of the district. Other historic properties include artifact scatters, roads, trails, culturally modified trees, isolated features, and a railroad berm.

Eight archeological sites and several isolated artifacts are identified as dating to the pre-contact period. Three sites are dated to the Archaic period, three are dated to the Woodland period, and two have undetermined dates. All the pre-contact sites are lithic scatters.

Outside of the historic district, no National Register eligibility determinations have been made.

### **Environmental Consequences on Archeological and Historic Resources— Alternative A**

An existing trail and interpretive sign along the shoreline between Namakan Landing and the Company House traverses a known archeological site. Several sites or features are located near the Dam Overlook and where houseboats currently moor at Houseboat Bay. Social trails have developed at or near houseboat mooring sites and could unintentionally traverse these resources. With the ongoing use of these sites, alternative A could have, but are somewhat unlikely, to adversely affect archeological or historic resources.

### **Cumulative Impacts on Archeological and Historic Resources—Alternative A**

Alternative A, in addition to past, present and reasonably foreseeable future projects, could have the potential to adversely impact archeological resources if social trails persist. Alternative A would not have adverse impacts to other historic resources such as structures.

### **Environmental Consequences on Archeological and Historic Resources— Alternative B**

New construction and some landscaping actions, summarized on table 3, have potential to adversely impact unidentified surface or near-surface archeological due to ground disturbances for foundations, utility lines, and trails. In the areas of the proposed camper cabins, tent camping, and concession employee housing and social space areas, there is low potential to encounter archeological and historic resources. In docking areas, houseboat mooring trails, and the shaded picnic shelter area, there is a moderate potential to encounter archeological and historic resources similar to those already recorded.



Regardless of potential to unearth resources, all actions would be taken in consultation and coordination with THPOs and/or SHPO. Further, archeological inventory prior to ground disturbance and/or archeological monitoring during disturbance will be performed where appropriate. The goal of these actions is to identify previously unknown resources and avoid them.

With these measures in place, along with any other measures agreed to by the SHPO, THPOs, and Voyageurs National Park, impacts to archeological would be minor and not adverse; and impacts to historic structures would be negligible.

### **Cumulative Impacts on Archeological and Historic Resources—Alternative B**

Table 2 shows the past, present, or future projects that may contribute to cumulative impacts. Like the alternative B actions, these undertakings, through consultation with the state historic preservation office, tribal historic preservation office, and other stakeholders, will avoid archeological and historic properties when possible, will have minimal impacts when complete avoidance is impossible, and/or will adhere to the Secretary of the Interior's Standards for the Treatment of Historic Properties, as appropriate. As such, these undertakings, in combination with alternative B actions could have no adverse effects on archeological or historic resources (in the case of the Damtender's cabin, beneficial impacts would result from stabilization measures).

## **KETTLE FALLS CULTURAL LANDSCAPE AND HISTORIC DISTRICT**

### **Affected Environment—Cultural Landscape and Historic District.**

The Kettle Falls Hotel was placed on the National Register of Historic Places in 1976; in 1978 the surrounding landscape, buildings, and the hotel itself were defined as an approximately 30-acre Historic District and placed on the Register. The most recent descriptions of the district are found in the Cultural Resources section in the plan and the draft 2020 cultural landscape report. The cultural landscape report also identifies the types of activities or actions that would be consistent with the site's historic character.

Briefly, the cultural landscape report describes the cultural landscape as closely associated with the hotel and the associated uses developed in response to the traditional use of the portage between Namakan and Rainy lakes and its strategic location as a resting place for travelers. Other activities leading to the cultural landscape evident today include construction of the Kettle Falls dam to regulate lake levels, and the growth and impact of local industries such as commercial fishing, logging and recreation. From a holistic landscape perspective, this property has continued to evolve through periods of change in response to recreational trends which reinforces its significance. The significance of the Kettle Falls cultural landscape as a contributing element to the Kettle Falls Historic District is largely expressed through the intact assemblage of landscape characteristics and features. The cultural landscape shares the same boundary as the historic district.

The Kettle Falls Historic District (figure 3 in the plan) is significant under Criterion A for its association with the themes of transportation, industry, commerce, and entertainment/recreation at a local level. The district is also significant under Criterion C as a significant and distinguishable entity whose components may lack individual distinction. The Historic District's period of significance is 1910 to 1934. At Kettle Falls, the hotel is the primary focal point of the district; the remaining combination of historic and non-historic features retain

a strong sense of spatial interrelationship, contribute to the overall historic character, and are functionally and historically related. The main road (sometimes noted as a historic boardwalk) has been improved and resurfaced numerous times, including by the National Park Service and its concessioners as well as prior to NPS management. Vehicle traffic is persistent every year as both visitors' and NPS boats are trailered around the dam. Buildings and structures constructed more recently, though not considered historic, do contribute to the historic district by providing a continuation of use and retention of historic spatial organization. A 1976 historic district nomination form expanded on a previous 1974 nomination that focused entirely on the hotel as a discrete resource. The 1976 nomination attempted to include additional significant resources, including "related portage and dam structures which were, in part, the reason for construction of the wilderness hotel."<sup>31</sup> This nomination identified, documented, and evaluated a more extensive range of resources to collectively convey a "sense of place" that transports a visitor to the time when Kettle Falls was a prime place of respite within a "Northwoods" setting. The district has retained its unique historic character, long-standing spatial interrelationship of its resources, and traditional uses of boat launching, docking and portaging, lodging and associated seasonal resort activities. Figures 6 and 10 in the plan illustrate a more open view from the water's edge to the hotel than what exists today.

### **Environmental Consequences on Cultural Landscape and Historic District—Alternative A**

The landscape would retain its historic integrity, and with its mix of historic and modern buildings, it would retain its existing spatial organization. The only notable exception is the gradual infilling of vegetation along the main entrance road which has altered the view of the hotel from the Tour Boat Landing on Rainy Lake. The circular roadway, nearest the hotel, would continue to encroach on the grassy lawn areas. The landscaping around the hotel would remain sparse and offer undefined social areas for visitors. Golf carts would continue to be parked in undefined areas. The Namakan Landing would have a limited NPS presence and sense of arrival. The non-historic docks would be replaced or repaired, retaining the recreational component of the site. With the ongoing use of these sites, alternative A could have, but are somewhat unlikely, to adversely affect the cultural landscape and historic district.

### **Cumulative Impacts on Cultural Landscape and Historic District—Alternative A**

Present and reasonably foreseeable projects listed in table 2 would continue to be implemented. The Damtender's Cabin would be stabilized and featured as a scenic and interpretive destination for visitors. The Dam Overlook platform would undergo replacement. The docks at Namakan Landing and the lake wall at Tour Boat Landing would be replaced or repaired, retaining the recreational component of the site. Existing trails would be maintained. The utility project would continue to study and explore alternative sources of electricity in a future project. Some of these projects occur outside of the cultural landscape and historic district. Overall, for alternative A, cumulative impacts would be beneficial; any adverse impacts would be temporary and negligible.

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31. Hackett and Nagle 1976, section 8 page 1.

## **Environmental Consequences on Cultural Landscape and Historic District— Alternative B**

The emergency helicopter landing would be located on the edge of the cultural landscape and historic district. The emergency helicopter landing would be located at the end of the road, closer to the water. The helicopter landing would not require any built infrastructure beyond a portable windsock that would only be used when a flight is expected. Rather, a safety circle of 75 feet would be required for helicopter landings and would entail trimming vegetation or other obstructions to 18 inches or less. Historic photos (figures 6 and 10 in the plan) show that this area historically had less vegetation and a more open viewshed. The draft 2020 cultural landscape report and previous reports suggest reopening the view from the water to the hotel, in balance with today's need to protect wetlands.

