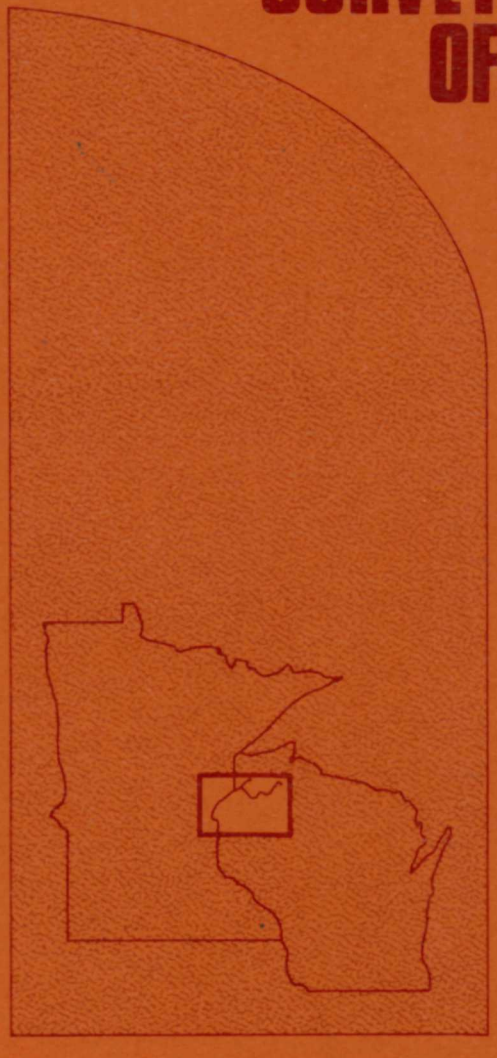
AN ARCHEOLOGICAL SURVEY OF THE ST. CROIX NATIONAL SCENIC RIVERWAY

PHASE I



REPORT NO. 1815

AN ARCHEOLOGICAL SURVEY OF THE ST. CROIX NATIONAL SCENIC RIVERWAY

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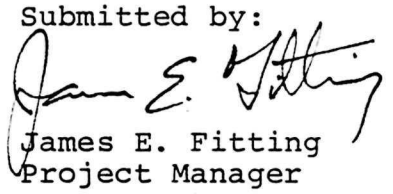
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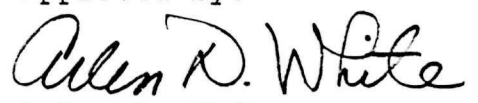
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ABSTRACT

Commonwealth Associates Inc. initiated an Archeological Survey of the St. Croix National Scenic Riverway in Wisconsin and Minnesota during the summer of 1976. This survey was directed toward a) the relocation and evaluation of previously reported sites and b) a sampling of the entire study area. The sample covered 20 percent of the study area and was drawn from 18 environmental subunits. Statistically valid samples were obtained from 16 of these subunits. A total of 77 sites were visited representing 24 prehistoric components and 61 historic components. Raw projections of total site count indicate that as many as 468 sites might be located within the study area. However, a detailed examination of site distribution data by site type suggests that a total of 326 sites within the study area might be a more realistic projection. The majority of these sites will continue to be historic sites and prehistoric sites will be small and limited to a few environmental subunits.

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CHAPTER 1

INTRODUCTION

In 1968, the St. Croix River and one of its major tributaries, the Namekagon River, were designated as National Scenic and Recreational rivers. The area included in the designation consisted of a 103 mile segment along the St. Croix River between the dam at Taylors Falls, Minnesota and the dam near Gordon, Wisconsin and a 94 mile segment along the Namekagon River between Lake Namekagon and its confluence with the St. Croix River (Figure 1). The total area designated to be acquired for the riverway is 62,844.18 acres. Large portions of this area were already in United States ownership. Other significant portions were state owned or are currently being transferred from Northern States Power Company ownership to federal ownership. The office of the National Scenic Riverway is also purchasing land from private owners. As lands acquired in fee, they are developed for recreational use, particularly as picnic, camping and canoe landing areas.

On April 13, 1976, Commonwealth Associates Inc. received a request for proposal from the National Park Service, Midwest Archeological Center. A proposal (P46-2) entitled "An Archeological Survey of the St. Croix National Scenic Riverway" was prepared by Commonwealth Associates Inc. and presented to the Midwest Archeological Center on May 10, 1976. Contract No. CX-6000-6-A060 for this project dated June 22, 1976, was received in the Gilbert/Commonwealth, Jackson, Michigan office on June 30, 1976.

As Principal Investigator, Dr. James E. Fitting was responsible for project organization and design. Field work was conducted under the supervision of Candice H. Benn, with C. S. Demeter and Stephen R. Claggett as historic sites specialists, and Donald J. Weir and Candice H. Benn as prehistoric sites specialists. The major portion of the field work was conducted between August 2 and 26, 1976. A second field survey was carried out by Benn and Claggett between September 19 to 26, 1976. A total of seventy-seven archeological sites were located and evaluated. The following report discusses in detail the background studies, field survey, results and recommendations for this Phase I portion of an Archeological Survey of the St. Croix National Scenic Riverway.

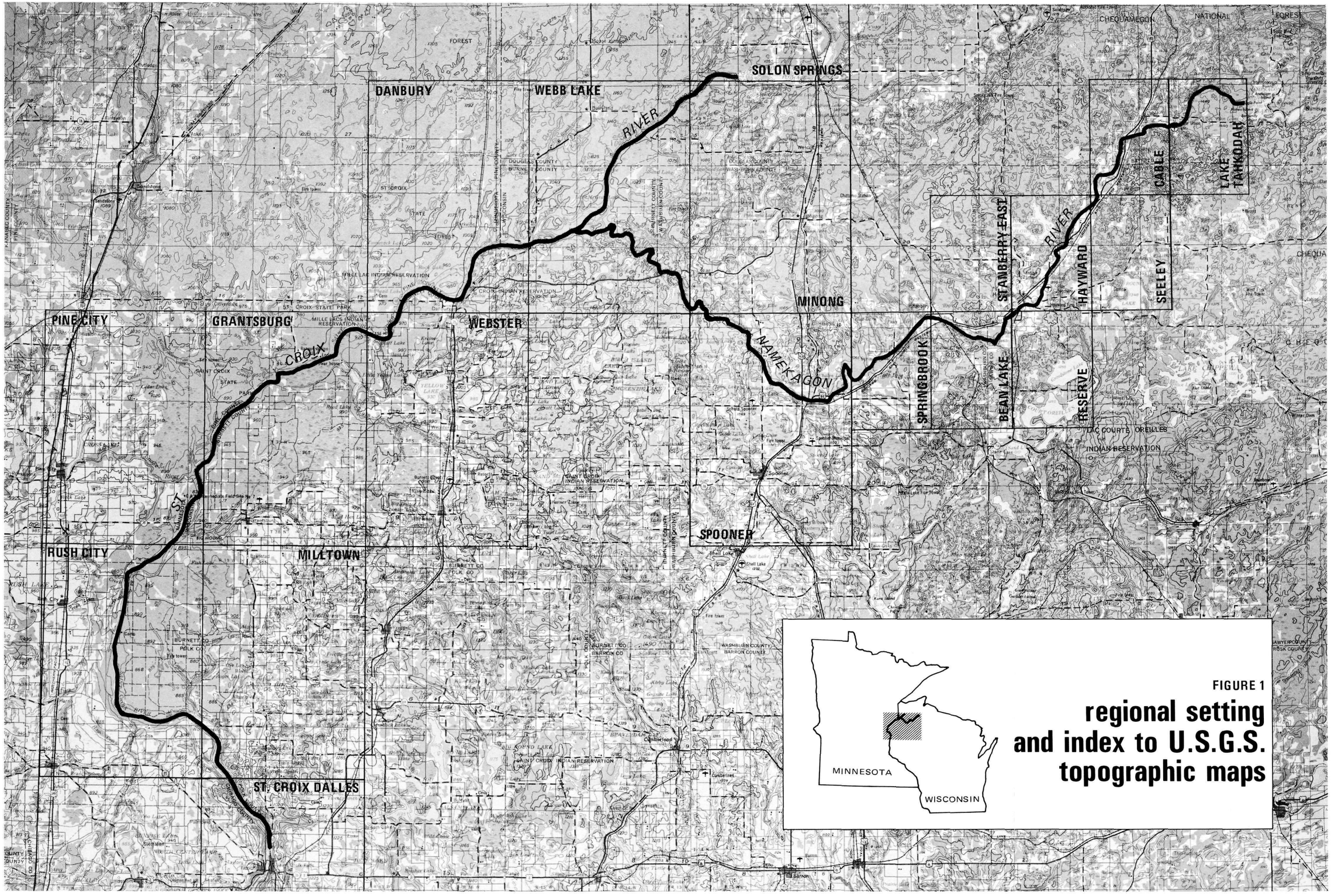


FIGURE 1

regional setting and index to U.S.G.S. topographic maps

CHAPTER 2

ENVIRONMENTAL SETTING

GEOLOGY

The St. Croix River and its tributary, the Namekagon, are part of the Superior Upland, a province of the Laurentian Upland, one of the major divisions of the continent. The Superior Upland lies within the United States and portions of Canada, and, ideally, should be restricted to Pre-Cambrian rocks which are mainly crystalline and resistant (Fenneman, 1938). It is bordered on the south by the Driftless Area. This area was originally worn to a peneplain which probably had less relief than occurs today, with contemporary relief resulting from subsequent glacial activity.

