

ARCHAEOLOGICAL RECONNAISSANCE
OF CHAMBERS GROVE PARK IN THE CITY OF DULUTH,
ST. LOUIS COUNTY, MINNESOTA

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ABSTRACT

Cultural resource investigations were conducted in Chambers Grove Park, an island opposite the park on the St. Louis River, and the adjacent segment of the St. Louis River in the city of Duluth, St. Louis County, Minnesota. Literature research identified four historic (post-Contact) properties that may have additional physical remnants: a railroad line, a post-Contact stone quarry, and two post-Contact habitations. Phase I field survey included pedestrian walkover of the terrestrial part of the APE, with shovel testing focused on the island; shovel testing was deemed not necessary on the mainland component as a result of previous disturbance and soil core analysis. In addition, underwater survey (remote sensing and visual components) was conducted in the channel of the St. Louis River between the island and the mainland. Physical remnants of historic properties located during the field survey include the Chambers Quarry (21SL1162), the Lake Superior and Mississippi Railroad: Fond du Lac to Thomson Segment (XX-RRD-026), and the remains of a cabin or residence on the island in the St. Louis River, named the Bayless Cabin (21SL1218). A fourth historic residence recorded in the area, the Chambers House, could not be field verified.

ACKNOWLEDGMENTS

Many people assisted with this project. Tari Rayala (City of Duluth) provided information and facilitated the project. Scott Anfinson (State Archaeologist) provided the state license; Bruce Koenen (OSA) assigned state site numbers; Thomas Cinadr (SHPO) assigned history and architecture inventory numbers. Information on historic properties in the project was supplied by Patricia Maus (Northeast Minnesota Historical Center), Tim Schandel and Ken Buehler of the Lake Superior Railroad Museum, Bill Majewski (former Duluth City Planner), and Jerome Blazevec (local historian). Mr. Bayless and his family gave permission to survey the island.

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BACKGROUND INFORMATION

INTRODUCTION

The objective of this cultural resources investigation was to conduct Phase I archaeological reconnaissance survey for historic (Contact and post-Contact) and prehistoric (pre-Contact) archaeological sites within Chambers Grove Park and adjacent areas in the St. Louis River in the City of Duluth, St. Louis County, Minnesota (Figure 1). The investigation was conducted for the City of Duluth Parks and Recreation Department and Minnesota Department of Natural Resources (MnDNR) in advance of a project to make improvements to the Park as well as future projects on the St. Louis River shoreline. The proposed Park improvements have the potential to cause impacts to various historic properties within Chambers Grove Park and adjacent areas of the St. Louis River. Since funding for the restoration project is supplied by the State of Minnesota through the Legacy program, compliance with the National Historic Preservation Act (specifically Section 106) is required. The State Historic Preservation Office (SHPO) has review and concurrence responsibilities in this process.

Several types of historic properties are known or expected to occur within the project area. The parcel was the location of considerable activity in the late 1800s and 1900s. Post-Contact stone quarrying, early settlement, and early railroad corridors have all been documented within or adjacent to the project area (Mulholland and Mulholland 2012). A stone quarry of Fond du Lac Brownstone was operated within the Chambers Grove Park boundaries, as was a stretch of the earliest railroad into Duluth: the Lake Superior and Mississippi Railroad (LS&M). The owner of the quarry is reported to have built a mansion within the park boundary, likely where the existing pavilion sits today; however, remnants of the mansion were removed in 1912 and no surficial evidence of the structure remains today. Evidence of earlier occupations may also exist in the Park as the first EuroAmerican settlement in Duluth and a major Ojibwe village was at Fond du Lac immediately adjacent and downstream of the project area. In addition to EuroAmerican contexts, the St. Louis River was of major significance to the Ojibwe bands, specifically the Fond du Lac Band of Lake Superior Chippewa (LeRoy DeFoe, personal communication 2013). Not only was the river and the Grand Portage of the St. Louis (through present-day Jay Cooke State Park) used during by traders during Contact times, the travel route was probably also used during pre-Contact times as well.

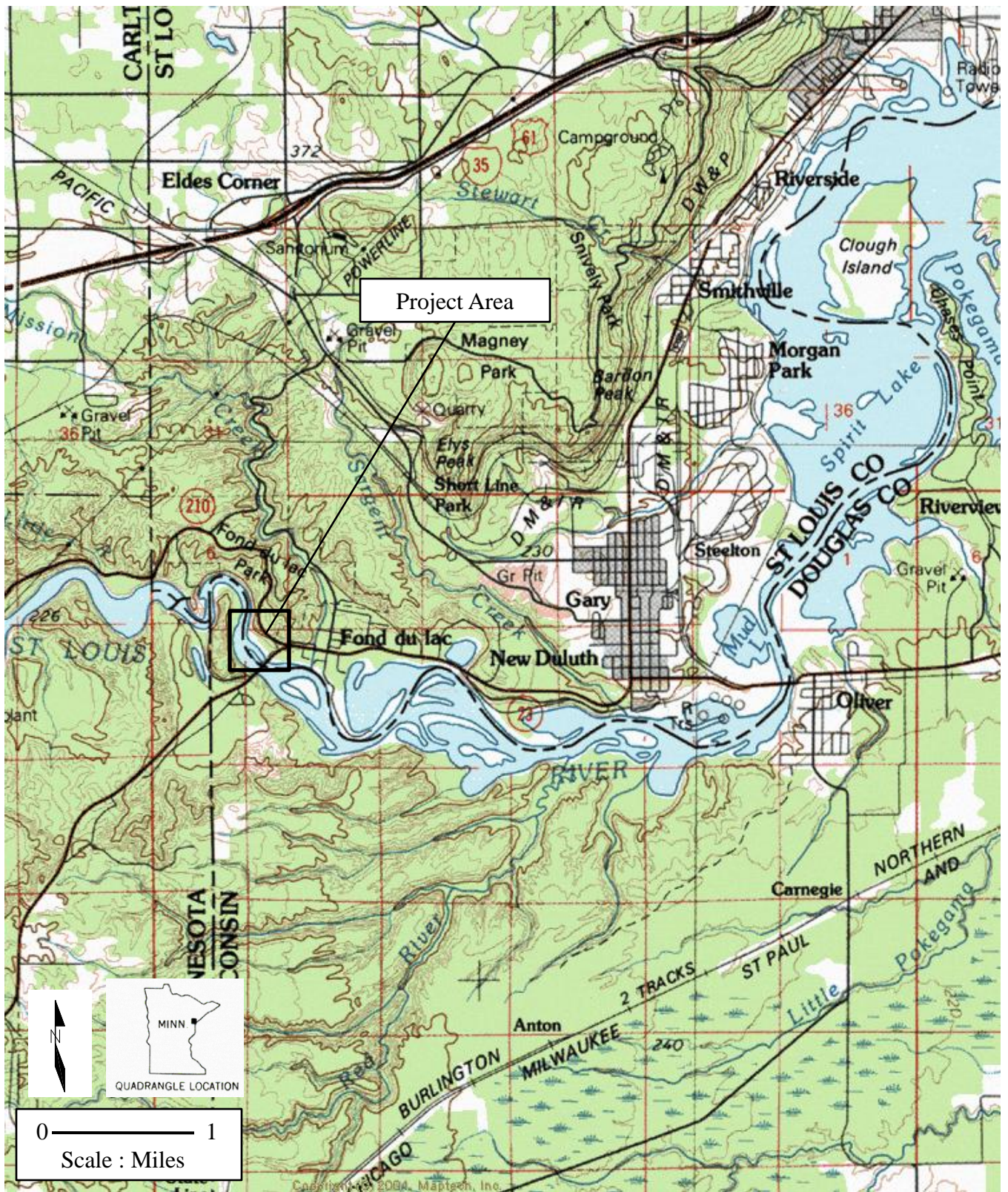


Figure 1. Location of the project area. Duluth, Minn. 1980. 1:100,000 USGS topographic map.

Given the expected and known historic contexts in the project area, both terrestrial and underwater survey methods were proposed to locate evidence (features, artifacts) of historic properties (known and unknown). Survey was conducted by personnel meeting the Secretary of Interior Standards for Archaeology and Historic Preservation; survey parameters followed the Secretary of Interior Guidelines (National Park Service 1983), the Guidelines for Historic/Architecture Projects in Minnesota (Minnesota State Historic Preservation Office 2009), and the Manual for Archaeological Projects in Minnesota (Anfinson 2011). The survey was designed to identify pre-Contact, Contact, and post-Contact properties in the project area and determine boundaries of the properties.

PROJECT LOCATION

Chambers Grove Park is a 10-acre park on the north side of the St. Louis River in the City of Duluth, St. Louis County, Minnesota (Figure 2). It is located near the Fond du Lac neighborhood (approximately 13400 West 3rd Street) in T48N, R15W, section 7 (Table 1), northwest of the junction of Minnesota State Highways 23 and 210. The river forms the boundary with the State of Wisconsin to the west and south, with Douglas County on the Wisconsin side. The project Area of Potential Effects (APE) is the 10 acre parcel that encompasses Chambers Grove Park and an approximately 1 acre parcel comprising the island in the St. Louis River that is under private ownership. The project area includes submerged land within the St. Louis River channel between the island and the Park on the Minnesota side. The project area is largely under the jurisdiction of the State of Minnesota (the underwater channel) and the City of Duluth (the Park) with one private land owner (the island).

Table 1. Project Location in Universal Transverse Mercator (UTM) Coordinates*

BOUNDARY	EASTING	NORTHING
western	0554620	5167715
eastern	0555000	5167730
northern	0554730	5167925
southern	0554800	5167510

* 1983 North American Datum (NAD), zone 15

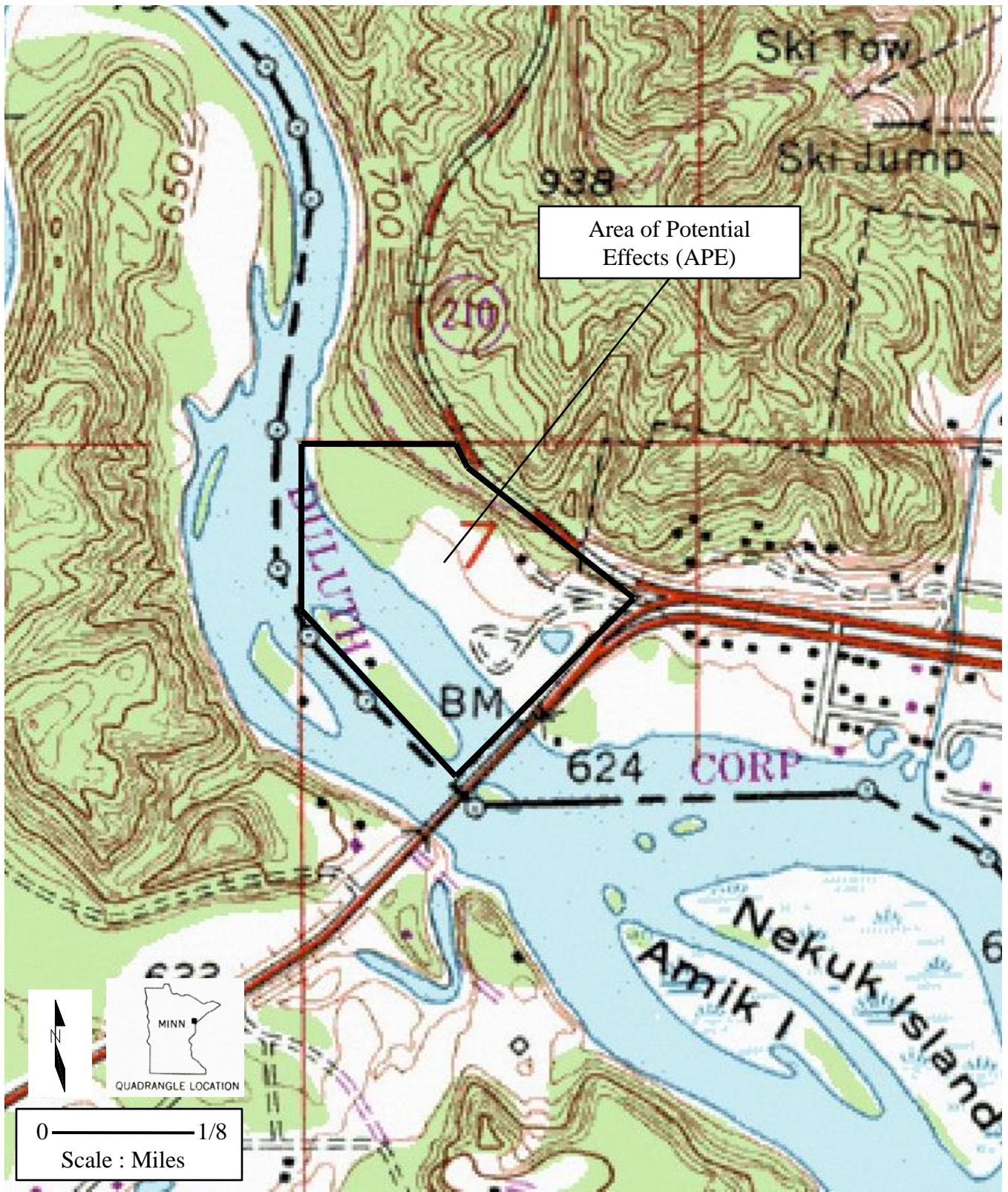


Figure 2. Location of the Area of Potential Effects (APE). Esko, Minn.-Wis. 1953 (1993). 1:24,000 USGS topographic map.

This portion of the St. Louis River flows from north to south past Chambers Grove Park and bends to the east past the Fond du Lac neighborhood of Duluth. The structural remnants from previous development are present; however, there are no active industries within the APE. The river channel between the island and the park is relatively shallow and surrounded by emergent wetland; however, it used to be the main river channel before modifications were made to the park shoreline, causing the main channel of the St. Louis River to flow along the west side of the island. This, coupled with subsequent periodic flooding, has resulted in substantial filling in of the old main channel.

HISTORY OF CHAMBERS GROVE PARK

Much of the history of Chambers Grove Park has been published by the *Zenith City Archive* <zenithcity.com>, which is an online resource for freelance historical research. Chambers Grove Park was first known as “Colonel Carlton’s Farm.” Colonel Ruben B. Carlton was an early settler of the Fond du Lac area and credited as one of the founders of the Fond du Lac town site. He lived in what was described as a log-hewn, two room shack on his property until his death in 1863.

Presumably, the property remained vacant until 1869 when Michael Chambers acquired it. Mr. Chambers was an Irish immigrant to St. Paul where he gained a small fortune as an auctioneer. He purchased “Colonel Carlton’s Farm” in hopes of utilizing a brownstone quarry located on the property and shipping the stone out on the up-coming Lake Superior and Mississippi Railroad (LS&M). The property also contained a plum grove (hence the name Chambers Grove). The LS&M Railroad was completed in 1870, at the same time when Mr. Chambers began construction of a two-story mansion utilizing brownstone from the quarry. The house was finished in 1872, contained more than 20 rooms, and was built in an ornate style that attracted tourists to the Fond du Lac neighborhood. The second floor contained an open layout which housed a grand piano for the Chambers’ social gatherings. Allegedly, the mansion may have operated as a hotel.

Mr. Chambers was likely able to ship some of his brownstone along the LS&M until the panic of 1873. During the ensuing recession/depression, he attempted to sell the quarry and also went delinquent on his property taxes. He left town in 1879 to avoid his debts, while his wife Emily Chambers and a man by the name of Martin Boyle took charge of the brownstone quarry operations. Sometime later, Chambers returned to Duluth, claiming he had what we call today a “nervous

breakdown” which left him partially mentally disabled. In 1891, Chambers had a property dispute with one Alphonse Guerard, who is suspected to have started the arson fire which destroyed the mansion later that year. The ruins of the mansion remained until their removal in 1912. Approximately 577 acres of the property was later acquired by the City of Duluth before Mrs. Chambers death in 1926. Mr. Chambers had passed many years prior in 1895.

PROJECT METHODS AND PERSONNEL

Several methodologies were employed to identify historic properties within the APE, including both office and field investigations. Research in historical sources was conducted to identify post-Contact historic properties that were documented within the project area. Field survey of both terrestrial and underwater portions of the APE was conducted to identify cultural materials associated with the historic properties; the potential for survey of pre-Contact occupations was also assessed. Terrestrial portions of the project APE were surveyed by standard archaeological methods. Underwater portions were surveyed using both remote sensing and visual methods. Each task was conducted by personnel with appropriate background.