The accessible route to the Dam Overlook would be located near the edge of the cultural landscape and historic district. The approximate location noted in the plan is the only location where this route could be developed.

Other small-scale landscaping actions around the hotel would enhance the cultural landscape. The proposed decorative landscaping near and around the hotel would add small-scale elements to the hotel view such as historically appropriate shrubs or flowerbeds. The additional social area features would be located in the multipurpose lawn area and can, at the time of design, incorporate historic features such as white paint and red roofing to coordinate with what is there currently. A former non-historic generator shed behind the hotel, currently used for storage, would be repurposed as an accessible restroom but would retain its exterior appearance and location.

Other elements near the Company House would be modifications of what already exists such as converting the exiting trail to the comfort station into an accessible trail. The Namakan Landing docks would be reconfigured but remain as docks. Kiosks and information, also at Namakan Landing, would be reconfigured into a more welcoming view for the visitor. A covered picnic shelter would be constructed on the edge of the cultural landscape / historic district boundary, but design considerations would be taken into account to coordinate with historic features present in the area. The Tour Boat Landing, partially within the historic district would be rebuilt for ease of maintenance but remain as a landing. Other actions would occur outside of the existing historic district boundary.

The historic district would continue to retain its historic character, long-standing spatial interrelationships, and traditional uses of boat launching, docking and portaging, lodging and associated seasonal resort activities. Alternative B is in alignment with the draft 2020 CLR recommendations, best management practices in the Best Management Practices section in the plan, and mitigation measures in the Best Management Practices, Stipulations, and Mitigation Measures section of this environmental assessment. Voyageurs National Park, in consultation with the Minnesota State Historic Preservation Officer, regional NPS subject-matter experts, and affiliated tribes have determined that this undertaking will have no adverse effect on historic properties. Overall, impacts would be beneficial; any adverse impacts would be mitigated.

## **Cumulative Impacts on Cultural Landscape and Historic District—Alternative B**

Same as alternative A, plus small-scale, historically appropriate landscaping near or around the hotel and slightly opening the viewshed from the water's edge to the hotel. Some actions would require additional THPO and or SHPO coordination. Total area of land disturbance is noted in

table 3 (of which, less than 0.5 acres would occur within the cultural landscape and historic district) and is minimal compared to the historic district (approximately 30 acres), project site (approximately 321 acres) and the park (218,054 acres). Overall, cumulative impacts would be beneficial; any adverse impacts would be temporary, negligible, and mitigated.

## **Visitor Use and Experience**

### **Affected Environment—Visitor Use and Experience**

The affected environment for visitors' use and experience is described throughout chapter 3 and in the Visitor Use and Capacity section of the plan. Chapter 3 describes what the visitor could expect to see, do, or experience while at Kettle Falls, while the Visitor Use and Capacity section uses NPS visitation data to describe overnight and day use visitation trends and calculations. Briefly, while the park as a whole welcomes an average of 230,000 people per year, Kettle Falls receives an average of 4,000 overnight visitors per year based on reservation data. Day use visitors are more difficult to calculate; however, the visitor capacity calculations estimated a maximum capacity of 270 people per day. Access to Kettle Falls is limited primarily to boats; other modes of transportation used less frequently include seaplane or snowmobile in winter. Based on GMP zoning, the site is primarily a developed and managed zone, surrounded by less developed zones. The probability of encountering other visitors is high. Visitation is seasonal (mid-May through mid-Oct) when most visitors access the site, with occasional winter visitors passing through on snowmobiles. Visitors are able to spend the night in the historic hotel, guest villas, or at the small camping area. Visitors can eat lunch at the hotel restaurant or enjoy a beverage at the hotel bar. Docks are available for parking boats or accessing services such as boat refueling or the purchase of small goods at the trading post. Trails throughout the site provide access to each key area; not all are accessible. The geographic area (approximately 321 acres total) that the visitor could experience is shown in figure 1.

### **Environmental Consequences on Visitor Use and Experience—Alternative A**

Visitors would continue to have access to the site's existing features and amenities. The hotel and guest villas would continue to be occupied by both visitors and concession staff. Concession staff would continue to occupy overcrowded rooms or temporary living quarters such as the recreational vehicle parked on site or extra rooms in the Company House. Landscaping features and social areas would continue to be undefined and limited for both visitors and concession employees. Restrooms would remain in their current location, limiting accessibility to all visitors. Camping would continue to be limited. Docks would be replaced or maintained per existing Project Management Information System (PMIS) statements, temporarily closing one or more docks for construction activities. Houseboats would continue to moor for day use only at existing sites and continue the potential to damage the shoreline and archeological sites. Trails and the Dam Overlook would be repaired or replaced per existing PMIS statements, temporarily closing trail(s) or segment(s) of trail(s), and the overlook platform, for maintenance or construction activities. Roads would continue to accommodate both motorized and pedestrian uses. Signage would be replaced as needed.

### **Cumulative Impacts on Visitor Use and Experience—Alternative A**

Cumulative impacts would include impacts from the projects identified in table 2. Each of those projects would temporarily restrict some visitors from fully accessing the site during the independent construction timeline of each project. Each project would or already has

moderately improved the long-term visitor experience overall once construction is complete. Visitor conflicts with motorized uses on roads would continue to occur, diminishing the safety and enjoyment of visitors. There would continue to be no emergency helicopter landing, limiting response time. Visitor use indicators and thresholds would not be implemented. The desired conditions (objectives) would not be fully met. Overall, impacts would be long term and adverse, but minimal.

### **Environmental Consequences on Visitor Use and Experience—Alternative B**

Construction activities would have temporary adverse impacts to visitor experience as some features or amenities would be disrupted. However, long-term beneficial impacts would include a more defined separation of visitor and concession staff social areas; the addition of new concession employee living quarters would release those hotel or villa rooms back to visitors. Concession staff would have separate living quarters in line with NPS standards and privacy from visitors during their off time. Landscaping around the hotel and guest villas would provide improved and defined social areas for visitors; for example, a deck added to a guest villa would increase the amount of outdoor social space for those visitors. Selective clearing of vegetation would open scenic views. New and improved trails would provide visitors with new opportunities to experience the project area. Defined parking for golf carts would provide visual continuity. Improvements to primitive tent camping amenities would allow visitors a new experience. Camper cabins would provide a greater range of overnight opportunities. Houseboat mooring would include sites for day use and overnight use in both Rainy and Namakan Lakes, again adding new opportunities for visitors. Welcome areas at both the Namakan and Rainy landings would provide visitors with an improved sense of arrival and NPS presence; a covered picnic shelter at Namakan landing would be a new amenity as well as an area of respite from inclement weather. An emergency helicopter landing would improve response time for emergencies. Improved and additional signage would add to the visitor experience and understanding of the site. Best practices and mitigation measures during construction activities would further limit adverse impacts to visitors. Visitor use indicators and thresholds would be implemented using adaptive management strategies to maintain or improve the visitor experience. The desired conditions (objectives) would be met.

### **Cumulative Impacts on Visitor Use and Experience—Alternative B**

Similar to alternative A, the projects identified in table 2 would result in the same impacts already noted. Any adverse impacts as a result of alternative B would occur project by project and would vary in length of time and area. Depending on the project, a trail or segment of trail may be temporarily closed while improvements are made. Beneficial impacts would include an improved response time for emergencies with the emergency helicopter landing. New tent camping, houseboat moorings, and various landscaping changes would increase the types of opportunities available to the visitor. These various project may take days to weeks to complete; a short time in a calendar year. However, since the Kettle Falls site operates from mid-May to mid-October, those short-term impacts of days or weeks would appear more prominent during the operating season. Long-term impacts would be beneficial to the visitor and improve their experiences once projects are complete.