Wisconsin has been subjected to repeated glaciation and, aside from Illinois, contains deposits from the greatest number of glacial advances so far documented for any region in the United States (Frye, Willman and Black 1965: 43). The present physiography of the study area was formed during the Woodfordian Substage of the Wisconsin Glaciation. The Valderian Substage extended only into the extreme northern portion of Wisconsin and probably extended only slightly, if at all, into the St. Croix National Scenic Riverway.

The ice advance during the Wisconsin glacial stage came from three distinct centers, advancing at different times and in different directions. The three centers of ice advance were east, south and west of Hudson Bay, with ice moving southwest from Labrador, south from Patricia and southeast from the Keewatin district. Accumulation of ice progressed from east to west. The maximum spread of ice during the Wisconsin Glaciation occurred during the Woodfordian Substage. Ice advanced for about 2,000 to 3,000 years reaching its limit sometime between 19,000 and 20,000 years ago.

Retreating ice sheets deposited loess, sand and sandy gravel, except near the ice border where the sandy gravel grades to bouldery gravel. The depth of loess deposits is greater in the older deposits while the younger deposits have little or no loess. In the survey area, Late Wisconsin Drift may be found along the St. Croix River from St. Croix Falls north about 20 miles. The majority of the study area contains Middle Wisconsin Red Drift, while some Late Wisconsin Gray Drift may be observed in the extreme northern portion of the study area (Fenneman 1938). A complex terminal moraine, the St. Croix moranic system, was built up along the southern portion of the study area south to the 45th parallel.

The St. Croix River is one of the few larger drains that roughly corresponds to its preglacial pattern. Because the area is generally characterized by a plain of little or no relief under a thick young drift sheet, streams are ungraded and may flow erratically. Lakes and swamps have developed in areas of stagnation where streams have not matured to the point of channeling water flow. Lakes are also common in the younger drift, about 14,000 years or younger, but rarer in older deposits. The older drift is gently undulating and not as conducive to lake formation as the more sharp hummocky surfaces found in younger drifts.

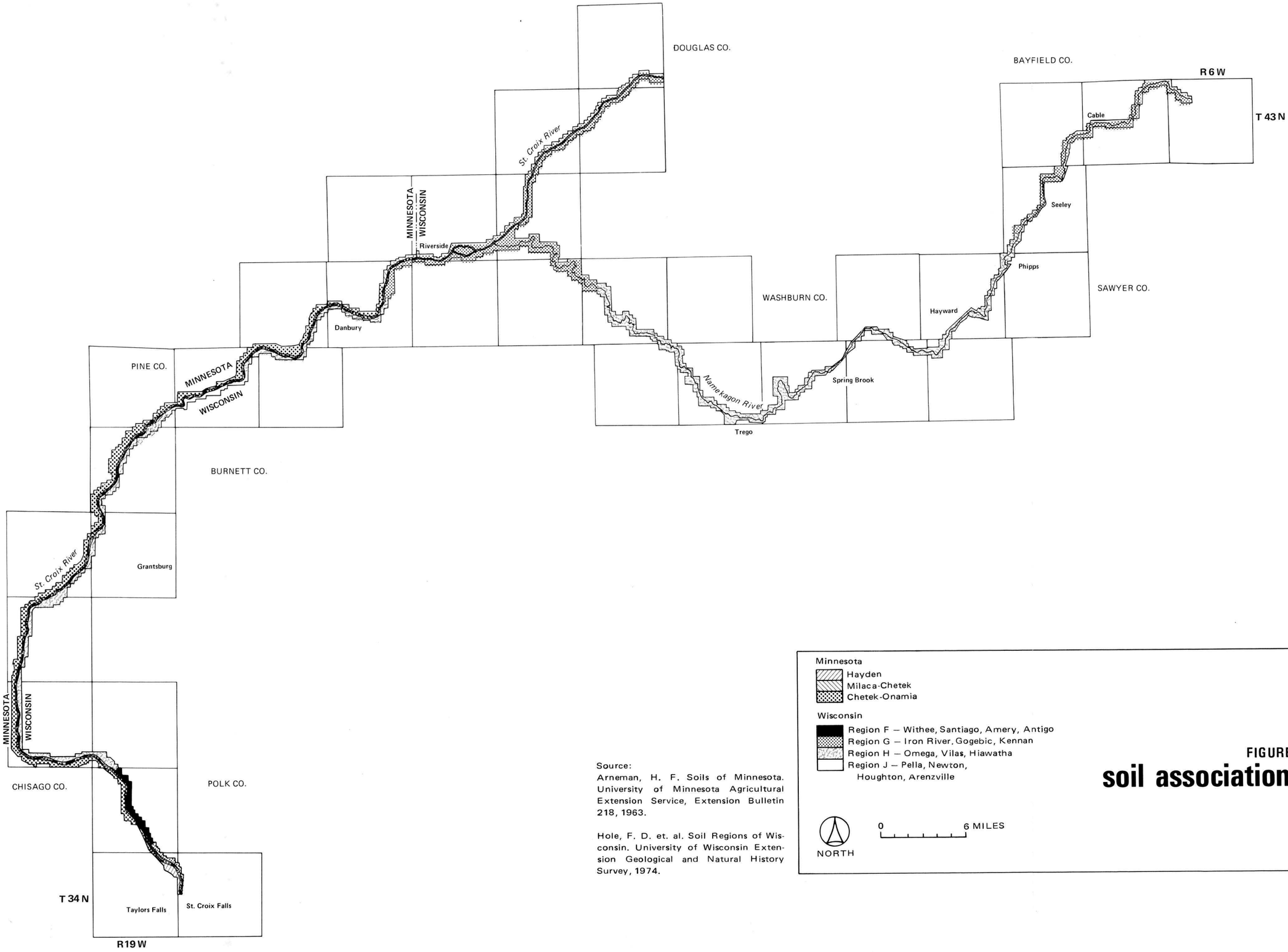
The St. Croix River was also an outlet of glacial Lake Duluth by way of the Kettle River. When the ice front retreated to the north, water spilled from Lake Duluth into Lake Chicago, leading to the formation of Lake Superior. The St. Croix River, no longer connected with the Great Lakes to the north, begins its flow near Gordon, Wisconsin. In historic times, the St. Croix formed part of the passage from Lake Superior to the Mississippi River by way of the Brule River, with a short portage to the St. Croix River.

SOILS

The parent materials for the soils from this region were deposited by the glacial activity in the area. Ice advancing to the southeast from the Keewatin Center passed over limestone deposits in southern Canada, picking up some of these contents as it moved. Materials deposited by this glacial advance is usually calcareous. Ice advancing to the south from the Patrician Center passed over bedrock deposits of the Laurentian Shield. These deposits lack limestone, and material deposited by this glacial advance are noncalcareous. In addition, nonstratified tills and sorted outwash materials are deposited directly by glacial ice.

Three Minnesota soil associations and four Wisconsin soil associations are found within the St. Croix National Scenic Riverway (Figure 2). The Minnesota soil associations are Hayden, Milaca-Chetek and Chetek-Onamia (Arneman 1963). The Wisconsin soil associations are Region F, Withee-Santiago-Amery-Antigo; Region G, Iron River-Gogebic-Kennan; Region H, Omega-Vilas-Hiawatha; and Region J, Pella-Newton-Arengville and Houghton muck (Hole 1974). Descriptions of these seven associations are listed below:

Hayden - This is a light colored soil formed from calcareous loam or clay loam glacial till. It is well drained with a mojor erosion control problem. Major crops are legume hay, pasture, corn and oats.



Source:
Arneman, H. F. Soils of Minnesota. University of Minnesota Agricultural Extension Service, Extension Bulletin 218, 1963.

Hole, F. D. et. al. Soil Regions of Wisconsin. University of Wisconsin Extension Geological and Natural History Survey, 1974.

Minnesota
- Hayden
- Milaca-Chetek
- Chetek-Onamia

Wisconsin
- Region F — Withee, Santiago, Amery, Antigo
- Region G — Iron River, Gogebic, Kennan
- Region H — Omega, Vilas, Hiawatha
- Region J — Pella, Newton, Houghton, Arenzville

NORTH

0 6 MILES

FIGURE 2

soil associations

Milaca-Chetek - These soils are found in a rolling to hilly area. They are light colored and well drained. Milaca has developed from noncalcareous stony and sandy loam till and Chetek from noncalcareous gravelly outwash. The vegetation found on these soils is primarily second growth aspen and oak.

Chetek-Onamia - These are light colored soils occurring in nearly level areas. They are formed on medium textured material overlying noncalcareous sand and gravel. The Chetek soils have developed to a depth of 18 inches, while Onamia soils are deeper. Vegetation common to these soils includes jack pine on the Chetek soils and aspen or scrub red oak on the Onamia.

Region F - These soils are found in northern silty uplands and plains. Withee soils are poorly drained silt loam over acid, compact, stony loam till. Santiago and Amery are less extensive, well drained soils. Antigo soils are well drained, silty soils on plains of outwash sand and gravel. Fertilizers make this land productive for forage and small grain crops.

Region G - Iron River, Gogebic and Kennan are acid, stony sandy loams and loams of northern uplands and plains. They are characterized by irregular slopes, stoniness, with droughtiness on rises and wetness in depressions, and are not suitable for agriculture.

Region H - These soils have developed on northern sandy uplands and plains. The Omega, Vilas and Hiawatha soils of this region are reddish-brown sands. Lakes and bogs are numerous.

Region J - Soils of this type are associated with stream bottoms and major wetlands. Pella, Newton and Arenzville are mineral soils while Houghton muck, and others, are organic soils. There is a wide range of land use in the region from wildlife habitat to vegetable crop production.

VEGETATION

Woodland vegetation covers a majority of the study area. Most of the area was heavily logged in the early twentieth century and present day forests consist of second growth pine and hardwoods. Only a few scattered remnants of the original white pine forests remain.