Team Personnel

The cultural resource investigations were conducted by personnel from the Duluth Archaeology Center (DAC) with a subcontract to WolfsHead Research Logistics (WRL) for underwater expertise. Personnel meet the Secretary of Interior Standards and Minnesota SHPO guidelines (Appendix I). The overall direction of the project was under supervision of Susan Mulholland, who was the principal investigator. Stephen L. Mulholland was Co-principal investigator. Both PIs conducted research for historic documents regarding the historic properties. The underwater survey was conducted by Randolph Beebe (diver, remote sensing expert).

Historical Research

Background historical research focused on the post-Contact history of industrial activities in the project area. Specifically, the Lake Superior and Mississippi Railroad and the Chambers’ Quarry site were researched intensively. Materials included publications, archival sources, maps, and photographs related to brownstone quarrying and early railroad development into Duluth. In

addition, materials relating to early settlement and habitation in the area was also reviewed. Sources that were consulted include the Minnesota Historical Society and the State Historic Preservation Office in St. Paul as well as the Northeast Minnesota Historical Center at the University of Minnesota Duluth campus and the Lake Superior Railroad Museum at the St. Louis County Historical Society in Duluth. Interviews were also conducted with several individuals who have knowledge about Chambers Grove Park. Historic aerial photographs from the MnDNR geographic information system (GIS) based Landview system were viewed on-line.

Field Techniques

A Phase I archaeological survey was conducted of the project area for archaeological sites focusing on the post-Contact contexts, although pre-Contact and Contact occupations were considered. Sites were assessed during the field investigation for nature and extent of geographic boundaries; specific feature and artifact locations were recorded by global position system (GPS) coordinates for inclusion in GIS databases and maps.

Terrestrial survey consisted of pedestrian walkover throughout the park for surface features and artifacts (mostly post-Contact in nature) by visual inspection. Transects were 15 meters apart on dry ground; marsh areas were visually inspected from higher vantage points. The shoreline was also visually inspected by boat. Each identified feature was measured, hand drawn, photographed, and marked with a GPS point to produce a site map of all surface features. Historic structures identified from the literature review were the focus of this survey. Shovel testing for subsurface deposits (mostly pre-Contact sites) was to be conducted as appropriate in areas of high potential; in particular, the Park and the island was initially thought to contain areas appropriate for this methodology. However, the landscape within the Park showed signs of extensive previous disturbance, partly the result of industrial development and partly the result of construction of the Park itself. Shovel testing was only conducted on the island; all terrestrial portions of the APE received pedestrian survey. Field methods followed the standard methodology for archaeology projects in Minnesota (Anfinson 2011). Survey was conducted under annual archaeology license 14-017 (Appendix II) from the Office of the State Archaeologist (OSA).

Coring was conducted in select areas near the picnic pavilion in an attempt to identify surface or structural elements associated with the Chambers house. To conduct the coring, a 1 meter

long 1.5 inch split spoon was utilized. The sediments were extracted in 20-30 cm lengths and examined for evidence of occupation.

Underwater survey focused on use of a high resolution (800 khz) side-scan sonar deployed from a small vessel or canoe (in shallow waters) to detect submerged features. The range settings were set at 50-100 feet to obtain the highest quality data in the shallow and obstructed submerged setting. Standard search patterns were followed as feasible while avoiding islands and other surface obstacles (such as submerged logs). These data were post-processed to compile a GIS compatible mosaic map that can be reviewed in either ArcGIS 9.3 or Google Earth. Anomalies of interest (pilings, large debris pieces) were ground-truthed and recorded with underwater video or still cameras.

TRIBAL CONSULTATION

The Tribal Historic Preservation Officer (THPO) of the Fond du Lac Band of Lake Superior Chippewa has been consulted in the past about cultural resource investigations in the area. Former Fond du Lac THPO Le Roy DeFoe remembers his father ricing in portions of the St. Louis River downstream from the project APE. Also in recent years sturgeon have been reintroduced into this area of the St. Louis River by other members of the Fond du Lac Natural Resources department. The size of this fish population is checked annually.

This area of the St. Louis River was a favored location by Ojibwe for fishing and ricing as well as habitation in the late pre-Contact and Contact eras. The St. Louis River and estuary have since become polluted as a result of industrial development in Cloquet, Duluth, and Superior. Currently there are advisories on the amount of fish that can be safely consumed from the St. Louis River.

The Ojibwe village at the community of Fond du Lac in Duluth (immediately downstream from the APE) was a major locus of activity in Contact times (Luukkonen, 2007). In addition, several villages were located downstream (probably including the project area); however, the specific locations of these smaller villages is not known. Le Roy DeFoe is of the opinion that they would have been located on dry ground near springs but not on the bluffs visible on the Wisconsin side of the river. Ojibwe populations were removed to areas on the Fond du Lac Reservation west of Cloquet during the middle to late 1800s (Norris 1993:4-5; Sommer 1981:20-22). No specific

locations of Ojibwe activities were previously known from the project APE.

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RESULTS

TERRESTRIAL SURVEY

Pedestrian survey was conducted over the terrestrial portion of the project APE (Figure 3). Shovel testing was only conducted on the island, as no undisturbed areas were identified within the Park boundaries. Three historic properties were recorded during survey (Figure 4, Appendix III and IV). Most of the effort within the Park boundary was focused on determining boundaries for the previously recorded Chambers' Quarry site (21SL1162) and recording any additional features, including the reported location of the Chambers' Mansion. In addition, an existing railroad grade was recorded along the northern boundary of the park: the Lake Superior and Mississippi Railroad Fond du Lac to Thomson Segment (XX-RRD-0026). Shovel testing was not considered necessary as a result of extensive previous disturbances to the park area, as well as filling in of low areas; however, pedestrian survey and visual observations were made in all 10 acres that were accessible.

In addition to the park mainland, the island (called Bayless Island after the landowners) in the St. Louis River opposite the Park was considered for survey at the request of the Minnesota Department of Natural Resources (MnDNR). The island consists of approximately one acre of land located on the Minnesota side of the St. Louis River channel and is under private ownership. Permission was granted by the landowner to conduct both shovel testing and surface survey on the island. One site, the Bayless Cabin site (21SL1218), was recorded on the island.

Chambers Grove Park

Chambers Grove Park is an approximate 10-acre park on the north side of the St. Louis River in Duluth, St. Louis County, Minnesota (Figure 2). It is located near the Fond du Lac neighborhood (approximately 13400 West 3rd Street) in T48N, R15W, section 7, northwest of the junction of Minnesota State Highways 23 and 210. The river forms the boundary with the State of Wisconsin (Douglas County) to the west and south. The project Area of Potential Effects (APE) encompasses the entire Chambers Grove Park plus the island and intervening river channel.

During the 1960s much of the present St. Louis River shoreline of Chambers Grove Park was extensively modified (Tari Rayala, personal communication 2014). The original main flow of the St. Louis River was through a channel between Bayless Island and the Park, creating a large concave

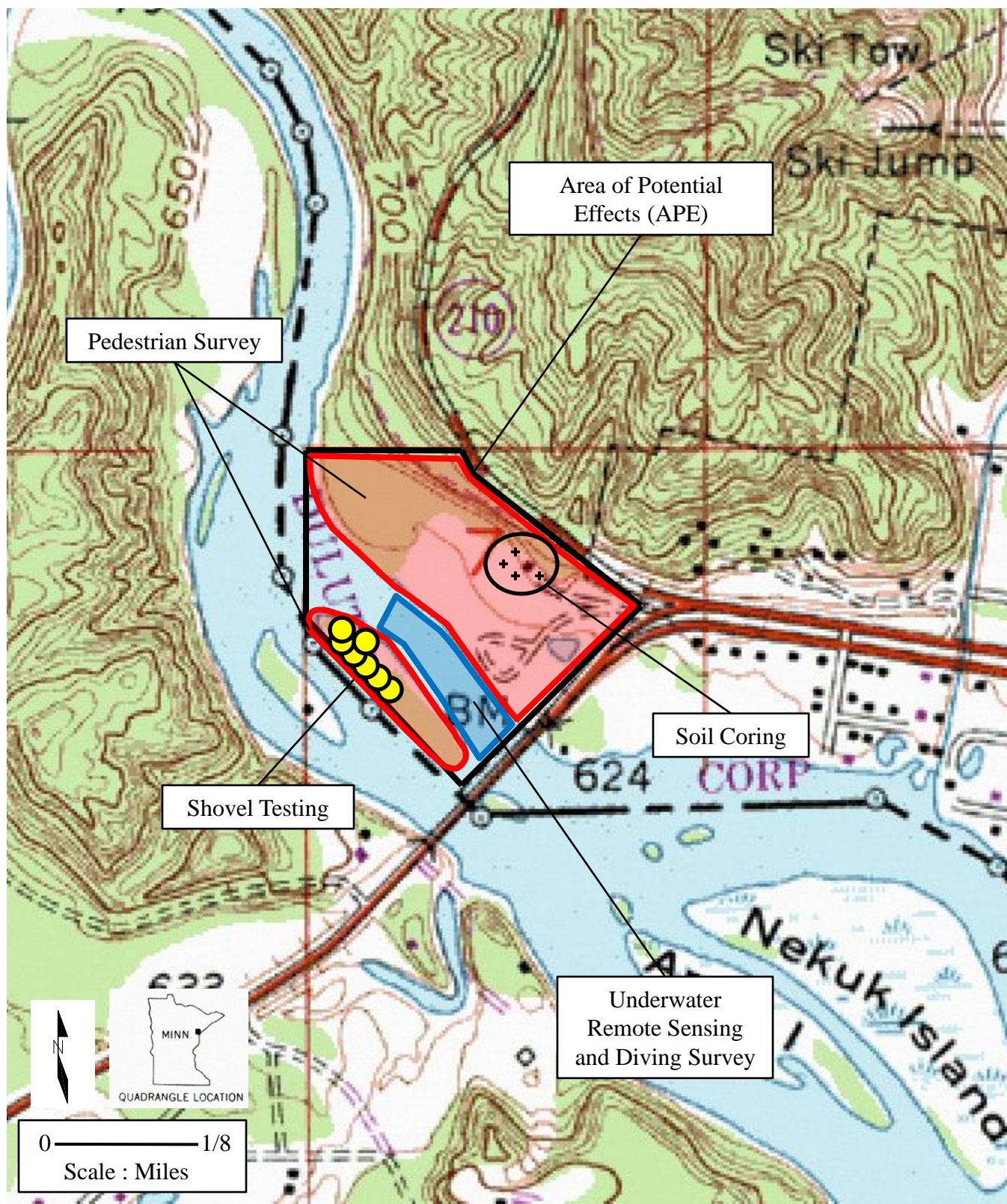


Figure 3. Location of survey methods conducted. Esko, Minn.-Wis. 1953 (1993). 1:24,000 USGS topographic map.

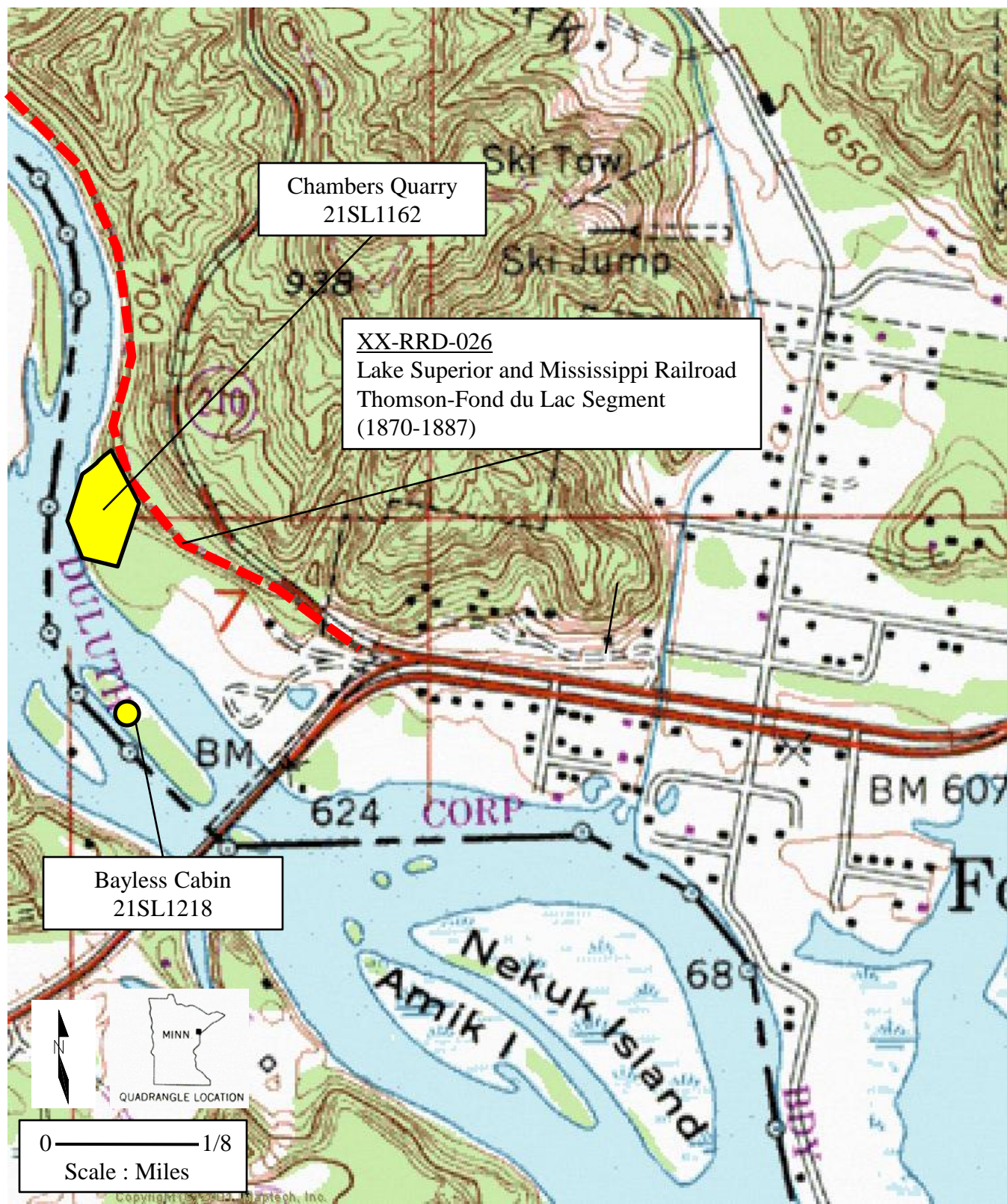


Figure 4. Location of sites recorded. Esko, Minn.-Wis. 1953 (1993). 1:24,000 USGS topographic map.

feature that received frequent impacts from shoreline erosion. This concave area was filled in to create much of the large expanse that is the lower open field, lower parking area, and the present river shoreline of the park. Subsequent to and as a result of this land creation activity, the main river channel was altered and it now flows on the west side of Bayless Island. With the alteration of the river's main channel, the waterway between the island and park has become shallower in places, especially off the north end of the island. Rock and other sediments have started to fill in this area making it possible during periods of very low water to easily walk or wade out to the island.

On July 8, 2014 attempts were made to search for evidence of Chambers Mansion. It was reported in the literature that the mansion overlooked the St. Louis River and it is assumed that it was on higher ground to avoid seasonal and periodic flooding. Four core holes were placed in the vicinity of the hillock on which the current Picnic Pavilion was constructed in an attempt to encounter any buried brownstone foundation that might remain after the building had burned and was later removed. No evidence of the blocks was encountered, only deep sands extending down 1 meter or more. Based on current evidence it is likely that Chambers' Mansion was in the general location of the present day Picnic Pavilion (Figure 5).

Behind the Picnic Pavilion is a drainage ditch for creek or spring water that looks to be quite old. Where the old railroad grade crosses this ditch, the walls of the ditch are constructed on shaped brownstone blocks. It is uncertain if these are original from the building of the line or a later addition, possibly a remnant of Chambers' Mansion. Additional support for the location of Chambers' Mansion at or near the Picnic Pavilion is that the drainage ditch forms a T just at the tree line, shunting the water to either side of mound/hillock on which the Picnic Pavilion is constructed.

Additional pedestrian survey of the open and wooded areas of the park revealed no unknown sites or features. The location of the Chambers' Quarry site (21SL1162) was confirmed and site boundaries were expanded (see below). The observation that much of the park has been previously disturbed by prior activities and park facilities construction was also confirmed.