## **WATER RESOURCES**

### **Affected Environment—Water Resources**

The Water Resources section in the plan describes water resources nearest the project area. The Foundation Document provides additional information on parkwide aquatic ecosystems and waterways. The park is dominated by four major lakes (Rainy, Kabetogama, Namakan, and Sand Point). Together, these water bodies encompass nearly 84,000 acres of the park, or about 40% of the total park area. All of the waters within the park are designated Outstanding Resource Value Waters by the State of Minnesota for “high water quality, wilderness characteristics, unique scientific or ecological significance, exceptional recreational value, or other special qualities which warrant stringent protection from pollution.” (Minnesota Administrative Rules Chapter 7050.0180.) These lakes are both an interconnected and international waterway and have defined movement across the landscape of northern Minnesota for thousands of years. Water quality is monitored by the NPS Great Lakes Inventory and Monitoring Network and the park.

The Kettle Falls area is accessed by watercraft (or an occasional seaplane) from both Rainy and Namakan lakes. Snowmobiles may be used in winter to cross the ice and travel into the project area. Prior to the onset of the installation of dams in the early 1900s, Rainy and Namakan lakes existed as natural water bodies. The Kettle Falls dam is privately operated and water levels are managed by rule curves set by the International Joint Commission. Docks have been a historic use within the project area and will continue in the foreseeable future. Today, there are docks and houseboat moorings available for visitors at both Rainy and Namakan lakes. Lake Sturgeon, a State of Minnesota Species of Special Concern, and other fish species, spawn below the Kettle Falls Dam.

### **Environmental Consequences on Water Resources—Alternative A**

Replacing or repairing docks could have short-term negligible adverse impacts to water quality and short-term minor adverse impacts to fish species that spawn under or near the docks. Localized disturbance to Lake Sturgeon, a State of Minnesota species of special concern, or other fish species that spawn below the Kettle Falls Dam or otherwise use the areas near or underneath the docking structures could be disturbed. These adverse impacts would be minor and temporary during construction activities and would be located within approximately 10 to 200 feet of the shoreline.

### **Cumulative Impacts on Water Resources—Alternative A**

Cumulative impacts would include the dock projects identified in table 2. Overall, these adverse impacts would be minor and temporary during construction activities and located within approximately 10 to 200 feet of the shoreline.

### **Environmental Consequences on Water Resources—Alternative B**

Replacing or repairing docks would have negligible short-term impacts to water quality and minor short-term impacts to fish species that spawn or otherwise use the area under or near the docks. Localized disturbances to Lake Sturgeon, a State of Minnesota species of special concern, or other fish species that spawn below the Kettle Falls Dam or otherwise use the area near or underneath the docking structures, could be an effect of the dock projects. These adverse impacts would be located within approximately 10 to 200 feet of the shoreline. New



houseboat moorings would have negligible impacts to water resources but could disturb spawning sites near the Kettle Falls dam.

To further minimize adverse impacts on fish species, the National Park Service would consult with the Minnesota Department of Natural Resources and its fisheries division on design and engineering plans for repairing or replacing docks and houseboat moorings.

### **Cumulative Impacts on Water Resources—Alternative B**

Cumulative impacts would include the dock projects identified in table 2. Any adverse impacts to existing spawning grounds would likely be minor and temporary during dock replacement or repair activities. New dock structures would likely permanently alter existing spawning grounds; however, they can be reestablished and in the long-term would not be affected. These dock structures are located within approximately 10 to 200 feet of the shoreline. Overall, cumulative impacts would be short-term and minor in comparison to the volume of water resources in the park.

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## CHAPTER 4: COORDINATION AND CONSULTATION

NPS Director's Order 12 requires the National Park Service to make diligent efforts to involve the interested and affected public in the National Environmental Policy Act process as well as for Section 106 of the National Historic Preservation Act process. The process of consultation and coordination is an important part of this project. The National Park Service consulted with various agencies, tribes, and interested parties in preparing this document. The opportunities the public had to participate and consultations that occurred with federal and state agencies and with tribal governments are summarized in this chapter and as described in chapter 5 of the plan or retained in the project record.

### PUBLIC INVOLVEMENT

- Civic engagement – 2018 through 2020
- Plan concepts and comment period – November-December 2019
- EA release and comment period – Spring 2020

### CONSULTATION AND COORDINATION

The following agencies, affiliated American Indian tribal governments, and other potentially interested parties were contacted for information regarding this plan and environmental assessment.

- State agencies
  - Minnesota Department of Natural Resources and Fisheries
  - Minnesota State Historic Preservation Officer:
    - Preliminary project notification via annual communications in 2018, 2019.
    - Additional preliminary project notification letter on October 3, 2019 and November 19, 2019.
    - Telephone follow up December 9, 2019.
    - Draft plan/EA review March 18, 2020.
- Federal agencies
  - US Fish and Wildlife Service (Region 3): a request for consultation was initiated March 26, 2020 and NPS received a response letter dated {date}.
  - US Army Corps Engineers (St. Paul District): the wetlands delineation report was provided February 13, 2020 and NPS received a response letter dated May 4, 2020.
  - US Environmental Protection Agency (Region 5): replied to preliminary project information by a letter dated November 14, 2019. They received an availability notice of the plan/EA {date} and NPS received a response letter dated {date}.
- Tribal governments and/or Tribal Historic Preservation Officers:
  - Preliminary project notification via annual communications in 2018, 2019.
  - Additional preliminary project notification letter on October 3, 2019.
  - In-person meeting with the Bois Forte Band THPO on November 5, 2019 and November 18, 2019.
  - Follow-up emails to THPOs between December 11, 2019 and January 3, 2020.
  - In-person meetings were held between February 10 and 28, 2020 with:
    - Red Lake Band of Chippewa Indians

- Grand Portage Band
- Bois Forte Band
- A request for EA consultation was initiated with 18 affiliated tribal and band governments by letter March 18, 2020.
  - Bad River Band of Lake Superior Chippewa Indians
  - Lac Courte Oreilles Band of Lake Superior Chippewa Indians
  - Lac du Flambeau Band of Lake Superior Chippewa Indians
  - Lower Sioux Indian Community of Minnesota Mdewakanton Sioux
  - Minnesota Chippewa Tribe:
    - Bois Forte Band (Nett Lake)
    - Fond du Lac Band
    - Grand Portage Band
    - Leech Lake Band
    - Mille Lacs Band
    - White Earth Band
  - Prairie Island Indian Community of Minnesota Mdewakanton Sioux
  - Red Cliff Band of Lake Superior Chippewa Indians
  - Red Lake Band of Chippewa Indians
  - Shakopee Mdewankanton Sioux Indian Community of Minnesota
  - Spirit Lake Tribe
  - St. Croix Chippewa Indians of Wisconsin
  - Turtle Mountain Band of Chippewa Indians of North Dakota
  - Upper Sioux Indian Community of Minnesota

#### **OTHER INTERESTS**

- Voyageurs National Park Association

## **APPENDIXES**

Materials that were prepared in support of this environmental assessment and are central to the analysis, but not required content, are included in within these appendixes.