A smaller portion of the area, mostly located in the southern part of the riverway, south of Grantsburg, is characterized by areas cleared for cultivation and for pasture. These fields now lie fallow and scrub brush and grasses predominate. The 1976 survey year was characterized by an unusually dry climate. Many swamps, which would normally be inaccessible, were dry with young regrowth forests already appearing.

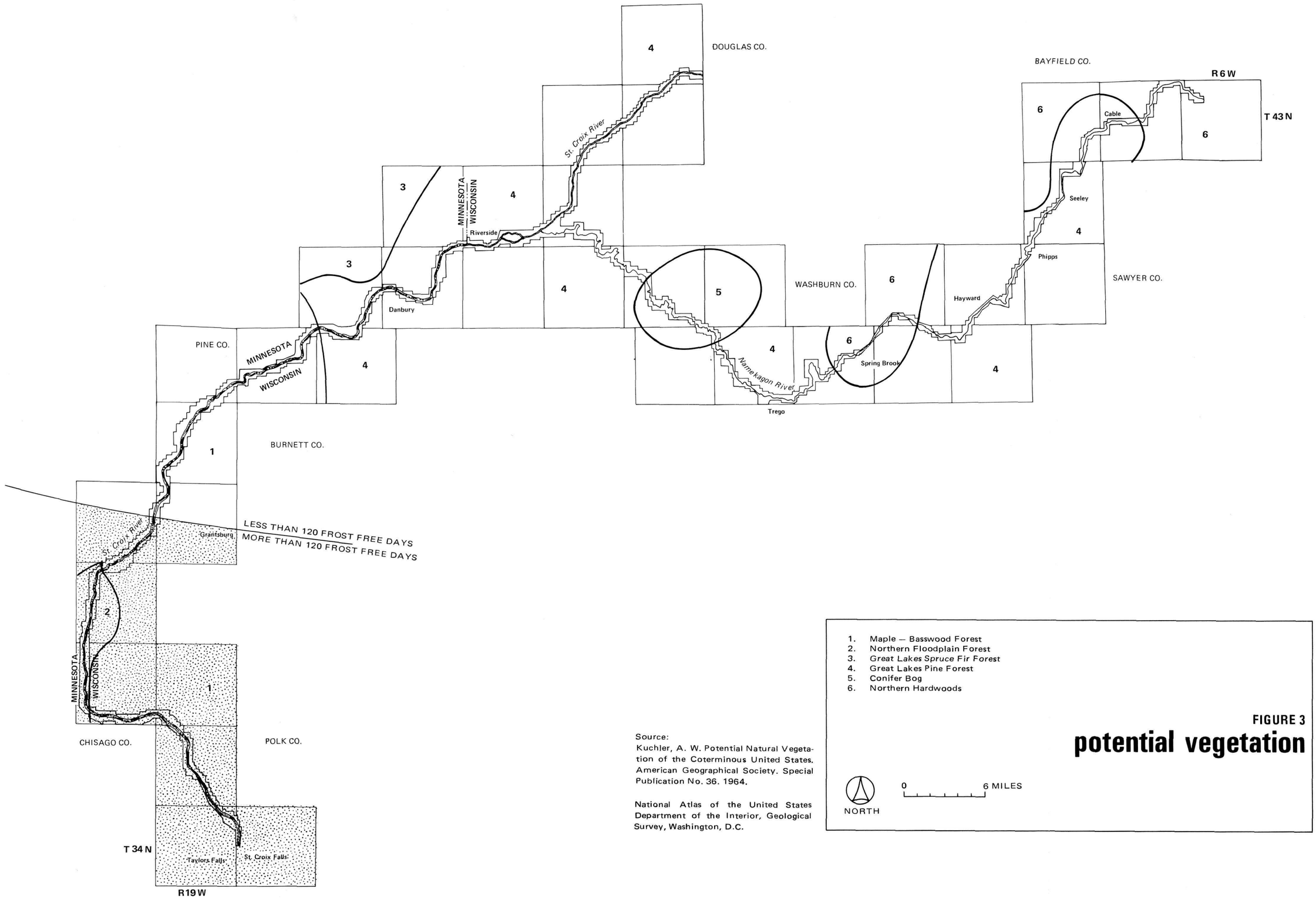
Most species of terrestrial vegetation are associated with the Temperate Deciduous Forest Biome. Some species in the northern portion of the area are associated with the Coniferous Biome and species in the southwest section are associated with the Temperate Grassland Biome. Tamarack, white spruce, balsam fir and bog birch are found in the northern portions of the riverway and needle grass and lead plant are found in the southwest.

Kuchler (1964) describes five types of vegetation existing in the riverway area (Figure 3). Maple-basswood and northern floodplain are broadleaf forests; Great Lakes pine and conifer bog are needleleaf forests; and northern hardwoods are a combination of broadleaf and needleleaf forests. Most of the riverway area is covered with Great Lake pine forest and maple-basswood forest. A more detailed description of each association is presented below.

Great Lakes pine forest - Dominant species are jack pine (Pinus bankasiana), red pine (Pinus resinosa) and white pine (Pinus strobus). The area is characterized by low to tall needle of evergreens, often mixed with broadleaf deciduous trees and shrubs.

Conifer bog - Dominant species are larch (Larix laricina), black spruce (Picea mariana) and arbor vitae or white cedar (Thuja occidentalis). The area is characterized by dense to open, and low to medium tall needleleaf evergreen or deciduous trees.

Northern floodplain forests - Dominant species are cottonwood (Populus deltoides), black willow (Salix nigra) and American elm (Ulmus americana). The area is characterized by a low to tall and open to dense broadleaf deciduous forest.



Source:
Kuchler, A. W. Potential Natural Vegetation of the Coterminous United States. American Geographical Society. Special Publication No. 36. 1964.

National Atlas of the United States Department of the Interior, Geological Survey, Washington, D.C.

1. Maple — Basswood Forest
2. Northern Floodplain Forest
3. *Great Lakes Spruce Fir Forest*
4. Great Lakes Pine Forest
5. Conifer Bog
6. Northern Hardwoods

NORTH

0 6 MILES

FIGURE 3

potential vegetation

Maple-basswood forest - Dominant species are sugar maple (Acer saccharum) and basswood (Tilia americana). The area is characterized by a medium tall, broadleaf deciduous forest.

Northern hardwoods - Dominant species are sugar maple (Acer saccharum), yellow birch (Betula allegheniensis), beech (Fagus grandifolia) and hemlock (Tsuga canadensis). The area is characterized by tall, broadleaf deciduous forest mixed with needleleaf evergreen trees.

Some of the species which are popular food sources for inhabitants both in prehistoric times and today are wild rice, blackberries and cranberries. Wild rice grows in many of the flowages along the Namekagon River; cranberry bogs are also identified; and blackberries grow abundantly in many of the mixed hardwood forests. Details about the prehistoric and historic utilization of these food resources will be discussed in the Prehistoric Background section.

FAUNA

Fauna species common to both northern coniferous and temperate deciduous forests occurring in the riverway area provide a more diversified group of species than is normal for an area of this size (National Park Service 1976). At least forty-four species have been described in the area by Burt and Grossenheider (1964). These include such species as the short-tail shrew, black bear, mink, otter, weasel, red and gray fox, eastern gray and red squirrel, beaver, muskrat, porcupine, eastern cottontail and whitetail deer. There are a variety of birds in the area including game birds such as grouse and pheasant and the bald eagle and osprey, which are on the Wisconsin state list of endangered species. Forty-two species of fish have been identified between the confluence of the Namekagon and St. Croix Rivers and St. Croix Falls, Wisconsin. These include catfish, walleye, various types of perch, rock bass, largemouth bass, carp and brook trout.

BIOTIC PROVINCES

All of the Namekagon River, and the St. Croix River north from a point near Danbury fall within the Canadian Biotic Province (Cushing 1965). This area is characterized by the mixed conifer-hardwoods forests described in the vegetation section of this report, the northern hardwoods, conifer bog and Great Lakes pine forests (Cleland 1966). The area is characterized by Canadian province indicators such as the uneven topography caused by

glaciation, moraines, sandy outwash plains, swamps and only a few rock outcrops. The soils, previously described, are light colored, acid, infertile, stony and sandy. The climate is cool, with the average annual temperature varying from 38 to 40 degrees Fahrenheit. The growing season lasts less than 120 days. The whole St. Croix Riverway averages about 29 to 34 inches of precipitation per year, with about 45 inches of snow fall.

The southern portion of the St. Croix Riverway from St. Croix Falls to the Danbury vicinity is characterized by elements typical of the Carolinian biotic province, such as the predominance of maple-basswood forests and the number of frost free days increased to over 120 days per year. Soils in the area are also more suitable for cultivation.

CHAPTER 3

PREHISTORIC BACKGROUND

Until this contract for the archeological survey of the St. Croix Riverway, very little information had been accumulated on the prehistoric period in the region. The purpose of this three year study is to provide data on such resources along the riverway. The following background report capsulizes the information as it existed before the 1976 survey.

PALEO-INDIAN

No fluted point sites have been reported from the St. Croix and Namekagon Riverways. Fluted points have been found in Wisconsin north of the southern limits of the Valders Till, an area located north of the study area. These postdate 9,000 B.C. Fluted points dated later than 8,500 B.C. have also been found on the lake bed of glacial Lake Oshkosh. This evidence, along with evidence from other portions of the Great Lakes, indicates that fluted points were used by Paleo-Indian peoples in the Upper Great Lakes Region from 10,000 to 7,000 B.C. (Quimby 1960). Therefore, it is reasonable to suggest that fluted points could be found along the riverway. However, of the over 100 fluted points found in the upper Great Lakes Region, most have been surface finds. An undisturbed Paleo-Indian component would be unexpected.