Bayless Island

Bayless Island, located in the channel of the St. Louis River just west of Chambers Grove Park and adjacent to the Minnesota and Wisconsin state line, was added to the Phase I archaeological survey area at the request of the MnDNR through the City of Duluth (Figure 2). The island is

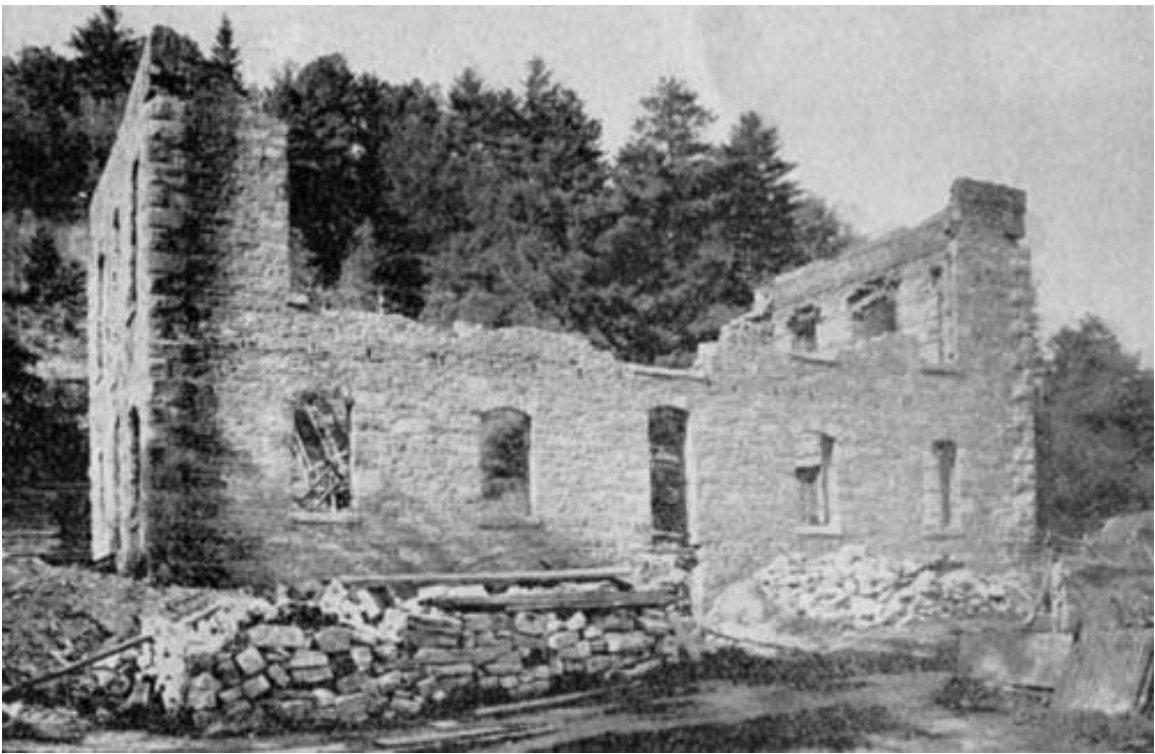


Figure 5. Location of the existing Chambers Grove Park pavilion and historic photo of the Chambers Mansion ruins before 1912. Historical photo credited to the *Zenith City Archives*. Photo of the existing Chambers Grove Park pavilion and artificial built-up earthen platform.

privately owned by the Bayless family and is unoccupied. A meeting with members of the Bayless family, Tari Rayala from the City of Duluth, and a representative of the Duluth Archaeology Center was held at the families' request to discuss what a Phase I archaeological survey entails, who was going to conduct the examination, and other potential concerns with regard to the Phase I survey. At the meeting, held in the offices of the City Architect, the family's concerns and issues were addressed and permission to conduct the Phase I survey was granted.

Of primary concern to the Bayless family was a desire to not see their property turned into a recreation area that would be accessed from Chambers Grove Park. This concern has been exacerbated by evidence of past unauthorized visitations to the island by unknown visitors. Their desire was that it not become a party location. Tari Ryala informed the family that no development was planned for the island, that the request for the Phase I archaeological survey of the island originated with the MnDNR, that it was not the intent to create such a situation but admitted it would be hard to prevent. In addition, expressed concerns included how many participants would conduct the Phase I survey, what size the shovel holes would be and whether they be left open or filled in, whether any sites or burials found on the island make it historically significant, whether these sites would result in the property being taken from the family through legal processes, and disposition of any artifacts recovered during the Phase I survey.

The concerns of the family were addressed as best as possible. There was no intent to make the island part of a recreation facility associated with Chambers Grove Park; however, prevention of casual use of the island would not be feasible. Archaeologically, the process followed by DAC required the crew to fill in all shovel test holes. Artifacts recovered from private property belonged to the land owner(s) and they could, if so desired, donate those items to whomever they chose. Issues of crew size were addressed; DAC would limit the size to two or three people and would not be bringing out a classroom-sized group from any University or school. Issues concerning significance were contingent on what would be found during the Phase I survey. Specific concerns about loss of ownership through legal process could not be addressed other than to state that it was not the intent of the Phase I archaeological survey. At the conclusion of the meeting the concerns presented by the family were addressed sufficiently and they granted permission to conduct the Phase I archaeological survey.

The Phase I archaeological survey of Bayless Island (Figure 3) was conducted on July 24,

2014. Access was obtained by a boat piloted by Randolph Beebe, landing the two members of the DAC field crew on the west side of the island. The initial step in the survey was to conduct a detailed walkover of the island to examine it for historic and archaeological features. The pre-field examination of the United States Geological Survey maps of the island showed a structure present on the east central part of the island. This structure was not readily visible from the river bank at Chambers Grove Park (Figure 6). Therefore, one of the objectives of the walkover survey was to determine if any remnants of the building were still extant. A second objective was to determine whether areas required shovel testing in addition to the walkover examination.

The walkover examination identified that the chimney of the structure was still extant and standing but other structural elements were either gone or had been removed (Figure 7a). Numerous artifacts and features, such as bed frames and assorted metal items, were identified in and around the chimney but no foundation elements, outside of the chimney, were found. This suggested that the structure may have been built on posts to raise it above periodic floods that have swept over the island, thus leaving no physical evidence of a building foundation. The flooding hypothesis was supported by the elevated height of the metal fuels chamber visible in the chimney (Figure 7b). The elevated height of the fuels chambers suggests that the floor was not at or near ground level but at least 20 to 26 inches above it. This raised chimney suggests that the island is periodically flooded by the St. Louis River.

In addition, the walkover survey found numerous evidence of past flooding, much of it probably from the recent floods of 2012 and 2013. This evidence included water washed trees and branches that were piled against standing vegetation on the island, erosion cuts and shallow gullies at various locations, and the presence of sand and gravel bars that crossed the surface of the island. All are indicative of periodic inundation of the island by waters of the St. Louis River. However, one of the more unexpected occurrences during the walkover survey was identification of dozens of holes, many square, that had been dug by individuals in search of artifacts, possibly in search of those associated with the Fur Trade or Early Homestead historic contexts (Dobbs 1989, SHPO 1993). Adjacent to one of these holes was a steel or iron axe head (Figure 8) similar to those sold by Marshall Fields out of Duluth during the earlier part of the 20th Century. It was observed that possibly well over 100 holes, likely by metal detector enthusiasts looking for artifacts, had been dug on the island prior to the Phase I survey.

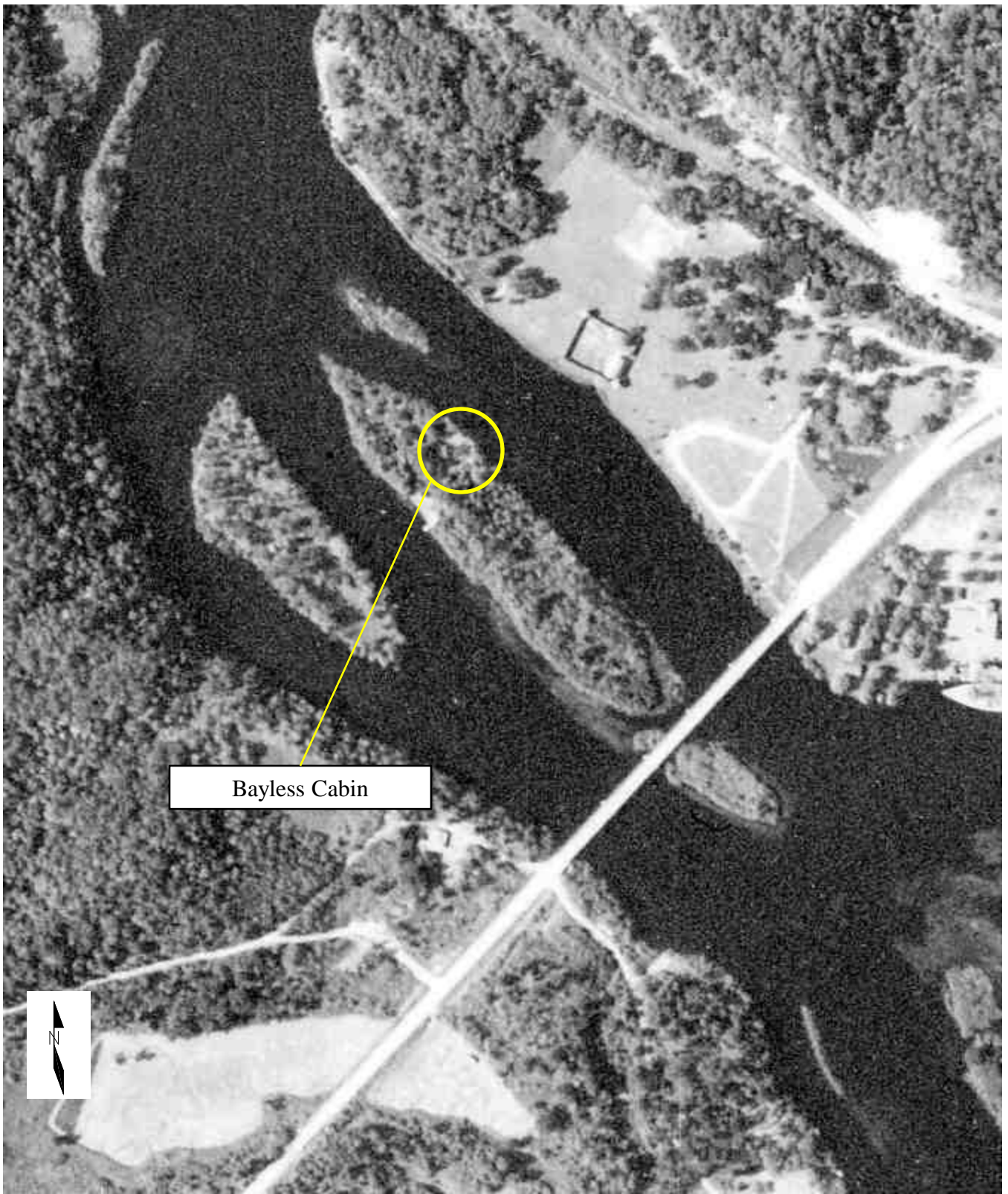


Figure 6. Structure located on Bayless Island on the St. Louis River in a 1940 MNDNR Aerial Photograph .



Figure 7a. Extant chimney located at the Bayless Cabin (21SL1218) site.



Figure 7b. Elevated fire box of extant chimney at Bayless Cabin (21SL1218) site.



Figure 8. Photographs of axe head recovered from the Bayless Cabin (21SL1218) site. Scale in centimeters.

It was determined from the walkover survey that most of the southern part of the island was either too disturbed by past flooding activity or too low to warrant shovel testing. However, the northern part of the island was sufficiently above current river water level to warrant shovel testing, if areas left undisturbed from the search for artifacts and actions by the flooding could be identified. A total of seven shovel tests were placed in areas that could be accessed (not covered by significant amounts of washed in wooden debris) nor previously disturbed by past diggings or erosional episode associated with previous flood events. All test holes were negative for cultural materials and filled in after pertinent sediment data was collected. Attempts were made to place the shovel tests on a 15 meter grid but were for the most part unsuccessful because of past disturbances and debris piles.

Sediments in the test holes were primarily sands and silts with occasional small rocks and gravel. In shovel test 7, either a very large boulder or more likely bedrock was encountered at about 45 centimeters below the surface. The other tests holes went as deep as 80 to 90 centimeters below the surface except for test 5 which hit a natural cobble pavement at 40 cm. Most of the test holes exhibited buried dark brown sandy silt A horizons with yellow brown sands both above and below. This stratigraphy is supportive evidence for past floods that had washed over the island.

Archaeological Sites: Summary

The field survey confirmed the site boundaries of the existing Chambers' Quarry site (21SL1162) located within the park (Mulholland and Mulholland 2012) and resulted in recording one additional archaeological site: the Bayless Cabin (21SL1218) site (Figure 4, Appendix III).

Site 21SL1162 (Chambers' Quarry) is located in the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 6, Township 48N, Range 15W. The site consists of several surface features relating to quarrying of Fond du Lac Brownstone, a popular building material in the late 1800s. This type of stone, located in Duluth and along the south shore of Wisconsin, was shipped across the United States to build cities like New York, Chicago, St. Paul, and Omaha. At least five possible exploration pits were previously recorded, as well as a main quarry pit feature. Additional areas of quarrying and/or materials testing were recorded during this investigation south of the main quarry area (Figure 9). In addition, an effort was made to locate the Chambers' Mansion, the house constructed by the owner of the quarry; however, efforts did not come to fruition. The Chambers' Mansion was a large, 20-room mansion constructed of Fond du Lac Brownstone from the adjacent quarry. It was built in

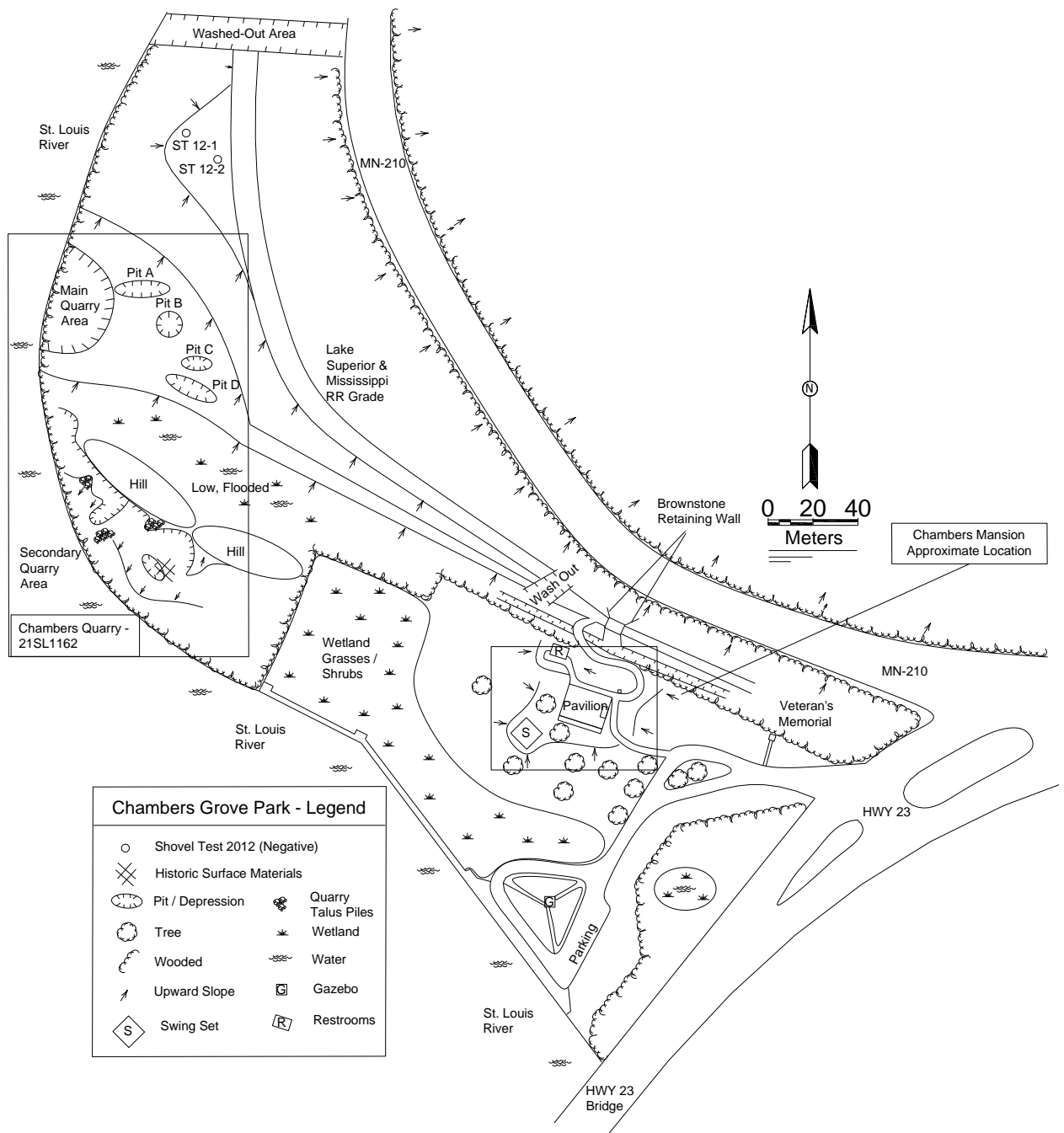


Figure 9. Sketch map of Chambers Quarry site (21SL1162) in relation to the existing park facilities.