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## APPENDIX A: ALTERNATIVES COMPARISON TABLE

Table A-1. Alternatives Comparison Table

Overnight Use

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
Visitor Lodging	<p><b>Hotel</b> The Kettle Falls Hotel would continue to offer 11 hotel rooms for visitors, with shared restroom facilities.</p> <p><b>Guest Villas</b> The three Guest Villas would continue to be combined in multiple ways to accommodate visitors with a total of 8-10 units: - Two villas with four units (16 beds total) - One villa with two units (eight beds total).</p> <p><b>Camping</b> Limited tent camping would occur within the Kettle Falls developed area.</p>	<p><b>Hotel</b> The Kettle Falls Hotel would offer 12 hotel rooms for visitors, with shared restroom facilities.</p> <p><b>Guest Villas</b> The three Guest Villas would continue to be combined in multiple ways to accommodate visitors with a total of 10 units: - Two villas with four units (16 beds total) - One villa with two units (eight beds total).</p> <p><b>Kettle Portage Primitive Campground</b> - Construct a primitive tent campground (5 to 10 sites) with access to new/existing KF Trail network &amp; with boat-in access.</p> <p><i>Potential location for primitive tent campground:</i> Near current N16 Kettle Portage Campsite area at Airplane Bay).</p> <p><i>Key features of primitive tent campground include:</i> -Two larger sites (larger tent pad) -Up to eight smaller sites -Fire ring (one per site) -Picnic table (one per site) -Tent pad (one to two per site) -Vault toilet(s) (one per five sites, 750 gallon tank capacity) -Up to two additional docks (use existing finger docking to extent possible) -Accessible trail from the docks (similar to Kabetogama group site) -Bear box (one per site)</p> <p>Thin trees for fire management and to clear space for camping sites.</p> <p>Use the existing NPS reservation system.</p> <p><b>Camper Cabins</b> One cabin campground containing up to four structures, each of which should accommodate four to six people.</p> <p><i>Potential locations for camper cabins:</i> -Western point on land mass between Airplane Bay and Houseboat Bay.</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
		<p>-Back side of Rainy landing (east of spray field, near the point).  - In either potential location, combine need to thin trees for fire management with camping site views.</p> <p><i>Key features of camper cabin campground:</i></p> <ul style="list-style-type: none"> <li>- Cabin guests can get food and drink at hotel.</li> <li>- Shared vault toilets only.</li> <li>- No running water service.</li> <li>- Must be about 300 feet from shore in order for vault toilet to be pumped out, must have shore access.</li> <li>- Camper Cabin design should be consistent with the "Northwoods Feel" of the surrounding area.</li> <li>- Four season opportunity: hard-sided; brick heater or wood burning stove optional; insulated.</li> <li>- Electric for lighting.</li> <li>- Routes to the site must be well defined with walk-in access and a trail from the shoreline.</li> <li>- At least one fire pit, up to four fire pits, depending on the proximity of each site to the others.</li> <li>- One grill and one picnic table at each site.</li> </ul>
<b>Concession Employee Housing</b>	<p>Concession employee housing would continue to occupy:</p> <p><b>Hotel</b>  One to two people in one "manager's room" and occupy 1 additional hotel room (one bed).</p> <p><b>Guest Villas</b>  Two units of a guest villa (eight beds).</p> <p><b>Employee-only Villa</b>  One employee-only villa (16 beds).</p> <p><b>One temporary recreational vehicle (RV) or camper (currently with one bed, one loft)</b> would be shuttled out to Kettle Falls starting in summer 2019. The RV would be located near the employee villa/water treatment field.  <i>Note: This RV is concession owned property and may be removed at the discretion of the owner.</i></p> <p><b>Company House</b>  The Company House would continue to house concession employees during the summer concession operating season; three rooms and three beds would</p>	<p>Concession employee housing would be modified to occupy existing housing and NPS would construct:</p> <p><b>KF Hotel</b>  One to two people maximum in one "manager's room" only. (This allows 12 rooms to remain available for visitors.)</p> <p><b>Employee-only Villa</b>  One employee villa, to house eight people maximum (two per room, four rooms).  <ul style="list-style-type: none"> <li>- two of four units have kitchenette (sink, fridge, microwave, stovetop)</li> <li>- all units have bathrooms</li> <li>- Couples or family appropriate</li> <li>- No carpet</li> <li>- Ability to dehumidify</li> </ul> </p> <p><b>Common Living Area</b>  Build a central "common living area" building that includes a common kitchen and common shower area that serves all concession employees.</p> <p><b>Common Outdoor Space</b>  Designate and develop a common outdoor space that serves all concession employees.</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
	continue to be available for this purpose.	<p><i>Key features of common outdoor space:</i></p> <ul style="list-style-type: none"> <li>-Accommodate up to 22 people</li> <li>-Fire pit</li> <li>-Picnic tables</li> <li>-Seating space</li> <li>-Grill</li> <li>-Lawn for lawn games, hammocks (multipurpose lawn)</li> <li>-Screened-in area</li> </ul> <p><b>New Concession Employee Housing</b> Develop new concession employee housing for up to 20 people. NPS would build this housing. (Category 2 contract stipulates that the concessioner is responsible for cyclic maintenance (e.g., painting, flooring, etc.).)</p> <p><i>Key features of new concession employee housing:</i></p> <ul style="list-style-type: none"> <li>- Provide space for up to 8 bedrooms, each fitting 2 people.</li> <li>- Dorm style; or pads for tiny houses; or a “man camp” layout would be appropriate.</li> <li>- Building should have the ability to lock-up and secure personal belongings.</li> <li>- No carpet.</li> <li>- Ability to dehumidify.</li> <li>- Provide golf cart access.</li> </ul> <p><i>Potential sites for new concession employee housing:</i></p> <ul style="list-style-type: none"> <li>- Area west of existing employee villa.</li> </ul> <p><b>Company House</b> Not used for concessioner employee housing. Instead used for NPS housing, VIP housing, damtender housing in the winter, and as a visitor contact station.</p>