The climate was colder and moister during the period of the Paleo-Indian occupation. Forests consisted of spruce and fir. An influx of more pines followed the increasing warmer conditions. Post-Pleistocene fauna differed from existing fauna. The fluted point was probably designed for killing larger species. Giant beaver, elk, deer and caribou inhabited the area and fossil remains of whale and walruses have been found in the Lake Huron basin.

The lack of substantial site data makes it difficult to recreate the life styles of the Paleo-Indians. Environmental data and scanty artifact data collected, indicate that these people were nomadic hunters that probably lived in shelters made of poles and skins and dressed in animal skins. Almost nothing is known of their social or religious practices.

Nomadic hunters still occupied the area from 7,000 to 4,500 B.C. Quimby refers to them as Aqua-Plano. Point types are lanceolate and unfluted. Specific type names are Plainview, Scott's Bluff, Brown's Valley and Eden. Points of this type have been found associated with bison and extinct bison species remains. Again, no sites of this type have been recorded along the riverway.

ARCHAIC

By 5,000 B.C., the climate and fauna had changed and new cultural material, identified as Archaic, is found representing a response to this changing environment. Whether this change was stimulated by new groups of people moving into the area, bringing new cultures with them, or by a new adaptation of resource utilization by the Paleo-Indian peoples, has not been determined. With the extinction of the large Pleistocene species, hunters diversified and hunted both large and smaller animals. Ground stone tools indicate that wild foods were gathered to supplement the hunting diet. Archaic burials are often covered with red ocher and accompanied by grave goods. This special attention given to the dead occurs in cultures that believe in an afterlife and some form of religion.

The Archaic period in the region of the St. Croix and Namekagon Riverway is represented by the Boreal Archaic and the Old Copper Cultures. One site in the Wisconsin site files has been described as Archaic and is located along the Namekagon River.

The Old Copper Culture and the Boreal Archaic appear to be contemporaneous (Quimby 1960), the Old Copper Culture existing from 3,000 to 500 B.C. and the Boreal Archaic from 5,000 to 500 B.C. The Old Copper people mined the pure copper that exists in the Upper Great Lakes area. By cold hammering and annealing, they fashioned the native copper into tools and weapons. Small copper deposits occur along the Snake and Kettle Rivers. These were probably quarried by people living at Petaga Point, in Mille Lacs Kathio State Park, Minnesota (Bleed 1969). As with the Paleo-Indian peoples, the Old Copper people could have left the riverway area and general region to follow the northern retreat of the Boreal Forest. Copper continued to be a source material for artifact manufacturing until the historic period.

The Boreal Archaic people manufactured woodworking tools, axes, adzes and gouges, by a grinding and polishing technique that produced hard and sharp tools. They possibly utilized pine and hardwoods from the forests for canoe and house construction. Quimby states that the Old Copper culture could be a specialized offshoot of the Boreal Archaic (Quimby 1960). Similarities exist between the manufacture of the copper and the ground stone tools. These people remained in the area where their cultural traits mixed with new ideas moving into the area. The blending of the new and old traits has been defined as a different cultural occupation, the Early Woodland.

WOODLAND

The end of the Archaic period is marked by the appearance of burial mounds and pottery bearing Woodland cultures. Early Woodland occupations appeared between 500 and 100 B.C. and the Middle Woodland lasted from around 100 B.C. to A.D. 500. Gibbon and Caine (1976) have identified a St. Croix phase, a transitional period between Middle and Late Woodland, from A.D. 500 to A.D. 800. Salzer's 1974 report on the Wisconsin North Lakes Project combines Early and Middle Woodland occupations into what he calls the Nokomis Phase. Salzer's study is based on sites located in the northern portion of Wisconsin, just east of the central part of the state.

Using Salzer's description of Early and Middle Woodland as closest to what archeologists would expect to find along the St. Croix Riverway, the earlier Woodland cultures would be marked by small, crude, pottery vessels made of sandy clays and tempered with crushed granitic rock. These have slightly constricted necks and thick walls with square or flat lips. The entire surface is decorated with a paddle, wrapped with predominantly S-twist cords. Over this base are horizontal rows of broad, finger-trailed lines. Other vessel forms occur with decorations consisting of cord marks, shallow punctates, dentate stamping, cord-wrapped stick and string impressions. Some of the styles are similar to the Havana Tradition vessels and those of the Black Sand Complex in Illinois. No specific projectile points were identified. Most of the points were made of exotic raw materials including cherts, silicified sandstone, Knife River chalcedony and a red chert from Barron County, Wisconsin. Other lithics in the assemblage included knives and what appears to be projectile points worked into knives, end scrapers, side scrapers, ovate plano-convex multiple purpose bifaces and drills.

A distinctive feature of the Nokomis Phase is a greater use of copper than one would expect to find in sites of this date. The tool assemblage consists of awls, fishhooks, flat-stemmed projectile points, small chisels, punches, rolled beads and copper waste. Cairn-type hearths found at these sites supplied heat for the early metallurgists. Salzer's work concentrated on sites surveyed along lakes. Similarities between this study area and the St. Croix Riverway are close enough that survey workers along the St. Croix should look for possible Nokomis sites.

In general, the Early to Middle Woodland in north central Wisconsin reflects an increase in population, more intensive utilization of the area, heavier reliance upon trade and an important copper industry (Salzer 1974). Trade items appear to come from the south and east and possibly from the Laurel complex

in northern Minnesota. In turn, copper tools are found in southern areas. Influence from the Hopewellian cultures, with their major cultural centers in the Central Mississippi, Ohio and Illinois river valleys, began spreading north and probably reached southern Michigan by about 100 B.C. There is, however, no evidence of prehistoric agriculture in the area.

The St. Croix Phase is described as a transitional phase between Middle and Late Woodland dated from A.D. 500 to A.D. 800 (Gibbon and Caine 1976). This phase has been identified from 22 excavated sites found between northwestern Wisconsin across eastern and central Minnesota to the Red River Valley. Fifteen of these sites are multicomponent habitation sites and several are single component burial sites. Most of the St. Croix Phase sites, excluding the burial sites, are found on streams near lake outlets. Some are found on points jutting into small lakes which have streams flowing through them or on the north shores of lakes (Gibbon and Caine 1976). These locations are conducive for wild rice gathering, fishing and hunting waterfowl.

The diagnostic artifacts consist of well-made isosceles triangular and small side-notched projectile points. Pottery vessels have straight to slightly excurvate rims, unthickened lips, slight to moderate orifice constriction, moderate flaring in the body and subconical bases (Gibbon and Caine 1976). Cord-roughening occurs on the body surface and decorations applied to the rim, consisting of bands of horizontal or oblique stamping applied with a dentate stamp, a comb-stamp or a stick finely wrapped with cord. The dentate stamping, general vessel shape and occurrence of exotic materials reflect carry-overs of Middle Woodland characteristics. The sites are larger, more frequent and have a greater range than earlier Middle Woodland sites.

The early Late Woodland culture has been dated from A.D. 800 to A.D. 1,200 (Gibbon and Caine 1976) and includes two complexes: The Kathio Phase located within the southern boundary of the Carolinian-Canadian transition zone in eastern Minnesota, and the Blackduck Phase located north of the Kathio. The latter would be expected to occur more frequently in the St. Croix Riverway study area. Blackduck pottery is grit-tempered, cord-marked pottery with twisted cord or cord-wrapped stick impressions. Both Kathio and Blackduck have conical and linear mounds. Salzer reports that burial mounds are found in his study area for the first time during this period (Salzer 1974). Pottery described as Blackduck has been identified from the Lower Tamarack Village site along the St. Croix River. The people relied on hunting and gathering for subsistence with emphasis placed on gathering wild rice. Houses dated to this period indicate a degree of sedentism not found at earlier sites.

Mississippian sites appeared in southern Minnesota during this time. These settlements were few and were based on the cultivation of maize and beans. Blue Earth sites, a phase of the Mississippian, have been found along the Mississippi and St. Croix Rivers, in the lower St. Croix area. None have been found in the Upper St. Croix or Namekagon areas.

CHAPTER 4

HISTORICAL BACKGROUND

Little is known about the number or identity of all the native American groups that passed through this area between the Late Woodland period and the earliest historic records of European explorers. When the Spanish declared civil jurisdiction over the whole interior of North America in 1512, they became the first Europeans to claim the land of the St. Croix and Namekagon Rivers. However, no Spaniards ever visited this area; it was the French who first came and wrote the first accounts.

The Eastern Sioux were a Woodland oriented tribe that lived along the St. Croix and Namekagon Rivers at least by the mid-1600s. Around the 1630s to 1640s, warring Iroquois, living in New York, began displacing other tribes. This caused a general displacement of tribes located between New York and Minnesota. Tribal relocation occurred over the next 30 years and was characterized by nomadic wanderings. During the latter part of the seventeenth century, the Chippewa (Ojibway), too, were pushed from their homelands around Lake Superior and began warring with the Sioux over control of the St. Croix region. Simultaneously, European traders established themselves in this area. The Chippewa allied themselves with the French who supplied them with firearms. With this advantage, in 1770 they were finally able to overcome the Sioux in a final battle north of St. Croix Falls, Wisconsin, within the National Scenic Riverway.