1872, burned down 1891, and was formally removed by the city of Duluth in 1912. The probable location for the Chambers' Mansion is at the existing park pavilion. The location is based on analysis of the few historical photos of the mansion that remain, as well as the amount of wet and low ground within the park that is unsuitable for construction of a large home.

Site 21SL1218 (Bayless Cabin) is located in the NE ¼ of Section 7, Township 48N, Range 15W, on an island in the St. Louis River on the Minnesota side of the boundary with Wisconsin. The site consists of an existing brick chimney and a scatter of several historic materials (Figure 10). Although the chimney of the structure remains, there is no evidence of a building foundation. It has been determined that either the building foundation has been washed away, or buried by flood sediment, or that the building was constructed upon a raised platform in order to protect it from seasonal flooding events of the St. Louis River. Several scatters of surface materials include telephone pole insulators, stove, and refrigerator parts, indicating the structure may have been hooked up to electricity at some time and occupied as late as the 1950s.

Railroad Segment

The field survey also resulted in recording historic property XX-RRD-0026: the Lake Superior and Mississippi Railroad (LS&M): Thomson to Fond du Lac Segment (Figure 4, Appendix IV). This segment of railroad was the first line into Duluth in the late 1800s, and was utilized for both passenger and freight transportation.

The LS&M: Thomson to Fond du Lac Segment (XX-RRD-0026) is located in sections 1, 2, 8, 9, 10, and 11 of T48N, R16W and in Sections 6, 7, and 8 in T48N, R15W. It consists of a segment of abandoned railroad grade which is visible along the St. Louis River until about halfway to Thomson, Minnesota. It is likely that nothing remains of the segment after that point as a result of modern construction activities. Survey did locate an extant retaining wall constructed of Fond du Lac Brownstone along the existing grade of the LS&M Railroad, likely constructed to facilitate drainage from the hillside which it was constructed along. A portion of the railroad grade now serves as part of a trail system for the City of Duluth.

For its significance, the Lake Superior and Mississippi Railroad was the first rail line to reach Duluth, Minnesota. Construction began in St. Paul in 1863 and was completed in Thomson in 1870. The original route of the LS&M followed the St. Louis River from Thomson to Fond du Lac, and

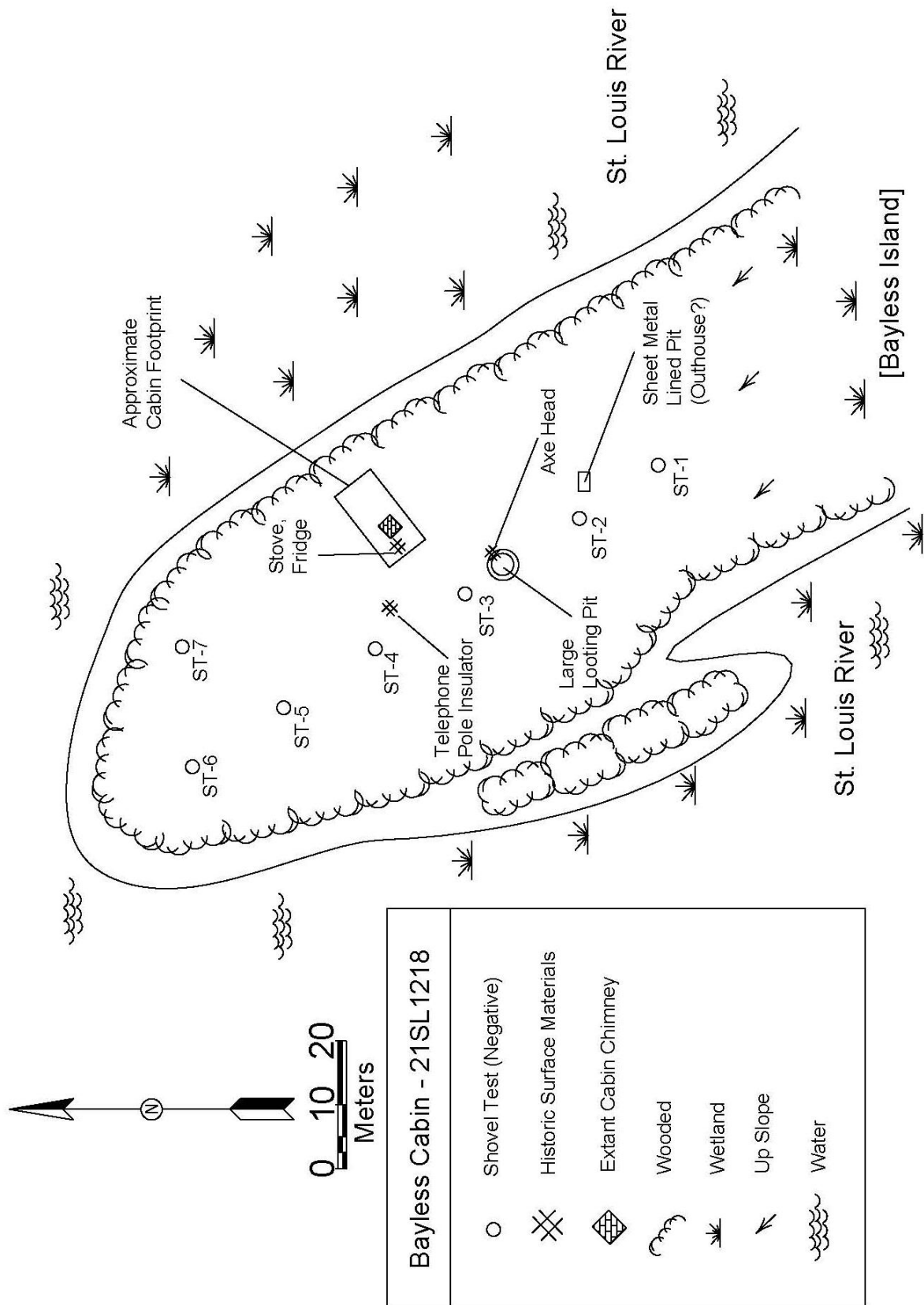


Figure 10. Sketch map of the Bayless Cabin site 21SL1218.

segments of this portion of the line featured wooden trestles hundreds of feet long. When Michael Chambers purchased Chambers' Quarry, his plan was to ship the stone out on the LS&M. The rail line operated until bankruptcy in 1877, when it was reorganized as the St. Paul and Duluth Railroad (StP&D). Ten years later in 1887, a 'short line' was constructed which bypassed the St Louis River valley and this segment of the LS&M/StP&D was largely abandoned for freight purposes (Mulholland and Schneider 2014). However, a portion of the original segment (Thomson to Fond du Lac) may have remained open until 1930s for commuter train service.

ST. LOUIS RIVER CHANNEL UNDERWATER SURVEY

For a comprehensive understanding of the river bottom near Chambers Grove Park a variety of survey methods were used: Side Scan Sonar Survey, Pulse Detection Electro-magnetic Survey, and diver survey.

The field work was conducted July and August 2014 using a variety of vessels. The entire survey area was covered with the remote sensing equipment and the ground truthing effort was conducted in a representative area by a SCUBA diver equipped with an underwater hand-held metal detector.

Side Scan Survey

The area between Chambers Grove Park and Bayless Island was surveyed wherever the water depths exceed two feet. The equipment used was an Imagenex dual-frequency digital side-scan selected high frequency, 800 kHz which delivers the highest resolution. Range was set at 50 feet/side. The sensor was towed behind a 14 foot skiff and passes were made at approximately 40 feet widths ensuring better than double coverage of the river bottom. Survey data was viewed in real time and captured for further analysis using a laptop computer integrated with a Garmin WAAS enable GPS unit.

At the time of the survey in July 2014 the water temperature was 60 degrees Fahrenheit and a Seki disk measurement recorded a water visibility of approximately 0.5 meters.

A visual review of the side scan data presented a fairly good idea of the bottom characteristic in this area of the river. The survey area is predominately a hard, rocky pavement of mostly sandstones and shales of the Fond du Lac Formation consistent with this area of the river that

experiences occasional fast current flows such as during the flood of 2012. The area near the eastern portion of the survey area is heavily disturbed due to the construction of the Highway 23 bridge piers. Also near the steel sheet piling that gird the park shoreline is evidence of past dredging efforts (Figure 11a). Other areas of the survey area reveal other natural features such as sunken stumps, submerged trees, and aquatic vegetation (Figure 11b).

No discernable cultural artifacts were located during the underwater survey other than the evidence of the dredging and bridge construction previously mentioned.

Electro-Magnetic Survey

To gain a better understanding of potential cultural remains an electro-magnetic survey was also conducted to augment the side scan work. A JW Fisher Pulse 10 pulse detector was used in conjunction with the Garmin GPS. Using a method previously used on shallow water surveys the induction coil was mounted directly in the bottom of a Royolex canoe which allowed the survey to continue into very shallow areas while eliminating the grounding and tangling hazards associated with the boat towed configuration.

This equipment can detect submerged and buried ferrous objects up to 5 meters away under ideal conditions. Passes were done in a similar manner as the ones for the side scan work with the exception that the passes were closer together (10feet) to ensure complete area coverage.

During the electro-magnetic survey a total of 24 anomalies were detected. The distribution of the anomalies suggests two main areas of concentration (Figure 12): between the old cabin site on Bayless Island and the north shore of the river and near the Highway 23 bridge.

This distribution is consistent with what one might expect from items that were lost or discarded during transport between the island and the mainland and during the construction of the Highway 23 Bridge. Another potential explanation for a few of the anomalies comes in the form of anecdotal evidence derived from a conversation with a kayaker in the area. The longtime local mentioned that it was a common practice to throw old coil bedsprings into the water to provide structure for fish to congregate around.

Diver Survey

As a follow up on the remote sensing surveys a diver was utilized to ground truth and attempt

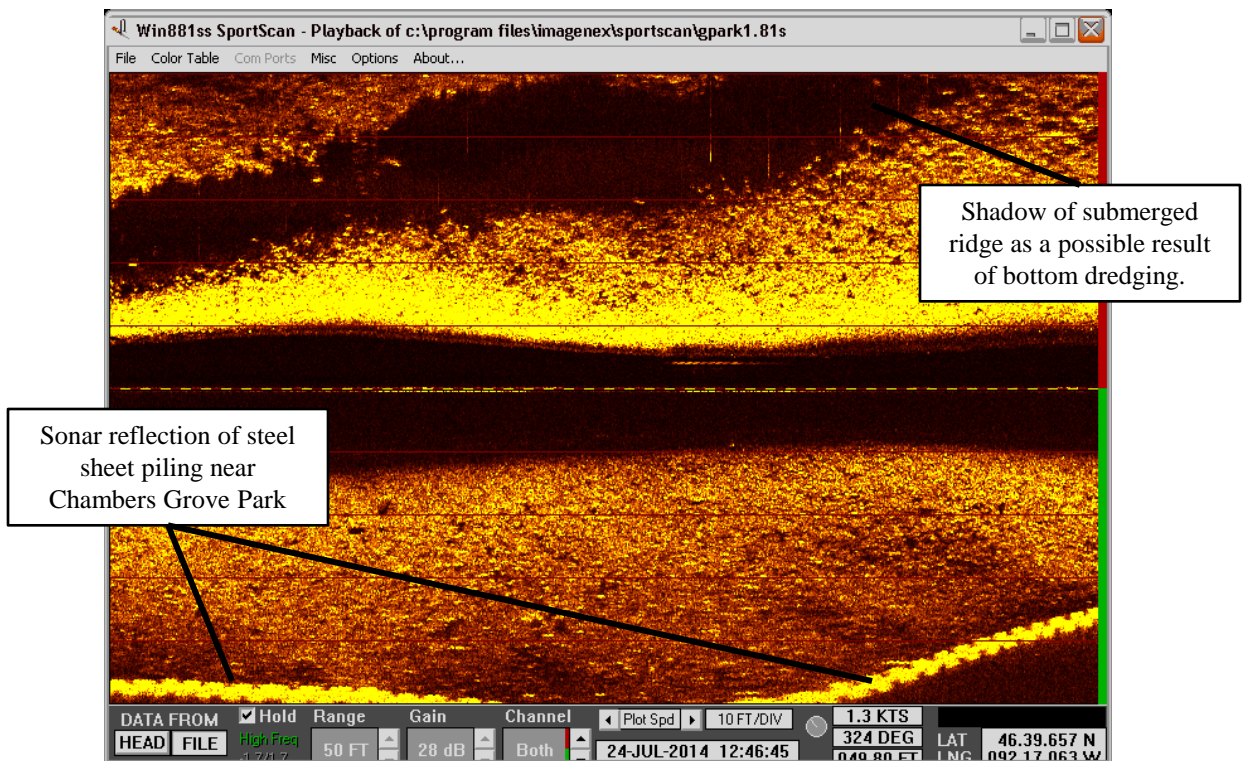


Figure 11a. Side-scan sonar results. Evidence of previous dredging and Chambers Grove Park shoreline modification. WolfsHead Research Logistics.

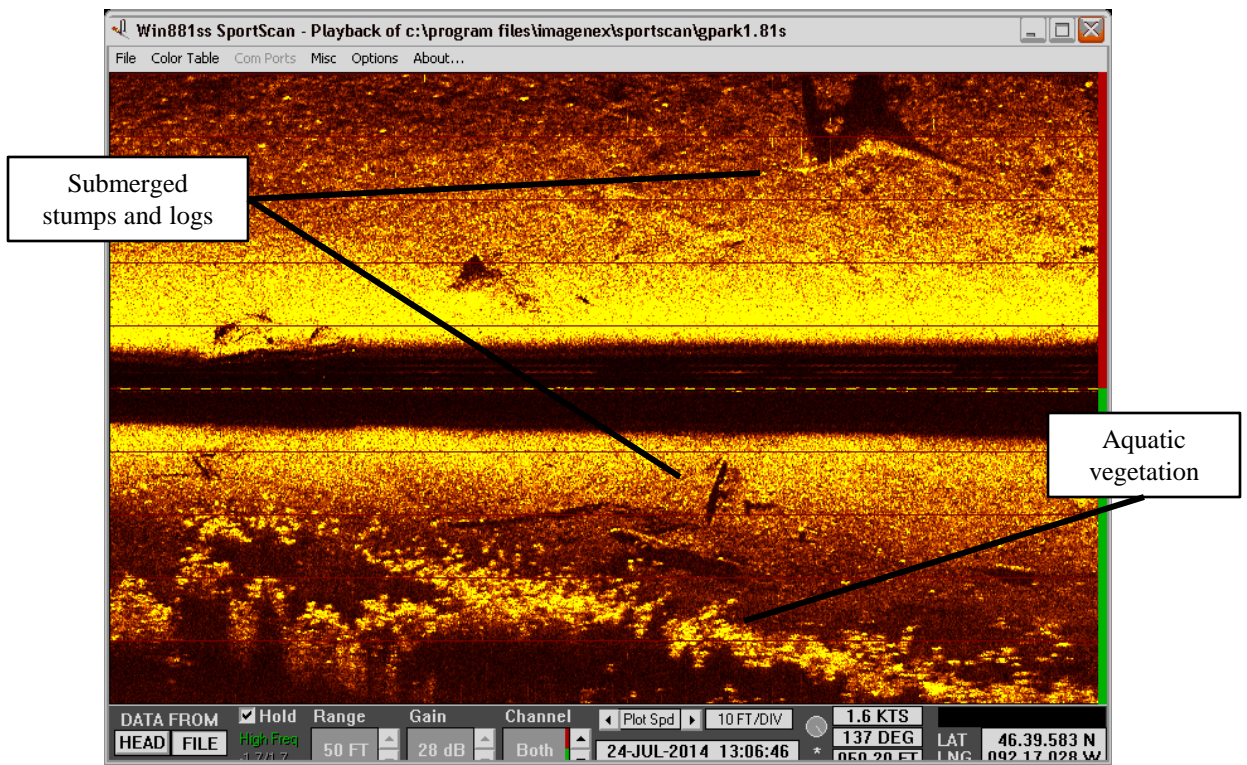


Figure 11b. Side-scan sonar results. Evidence of submerged stumps, logs, and aquatic vegetation. WolfsHead Research Logistics.



Figure 12. Electromagnetic survey anomaly results. WolfsHead Research Logistics.