#### Approach, Access, and Docking

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
<b>Houseboats</b>	<p>Houseboats: would continue to use the existing reservation system to obtain overnight permits.</p> <p><b>Namakan</b> Continue to allow up to 4 houseboats to rope off at the designated rock location for day-use only with no overnight uses allowed.</p> <p><b>Rainy</b> Continue to have no designated</p>	<p>Houseboats: would continue to use the existing reservation system to obtain overnight permits.</p> <p><b>Namakan Lake – Houseboat Bay</b> Clearly indicate, with improved signage, that up to two sites are for day use only, and up to 2 sites may be used for overnight use or day use.</p> <p>Each site must be designed to allow reasonable egress from the boat and minimize</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
	<p>houseboat docking/houseboat anchoring areas.</p> <p>Houseboats may continue to tie off near/at the American Channel; this allows some informal access for day-use only with no overnight use allowed.</p> <p><b>Surveyors Island</b> Continue to have no designated houseboat sites, only informal day-use access.</p>	<p>resource damage.</p> <p>At least one site meets accessibility guidelines, if practicable.</p> <p><b>Namakan Landing – near boat house and fueling station</b> If an accessible site at Houseboat Bay is not possible, provide an accessible drop-off point for “run-about” boat passengers. Day use only.</p> <p><b>Rainy Lake landing area</b> Designate one houseboat mooring site for day use and overnight, if practicable.</p> <p>Each site must be designed to allow reasonable egress from the boat.</p> <p>Clearly indicate, with improved signage, that the site is for day use overnight use.</p> <p><b>Rainy Lake - Surveyor’s Island</b> Provide up to four total mooring sites near Surveyors Island.</p> <p>Up to two sites may be used for overnight use.</p>
<b>Seaplanes</b>	<p><b>All Lakes</b> Although all seaplanes would continue to use the Namakan Lake side for landings, fixed-wing aircraft (private and one commercial permit) would continue to be allowed on the four major lakes (per the 2002 GMP).</p> <p>Seaplanes would to continue to utilize open space on existing dockage.</p>	<p><b>All Lakes</b> Formalize seaplane use of existing docks.</p>
<b>Docks</b>	<p><i>Improve Docking Systems at Kettle Falls (PMIS 177888) - Scope is for repairing existing - FY2021.</i></p> <p>The total number of slips available would not increase.</p> <p><b>Namakan</b> Existing six docks which includes the NPS maintenance dock, would continue to accommodate 30 boats, with 24 for visitor parking and the remaining 6 for NPS maintenance docking.</p> <p><b>Rainy Lake</b> The six docks, plus the tour boat</p>	<p><i>Improve Docking Systems at Kettle Falls (PMIS 177888) - Scope is for repairing existing - FY2021.</i></p> <p>The total number of slips available would increase to accommodate visitation.</p> <p><b>Namakan</b> Configure floating dock/ finger dock opportunity consistent with existing bulkhead / crib docks. Use only one bulkhead and then configure floating finger docks off of bulkhead. No new development.</p> <p>NPS maintenance dock retained, signed to clearly indicate for NPS use only.</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
	<p>bulkhead, would continue to accommodate 45 boats, of which 25 slips are for visitor boat parking. The remaining docks would continue to be reserved for concession operations including rental boats, gas dock area, and the villa's dock.</p> <p>Houseboats would continue to lack access and would continue to dock elsewhere and take a runabout or skiff to visit Kettle Falls.</p> <p><b>Guest Villa Docks</b> The docks associated with the Villas would continue to be concession-only docks. The concessioner would continue to be required to maintain the docks to NPS standards.</p>	<p><b>Rainy Lake</b> Upgrade existing electric to marine-grade electric pedestals to allow charging at Rainy Lake docks.</p> <p>Modify existing floating sections of docks to accommodate visitation. No new bulkheads; use two existing bulkheads to meet docking needs by only modifying floating dockage.</p> <p><b>Rainy Lake Landing for Tour Boats</b> Rehabilitate or replace existing landing with a crib docking system. Potential for a floating gangway.</p> <p><b>Guest Villa Docks</b> Upgrade or replace concession-built docks with docks built to NPS standards and using marine grade equipment for electricity. Use existing bulkheads at villas if possible/safe.</p>
<b>Emergency Helicopter Landing Spot</b>	There would continue to be no identified helicopter landing spot in or near Kettle Falls.	<p><b>Rainy Lake</b> Located toward the end of the hotel road near the Tour Boat Landing.</p> <p>Hand-trim vegetation to under 18 inches in height and add a portable windsock.</p> <p>Would not develop formalized (concrete) landing pad.</p>

#### Landscape Changes or Enhancements

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
<b>Clarify zoning, appropriate use, operational and visitor area definitions</b>	<p>The summer use management zone for Kettle Falls would continue to be "developed area - high density" as stated in the 2002 GMP.</p> <p>The winter use management zone for Kettle Falls would continue to be "developed area - motorized frozen lake area" as stated in the 2002 GMP.</p> <p>Concession assigned area(s) would continue as defined and managed by the concession contract.</p> <p>The Cultural Landscape Report would continue to complement the management zones of the GMP with some additional clarification for acceptable uses within those zones.</p>	<b>Same as Alternative A: No Action.</b>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
<p><b>KF Hotel area landscaping / Day-use site enhancements</b></p>	<p>Social areas outside of the Kettle Falls Hotel would continue to include 2 picnic tables, a fire pit on the front lawn, and a volleyball net on the side lawn but would otherwise offer few defined social opportunities for visitors.</p> <p>Would continue to be an open grassy area with haphazard, undefined use.</p> <p>The hotel area would continue to have undefined areas for concession employees to take breaks.</p>	<p><b>Visitor Social Area(s)</b></p> <p><b><u>Fire Ring</u></b> Developed fire ring and social area that can be used for interpretive programming opportunities.</p> <p>Located at the western edge of lawn (behind volleyball net).</p> <p><b><u>Social Area</u></b> At least 50-feet away from building, at rear of hotel, in lawn area.</p> <p><b><u>Established Picnic Area(s)</u></b> Develop soft-scaped, established picnic area(s) with period-appropriate picnic tables and sufficient trash receptacles.</p> <p><b><u>Lawn Games</u></b> Use lower grassy area (where fire ring is currently) as a spot for lawn games.</p> <p><b><u>Employee Break Area</u></b> Use area near or behind the laundry building as a break area.</p> <p>Use building in annex (currently being used as storage) as break room.</p> <p>Screen off with vegetation or white fencing. Harden this area or maintain grassy look, but make ground resilient.</p> <p><b><u>Designated Golf Cart Parking</u></b> Designated golf cart parking east of the hotel, may be located behind a gate in keeping with the historic character of the district or light shrubbery to conceal</p> <p><b><u>Landscaping</u></b> Overall improved landscaping is compatible with CLR recommendations.</p> <p>Develop planting plan for whole yard (successional planting {i.e., ash tree}) through a separate process.</p> <p>Maintain rolling turf lawn with some exposed rock outcrops at Kettle Falls Hotel.</p> <p>Retain volleyball. See CLR recommendations for other lawn-based activities.</p> <p>Develop simple planting beds or shrub hedges around Kettle Falls Hotel using compatible plants; this could be used to disguise well-heads, other less attractive, administrative</p>



Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
		<p>features.</p> <p>Remove all modern (non-historic in appearance) lawn furnishings.</p> <p>Reduce footprint of looped road that falls outside of the historic circulation pattern, and naturalize unneeded road.</p>
<p><b>Guest Villas area landscaping and exterior site improvements</b></p>	<p><b>Villas</b> Recreational and social opportunities associated with the villas will continue to be undefined.</p> <p>Lower villas would continue to have an undefined exterior social use area with limited space.</p> <p>Upper villas would continue to have a small exterior social use area.</p> <p><b>Viewshed</b> Villas would continue to have hindered or blocked views.</p> <p><b>Trails around villas</b> All villas would continue to have informal (unimproved) pedestrian social trails to the lake. Villas would continue to be serviced by a designated cart path.</p> <p><b>Bear Point Clearing (common social area to villas)</b> One undeveloped communal fire pit would continue to be used by all villa guests, although it is primarily associated with the Bear Lake Villa.</p>	<p><b>Lower level villas</b> Build decks at lower villas / accessible to the extent practicable (lower level of Villa is not accessible, but new deck would need to be). Deck could be on the back or side of Villa. Only two of the villas have lower units (Jesse's does not have a lower unit)</p> <p><i>Key features of decks at lower villas:</i></p> <ul style="list-style-type: none"> <li>- Decking to accommodate up to eight guests with either two small four-person decks or one larger eight-person deck.</li> <li>- Decks could be sited behind units or to the side of the unit</li> <li>- Decks should accommodate deck chairs, a small table, and grill.</li> </ul> <p><b>Upper level villas</b> Improve picnic space and landscaping concept at upper villa areas; moving it away from the villa.</p> <p><i>Key features of outdoor space at upper villas:</i></p> <ul style="list-style-type: none"> <li>- Same treatment for all three Villas, but incorporate boulders at Leaning Pine into the landscape design. Remove smaller vegetation as needed.</li> <li>- Dimensions: approx. 8 feet wide, and as long as the Villa.</li> <li>- Level and hardened access to picnic area with at least 3 feet of clear space on all sides.</li> <li>- Move grill away from roof overhang.</li> <li>- Accommodate up to eight guests in the upper villas with either two small four-person picnic pads or one larger eight-person picnic pad.</li> </ul> <p><b>Viewshed</b> Improve views to lake, as practicable / establish a viewshed from each villa to open up as practicable. (doubles as a firebreak &amp; defensible boundary) without removing substantial trees over a certain size (use selective thinning, not a full scale clear-cut).</p> <p><b>Trails around villas</b> Use smaller vehicles (currently use Polaris that spills over the trail, damages timbers) to</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
		<p>reduce trail damage.</p> <p>Formalize trails from villa docks to villas.</p> <p>Establish more defined trail system by reducing current braiding, revegetate unnecessary loops.</p> <p>Better define trail usage and set widths for: golf cart roads, utility vehicle roads, walking only.</p> <p>Make a one-way trail to villas.</p> <p>Retain timbers, level off and revegetate trails that will be decommissioned.</p> <p>All external spaces and landscaping tie into trail system.</p> <p>Level off the area between timbers and recreational space (picnic areas).</p> <p>Formalize trail out to Bear Point (by hardening existing social trail or historical trail).</p> <p><b>Bear Point Clearing (common social area to villas)</b></p> <p>This area along the shore would be used as the larger, formalized social gathering area.</p> <p>Use existing fire pit, consider hardening area (timbers bounding area with crusher fines) around fire pit to reduce erosion and compaction.</p> <p>Use existing picnic table.</p> <p>Add log benches for seating.</p> <p>Allow use as a wedding site by special use permit.</p> <p>Add signage to indicate Bear Point social area.</p> <p>Ensure archeological site is avoided.</p>
<b>Namakan Lake: day-use site enhancements</b>	<p>The Namakan Lake side would continue to offer a defined day-use area with a picnic area, dock, vault toilet and fire ring.</p> <p>The Trading Post would continue to offer limited seating in front of the building.</p>	<p><b>Same as Alternative A: No-action</b>, visitors would continue to have access to a Trading Post, fueling station, concession-based canoes and kayak rentals.</p> <p>Plus:</p> <p><b>Welcome Area</b> Establish a visitor gathering space or “node”</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
	<p>Visitors would continue to have access to a fueling station, concession-based canoes and kayak rentals.</p> <p>Also on the Namakan Lake side, the Damtenders Cabin is scheduled for future improvements - noted below.</p>	<p>at Namakan Landing Trading Post with shade and benches, and a picnic area. Orientation of the welcoming "node" is directed toward the Trading Post.</p> <p>Enhance the sense of arrival at the tour boat landing by providing a new NPS sign, shaded seating, and wayfinding information.</p> <p>Relocate trails, picnic tables, kiosks, and new development off of any identified archeological resources.</p> <p>Covered picnic shelter, screening optional, 20x30 feet.</p> <p><b>Golf Carts</b> Establish golf cart parking area near Trading Post.</p> <p>Establish clear indications of where golf carts can drive.</p> <p><b>Same as Alternative A: No Action</b>, also on the Namakan Lake side, the Damtenders Cabin is scheduled for future improvements - noted below.</p>
<b>Rainy Lake: day-use site enhancements</b>	<p>Rainy Lake would continue to offer a fueling station, vault toilet, and concession-based canoes and kayaks rentals.</p>	<p><b>Same as Alternative A: No-action, plus:</b></p> <p><b>Welcome Areas</b> <b>Marina</b> Install an updated NPS sign to celebrate a sense of arrival and provide better wayfinding from the marina to other important site amenities.</p> <p>Formalize the picnic area currently in place.</p> <p><u><i>Tour Boat Landing</i></u> Install an updated NPS sign to celebrate a sense of arrival and provide better wayfinding from the marina to other important site amenities.</p>
<b>Restrooms (Comfort Stations)</b>	<p>Kettle Falls would retain the current number and locations of restrooms.</p>	<p><b>Hotel area</b> Abandon restroom inside bar. Repurpose "generator shed" behind hotel into an accessible restroom to be used by all visitors.</p> <p><b>Namakan Landing area</b> Relocate the restroom that is currently behind the Company House. -Location TBD. - Provide an accessible route to the new restroom location. - Retain historic character.</p>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
		- Do not site in area where archeological resources would be disturbed.
<b>Dam Overlook</b>	<p>Rehabilitate the Kettle Falls Overlook Viewing Platform Area (PMIS 207242).</p> <p>Continue to provide access for dam owner/operator, including for motorized equipment uses (e.g., John Deere gator, portable welder, cherry picker).</p>	<p><b>Same as Alternative A: No Action, plus:</b></p> <p>Add an outdoor recreation access route, north of existing trail, for pedestrian use up to the viewing platform.</p>
<b>Damtender Cabin</b>	<p>Damtender's cabin would be stabilized (PMIS 206401). Cabin is stabilized to minimize or eliminate sinking foundation and to have a well-maintained and sound foundation, with improved lighting, and sealed to prevent pests.</p> <p>Including:</p> <ul style="list-style-type: none"> <li>- Replace or repair rotting logs</li> <li>- Replace or repair roofing</li> <li>- Replace foundation</li> <li>- Treatment for insects</li> </ul>	<p><b>Same as Alternative A: No Action, plus:</b></p> <p><i>See GMP guidance for use of interior space and interpretation.</i></p> <p>Selectively clear vegetation to open up view of Damtender Cabin from water.</p>
<b>Company House and area</b>	<p>The park would continue to receive special use permit revenue for renting the Company House during summer months to concession staff and in winter months to Dam employees.</p> <p>The Company House would continue to serve as a winter safety backup for staff.</p>	<p>Develop a landscaping plan for the Company House (separate process) that includes appropriate lawn furniture and vegetation.</p> <p><b>Summer Use</b> Overnight housing for volunteer or NPS staff.</p> <ul style="list-style-type: none"> <li>- One room for volunteers.</li> <li>- Two rooms for NPS maintenance or law enforcement.</li> </ul> <p>Establish as an interpretive location (panels of information) - a more detailed interpretive wayside plan for site should guide this.</p> <p>Establish as a visitor contact station during summer months (for book sales, visitor information, etc.)</p> <ul style="list-style-type: none"> <li>- Would need to be temporary or removable, as dam tenders will occupy house during winter.</li> <li>- Accessible to all visitors.</li> </ul> <p><b>Winter Use</b> Overnight housing for dam tenders.</p>