Because records of the earliest European explorers are either nonexistent or inadequate, it is not known who was actually the first non-Indian to enter the area. The earliest putative account of European exploration is that of Etienne Brule, who visited the western part of Lake Superior in 1623. Father Rene Menard in 1661 and Father Claude Jean Allouez in 1665 are both credited with entering the Lake Superior area. There are no records of those men entering the interior portions of Wisconsin. The first documented exploration into the interior area was made on June 28, 1679, by Daniel Greysolon Sieur du Lhut. He was assigned the task of attempting to make peace between the Dakota and the Chippewa, and to search for minerals, furs, and the source of the Mississippi. Du Lhut crossed into Duluth Bay, named after him, proceeded south, down the Brule River, crossed the Brule-St. Croix portage and continued down the St. Croix River to the Mississippi. He returned to Lake Superior by way of the Wisconsin-Fox River route. This is the earliest account of Europeans entering the St. Croix River area.

Radisson and Groseilliers were two early fur traders who are known to have entered the western part of Lake Superior and possibly the interior regions as well. The initial method

for collecting furs was to have the Indians bring the furs to annual market fairs in Montreal. But in 1658, Radisson and Groseilliers returned to Montreal from the Western regions with 300 Indians and a fortune in furs, perhaps as many as 60 canoe loads. They were subsequently arrested and their furs confiscated for operating without a license. The practice of establishing a series of fur trading posts in the region was soon adopted.

References to early French fur trading posts are obscure. In 1683, du Lhut built a supply post, Fort St. Croix, at the portage route from Lake Superior to the Mississippi via the St. Croix River (Nute 1949). This would place it in the vicinity of modern day Solon Springs. It was the earliest fort in interior Wisconsin, but proved to be inaccessible to the Dakotas because of the invading Chippewa. In 1695, Pierre Charles Le Suer built a trading post for the Dakota on Prairie Island on the lower reaches of the Mississippi River. This established the St. Croix as a communication and supply route for trading posts throughout Minnesota. There are also references to a trading post built at Taylors Falls in 1700, but research of period documents has not revealed its location (George 1973).

When France ceded Canada to England in the Treaty of 1763, French domination of the region was replaced by English control. However, French traders continued to work in the area on an individual basis. With the new English domination, the Hudson Bay Company assumed control over trading in the area. During this period, the Dakota and Chippewa were still in conflict over control of the St. Croix area. Because of that strife, the area was not occupied nor were furs exploited by either Indian or white trappers. Traders moved north or west to the Minnesota River Valley. Numerous battles were fought in the area until the Chippewa eventually gained control. With Chippewa domination, the area was again open to trappers.

In 1783, the North West Company was formed in Montreal. In the same year, the treaty for the end of the Revolutionary War was negotiated and all land south of the middle of the Great Lakes Waterway fell under United States jurisdiction. This control was formally established in 1795 when Virginia ceded her paper claim to this region, established under an original charter of 1609, to the United States Government. All foreign domination was ended; however, English traders continued to work the area for the North West Company, the XY Fur Company and on an individual basis. Trading posts were established on the Namekagon in 1784 and along the St. Croix River at Yellow Lake, Snake River and Pokegama Lake (National Park Service 1976).

In 1793, Jean Baptiste Perrault, was employed by the North West Fur Company to build a permanent post, Fort St. Louis,

located in the modern day Duluth-Superior Harbor. Until 1805, Fort St. Louis served as the central collection and distribution point and as the North West Company headquarters for the area. In 1809, John Jacob Astor's American Fur Company made an unsuccessful attempt to gain control in the area, and again failed in 1811, after reorganizing as the South West Company. The British regained control over the area during the War of 1812 and the North West Company dominated trade. After the war, Americans again assumed control. British troops were replaced by American at Fort St. Louis. The American Fur Company regained control and Congress passed a law forbidding foreigners to trade in the United States territory.

The American Fur Company now monopolized all fur trading activities in United States portion of the Lake Superior region. However, the numbers of fur bearing animals were declining in the area and in 1847 the company withdrew. Private traders licensed by the government continued to work the area until about 1870. At the time when the amount of fur trading was declining, men entered the area whose interests extended to settlement and timber harvesting as well as fur trading. These men developed the lumber business and created a new industry in the St. Croix area.

During the first quarter of the nineteenth century, the United States Government financed expeditions into the newly acquired territories. Zebulon Pike explored the Mississippi River in 1804-1805 and D. B. Douglass explored the Lake Superior region in 1820. In 1832, Henry R. Schoolcraft and Lieutenant James Allen explored the Mississippi and St. Croix Rivers and Lake Superior. Both Schoolcraft and Allen left extensive documentation of Indian villages and fur posts along the St. Croix and Namekagon Rivers.

Despite United States claims, the Indians had not formally given up their control to this area. On August 19, 1825, a treaty established a boundary line between the Chippewa and Sioux extending from the Chippewa River across the St. Croix River at Standing Cedars south of Osceola, Wisconsin. This ostensibly settled the Chippewa-Sioux dispute. In the Treaty of 1837, the Chippewa ceded the country inland from Lake Superior in Wisconsin to the United States Government. This land excluding reservations was included as a part of Wisconsin when it became a state in 1848. Minnesota did not obtain statehood until ten years later.

After the Treaty of 1837, which opened the area to American settlement and development, speculators began acquiring land rights for timber harvesting. For a brief period, fur

trading and timber cutting were conducted simultaneously throughout the St. Croix area, but fur trading eventually gave way to large-scale timber cutting. The Namekagon and St. Croix Rivers were both used for transporting logs south to railroad and marketing centers. A series of logging camps were constructed along the rivers by logging companies and their representatives. Some were major camps such as St. Johns Landing; others were smaller and more temporary. The rivers themselves were altered by the new industry. Log drives scoured some banks and created large sand banks. Later, logging dams were constructed to hold back the river water so logs cut during the winter when the rivers were frozen could be driven down the river by the release of dammed-up waters. These dams varied in size from small, log and rock piles to Nevers Dam, reported to be the largest pile driven dam in the world in 1890. With the control of the water level in the river, log jams, some as large as 150 million board feet of timber, could be avoided.

It was not long before the large stands of white pine, the prime timber for harvesting, were cleared. Lumbermen then began cutting other species of pine (which were suitable for floating down the rivers). It was not until railroads were constructed around the 1890's that hardwoods, which could not be floated down rivers, could be removed from the timber cutting areas.

By the early part of the twentieth century, the forests along the St. Croix and Namekagon Rivers had largely been cleared. These newly cleared lands provided the stimulus for settlers. As lands were cut over, farmers homesteaded farms and cleared stumps and brush for cultivation. Towns were platted all along the river. Many were "paper towns" existing only in records to lure the ignorant newcomer into the area. Others such as Amador and Rusheba existed for awhile as a clustering of farms with perhaps one or two public buildings. These towns are nonexistent today. Farming was not successful in the northern and eastern portions of the National Scenic Riverway. Today, some apparently prosperous farms can be observed between St. Croix Falls and Grantsburg, but they become less common toward Gordon and Cable, Wisconsin. The once cleared lands of these latter areas have subsequently been covered by secondary growth forests consisting of oak, hickory, red and jack pines.

The regrowth of forests along the river and the lack of modern development are desirable for both the modern logging industry and recreation purposes. It is this situation that attracts canoeists, campers, hunters and people that want to escape from the hectic and modern pace of such urban centers as Minneapolis-St. Paul and Chicago. It is for these people, and the protection of the river and its resources, that the National Scenic Riverway was established.