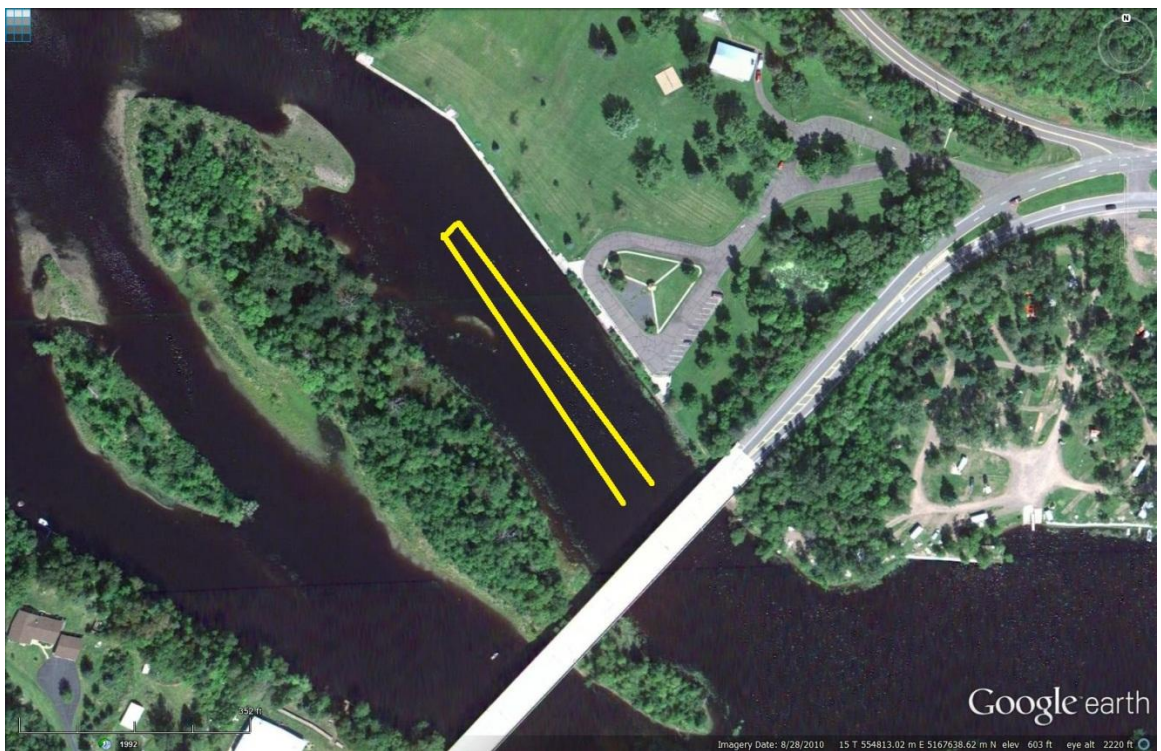


Figure 13. Depiction of diver survey coverage. WolfsHead Research Logistics.

to identify some of the anomalies in the data. To sample a representative area in an organized fashion and to facilitate navigation underwater a 100 meter anchor line was anchored on the river bottom for the diver to follow (Figure 13). After the initial pass from the dive boat to the first anchor the diver moved the anchor approximately 5 meters south before beginning the return sweep to increase the coverage area. The diver was equipped with a Garrett Infinium LS hand-held metal detector and a head lamp.

Dive operations were conducted from a 22 foot boat anchored at the west end of the survey line. At the time of the dive the water temperature was 65 degrees Fahrenheit and visibility underwater was estimated at 0.4 meters.

During the dive encompassing roughly 600 meters of guideline a total of 11 metal detection anomalies were investigated. Without exception all of the ferrous objects were buried in the tightly knit rock cobble of the river bottom. No excavation was attempted to identify the objects.

Summary of Underwater Survey

The combination of remote sensing and ground truthing methods used in this survey revealed a fairly clear picture of the characteristics of the river bottom in this area. Although initially planned for two days of diving it was felt that with what was learned during the first dive day no further dives were necessary. The fact that all of the ferrous objects detected were buried under the heavy stone cobble is a testament to the strong currents that sometimes flow through this area.

Barring any excavation efforts, the conclusion of this investigation is that there are no vulnerable cultural items within the underwater portion of the Chambers Grove Park cultural assessment area.

CONCLUSIONS

HISTORIC PROPERTIES

Three historic properties were observed within the APE of Chambers Grove Park (Figure 4, Table 2). Surface features associated with the brownstone quarry operations (Chambers' Quarry, 21SL1162) are present in the northern end of the park. The Lake Superior and Mississippi Railroad: Thomson-Fond du Lac Segment (XX-RRD-026) is on the eastern edge of the Park. The Bayless Cabin (21SL1218) is located on Bayless Island in the St. Louis River.

Table 2. Locations of Historic Properties in Chambers Grove Park

HISTORIC PROPERTY	UTM*s IN NAD 83	TYPE
Chambers' Quarry 21SL1162	Northeastern Terminus: 0554667E / 5167972N Southeastern Terminus: 0554656E / 5167878N	surface pits, quarry faces, talus piles, historic materials
Bayless Cabin 21SL1218	0554687E / 5167671N	chimney, historic materials
LS&M Railroad XX-RRD-026	Eastern Terminus: 0554897E / 5167835N Hydroelectric Facility Terminus**: 0551319E / 5167282N Approx. Western Terminus: 0545537E / 51677897N	railroad grade, associated features

*Universal Transverse Mercator (UTM) Coordinate System, North American Datum 1983.

**See property description below.

Lake Superior and Mississippi Railroad: Thomson-Fond du Lac Segment (XX-RRD-026)

This historic property consists of the remnants of a railroad grade on the eastern side of the Park. Remnants are mostly the constructed linear grade located between the route of Highway 210 and the rest of the Park. Railroad tracks were removed sometime after the segment was abandoned

for traffic, although the exact dates are unknown. Survey recorded brownstone block retaining walls under an abandoned segment of the Lake Superior and Mississippi Railroad in Chambers Grove Park along with man-made trenches to facilitate drainage from behind the built-up earthen railroad grade.

This feature consists of an original segment of the Lake Superior and Mississippi Railroad (LS&M) which ran from Thomson to Fond du Lac. The LS&M was the original rail line which connected Duluth, Minnesota to St. Paul, Minnesota and was completed in 1870. The original route from Thomson to Fond du Lac followed the course of the St. Louis River where portions of the line featured large wooden trestles hundreds of feet long. In 1877, the LS&M went bankrupt and was reorganized as the St. Paul and Duluth Railroad (StP&D). Ten years later in 1887, a “Duluth Short Line” segment was built, bypassing the Fond du Lac neighborhood and providing a less steep and more direct route to Thomson for shipping freight; this segment is the current route of the Willard Munger State Trail, MN History Inventory# SL-XXR-004 (Van Vleet 2012) and was evaluated as Eligible to the National Register of Historic Places.

After construction of the Duluth Short Line, the Thomson to Fond du Lac segment may have been in operation for commuter train service to the Fond du Lac neighborhood until the 1930’s. It is possible that the railroad or a portion of the line also served the Forebay Community (21CL0008), a small community of workers who built and operated the Thomson Hydroelectric Facility just prior to and after 1910. In MNDNR aerial photographs from 1940, portions of this segment is clearly visible from Chambers Grove Park in Fond du Lac to the Thomson Hydroelectric Facility. Beyond the hydroelectric facility, the grade is no longer visible and aerial photographic data was not readily available for portions west of the hydroelectric facility. According to blueprint images provided by Sigrid Arnott, an archaeologist working on the nearby Highway 210 reconstruction project, the rail line ran northwesterly around Oldenberg Point toward Thomson. Portions of this segment are visible in recent satellite imagery. Remnants of a railroad bridge which were likely a part of this railroad segment were observed but not formally recorded during a survey of this portion of the St. Louis River in 1990 (Mulholland and Rapp 1990). At the eastern terminus in Chambers Grove Park, there remains a brownstone retaining wall and man-made drainage channels which facilitated runoff from behind the grade. The grade east of this location has been obliterated by prior road construction of Highways 23 and 210, and likely had followed the route of these roads.

Recommendation: The railroad has not been formally evaluated for the National Register.

However, a segment of the same line (Willard Munger State Trail SL-XXR-004) was previously evaluated as eligible (Van Vleet 2012). Impacts to the railroad grade and associated features should be avoided. If avoidance is not possible, then a formal evaluation should be conducted.

Bayless Cabin (21SL1218)

Remnants of a cabin were identified on the Bayless Island in the St. Louis River west of and adjacent to Chambers Grove Park. Surface survey revealed an extant brick chimney of a house or cabin structure. The structure did not appear to have a foundation and was likely built upon a raised platform to protect it from seasonal flooding events from the St. Louis River. In addition, many artifact scatters were recorded around the chimney ruins, including a stove and refrigerator fragments, an axe head, and a glass telephone pole insulator. Roughly 40 meters away was a sheet metal-lined rectangular pit which could have been the location of an outhouse. Judging by the presence of a refrigerator and telephone pole insulator, the cabin may have been hooked up to electricity. An MN DNR aerial photograph from 1940 reveals a structure in this vicinity of the island, as does the USGS dated to 1954. Therefore, this cabin was likely present at least in the 1930s and 1940s and perhaps earlier.

Only the brick chimney and a scatter of artifacts remain at the site. It is not known how the cabin was removed, whether by man or natural forces. The Bayless family doesn't know too much about the history of the island, excepting that there was a cabin there at one time. Although shovel tests were negative for artifacts, it is very possible post-Contact materials remain beneath the flood deposits. It appears the island has been visited in the recent past by collectors with metal detectors. Several excavated collection pits around the cabin site were noted during the field survey. One large pit contained sheet metal and appeared to have been terminated without fully excavating the sheet metal. No other features of the cabin were noted in the area. On the 1940s aerial photograph, there appears to be a beach and/or dock opposite the cabin; however, field survey did not reveal anything in this area. It is possible prior flooding events have altered the shoreline in this area.

Recommendation: Bayless Island is outside the APE for Park improvements and was included in the survey only to provide information on historic properties. The Bayless Cabin was not evaluated; it should be avoided. If avoidance is not possible, a formal evaluation should be conducted.

Chambers' Quarry (21SL1162)

This site was first recorded from survey on behalf of the City of Duluth Parks and Recreation Department for the Duluth Traverse Connector Trail Project, an expansion to the trail system through the city (Mulholland and Mulholland 2012). The site was identified by several surface features including a post-Contact stone quarry and four adjacent pits. The pits have berms which appear to have come from excavation. In addition, a railroad grade was recorded immediately adjacent (northeast) of the site area. No other features such as building foundations were observed in the area.

The quarry site is mentioned in the *Cultural Resource Overview: Saint Louis, Cloquet, and Whiteface River Corridors Volume III: Site Records* (MN OSA, 1993) as one of several brownstone quarries operated in the Fond du Lac area; this resource cites John Fritzen's *History of Fond du Lac and Jay Cooke Parks* (1978) as a primary reference. According to the *Zenith City Archives* <www.zenithcity.com>, an online resource for freelance historical research on the Duluth area, the Brownstone quarry in Chambers Grove Park was owned by Michael Chambers, a St. Paul entrepreneur and auctioneer, who utilized the Lake Superior and Mississippi (LS&M) Railroad to transport quarried stone.

Additional survey at the site was conducted on behalf of the City of Duluth Parks and Recreation Department for improvements to their Chambers Grove Park. A possible secondary quarry area, additional pit features, and historic materials were recorded south of the main quarry area (Table 3).

Table 3. Quarry Features, 21SL1162

FEATURE	LENGTH	WIDTH	DEPTH
main quarry face	35 m	20 m	7.5 m
Pit A (ovate)	15 m	3 m	3 m
Pit B (circular)	4 m	4 m	3 m
Pit C (ovate)	5 m	3 m	2 m
Pit D (ovate)	10 m	2 m	1.5 m
second quarry face	100m	20m	2-5m (variable)
pit at second quarry	8.5m	6.3m	1m

Recommendation: The easiest course of action is to avoid impacts to the entire quarry site area, which includes approximately 2.0 acres at the northwest end of the Park. Currently a trail is present within the site boundary; plans to upgrade the trail system and connect it to the Duluth Connector Trail System could cause impacts. The current planned trail within the site boundary needs to be designed to avoid impacts to the surface features that comprise the site as well as any subsurface disturbance. In order to avoid impacts to the existing features, the design plan should stay along existing trails as much as possible and minimize earth disturbance during improvements. The Chambers' Quarry has not been formally evaluated for significance to the National Register. If impacts cannot be avoided, the site should be evaluated.

IMPACTS FROM PARK IMPROVEMENTS

Proposed improvements to the Chambers Grove Park are designed to fix problems from the 2012 flooding as well as make long-term improvements to the Park (Figure 14). The application for grant funds includes a series of tasks, some to be implemented within this project and some later. The tasks include replacement of toilet building to meet ADA standards (A), installation of a screened dumpster (C), relocation of a WWII Veteran Memorial (D), relocation of the "wedding" gazebo (E), improvement of parking and access road (F), installation of a playground (G), enhancement of a wet meadow (H), improvement of park entrance signage (I), construction of a trail head (J), and stabilization of the hillside (K). A storm water management system (L) and softening of the waters edge on the St. Louis River (M) are future projects.

No Historic Properties Affected

Most of the proposed tasks are located within the area west of and below the existing Picnic Pavilion, which is situated on an elevated knoll. The lower area is typically wet and can be water saturated; no shovel testing was conducted in that area. In addition, some portion near the present St. Louis River shoreline was filled in (Tari Rayala, personal communication 2014). No historic properties were observed in this area and none are expected below the ground surface. In addition, efforts to locate remnants of the Chambers' Mansion were negative; if any structural remnants are below the ground surface, they are deeply buried. The proposed playground is on or near the location of the mansion but will not reach depths below the 1-meter coring. Projects A through J



Figure 14. Proposed improvements to Chambers Grove Park. City of Duluth.

are therefore recommended as No Historic Properties Affected.

The storm water management system (L) is in an area that is low and water saturated. No historic properties were observed in this area and the potential for subsurface historic properties is very low. Project L is therefore recommended as No Historic Properties Affected.

The area of the shoreline "softening" (M) is an artificial bank with piling and posts for stabilization. It was constructed to provide erosion control for an area that originally was a concave shoreline. In addition, the underwater survey in the channel of the St. Louis River did not find any evidence for historic properties below the water surface. Potential future renovation of the stabilization efforts and reshaping of the shoreline will not affect any historic properties as the land is totally artificial. Project M is therefore recommended as No Historic Properties Affected.

Potential for Impacts to Historic Properties

Proposed stabilization of the hillside on the east side of the Park (K) might cause impacts to the LS&M railroad grade. Remnants such as the brownstone retaining wall need to be considered during design and construction of any stabilization measures. More detailed plans for the stabilization need to be designed to determine whether such impacts will occur.

Construction of trails through Chambers' Quarry in the north end of the Park will need to consider impacts to the various features of the site. Trail location and construction methods should be designed to avoid the features, as well as consider potential visitor use that might cause impacts through traffic or vandalism.

SUMMARY

Most tasks proposed under the current grant are recommended as No Historic Properties Affected. Only the hillside stabilization (K) has potential to cause impacts, in this case to the LS&M railroad grade. In addition, any trail construction in the north end of the Park has the potential to cause impacts to features of Chambers' Quarry (21SL1162). More detailed plans of location and construction methods are needed to determine whether impacts are likely from the proposed activities.

Future tasks for a storm water management system(L) and renovations on the St. Louis River shoreline(M) are also recommended as No Historic Properties Affected.