## Circulation and Accessibility

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
<b>Accessibility enhancements</b>	<p>Accessible options would continue to be available throughout Kettle Falls:</p> <ul style="list-style-type: none"> <li>- Ramp onto hotel veranda.</li> <li>- Lifts (by request) at the Rainy and Namakan docks;</li> <li>- Egress to and interior of upper Villas;</li> <li>- Most vault toilet interiors on Namakan side;</li> <li>- Vault restroom near dock on Rainy is accessible</li> <li>- Dam Overlook renovation (PMIS 207242) would include accessibility enhancements at the overlook.</li> </ul>	<p><b>Same as Alternative A: No Action, plus:</b></p> <p>Accessible elements would be incorporated into all new construction projects as practicable, including trails.</p> <p><b>Hotel</b> Maintain existing ramp up to hotel veranda. Offer bar service on veranda.</p>
<b>Signage and wayfinding</b>	<p>Existing signage will remain and would be updated as it becomes outdated or damaged.</p>	<p><b>Namakan</b> Install wayfinding signs for visitors arriving from Namakan visitor dock or maintenance dock area to navigate the multiple destinations at Kettle Falls.</p> <p>Relocate Namakan welcome kiosk off archeological site, closer to Trading Post.</p> <p><b>Rainy</b> Move Rainy Lake welcome kiosk closer to marina.</p> <p><b>Trail signage</b> Install standard trail wayfinding signs along entirety of trail network (e.g., at every intersection).</p>
<b>Trails and roads</b>	<p><b>Rehabilitate Kettle Falls Hiking Trails (PMIS 204955) – COMMON TO ALL</b></p> <p>Generally, trails, cart paths, and designated roads would continue with existing layout, allowing for ongoing maintenance.</p>	<p><b>Rehabilitate Kettle Falls Hiking Trails (PMIS 204955) – COMMON TO ALL</b></p> <p><b>Local Kettle Falls trail system:</b> Develop approximate 4-mile trail network to Rainy Lake houseboat mooring site (near Surveyor's Island) and to the Kettle Falls tent campground, connecting back to Kettle Falls Hotel area.</p> <p><b>Trail from Namakan Houseboat Mooring Sites:</b> Formalize trail from Houseboat Bay mooring sites to Namakan Landing area.</p> <p><b>Trail to Rainy Landing Houseboat Mooring Sites:</b> Develop trail from houseboat mooring sites Rainy Landing area.</p> <p><i>Key features of all trails and outdoor recreation access routes:</i></p> <ul style="list-style-type: none"> <li>- Ensure all outdoor recreation routes and trails are developed to ABA outdoor</li> </ul>

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
		<p>recreation facility guidelines, to the extent practicable.</p> <ul style="list-style-type: none"> <li>- Maximum width of 64 inches to accommodate light-duty vehicles such as "gators" or golf carts; or replace wider vehicles with narrower vehicles.</li> <li>- Pedestrian use only; except for light-duty vehicles such as "gators" or golf carts.</li> <li>- Naturalize unneeded social trails.</li> </ul> <p><b>Roads and Shared-Use Paths</b></p> <p>Ensure roads and paths, are developed or maintained to acceptable guidelines. Pedestrian and motorized uses are acceptable on roads and paths, except as noted.</p> <ul style="list-style-type: none"> <li>- Portage Road (historic): gravel or dirt surfacing; maximum 12-feet wide. Maintain road in current location and width. Pedestrians and all vehicle types permitted.</li> <li>- KF Hotel Road (historic): gravel surfacing; maximum 12-feet wide; maintain a slight crown for drainage. Maintain road in current location and width. Pedestrians and all vehicle types permitted.</li> <li>- Maintenance Roads: gravel or dirt surfacing; maximum 12-feet wide; raised edging to maintain width where needed. Pedestrians and all vehicle types permitted.</li> <li>- Pathways: gravel or dirt surfacing; maximum 64-inches wide; raised edging to maintain width where needed. Pedestrian and light-duty utility vehicles such as "gators" or golf carts are acceptable; full-size vehicles not permitted.</li> </ul> <p><i>Key features of all roads and pathways:</i></p> <ul style="list-style-type: none"> <li>- most roads classified as Class IV: Primitive Park Road due to KFs location in a remote or primitive area. (NPS Park Road Standards, p4)</li> <li>- some KF roads could be classified as Class V or VI: Administrative Park Road due to the primary use by employees. (NPS Park Road Standards, p,4)</li> <li>- A number of park roads and parkways, or structures on them (e.g., bridges, walls and overlooks) are historic in themselves, and are in some instances may be listed on the National Register or a part of a historic landscape. Preservation or restoration may be the only option for such historic roadways or structures. (NPS Park Road Standards, page 35)</li> </ul>



Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
Interpretation	Scheduled boat tours would continue to receive interpretive materials and ranger-led talks; however, interpretation on-site would continue to be limited non-personal signage (two kiosks).	Develop a detailed interpretive plan, to include the Company House and other key locations. Include Tribal government partners to participate in developing interpretive and educational materials ( <i>separate process, previously mentioned, see 2005 LRIP for additional recommendations</i> ).

## Other Issues

Planning Issue	Alternative A: No Action - Existing Facilities and Infrastructure	Alternative B: Preliminary Proposal
Utilities	Utilities would not increase in capacity and routine maintenance would continue to occur as needed.	<p><b>Electric</b> Replace approx. 13 miles of underwater electric line; explore sustainable and alternative options such as solar or hydro-power. (<i>This is a separate and ongoing multi-year feasibility study.</i>)</p> <p>Replace existing inefficient appliances, lightbulbs, etc. with energy efficient options.</p> <p><b>Dark Skies</b> Use dark sky recommendations for replacement lighting.</p> <p><b>Water</b> Apply new or additional filters to wells.</p>

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## APPENDIX B: METHODOLOGY FOR ANALYZING IMPACTS

Chapter 3 of this document reviews the environmental analysis for each alternative. In accordance with CEQ regulations, direct, indirect, and cumulative impacts are described (40 CFR 1502.16) and the impacts are assessed in terms of context and intensity (40 CFR 1508.27). Because these may vary for each resource, methodologies are described under each impact topic. Overall, these impact analyses and conclusions were based on the review of existing literature and studies, information provided by onsite experts and other government agencies, the results of site-specific surveys (e.g., wetlands, cultural resources), best professional judgment, and park staff insight. The effects of each alternative were assessed for direct, indirect, and cumulative effects for each resource topic retained for this review. General definitions for terms used in this chapter are described in table B-1 below.

**Table B-1. Affected Environment and Environmental Consequence Terms and Definitions**

Term	Definition or Reference
Impact topic	Category of resources to be evaluated. Impact topics are based on issues raised by agencies or the public during scoping; existing site conditions; federal laws, regulations, and Executive Orders; National Park Service (NPS) <i>Management Policies 2006</i> ; topics specified in Director's Order 12 and Handbook; and park specific resource information.
Affected Environment	The resources and uses that have the potential to be affected if any of the alternatives were implemented (including the no-action alternative). It provides a baseline against which environmental consequences of the action alternatives can be compared.
Type: direct or indirect	Direct: An effect that is caused by an action and occurs in the same time and place.  Indirect: An effect that is caused by an action but is later in time or farther removed in distance, but is still reasonably foreseeable.
Type: beneficial or adverse	Beneficial: A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.  Adverse: A change that moves the resource away from a desired condition or detracts from its appearance or condition.
Context: describes the location of the impact	Site-specific: Impacts would occur within the location of the Proposed Action.  Local: Impacts would affect areas within the location of the Proposed Action and land adjacent to the Proposed Action.  Regional: Impacts would affect areas within the location of the Proposed Action, land adjacent to the Proposed Action, and land in surrounding communities.
Duration: Describes the length of time an impact would occur as either short-term or long-term.	Short-term: Impacts that generally last for the duration of the project. Some impact topics will have different short-term duration measures and these will be listed with the resource.  Long-term: Impacts that generally last beyond the duration of the project. Some impact topics will have different long-term duration measures and these will be listed with the resource.

<p>Cumulative Impact: The past, present, and reasonably foreseeable future actions that have and could occur in the vicinity of the project area for approximately 10 years.</p>	<p>Cumulative impacts are defined as "the impact on the environment which results 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" (40 CFR 1508.7). Cumulative impacts are considered for all alternatives.</p>
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## APPENDIX C: IMPACT TOPICS CONSIDERED BUT DISMISSED

In support of the impact topics considered for analysis in Chapter 3 of this document; the following impact topics were considered but dismissed from further analysis.

**Air Resources.** The Air Quality section in the plan describes air resources. The Foundation Documents (page 22 through 23) also describes air resources. The park is designated a Clean Air Act - Class I Area and air resources are important to the park and the project site. However, any potential impacts air resources would be short term during construction activities and during specific months of the year when construction crews can perform work on the site. Scenic views would be maintained or improved via selective vegetation trimming. Impacts to air resources would be negligible within the project area and within the park. Air resources were dismissed from further analysis.