CHAPTER 5

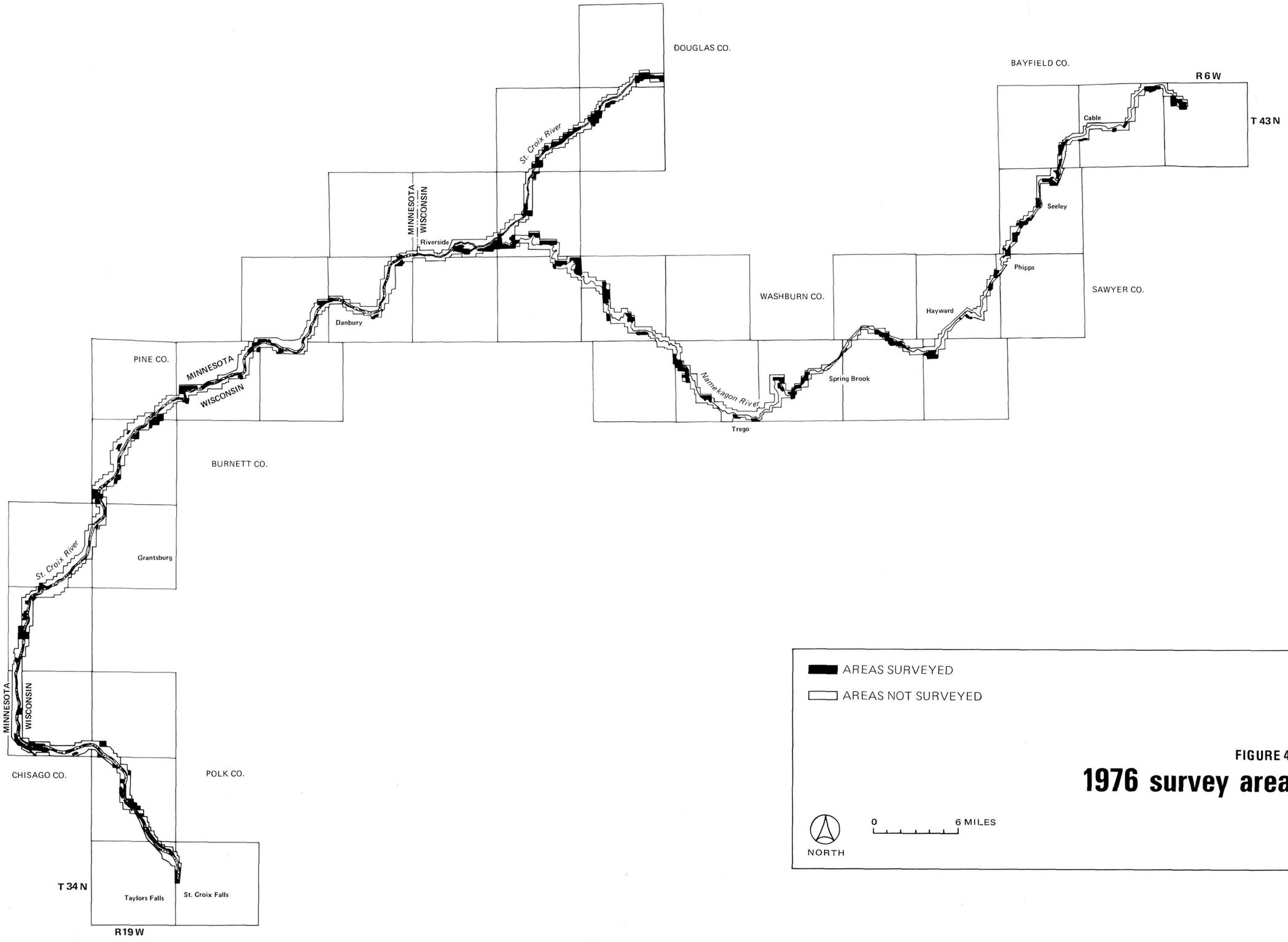
STUDY METHODOLOGY

Immediately after the contract was received by Commonwealth, the project team began work on background studies and survey preparation for the St. Croix National Scenic Riverway. The project team was comprised of a botanist, biologist, geologist, graphics coordinator and the five members of the Cultural Resources staff. The botanist, biologist and geologist conducted background studies within their disciplines. These background studies provided input for delineation of environmental variables for the environmental stratification of the St. Croix and Namekagon Riverway areas. Information from these investigations has been summarized in the environmental background portion of this report.

Woolworth Research Associates, and John Hackett, historian with the Minnesota Historical Society, were contacted to obtain site location information in the Minnesota State Archeological site files, and background study information on the Minnesota portion of the riverway survey area, Dr. Joan Freeman, Wisconsin State Archeologist, and Rick Dexter, Historical Archeologist, both with the Wisconsin Historical Society, were contacted for similar information on the Wisconsin portion of the riverway study area. The Midwest Archeological Center was contacted to discuss project procedures and obtain detailed project maps of the study area.

From the environmental background studies seven soil associations (Hole 1974 and Arneman 1963), five vegetation (Kuchler 1964) types and two climatic zones (National Atlas 1970), were identified. These variables were found to overlap into 18 different environmental subregions (Table 1). A 20 percent sample of each of these zones was scheduled to be surveyed during the 1976 field session. This sampling area had to be adjusted to include a field examination of each of the sites recorded in the state archeological site files, the listing of classified structures provided by the Midwest Archeological Center, and any reported by reliable informants during the field work. Only those lands where permission was given to survey were surveyed by the field parties. These included those lands in public ownership, those in ownership by Northern States Power, and those in private ownership where permission to survey was given. As a result, it was not possible to sample a full 20 percent of some areas although a 20 percent sample was taken for the entire project area (Figure 4).

Mr. Gustaf Hultman, Superintendent of the St. Croix National Scenic Riverway, provided a set of 1:660 maps (referred to in this report as segment maps) of the entire Upper St. Croix Riverway system. These maps depict roads, some trails and buildings, property boundaries, ownership and land acquisition status. These maps were used with the 7 1/2 minute and 15 minute USGS topographic maps as base maps for the field survey.



AREAS SURVEYED

AREAS NOT SURVEYED

NORTH

0 6 MILES

FIGURE 4

1976 survey area

TABLE 1

ENVIRONMENTAL SUBREGIONS

Region	Soil Type	Vegetation	Climate
1	Region G	Northern hardwoods	-120*
2	Region G	Great Lakes pine	-120
3	Region H	Great Lakes pine	-120
4	Region H	Northern hardwoods	-120
5	Region H	Conifer bogs	-120
6	Milaca-Chetek	Great Lakes pine	-120
7	Chetek-Onamia	Great Lakes pine	-120
8	Region H	Great Lakes pine	-120
9	Chetek-Onamia	Maple-basswood	-120
10	Region H	Maple-basswood	-120
11	Region J	Maple-basswood	-120
12	Region H	Maple-basswood	+120**
13	Chetek-Onamia	Maple-basswood	+120
14	Region H	Northern floodplains	+120
15	Chetek-Onamia	Northern floodplains	+120
16	Region F	Maple-basswood	+120
17	Hayden	Maple-basswood	+120
18	Region G	Maple-basswood	+120

*Less than 120 frost free days per year
**More than 120 frost free days per year

Permission to survey as many acres as possible was obtained before fieldwork began. This saved countless hours of contacting property owners in the field. The riverway is composed of 62,844.18 acres. Of this total, 15,167.80 acres are publicly owned; 22,732.11 acres will be donated by Northern States Power Company; and 47,676.38 acres are privately owned. The latter are currently being acquired and status is being converted from private to public ownership. Permission to survey those acres still owned by Northern States Power was given by Mr. Jerry Anderson of that company. No permit is required for permission to survey land owned by the state of Minnesota. This land, as well as all land already acquired by the National Park Service from private ownership was also accessible.

The state of Wisconsin requires permits for archeological survey on any state-owned land. Segment maps were checked and ten parcels of Wisconsin state-owned land were selected for survey. Applications-for-permit-to-survey forms were complete and submitted to Dr. Joan Freeman. None of the archeological sites on the state files were located on state-owned land. Selections of parcels was based entirely on the environmental stratification and accessibility in the field. Permission to survey the remaining acres was obtained from private landowners during the field survey.

Field survey was conducted during two sessions. The first session occurred during August and consisted of four archeologists working in teams of two. Each team consisted of one individual with specific background specializations in prehistory and one in history. Each team was fully equipped with a field vehicle and other necessary field equipment. During the August session, field headquarters were established at Trego, Wisconsin. From this centrally located base, one team surveyed the Namekagon Riverway from Namekagon Lake west to Trego. The second team surveyed the Namekagon Riverway from Trego, west to its conjunction with the St. Croix River, and along the St. Croix River from Gordon, to Grantsburg, Wisconsin. During the second session, which occurred in September, only one team conducted field work. Field headquarters were established at Balsam Lake, Wisconsin, and the party surveyed the remainder of the St. Croix Riverway from St. Croix Falls to Grantsburg, Wisconsin.

The objectives of the 1976 field survey were to relocate all known sites and to survey a random 20 percent sample of each major subregion identified from environmental variables described in the background studies. Site descriptions for 26 archeological sites identified in the Listing of Classified Structures were furnished by the Midwest Archeological Center, National Park Service. Each of these sites was visited. If the site could not be relocated, attempts were made to check locations with local

informants. Only sites which could be identified in the field were inventoried. The state site files were checked and recent additions to the files were added to the list of known sites to be field checked. In addition, three local informants each maintain an inventory of archeological sites in the riverway. Brad Keshlear and Arnie Long are both National Park Service rangers. Each, through their own interests and initiative, has compiled a list of sites, most of them historical, that exist within the riverway. Mr. Eldon Marple is a local historian, recognized locally for his expertise and publications on the history of the Namekagon River area. Mr. Marple shared his information with us and provided additional site locations which were also field checked. All sites identified by other informants, such as property owners and park personnel, were field checked.

Each site, whether it was a relocated known site or a site discovered during the stratified random survey, was inventoried in the same manner. Sites were identified by either the presence of material on the surface, occurrence of features or other unnatural disturbances, or if substantial documentation described a site in an area where no cultural materials or surface feature were observed.

An example of this latter category is the Sioux-Chippewa battle site two miles north of St. Croix Falls, which is documented by state site records and a historical marker. If ground cover prevented visibility a 1 by 1 foot square shovel test was dug every 50 meters along compass transects to locate the site. When materials or features were found, 1 by 1 foot test pits were dug in all four directions from the highest concentration of artifacts. These test pits were extended laterally until cultural material was no longer visible. An archeological site form was completed, photographs were taken, and diagnostic artifacts and chippage were collected.

The archeological site numbering system was based on ownership tracts mapped on the segment maps. For example, 18-117-2 refers to the second site found in Tract 117 (ownership and size in acres are listed on each segment map) on segment map Number 18. This system should facilitate locating sites on the maps, adding new sites in sequence and checking on ownership status with the St. Croix National Scenic Riverway office in St. Croix Falls, Wisconsin.

The random stratified survey area was surveyed at 50 meter intervals. Each person surveyed 50 meters apart, digging a 1 by 1 foot test pit every 50 meters in areas of poor ground visibility. In wooded areas, compass transects were employed.

All open areas such as roads, trails, tree falls and stream banks were also checked. When a site was found, it was inventoried as previously described.

Field conditions for the 1976 field survey were unusually dry. This proved to be beneficial, as swampy areas, which are usually too wet to survey, were dry and accessible. The water level in the St. Croix and Namekagon Rivers was far below average and features associated with logging activities were easily visible. Wing dams, remains of log dams, sluices of water mills and bridge footings were all easily identified. The low water levels did restrict canoeing activities in some areas which were more easily accessible by water than by roads.

CHAPTER 6

SITE DESCRIPTIONS

Site No. 01-110-1

Site no. 01-110-1 is located in Bayfield County, Wisconsin, T43N, R6W, and and within Section 8, SE 1/4 NW 1/4 (Figure 5). The site is located on the north side of the junction of the Namekagon River and Namekagon Lake. The site area consists of the remains of a former logging camp and logging dam. Two building depressions, possibly associated with the logging camp, were located, along with a refuse mound. In addition to these, the remains of a wood logging dam, possibly contemporaneous with the camp area, was located under the existing Town Road 2-12 bridge across the Namekagon River. These remains consist of rotten square cut logs held together with heavy metal spikes. Site size is approximately 396 feet east to west by 330 feet north to south (130,680 sq. ft.).