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APPENDIX I: Key Personnel Summary of Experience

Susan C. Mulholland, principal investigator/archaeologist (DAC):

Ph.D. 1987, University of Minnesota, Ancient Studies (interdisciplinary archaeology)
Registered Professional Archaeologist, holds Minnesota annual archaeology license
25 years of experience in Minnesota archaeology with emphasis on Northeastern MN
23 years (300+ projects) as PI and chief manager for cultural resource management
projects in Minnesota and adjacent region, including Phase I, II, and III projects

Stephen L. Mulholland, co-principle investigator/archaeologist (DAC):

M.S. 2003, University of Minnesota, Interdisciplinary Archaeological Studies
Registered Professional Archaeologist, holds Minnesota annual archaeology license
31 years of experience in Minnesota archaeology with emphasis on Northeastern Minnesota
17 years (200+ projects) as PI/co-PI and field director/supervisor including Phase I, II, III

Jennifer Hamilton, Graphics/GIS specialist (DAC):

M.A. 2002, University of Minnesota, Interdisciplinary Archaeological Studies
Registered Professional Archaeologist
17 years of experience in Minnesota archaeology, specializing in ceramic studies
11 years specializing in GIS mapping

Randolph Beebe, underwater investigator (subcontractor - WolfsHead Research Logistics):

B.S. 1982, University of Wisconsin-Stevens Point, Natural Resources/Soil Science
Certifications: Advanced Diver, Shipwreck Documentation, GLSPS Special Projects Diver,
Foreshore and Underwater Archaeology (part 1, Nautical Archaeology Society)
27 years diving experience with specialized certifications
17 years experience with remote sensing including side-scan sonar, magnetometer, and video
17 years of experience in Minnesota underwater shipwrecks documentation

Kevin J. Schneider, archaeologist (DAC):

B.A. 2010, University of Minnesota Duluth, History
Certification: University of Minnesota Duluth Archaeology Field School
4 years experience in Minnesota Archaeology with emphasis in Minnesota History

APPENDIX II: State Archaeology License

**APPLICATION FOR MINNESOTA
ANNUAL ARCHAEOLOGICAL RECONNAISSANCE SURVEY LICENSE**

This license only applies to reconnaissance (Phase I) surveys conducted under Minnesota Statutes 138.31-.42 during calendar year 2014. Separate licenses must be obtained for site evaluation (Phase II) surveys, for major site investigations (Phase III), for burial site authentications under Minnesota statutes 307.08, and for survey work that will continue into another calendar year. Only the below listed individual is licensed as a Principal Investigator, not the institution/agency/company or others who work for that entity. The licensed individual is required to comply with all the conditions attached to this license form. Permission to enter land for the purposes of archaeological investigation must be obtained from the landowner or land manager.

Name: Susan Mulholland

Institution/Agency/Company Affiliation: Duluth Archaeology Center

Title/Position: President/Principal Investigator

Address: 5910 Fremont St., Suite 1, Duluth MN 55807

Work Phone: 218-624-5489 E-Mail: archcenter@aol.com

Name of Advanced Degree Institution: University of Minnesota Year: 1987

Name of Department: Interdisciplinary Archaeology Degree: MA MS PhD X

Purpose: (check all that may apply)

CRM X Academic Research X Institutional Field School X

Type of Land: (check all that may apply)

State Owned X County Owned X Township/City Owned X

Other non-federal public X List: School District

MHS Repository Agreement # 634 Other Approved Curation Facility: _____

Previous License: Year 2013 Type annual Number 2013-28

Signed (applicant): Susan Mulholland Date: 1-17-2014

Required Attachments: *Curriculum Vita* _____ and Documentation of Appropriate Experience _____
for previously unlicensed individuals.

Submit one copy of this form and attachments to:

Office of the State Archaeologist, Ft. Snelling History Center, St. Paul, MN 55111

612-725-2411 612-725-2729 FAX 612-725-2427 email: mnosa@state.mn.us

Minnesota Historical Society Approval: [Signature] Date: 1-22-14

State Archaeologist Approval: [Signature] Date: 1/21/14

License Number: 14-017

Form Date: 2/15/11

APPENDIX III: State Site Forms for Archaeological Sites

MINNESOTA ARCHAEOLOGICAL SITE FORM

OFFICE OF THE STATE ARCHAEOLOGIST
Fort Snelling History Center, St. Paul, MN 55111 (612) 725-2729

SITE #: 21-SL-1162
(OSA assigns if New Site)

Site Name: Chambers' Quarry

Agency/Field #: Quarry 1

☒ New Site ☐ Site Update

OSA License #: 12-24

SHPO RC #: N/A

Type of Fieldwork: ☒ Reconnaissance/Phase I
☐ Evaluation/Phase II
☐ Excavation/Phase III

Date(s) of This Fieldwork: 11/16/12

NRHP Status: ☐ Listed ☐ Determined Eligible ☐ CEF(106) ☐ CNEF(106) ☒ Undetermined

LOCATIONAL INFORMATION

County: St. Louis

City/Twp. Name: Duluth

SHPO Sub-Region: 9s
(see map in instructions)

USGS 7.5' Quadrangle Map (name and year): Esko Minn.-Wis. 1954 (Revised 1993)

Township: 48N	Range: 15W	Section: 6	¼ Sections (at least 2): SE-SE-SW-SE
Township:	Range:	Section:	¼ Sections (at least 2):
Township:	Range:	Section:	¼ Sections (at least 2):

UTM Coordinates: (less than 10 acres use center; over 10 acres define polygon around site; draw points on USGS)

Zone: _____	Datum: _____ 1927	<input checked="" type="checkbox"/> 1983	Method: <input checked="" type="checkbox"/> USGS Map	<input type="checkbox"/> GPS	<input type="checkbox"/> Other
Point 1: Easting 0554635	Northing 5167974 (Center)				
Point 2: Easting 0554607	Northing 5167992 (Main Quarry Center)				
Point 3: Easting 0554656	Northing 5167878 (Secondary Quarry SE Corner)				
Point 4: Easting 0554602	Northing 5167945 (Secondary Quarry NE Corner)				
Point 5: Easting _____	Northing _____				

SITE CHARACTERISTICS

Acres: 2.0 Site Dimensions: N-S 400ft E-W 225ft Maximum Cultural Depth (if known) unknown

Site Description (✓all that apply, but only one check per line):

☐ single artifact ☐ lithic scatter ☐ artifact scatter
☐ burial mound (number of mounds _____) ☐ non-mound lone grave ☐ non-mound cemetery
☐ petroglyph ☐ pictograph ☐ petroform
☒ surface features (list below)
☐ other: _____

Surface Features (✓all that apply): ☐ earthwork ☒ pit/depression ☐ foundation/ruin ☒ other: quarry

Inferred Site Function (✓all that apply): ☐ habitation ☐ mortuary ☐ farm ☒ industrial ☐ transportation
☐ Other (list): _____ ☐ unknown

Current Land Use (list approximate % for all that apply):

☐ cultivated ☐ fallow ☐ commercial ☐ recreational ☐ industrial ☐ residential
100% woodland ☐ grassland ☐ water-covered ☐ other: _____

Surface Visibility (list approximate % for all that apply):

☐ excellent ☐ good ☐ fair 100% poor/none

Degree of Disturbance (list approximate % for all that apply or ✓ unassessed):

☐ minimal ☐ moderate ☐ heavy ☐ completely destroyed ☒ unassessed

Current Threats to Site: (✓all that apply or ✓ none known)

☐ erosion ☐ development ☐ agricultural ☐ other: _____ ☒ none known

SITE #: 21-SL-1162

Site Name: Chambers' Quarry

Agency/Field #: Quarry 1

CULTURAL/TEMPORAL AFFILIATION(list all that apply by level of certainty: 1 = confirmed; 2 = probable or √ "not determined"):

Period: ☐ not determined ☐ Contact (1650-1837)
 ☐ Precontact (9500 BC - 1650 AD) ☒ Post-Contact (1837-1945)

Precontact Context: (list all that apply by level of certainty; if unable to discern specific context, √ here ☐)

Paleoindian Tradition ☐ not determined ☐ Folsom ☐ Lanceolate Point/Plano
 ☐ Clovis ☐ Eastern Fluted ☐ other: _____

Archaic Tradition ☐ not determined ☐ Prairie ☐ Riverine
 ☐ Shield ☐ Lake-Forest ☐ other: _____

Woodland Tradition ☐ not determined ☐ Fox Lake ☐ Laurel
 ☐ SE Mn Early ☐ C Mn Transitional ☐ Lake Benton
 ☐ Brainerd ☐ Blackduck-Kathio ☐ Psinomani/Sandy Lake
 ☐ Havana-Related ☐ SE Mn Late ☐ Rainy River Late
 ☐ other: _____

Plains Village Tradition ☐ not determined ☐ Cambria ☐ Great Oasis ☐ Big Stone
 ☐ other: _____

Mississippian Tradition ☐ not determined ☐ Silvernale ☐ other: _____

Oneota Tradition ☐ not determined ☐ Blue Earth ☐ Orr ☐ other: _____

Contact Context: (list all that apply by level of certainty; if unable to discern specific context, √ here ☐)

American Indian ☐ not determined ☐ Dakota ☐ Ojibwe ☐ other: _____

Euro-American ☐ not determined ☐ British ☐ other: _____
 ☐ French ☐ Initial US

Post-Contact Context: (list all that apply by level of certainty; if unable to discern specific context, √ here ☐)

☐ Indian Communities & Reservations (1837-1934) ☐ St. Croix Triangle Lumbering (1830s-1900s)
☐ Early Agriculture & River Settlement (1840-1870) ☒ Railroads & Agricultural Development (1870-1940)
☐ Northern MN Lumbering (1870-1930s) ☐ Iron Ore Industry (1880s-1945)
☐ Tourism & Recreation (1870-1945) ☐ Urban Centers (1870-1940)

Approximate Post-Contact Occupation/Site Formation Date(s): 1870-1910**Context Assignment/Dating Methods** (√ all that apply):

☐ artifact type/style ☒ feature type ☐ radiometric ☐ relative stratigraphy ☐ geomorphology
☒ historic accounts (list) "Lost Duluth: Landmarks, Industries, Buildings, Homes, and the Neighborhoods in Which They Stood." Zenith City Press, Duluth Minnesota. 2011.
☐ historic maps (list) _____
☐ other(s) (specify): _____

(For radiometric dates, attach photocopies of laboratory sheets if available.)

MATERIALS PRESENT (√ all that apply):**Basic Artifact Categories**

<u>Ceramics</u>	<u>Lithics</u>	<u>Biological Remains</u>	<u>Historic Materials</u>
<input type="checkbox"/> Aboriginal	<input type="checkbox"/> projectile points	<input type="checkbox"/> animal	<input checked="" type="checkbox"/> glass
<input type="checkbox"/> Euro-American	<input type="checkbox"/> other chipped stone tools	<input type="checkbox"/> human	<input checked="" type="checkbox"/> metal
	<input type="checkbox"/> debitage	<input type="checkbox"/> unidentified bone	<input checked="" type="checkbox"/> brick
	<input type="checkbox"/> ground/pecked stone	<input type="checkbox"/> seeds/nuts	<input checked="" type="checkbox"/> other: <u>Brownstone blocks</u>
	<input type="checkbox"/> FCR	<input type="checkbox"/> charcoal	
	<input type="checkbox"/> aboriginal copper	<input type="checkbox"/> wood	

SITE #: 21-SL-1162

Site Name: Chambers' Quarry

Agency/Field #: Quarry 1

Major Exotic Materials (√all that apply):

☐ catlinite ☐ native copper ☐ Hixton orthoquartzite
☐ Knife River Flint ☐ obsidian ☐ other: _____

Diagnostic Artifacts:

Ceramics: Prehistoric Types/Wares/Temper _____
 Historic _____
 Prehistoric Lithics: _____
 Glass: _____
 Metal: _____
 Other: _____

ENVIRONMENTAL DATA **Current Topographic Setting** (√all that apply):

<u>Away from Water</u>	<u>Riverine</u>	<u>Lacustrine</u>
<input type="checkbox"/> general upland	<input type="checkbox"/> fan	<input type="checkbox"/> inlet/outlet
<input type="checkbox"/> terrace edge	<input checked="" type="checkbox"/> terrace/bluff top	<input type="checkbox"/> peninsula
<input type="checkbox"/> hilltop	<input type="checkbox"/> stream-stream junction	<input type="checkbox"/> island
<input type="checkbox"/> glacial beach ridge	<input checked="" type="checkbox"/> bluff-base	<input type="checkbox"/> isthmus
<input type="checkbox"/> rock outcrop	<input type="checkbox"/> cave/rockshelter	<input type="checkbox"/> general shoreline
<input type="checkbox"/> other: _____	<input type="checkbox"/> floodplain	<input type="checkbox"/> bog/slough/lake bottom
	<input type="checkbox"/> other: _____	<input type="checkbox"/> other: _____

Topographic Feature Name from USGS Map: St. Louis River**OWNERSHIP INFORMATION**

Source and Date of Ownership Information (e.g., plat map, county recorder's office, personal communication, etc.):

Judy Gibbs, Personal Communication, 2012.

Ownership Type (list approximate % for all that apply; if unknown √here): _____

☐ Federal ☐ State ☒ 100% Local (public) ☐ Tribal ☐ Private

Land Owner (name and address if known): City of Duluth Parks and Recreation Department, Duluth City Hall. 411 West Superior Street, Duluth, MN 55802

CURRENT INVESTIGATION INFORMATIONMethods/Techniques Employed (√all that apply):

☐ informant report ☐ small diameter soil coring (≈ 1" diameter) ☒ surface survey
☒ shovel testing ☐ formal test units ☐ mechanical testing max. test depth _____
☐ geomorphological survey (specify): _____
☐ geophysical survey (specify): _____
☐ other: _____

Informant Name and Address (if known): N/A

Known Collectors/Collections: N/A

Artifact Repository (name and accession numbers or repository agreement number): N/A

Most Recent Survey Report – Title, Author, Date: *Archaeological Assessment (Phase IA) and Survey (Phase I) for the Duluth Traverse Connector Trail, Duluth, St. Louis County, Minnesota.*

Major Previous Bibliographic Reference(s) to Site: *Cultural Resource Overview: Saint Louis, Cloquet, and Whiteface River Corridors Volume III: Site Records.* MN OSA, July 1993: pg. 7.

History of Fond du Lac and Jay Cooke Parks. John Fritzen, 1978: pg. 25. St. Louis County Historical Society.

Zenith City Archives, <www.zenithcity.com> Duluth, Minnesota.

Principal Investigator (name and affiliation): Susan C. Mulholland, Duluth Archaeology Center

Form Completed By (name and date): Kevin Schneider, 11/27/12**MAPS:** Attach/include original scale copy of 7.5' USGS map with site location clearly outlined or designated.

Attach a sketch map if surface features present, if sub-surface testing done, or if complicated boundaries/setting. Sketch map must have re-locatable datum, scale, north arrow, and legend if symbols are used.

SITE #: 21-SL-1162

Site Name: Chambers' Quarry

Agency/Field #: Quarry 1

ADDITIONAL INFORMATION (*Reason for Update or Survey, Location, Site Characteristics, Materials Present, Setting, Archaeological Methods, etc.; attach extra sheets as needed.*)

2012 Survey

This area was surveyed on behalf of the City of Duluth Parks and Recreation Department for their Duluth Traverse Connector Trail Project, an expansion to the trail system through the city. The site is identified by several surface features including a post-contact stone quarry and four excavation pits (A-D, see below). The pits have berms around them which appear to have come from their excavation. In addition, a railroad grade was recorded immediately adjacent (northeast) of the site area and it does not appear to be a spur. Only the built-up earthen grade is left and appears to have been abandoned for some time. A second terrace west of the rail line grade may have been superficially leveled and used as loading and/or railroad siding operations. No other features such as building foundations were observed in the area. Two shovel tests were placed on a terrace north of the quarry area with negative results. The site area resides on terraces along the St. Louis River.

The site is mentioned in the *Cultural Resource Overview: Saint Louis, Cloquet, and Whiteface River Corridors Volume III: Site Records* (MN OSA, 1993) as one of several brownstone quarries operated in the Fond du Lac area; this resource cites John Fritzen's *History of Fond du Lac and Jay Cooke Parks* (1978) as a primary reference.

According to the *Zenith City Archives* <www.zenithcity.com>, an online resource for freelance historical research on the Duluth area, the Brownstone quarry in Chamber's Grove Park was owned by Michael Chambers, a St. Paul entrepreneur and auctioneer, who used the Lake Superior and Mississippi (LS&M) Railroad to transport the quarried stone.

2014 Survey

Additional survey was conducted on behalf of the City of Duluth Parks and Recreation Department for improvements to their Chambers Grove Park. Survey recorded brownstone block retaining walls under and abandoned segment of the Lake Superior and Mississippi Railroad in Chambers Grove Park along with man-made trenches to facilitate drainage from behind the built-up earthen railroad grade. Additional research concluded that the Chambers Mansion was likely located where the existing park pavilion and swing set are currently located. Both areas consist of built-up earthen platforms, and no other areas of high-ground were observed which could facilitate a large structure without seasonal flooding from the St. Louis River. In addition, the drainage trenches lead water away from the existing pavilion area, where the house is thought to have sat. Photographs of the existing pavilion were taken and juxtaposed with historic photos of the Chambers Mansion for background comparisons which appear compatible.

The mansion was built in 1872, it burned down in 1891, and the ruins were removed in 1912. It is not known how complete the removal was conducted and remnants of the original foundation could still be intact beneath the existing park facilities. In addition, photographs of the existing pavilion were taken and juxtaposed with historic photos of the Chambers Mansion for background comparisons, and the locations appear compatible. The *Zenith City Archives* state that remnants of the mansion still exist within the park today; however, field survey could not verify this. It could be that the brownstone retaining walls associated with the LS&M Railroad were mistaken for extant remnants of the house.