**Environmental Justice.** Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires federal agencies to make achieving environmental justice part of its mission. Specifically, each agency must identify and address “disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations.” The intent is to prevent minority and low-income populations from being disproportionately affected by adverse human health and environmental impacts of federal actions. The minority population is defined as the nonwhite and multiracial population of a given area and includes African American, Asian, American Indian, Native Alaskan, Native Hawaiian, Pacific Islander, persons reporting some other race, and persons reporting two or more races. The standards of analysis for environmental justice require that these populations are present in the vicinity of the project, and that the potential for disproportionate effects to these populations is present. None of the alternatives (including the no action alternative) would result in disproportionate impacts on minority populations; therefore, this topic was dismissed from further analysis.

**Floodplains.** Executive Order 11988 and NPS Floodplain Management Procedural Manual #77-2 mandate floodplain management and require federal agencies to minimize occupancy of and modification to floodplains. The water levels in Rainy Lake and Namakan Lake are controlled by a privately owned hydropower dam at the outlet of Rainy Lake and by regulatory dams on the two outlets from Namakan Lake as described in the Lake Levels section in the plan. There are no floodplains in the project area. A floodplains Statement of Findings was not required, nor was the associated public review period; therefore, floodplains was dismissed from further analysis.

**Geology.** The Geology (Topography) section in the plan describes the park’s geologic resources and significance. New construction activities as a result of any alternative would be minimal and highly localized compared to the park as a whole, and would not change the underlying geology. As a result, geology was dismissed from further analysis.

**Historic Structures.** A generator shed located northeast of the hotel is currently used for storage. The structure was rebuilt in 1978 by park seasonal staff after the previous log generator shed burned down after being struck by lightning. The shed is dated outside of the historic district’s period of significance of 1910 to 1934. The shed’s interior would be repurposed as an accessible restroom but would retain its exterior appearance and physical location. Historically, there was an outdoor “necessities” area used as a restroom so an exterior restroom is in keeping

with the area's past uses. No designated historic buildings or structures would be modified. As a result, historic structures was dismissed from further analysis.

**Indian Trust Resources.** Secretarial Order 3175 mandates any anticipated impacts to Indian trust resources from a proposed project or action by the Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to Native American and Alaska Native tribes. Land tracts owned by the Minnesota Chippewa Tribe or individual members of the tribe are located within park boundaries. None of these tracts are located in or adjacent to the project area and would therefore be unaffected by the proposed actions. Therefore, Indian Trust Resources was dismissed as an impact topic for further analysis.

**Socioeconomics.** Socioeconomics includes an evaluation of the potential impacts of the alternatives on the social and economic elements of the surrounding communities. Impacts were analyzed by considering the effect of the existing conditions and the proposed development of the properties on the overall socioeconomic conditions in the area. Socioeconomic conditions were evaluated and the impacts of each alternative were analyzed in terms effects on social and economic values. Values of the social environment mainly include quality of life, while economic values include direct and indirect economic benefits or losses to local communities. Although the likely slight increase in visitors to the park would provide a minimal economic benefit to the surrounding communities, as would any construction activity, this impact would be negligible in the scope of the local economy. As a result, socioeconomics was dismissed from further analysis.

**Wetlands.** Wetlands are described in the Wetlands section in the plan and the referenced appendix. Wetlands were delineated by NPS staff in September 2019. The delineation trip report identified 6 unique palustrine wetland habitats totaling 9.71 acres (3.93 hectares). The plan identified a need for an emergency helicopter landing. The approximate location of the helicopter landing area is shown in alternative B (figure 17g) of the plan and is located towards the southern end of the roadway (also noted as a historic boardwalk on maps; established circa 1914 and prior to NPS management). The roadway is flanked by wetlands on both sides (identified as wetland 6 in the wetland trip report). Additionally, both the wetland trip report and the park have identified areas for future wetland restoration efforts.

The area of disturbance for an emergency helicopter landing area (Type III Helicopter landing) would include a 75-foot radius safety circle and a 15x15 foot clear and level landing area inside of that safety circle. The safety circle includes trimming vegetation or other obstructions to under 18 inches in height<sup>32</sup>. All vegetation trimming would be done by hand with no equipment driven into the wetland areas. This 75-foot safety circle area would include utilizing the existing 12 to 15 foot wide roadway and about 60 to 63 feet clear space on either side of the roadway.

This would be an excepted action per the Procedural Manual #77-1: Wetland Protection, Section 4.2.1.7 Maintenance, Repair, or Renovation, of an existing facility where the impact would be less than 0.1 acre. No adverse impacts to wetlands and no net loss of wetlands would occur; therefore, wetlands were dismissed from further analysis and a wetland statement of findings was not prepared.

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32. National Wildfire Coordinating Group, Incident Response Pocket Guide (April 2018), page 50.

**Wilderness.** The 2002 GMP designated management zones throughout the park. The Kettle Falls area, generally speaking, is located at the convergence of several management zones. The Kettle Falls area was determined to be a visitor destination in a high-density lakecountry area, adjacent to a developed area, and surrounded by primitive areas (see table 1 and figure 3 in the plan). Primitive areas consist of both proposed wilderness and non-wilderness in the park's backcountry except for trails. Visitors can expect a "wild" experience, with few facilities in a primitive zone. Certain areas of the park were proposed for wilderness designation in 1992 but that recommendation was returned to the Department of the Interior in 1994 and the designation remains pending. A longer distance trail is proposed to pass through the primitive zone and is an appropriate backcountry use. Therefore, wilderness was dismissed from further analysis.

**Wildlife.** Total area of land disturbance is noted in table 3 and is minimal (4.93 acres) compared to the project site (approximately 321 acres) and the park (218,054 acres). The Wildlife section in the plan describes wildlife within the park and the Kettle Falls area. The Foundation Document describes terrestrial ecosystems park wide (Foundation, p19-21). The NPS NRSS NPSpecies database and other park studies provide additional information on the wildlife that inhabit the park. Population sizes of many species are relatively stable including moose, wolves, bears, bald eagles, loons, and forest breeding birds. The National Park Service referenced the electronic list of federally listed plant and animal species, as generated by the U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) system (<https://ecos.fws.gov/ipac>). Best practices in the plan and mitigation measures noted in this EA would be followed. Therefore, wildlife was dismissed from further analysis.

**Note to reviewers: Consultation with the US Fish and Wildlife Service is ongoing, and this sections will be updated as needed.**

The U.S. Fish and Wildlife Service will be provided a draft of the plan/environmental assessment. The National Park Service will reinitiate consultation in the future, as appropriate, with the U.S. Fish and Wildlife Service for their concurrence on elements of the plan that may require further compliance.



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## **APPENDIX D: DOCUMENT PREPARERS AND REVIEWERS**

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## APPENDIX E: REFERENCES

### National Park Service (NPS)

- 2001 Director's Order #12 and Handbook – Conservation Planning, Environmental Impact Analysis, and Decision-Making
- 2006 NPS *Management Policies 2006*
- 2015 NEPA Handbook
- 2019 LaBounty (in preparation), Kettle Falls Archeological Inventory
- 2020 Wallace and Harmon, Kettle Falls Site Development: Archeological and Historical Resource Evaluation

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

VOYA xxx/xxxxxxx (assigned at press)  
May 2020



# KETTLE FALLS SITE DEVELOPMENT PLAN ENVIRONMENTAL ASSESSMENT

DRAFT | May 2020