Cultural material recovered included horseshoes, metal spikes, spoons and ceramics (Figure 6d, f and g). All material dated to the late nineteenth and early twentieth century.

Site elevation is 1,400 feet with a red pine and aspen vegetation cover with light brown sandy soils. The majority of the site has been destroyed by borrow pit activities and it is unlikely that further research would recover any significant information relative to the understanding of the complex historical sequence for the St. Croix Scenic Riverway. Therefore, the site should not be considered to be eligible for the National Register.

Site No. 03-132-1

Site no. 03-132-1 (Telemark Logging Dam) is located in Bayfield County, Wisconsin, T43N, R7W and within Section 16 SW 1/4 SE 1/4 and Section 22 NW 1/4 NE 1/4 (Figure 5). The site is located under the present day Telemark Bridge on Town Road 35-11. The site area consists of the remains of a former logging dam. These remains consist of the original logs and numerous spikes. The site has been partially destroyed by the construction of the present Telemark bridge. The remains run north-south for approximately 70 feet and across the Namekagon River. Site elevation is 1,330 feet.

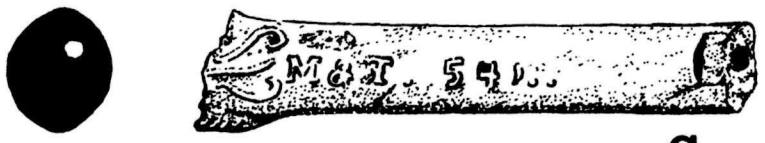
No cultural material was found to be associated with the dam remains, and the recovery of significant information through further research is unlikely. Therefore, this site is not deemed worthy of National Register Status.

Map has been removed from the electronic edition in an effort to protect sensitive cultural resources.

FIGURE 6

EARTHENWARE BOTTOM MARKS AND
CLAY PIPE STEMS

	Site No.	Description
a.	6-145-1	Clay pipe stem fragment
b.	6-145-1	Clay pipe stem fragment
c.	36-107-2	Pitcher fragment, American producer
d.	1-110-1	Dinner plate fragment
e.	26-114-1	Earthenware fragment, Mfg. at Mt. Clemens Pottery Company of Mt. Clemens, Michigan
f.	1-110-1	Bowl fragment, Steubenville Pottery Company in Ohio
g.	1-110-1	Platter fragment, Mfg. at Laughlin Potter of East Liverpool, Ohio



a



b



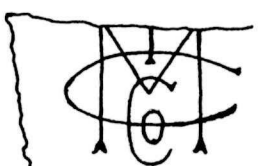
c

MADE IN U.S.A.
633



d

EDWIN M. KNOWLES
CHINA CO
20-2-3
PATENTED



e

MADE IN U.S.A.
1234R

STEUBENVILLE
CHINA f

HOMER LAUGHLIN g

MADE IN U.S.A.
J4N

FIGURE 6

earthenware bottom marks and clay pipe stems

Site No. 04-133-1

Site no. 4-133-1 (Radloff Water Mill) is located in Bayfield County, Wisconsin, T43N, R7W and within Section 19 SW 1/4 SW 1/4 (Figure 7). This site is the area of the remains of the Radloff Water Mill; all traces of the mill structure are gone. The sluice and part of the dam, both constructed of stone cobbles, are still intact. No cultural material was found to be associated with this site.

Site elevation is approximately 1,300 feet with a scrub and mixed hardwoods vegetation cover. Site size is approximately 10,500 sq. ft., 210 feet east to west, 50 feet north to south. This site can be tentatively dated to the early twentieth century (ca. 1910).

Based on the existing materials, it is felt that additional research, including test excavation, would produce valuable information necessary to the understanding of the early industrial development along the Namekagon River. This site, therefore, could be considered eligible for the National Register.

Site No. 04-133-2 (Radloff Steam Mill)

The Radloff Steam Mill, site no. 4-133-2, is located in Bayfield County, Wisconsin, in T43N, R7W, Section 19, SW 1/4 SW 1/4 (Figure 7). This site is in the area of the Radloff Steam Mill and log driving camps. The remaining stone foundations which supported the steam engine are still present. Piles of stone and deep depressions occur throughout the site area. No cultural material was found to be associated with this site.

Site elevation is approximately 1,310 feet with rocky, sandy, loam soil. Present use of the site is pasture with no widespread evidence of agricultural disturbances. Site size is approximately 300 feet east to west and 240 feet north to south (72,000 sq. ft.). Based on historical research, this site can be tentatively dated to 1911.

Further investigation of this site through historical research and test excavation will provide valuable information important to the understanding of the early industrial development along the Namekagon River. Therefore, this site should be considered eligible for the National Register.

Map has been removed from the electronic edition in an effort to protect sensitive cultural resources.

Site No. 04-150-1 (State Site No. 47BA4)

Site no. 04-150-1 is located in Bayfield County, Wisconsin, in T43N, R8W, Section 24, SW 1/4 SW 1/4 (Figure 7). This site is listed in the Wisconsin State Archeological site files, housed at the Historical Society of Wisconsin, as an "Archaic site on the Namekagon River, on the north side of some small rapids west of Highway 63." Field survey of the area described determined that most of it falls outside the proposed boundaries of the National Scenic Riverway. No cultural material was located, but this was attributed to the heavy vegetation overgrowth and the impossibility of contacting the present tenants for permission to conduct shovel testing for a determination of exact locations. The Wisconsin Historical Society has reported side-notched projectile points from this site. Site elevation is approximately 1,300 feet with rocky, brown, sandy soils. Present vegetation cover consists of grass and a thick overgrowth of scrub vegetation. Site size is indeterminate.

Further research or documentation is necessary before a determination can be made as to the possibility of this site containing significant information relative to the understanding of the cultural chronology for the Namekagon River area. Further investigation is necessary to determine exact site parameter and temporal placements. This site should be considered to be potentially of National Register quality.

Site No. 04-153-1

Site no. 04-153-1 is located in Bayfield County, Wisconsin, T43N, R8W, Section 26 NE 1/4 NE 1/4 (Figure 7). This site consists of the remains of a house and barn probably dating to the early twentieth century. The house site itself appears to be destroyed, but the barn foundations are intact. Cultural material recovered from the site area included ceramics, clay pipe bowl fragments and horseshoe nails.

Site elevation is approximately 1,300 feet with light brown, sandy soils. Present use of the site is a hayfield. The site does not appear to be heavily altered or disturbed by agricultural activities. Site size is about 135,000 sq. ft., 450 feet east to west and 300 feet north to south.

Further investigation of this site including historical documentation and test excavations are likely to yield significant information necessary for the understanding of the historic occupational sequence for the Namekagon River area. The site should be considered to be eligible to the National Register.

Site No. 4-161-1 (Big Brook Landing)

The Big Brook Landing site is located in Bayfield County, Wisconsin, T43N, R8W, Section 26 SW 1/4 NE 1/4 (Figure 7). Mrs. Miller (Appendix A) describes this as being homesteaded by James and Clara Welch who worked at the lumber camp in 1894. The site was owned by F. H. Drummond of the Ross-Owen Lumber Company. The camp consisted of a cook house and bunkhouse, as well as a wannigan which was anchored at the mouth of Big Brook prior to logging runs. Immediately below the existing Miller house is a grade where the railroad once crossed the river on a trestle and continued downstream to Squaw Bend. No evidence of the trestle remains. The majority of the site area itself has been destroyed by modern house construction and no cultural material was collected.

Site elevation is approximately 1,300 feet with light brown, sandy soils. Present vegetation cover consists of grass and some mature white pines with scrub vegetation bordering the river. Site size is about 150,000 sq. ft., 500 feet east to west and 300 feet north to south.

As a result of the destruction by construction activities on the majority of the site area, further historical documentation or test excavation is unlikely to uncover significant information important to the understanding of the historical sequence for the Namekagon River area. Therefore, this site should not be considered eligible for the National Register.

Site No. 04-167-1

Site no. 04-167-1 is located in Bayfield County, Wisconsin, T43N, R8W, Section 26 NW 1/4 SE 1/4 (Figure 7). This is a possible house site located along the margins of a faint track leading to the river. Artifacts were found in the path and around a collapsed shed or outbuilding, which marks the site. Nondiagnostic cultural material observed but not collected from the area includes stoneware, metal and glass fragments. A temporal classification based on the material is indeterminate, but the site likely dates to the early twentieth century.

Site elevation is approximately 1,290 feet with rocky, light brown, sandy soil. Vegetation is grass with some immature birch and scrub secondary growth. Site size is about 50 feet by 50 feet (2500 sq. ft.).

The possibility of uncovering significant information through further testing or research of this site is highly unlikely and it should not be considered important to the understanding of the historical sequence or occupation of the Namekagon River area. Therefore, the site should not be considered as being eligible for the National Register.

Site No. 05-112-1

Site no. 05-112-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 2 SE 1/4 NW 1/4 (Figure 7). This site is composed of a house outline and cellar depression located on the west site of a peninsula of land on the shore of Pacwawong Lake; the Namekagon river lies directly east of the site. Mr. Gil Rasmussen (Appendix A), the former owner and present tenant, informed the field party that this was the former house of a Mr. Ed Anderson. In addition, Mr. Rasmussen can remember, as a child, Chippewa Indians camping and collecting all around Pacwawong Lake. Extensive shovel testing within the vicinity of the depression produced no cultural material dating to the historic or prehistoric period.