In addition, a possible secondary quarry area and some historic materials were recorded south of the main quarry area. This secondary quarry area measures roughly 100 meters long running northwest to southeast along a bedrock exposure of brownstone. The upper exposure of brownstone is tabular and unsuitable for shaping into blocks. However, at the base of these exposures are several excavation pits and trenches, likely the result of extracting larger brownstone blocks below the frost line which are less likely to be tabular and broken. In addition, three areas of what appeared to be talus or shaping piles are located adjacent west of these pits and bedrock exposures. It is possible that these piles of smaller pieces of brownstone are from the initial shaping of brownstone blocks, after extraction and prior to shipment. One pit with historic materials such as glass, tin cans, stoneware, and other debris is located adjacent west of the southerly extent of this secondary quarry area. A summary of secondary features is provided at the end of the notes section.

History of Chambers Grove Park

According to the *Zenith City Archives*, Chambers Grove Park was first known as "Colonel Carlton's Farm." Colonel Ruben B. Carlton was an early settler of the Fond du Lac area and credited as one of the founders of the Fond du Lac town site. He lived in what was described as log-hewn, two room shack on his property until his death in 1863.

Presumably, the property remained vacant until 1869 when Michael Chambers acquired it. Mr. Chambers was an Irish immigrant to St. Paul where he gained a small fortune as an auctioneer. He purchased "Colonel Carlton's Farm" in hopes of utilizing a brownstone quarry located on the property and shipping the stone out on the up-coming Lake Superior and Mississippi Railroad (LS&M). The property also contained a plum grove (hence the name Chamber's Grove). The LS&M Railroad was completed in 1870, at the same time when Mr. Chambers began construction of a two-story mansion utilizing brownstone from the quarry. The house was finished in 1872, contained more than 20 rooms, and was built in an ornate style that attracted tourists to the Fond du Lac neighborhood. The second floor contained an open layout which housed a grand piano for the Chambers' social gatherings. Allegedly, the mansion may have operated as a hotel.

Mr. Chambers was likely able to ship some of his brownstone along the LS&M until the panic of 1873. During the ensuing recession/depression, he attempted to sell the quarry and also went delinquent on his property taxes. He left town in 1879 to avoid his debts, while his wife Emily Chambers and a man by the name of Martin Boyle took charge of the brownstone quarry operations. Sometime later, Chambers returned to Duluth, claiming he had what we call to today a “nervous breakdown” which left him partially mentally disabled. In 1891, Chamber’s had a property dispute with one Alphonse Guerard, who is suspected to have started the arson fire which destroyed the mansion later that year. The ruins of the mansion remained until their removal in 1912. Approximately 577 acres of the property was later acquired by the City of Duluth before Mrs. Chamber’s death in 1926. Mr. Chambers had passed many years prior in 1895.

The Lake Superior & Mississippi Railroad

The LS&M was the first rail line constructed and operated in Duluth, connecting Duluth to Fond du Lac, Thompson, Carlton, and ultimately St. Paul, Minnesota. From the Fond du Lac neighborhood to Thomson, the rail line ran adjacent to the St. Louis River, portions of which featured large wooden trestles hundreds of feet long. Construction began in St. Paul in 1862 and was finished in Thompson by 1870. The LS&M was operated from 1870 until 1877, when it was renamed the St. Paul and Duluth (SP&D) Railroad. In 1887, the SP&D constructed a “Short Line” segment which bypassed the Fond du Lac neighborhood running from Duluth to Carlton; this is the current route of the Willard Munger State Trail (SHPO Inventory# SL-XXR-004). It is likely the segment which ran along the St. Louis River was abandoned for freight after 1887, although it may have provided commuter train service to Fond du Lac for some time. This Thomson-Fond du Lac segment of the LS&M has been given SHPO Inventory# XX-RRD-026.

Fond du Lac Brownstone:

Brownstone quarrying in the area lasted from 1870 to 1910. The stone was transported for use in building construction across the United States including cities such as St. Paul, Omaha NE, Chicago IL, and New York City. The old Duluth City Hall and Jail (1888), Fire Hall Number 1, and portions of Fitger’s Brewery Complex are extant examples of the use of Fond du Lac brownstone in construction (*Zenith City Archives*).

QUARRY FEATURES

Main Quarry Area (Irregular):

Length: 35m
Width: 20m
Depth: 7.5m

Pit A (Ovate):

Length: 15m
Width: 3m
Depth: 3m

Pit B (Circular):

Diameter: 4m
Depth: 3m

Pit C (Ovate):

Length: 5m
Width: 3m
Depth: 2m

Pit D (Ovate):

Length: 10m
Width: 2m
Depth: 1.5m

Secondary Quarry Area:

Length: 100m
Width (variable) 15-20m
Depth (variable) 2m-5m

Pit with Historic Materials (Ovate):

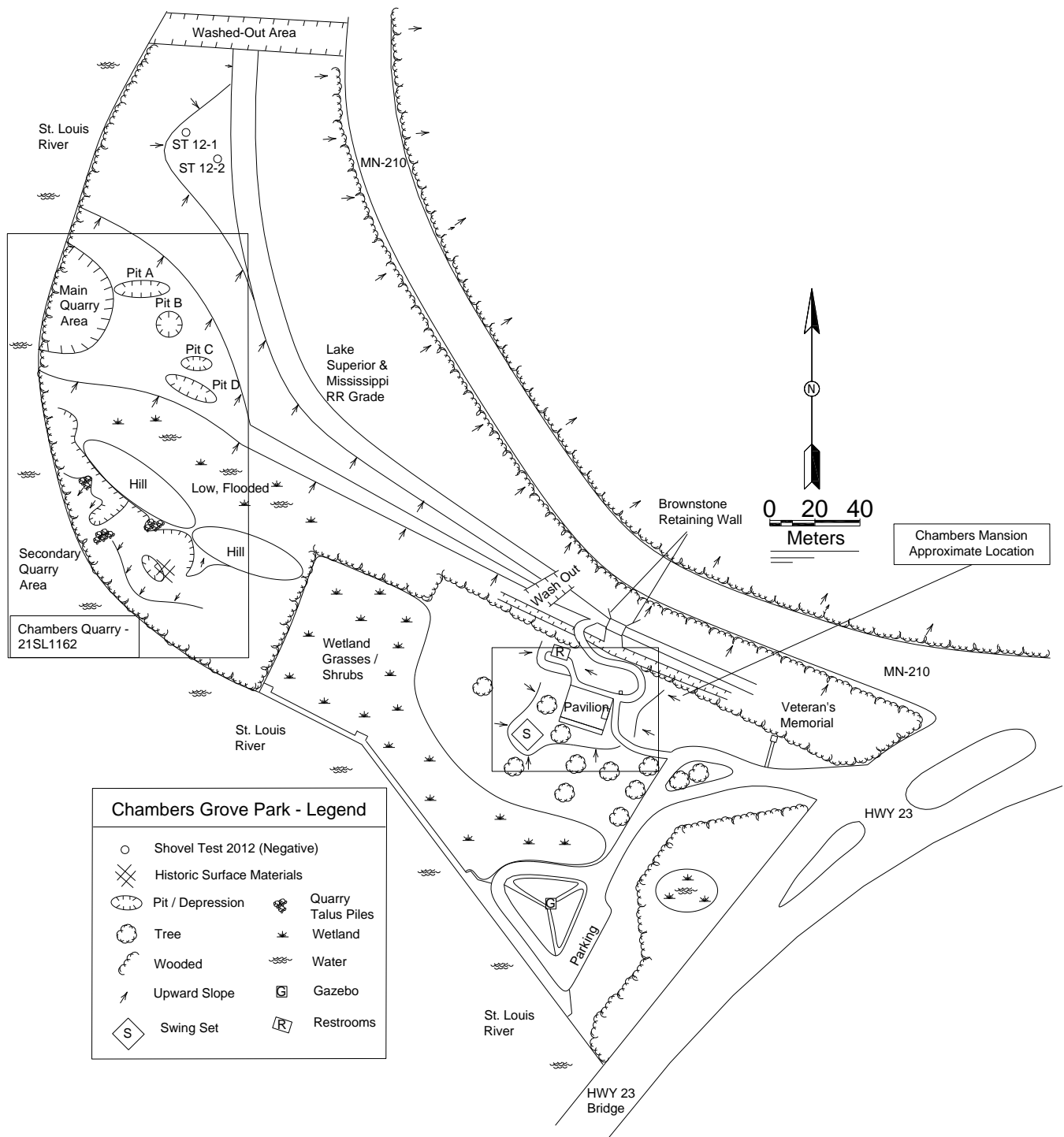
Length: 8.5m
Width: 6.3m
Depth: 1m



Historic photo of the Chambers Mansion ruins before 1912. *Zenith City Archives*.



Photo of the existing Chambers Grove Park pavilion and artificial built-up earthen platform.



Sketch map of Chambers Grove Park including: Chambers Quarry (21SL1161), existing park facilities, and approximate location of the Chambers Mansion.



Location of Chambers Quarry (21SL1162), approximate location of the Chambers Mansion, and the Lake Superior and Mississippi Railroad Thomson-Fond du Lac segment (SHPO Inventory# XX-RRD-026). Esko, Minn.-Wis. 1953 (1993). 1:24,000 USGS topographic map.

Fort Snelling History Center, St. Paul, MN 55111 (612) 725-2729

Agency/Field #: N/A

SHPO RC #: N/A

Date(s) of This Fieldwork: 7/24/14

NRHP Status: ☐ Listed ☐ Determined Eligible ☐ CEF(106) ☐ CNEF(106) ☒ Undetermined

SHPO Sub-Region: 9s
(see map in instructions)

USGS 7.5' Quadrangle Map (*name and year*): Esko, Minn. 1954 (1993)

Township: 48N	Range: 15W	Section: 7	¼ Sections (at least 2): NE
Township:	Range:	Section:	¼ Sections (at least 2):
Township:	Range:	Section:	¼ Sections (at least 2):

UTM Coordinates: (*less than 10 acres use center; over 10 acres define polygon around site; draw points on USGS*)
 Zone: 15 Datum: 1927 x 1983 Method: USGS Map x GPS Other
 Point 1: Easting 0554687 Northing 5167671
 Point 2: Easting Northing
 Point 3: Easting Northing
 Point 4: Easting Northing
 Point 5: Easting Northing

Acreage: 0.1 Site Dimensions: N-S 125ft E-W 75ft Maximum Cultural Depth (if known) unknown

☐ single artifact ☐ lithic scatter ☒ artifact scatter
☐ burial mound (number of mounds _____) ☐ non-mound lone grave ☐ non-mound cemetery
☐ petroglyph ☐ pictograph ☐ petroform
☒ surface features (list below)
 other: _____

Surface Features (*✓all that apply*): ☐ earthwork ☐ pit/depression ☒ foundation/ruin ☐ other: _____

Inferred Site Function (*vall that apply*): x habitation _ mortuary _ farm _ industrial _ transportation
 Other (*list*): _____ unknown

_____ cultivated _____ fallow _____ commercial _____ recreational _____ industrial _____ residential
 100% _____ woodland _____ grassland _____ water-covered _____ other: _____

_____ excellent _____ good _____ fair _____ 100% poor/none

_____ minimal 100% moderate _____ heavy _____ completely destroyed _____ unassessed

☒ erosion ☐ development ☐ agricultural ☒ other: looting ☐ none known

Agency/Field #: N/A

SITE #: 21-SL-1218

Site Name: Bayless Cabin

Agency/Field #: N/A

Major Exotic Materials (√all that apply):

☐ catlinite ☐ native copper ☐ Hixton orthoquartzite
☐ Knife River Flint ☐ obsidian ☐ other: _____

Diagnostic Artifacts:

Ceramics: Prehistoric Types/Wares/Temper _____
 Historic _____
 Prehistoric Lithics: _____
 Glass: electricity / telephone pole insulator
 Metal: sheet metal, stove fragments, refrigerator fragments
 Other: _____

ENVIRONMENTAL DATA **Current Topographic Setting** (√all that apply):

<u>Away from Water</u>	<u>Riverine</u>	<u>Lacustrine</u>
<input type="checkbox"/> general upland	<input type="checkbox"/> fan	<input type="checkbox"/> inlet/outlet
<input type="checkbox"/> terrace edge	<input type="checkbox"/> terrace/bluff top	<input type="checkbox"/> peninsula
<input type="checkbox"/> hilltop	<input type="checkbox"/> stream-stream junction	<input type="checkbox"/> island
<input type="checkbox"/> glacial beach ridge	<input type="checkbox"/> bluff-base	<input type="checkbox"/> isthmus
<input type="checkbox"/> rock outcrop	<input type="checkbox"/> cave/rockshelter	<input type="checkbox"/> general shoreline
<input type="checkbox"/> other: _____	<input checked="" type="checkbox"/> floodplain	<input type="checkbox"/> bog/slough/lake bottom
	<input checked="" type="checkbox"/> other: <u>island</u>	<input type="checkbox"/> other: _____

Topographic Feature Name from USGS Map: St. Louis River**OWNERSHIP INFORMATION**

Source and Date of Ownership Information (e.g., plat map, county recorder's office, personal communication, etc.):

City of Duluth, Personal Communication

Ownership Type (list approximate % for all that apply; if unknown √here _____):

☐ Federal ☐ State ☐ Local (public) ☐ Tribal 100% Private

Land Owner (name and address if known): Bayless Family Trust

CURRENT INVESTIGATION INFORMATIONMethods/Techniques Employed (√all that apply):

☒ informant report ☐ small diameter soil coring (≈ 1" diameter) ☒ surface survey
☒ shovel testing ☐ formal test units ☐ mechanical testing max. test depth _____
☐ geomorphological survey (specify): _____
☐ geophysical survey (specify): _____
☐ other: _____

Informant Name and Address (if known): Bayless,

Known Collectors/Collections: N/A

Artifact Repository (name and accession numbers or repository agreement number): N/A

Most Recent Survey Report – Title, Author, Date: TBD

Major Previous Bibliographic Reference(s) to Site: N/A

Principal Investigator (name and affiliation): Susan C. Mulholland

Form Completed By (name and date): Kevin J. Schneider 8/1/14**MAPS:** Attach/include original scale copy of 7.5' USGS map with site location clearly outlined or designated.

Attach a sketch map if surface features present, if sub-surface testing done, or if complicated boundaries/setting.

Sketch map must have re-locatable datum, scale, north arrow, and legend if symbols are used.

SITE #: 21-SL-1218

Site Name: Bayless Cabin

Agency/Field #: N/A

ADDITIONAL INFORMATION (*Reason for Update or Survey, Location, Site Characteristics, Materials Present, Setting, Archaeological Methods, etc.; attach extra sheets as needed.*)

Survey was conducted as part of the Chambers Grove park survey for the City of Duluth in 2014. Personnel from the Duluth Archaeology Center, LLC conducted survey on an unnamed island on the Minnesota side St. Louis River, southwest of Chambers Grove Park. The northern half of the island was the only portion suitable for shovel testing (it is also the oldest portion of the island, as islands in the river channel tend to migrate downstream). The southern half of the island is low, wet, and has been impacted by construction of the Hwy 23 Bridge. A single transect of seven shovel tests was conducted across the northern half of the island. All shovel tests were negative for pre- and post-Contact archaeological materials. These contained approximately 20-40 cm of a red-brown silty sand river deposition, likely a result of the June 2012 flood event along the St. Louis River drainage. Beneath this, the shovel tests revealed a buried A-Horizon containing black silty sand. Beneath this was generally a black silty sand and copious gravel layer.

In addition to shovel testing, surface survey was conducted along the island. Surface survey revealed an extant brick chimney of a house or cabin structure. The structure did not appear to have a foundation and was likely built upon a raised platform to protect it from seasonal flooding events from the St. Louis River. In addition, many artifacts scatters were recorded around the chimney ruins, including a stove and refrigerator fragments, an axe head, and a glass telephone pole insulator. Roughly 40 meters away was a sheet metal-lined rectangular pit which could have been the location of an outhouse. Judging by the presence of a refrigerator and telephone pole insulator, the cabin may have been hooked up to electricity. An MN DNR aerial photograph from 1940 reveals a structure in this vicinity of the island, as does the USGS dated to 1954. Therefore, this cabin was likely present at least in the 1930s and 1940s and perhaps earlier.

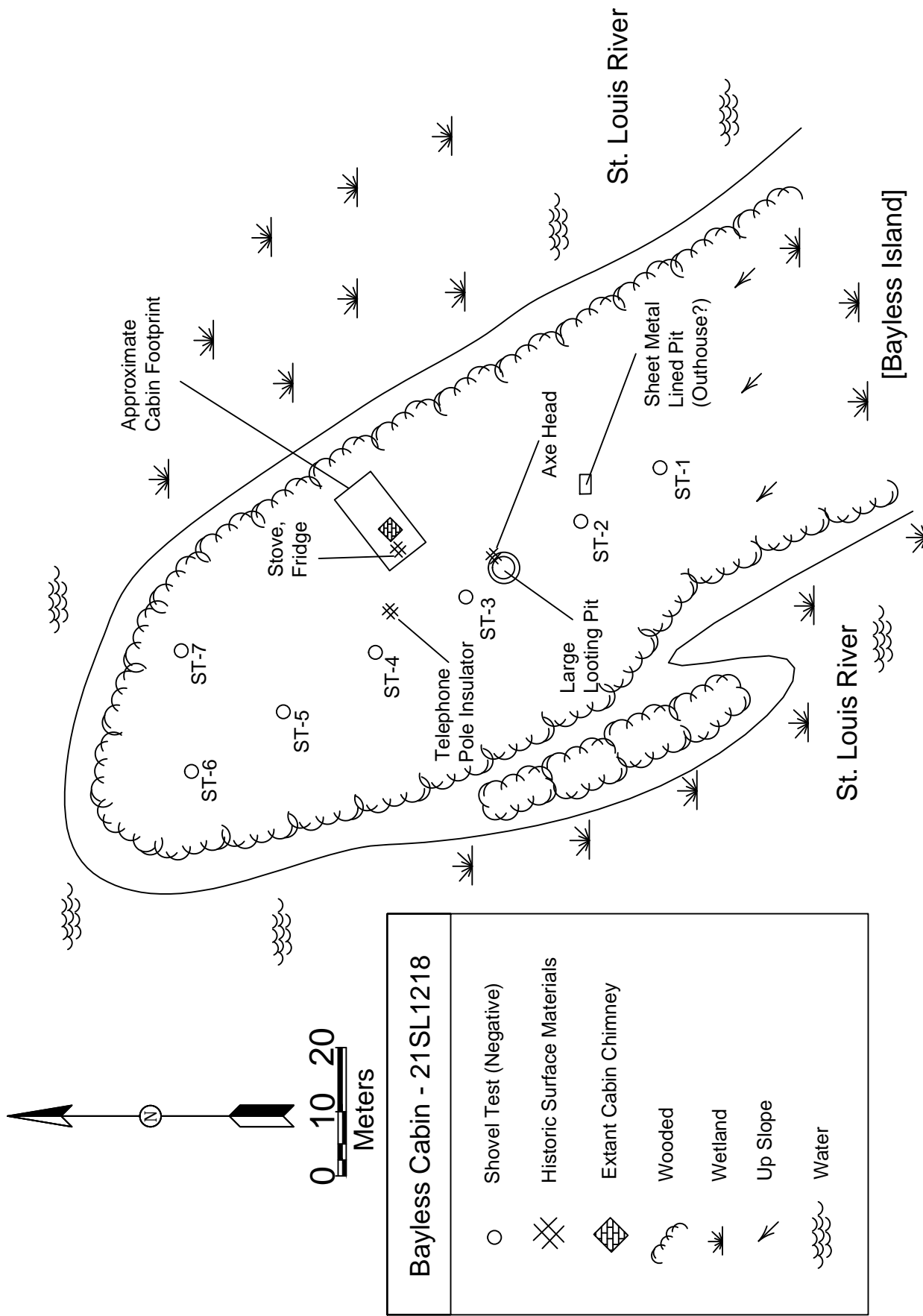
Only the brick chimney and a scatter of artifacts remain at the site. It is not known how the cabin was removed, whether by man or natural forces. The Bayless Family doesn't know too much about the history of the island, excepting that there was a cabin there at one time. Although our shovel tests were negative for pre-Contact and post-Contact artifacts, it is very possible post-Contact materials remain beneath the flood deposits. It appears the island has been visited in the past by looters with metal detectors. Several excavated looting pits around the cabin site were noted during the field survey. One large pit contained sheet metal and appeared to have been terminated without fully excavating the sheet metal. No other features of the cabin were noted in the area. On the 1940s aerial photograph, there appears to be a beach and/or dock opposite the cabin; however, field survey did not reveal anything in this area. It is possible prior flooding events have altered the shoreline in this area.

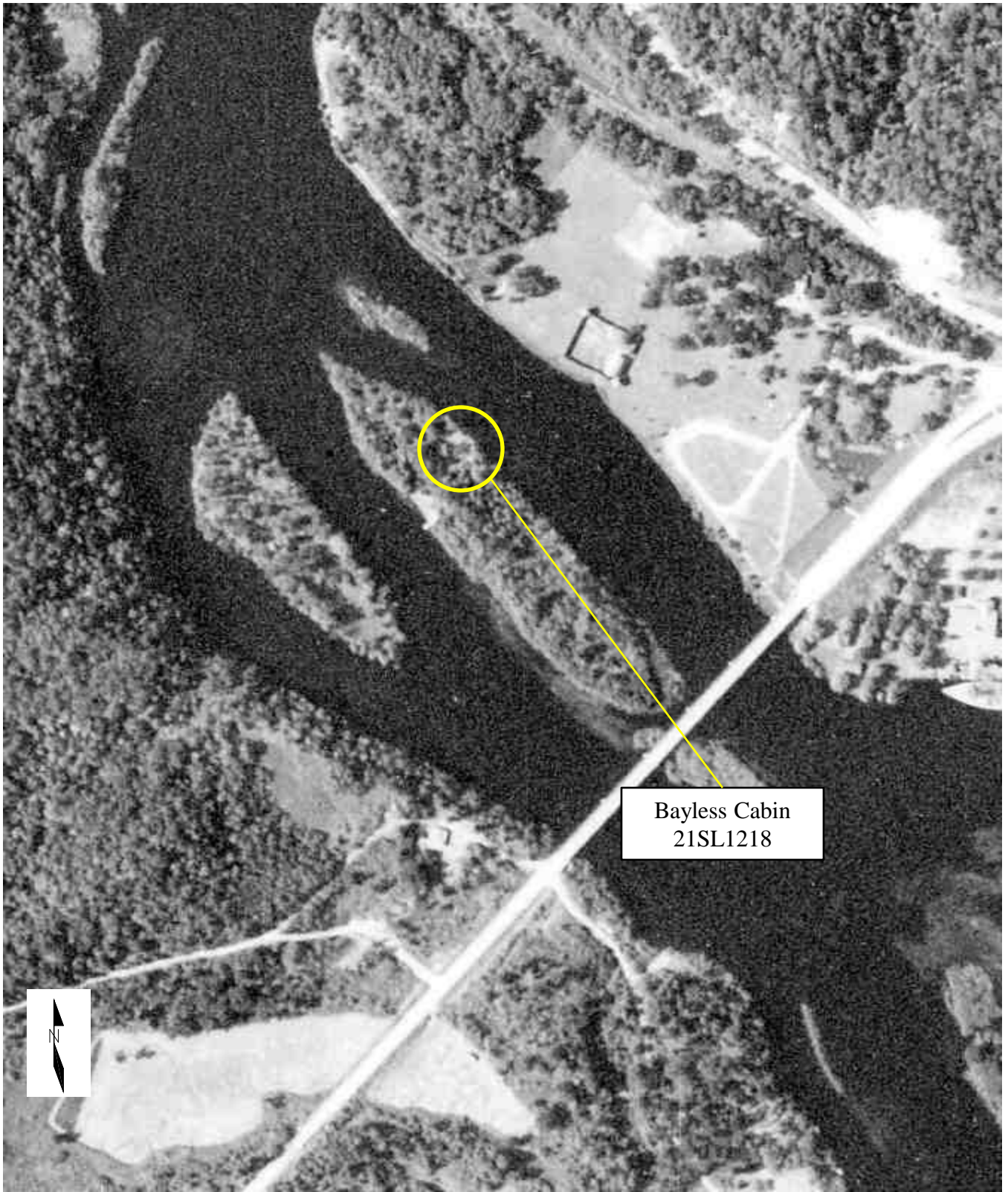


Extant chimney located at the Bayless Cabin (21SL1218) site.

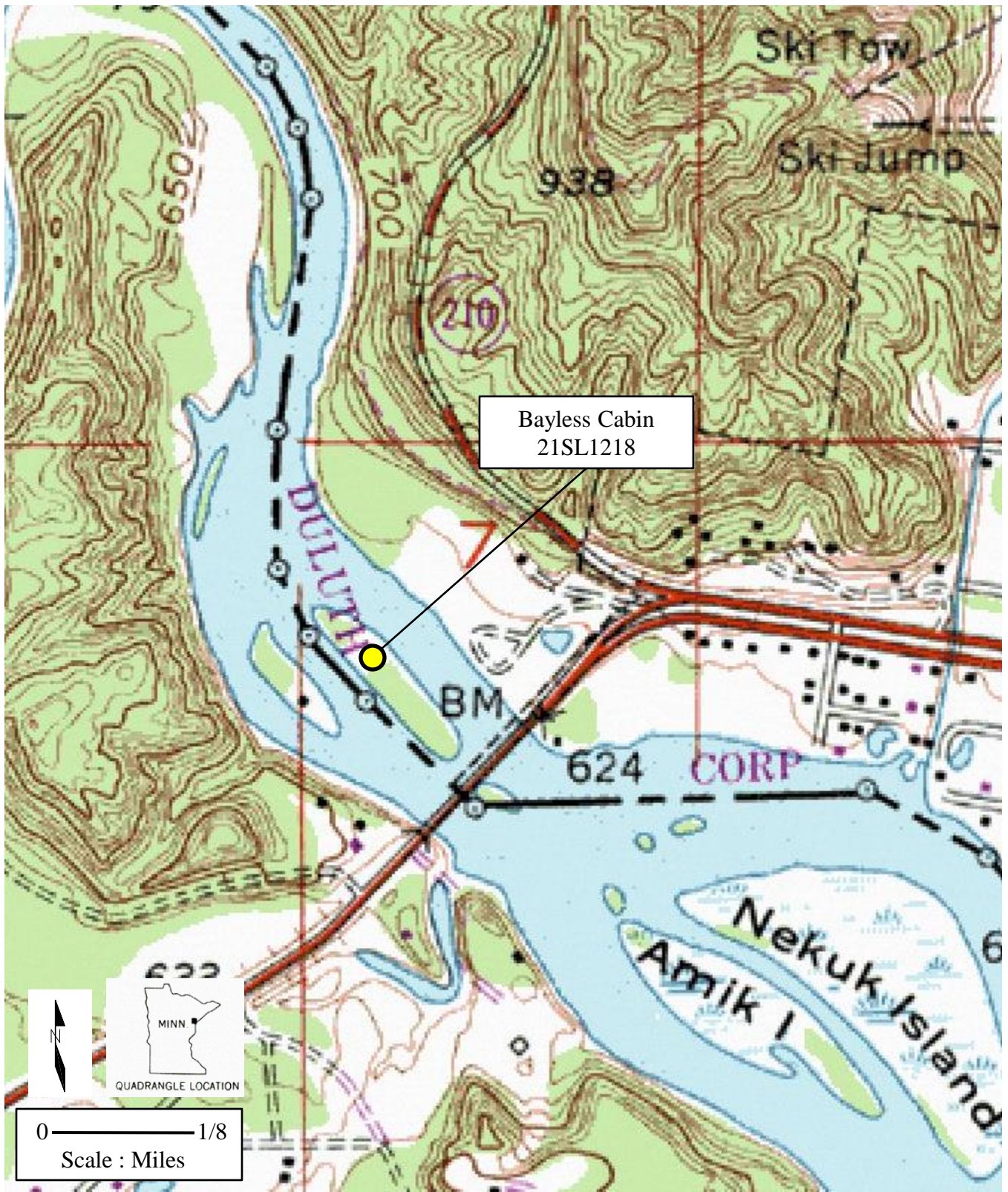


Photographs of axe head recovered from the Bayless Cabin Site (21SL1218).
Scale in centimeters.





Extant cabin on Bayless Island on the St. Louis River. MNDNR Aerial Photograph (1940).



Location of the Bayless Cabin (21SL1218) site. Esko, Minn.-Wis. 1953 (1993). 1:24,000 USGS topographic map.

APPENDIX IV: Minnesota Architecture/History Inventory Forms

Minnesota Architecture-History Inventory Form

Property Name: Lake Superior and Mississippi Railroad: Thomson-Fond du Lac Segment.

Property Type: Linear Feature Railroad Grade

Address: N/A

Inventory#: XX-RRD-026

Agency/Field #: N/A

Property Identification Number (PIN): N/A

SHPO RC#: N/A

Date of Survey: 07/08/14

County: St. Louis / Carlton

City/Township: Duluth, Thomson

USGS 7.5' Quadrangle Map: Esko, Minn.-Wis. 1954 (1993) and Cloquet, Minn. 1954 (1993)

Township: 48N
48N

Range: 16W
15W

Section: 1, 2, 8, 9, 10, 11 ¼ Section:
6, 7, 8

UTM* Coordinates:

Zone: 15

Datum: 1983

Eastern Terminus:

Easting 0554897

Northing 5167835

Western Terminus:

Easting 0545537

Northing 5167897

* Universal Transverse Mercator system coordinates.

Architect: Unknown

Style: Unknown

Approximate Formation Date: 1870

Historic Context(s): Railroads in Minnesota 1862- 1956

Description:

This feature consists of an original segment of the Lake Superior and Mississippi Railroad (LS&M) which ran from Thomson to Fond du Lac. The LS&M was the original rail line which connected Duluth, MN to St. Paul, MN and was completed in 1870. The original route from Thomson to Fond du Lac followed the course of the St. Louis River where portions of the line featured large wooden trestles hundreds of feet long. In 1877, the LS&M went bankrupt and was reorganized as the St. Paul and Duluth Railroad (StP&D). Ten years later in 1887, a "Duluth Short Line" segment was built, bypassing the Fond du Lac neighborhood and providing a less steep and more direct route to Thomson for shipping freight; this segment is the current route of the Willard Munger State Trail, MN History Inventory# SL-XXR-004 (Van Vleet and Tumberg, 2012).

After construction of the Duluth Short Line, the Thomson to Fond du Lac segment was still in operation for commuter train service to the Fond du Lac neighborhood until the 1930's. Much of the eastern portion of this segment, from Chambers Grove Park to the Thomson Hydroelectric Facility has been obliterated by later construction of MN-210 and the hydroelectric facility. However, at the eastern terminus in Chamber's Grove Park, there remains a brownstone retaining wall and man-made drainage channels which facilitated runoff from behind the grade. In addition, remnants of a railroad bridge which were likely a part of this railroad segment were observed but not formally recorded during a survey of this portion of the St. Louis River in 1990 (Mulholland and Rapp, 1990). West of the Thomson Hydroelectric Facility, some portions of this segment are still visible on the USGS topographic map and satellite imagery. According to Northern Pacific Railroad blueprints, the segment wound south around Oldenberg Point and then west/northwesterly toward Thomson (Sigrid Arnott, personal communication 2014). The portions west of the Hydroelectric Facility are the most likely to remain intact / undisturbed by MN-210 and hydroelectric facility construction. Beyond Chambers Grove Park, the eastern portions of the LS&M have likely been impacted by later highway construction, obscuring the integrity of those segments.

Significance Note: Related to early development of railroads in Minnesota and the Duluth region.

Consultant's Recommendation of Eligibility: Not formally evaluated; however, a later segment of the same rail line [Willard Munger State Trail, MN History Inventory# SL-XXR-004] built in 1887 is recommended as eligible (Van Vleet and Tumberg, 2012).

References:

Mulholland, Susan C., and Rapp, George Jr. *Archaeological Survey of Portions of the St. Louis River Downstream from Knife Falls Dam, Carlton and St. Louis Counties, Minnesota.* August, 1990.

Van Vleet, Miranda and Tumberg, Timothy A. *Project Survey Report: MNDNR Trails and Waterways Unit, Willard Munger State Trail, Thomson to Duluth Stabilization.* Archaeology Department, Minnesota Historical Society. 2012.

Photo Number(s): N/A



Google Earth Satellite Imagery revealing intact western portions of the LS&M Railroad: Thomson to Fond du Lac Segment (XX-RRD-0026).



Northern Pacific Railroad blueprints of a portion of the original segment of the Lake Superior and Mississippi Railroad: Thomson to Fond du Lac Segment (XX-RRD-0026). Images obtained and provided by Sigrid Arnett.



APPENDIX V: Data from Underwater Survey (attached CD)