Site elevation is approximately 1,290 feet with gray sandy soils. Present vegetation is mature white pine and mixed hardwoods. The size of the depression is 12 by 16 feet with associated site area indeterminate. It is likely that this site dates to the early twentieth century period.

Further testing and documentation is necessary to determine the likelihood of this site producing significant information relative to the understanding of the early settlement sequence for the Namekagon area. This site should be considered eligible for the National Register.

Site No. 05-126-1

Site no. 05-126-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 2 SE 1/4 NW 1/4 (Figure 7). This site is a structural depression measuring 15 by 15 feet located on the southern tip of a peninsula of land with Pacwawong Lake to the west and the Namekagon River to the east. Mr. Arthur Thompson (Appendix A), father of the present owner, has located logging chains, horseshoes, files and other miscellaneous artifacts from this site by using a metal detector. The depression itself is partially covered by balsam spruce, with little visibility. No cultural material was collected from the area at the request of Mr. Thompson. It is felt that this site dates to the early twentieth century and was probably associated with the lumbering industry.

Site elevation is 1,270 feet with gray sandy soils. Present vegetation consists of mature white pine and mixed hardwoods. The site size associated with the extant depression is indeterminate.

Further testing and historic documentation is necessary to determine the likelihood of this site producing significant information necessary to the understanding of the settlement or be considered worthy of the National Register until further investigations prove otherwise.

Site No. 05-136-1

Site no. 05-136-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 3 SE 1/4 NE 1/4 (Figure 7). This is the area of a reported Chippewa village and cemetery. Lois Nestle of the Cable Natural History Museum (Appendix A) reports a local farmer plowed over and destroyed a burial site here. Mr. James Moustache (Appendix A), local Native American, confirmed the locations of this site at Pacwawong Lake and indicated that it stretched from the present "boat launch" to the second bay to the northwest. Mr. Moustache said that the village was abandoned ca 1909-1910 when he was five or six years old.

This village is located on the David Dale Owens map of the Chippewa Land District of 1847. Field survey of the publicly owned property (boat launch and road) yielded one bifacial fragment (Figure 8d), through random shovel testing and detailed examination of the existing road bed. This survey did locate possible claws and bones in association with charcoal eroding out of road cut on the northwest edge of the boat launch area. Survey of the area to the west, a large hayfield, proved negative, although testing was limited because of private ownership. No cultural material was located that could be considered to be associated with the reported Chippewa village and cemetery.

Site elevation is approximately 1,290 feet with light brown sandy soils. Present vegetation includes grass, hay and immature pine trees. Site size is, at a minimum, 650,000 sq. ft., 1300 feet north to south and 500 feet east to west.

Further testing and historic research is necessary to accurately locate the village. This site has the potential of producing significant information necessary to understand the historical sequence for the Namekagon River area. The site should be considered eligible for the National Register.

Site No. 05-137-1 (Pacwawong Dam Ruins)

The Pacwawong Dam ruins site no. 05-137-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 3 NE 1/4 SE 1/4 (Figure 7). This site is located at the extreme western portion of Pacwawong Lake at the point where the lake flows into the Namekagon River. The site itself consists of numerous square cut logs and square spikes stretching across the river (40 feet) and

FIGURE 8

CHIPPED STONE

	Site No.	Description
a.	36-107-3	Gun Flint
b.	36-107-2	Gun Flint
c.	21-135-1	Quartzite, triangular, concave base projectile point
d.	5-136-1	Felsite Biface
e.	21-115-1	Flint, humpbacked, triangular, projectile point
f.	52-106-1	Retouched bipolar core

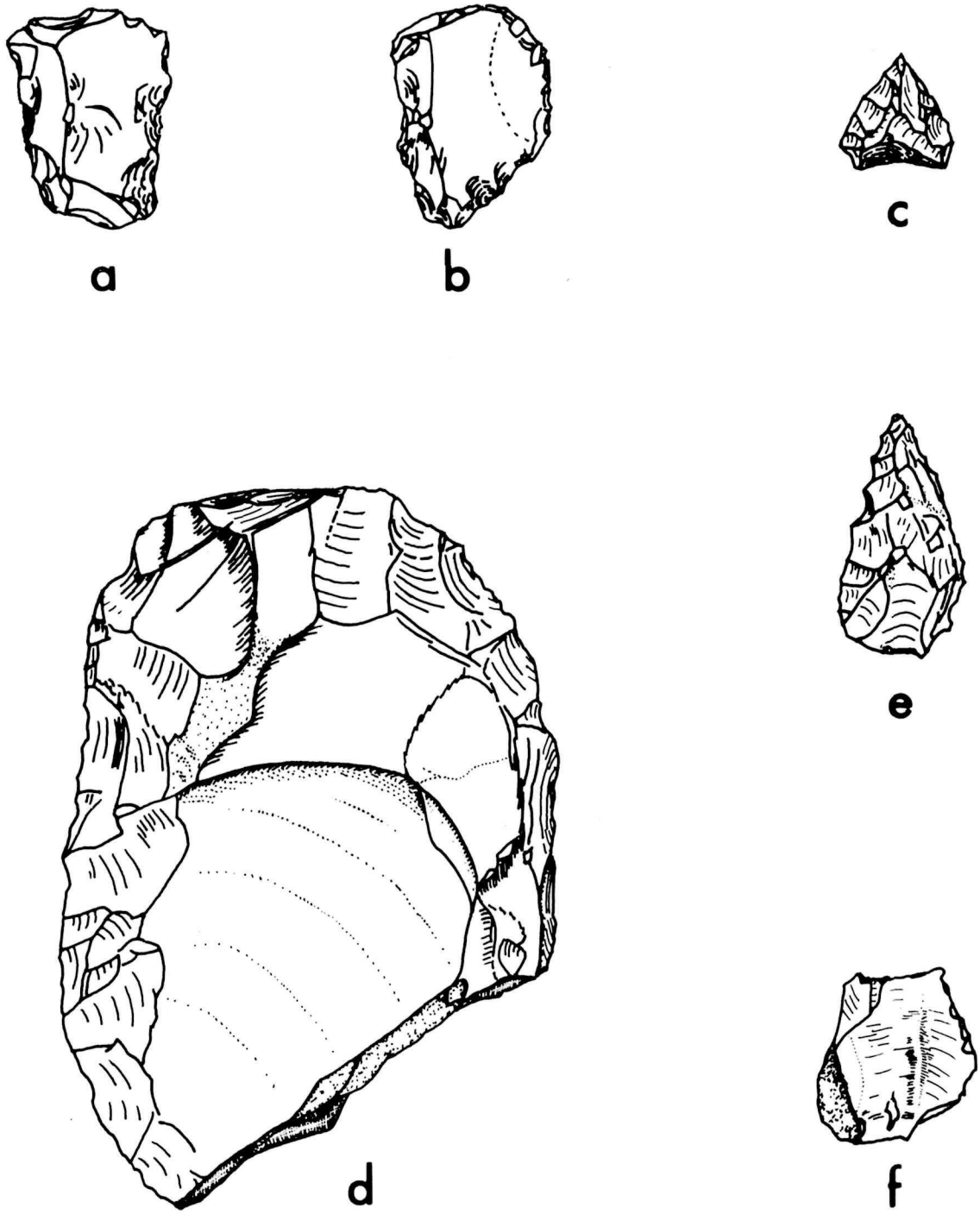


FIGURE 8

chipped stone

down the river for approximately 50 feet (2,000 sq. ft.). No cultural material was collected from the site area or found to be in direct association with the dam ruins. From the existing, material the dam could not be dated, but is is expected to date to the early twentieth century.

Site elevation is approximately 1,220 feet and lies within the Namekagon River. Further investigations of this site is unlikely to yield any additional information about the early occupational or industrial development along the Namekagon River. Therefore, this site should not be considered eligible for the National Register.

Site No. 05-139-1

Site no. 05-139-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 3 NE 1/4 SW 1/4 (Figure 7). Local informants, Eldon Marple and A. Long (Appendix A), informed the field party of the possibility of six mounds in this area. Field survey of the area located two possible burial mounds; both measure approximately 15 feet in diameter and three feet high. Extensive shovel testing in the immediate area of the mounds failed to produce any cultural material that could be considered to be associated with the mounds.

Site elevation is 1,280 feet with light brown sandy soils. Present vegetation is a permanent hayfield. This site does not appear to be heavily disturbed by agricultural activities.

Further documentation is necessary in order to determine the likelihood of these possible mounds producing significant information necessary to the understanding of the prehistoric cultural continuum for the Namekagon River area. This site should be considered eligible for the National Register.

Site No. 06-145-1 (Doran's Crossing and Lumber Camp)

Doran's Crossing and Lumber Camp, Site no. 06-145-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 21 SE 1/4 NE 1/4 NW 1/4, NE 1/4 SE 1/4 NW 1/4, and SW 1/4 NW 1/4 NE 1/4 (Figures 9 and 10). This site is situated on the southeast bank of the Namekagon River with light brown sandy soils. Site elevation is 1,250 feet with present vegetation consisting of short pasture grass.

An intensive field survey of this area resulted in the location of what is believed to be the Doran's Lumbering Camp. The outline of four structures are still visible along with cellar depressions within two of the structures. A mounded area

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located in the center of these depressions is trenched on all sides. North and east of these structures is a disturbed area where additional structures could occur. The entire area appears to be heavily disturbed by local collectors who appear to be working with metal detectors. These structural remains are spread out over an area 800 feet northeast to southwest by 450 feet northwest to southeast (360,000 sq. ft.).

Cultural material recovered from the vicinity of these structural depressions include historic ceramics, clay pipe stem fragments, kerosene lantern parts and various metal items and vessel glass fragments (Figure 6 a. and b.). These recovered materials can be dated to the 1850-1890 period.

Additional research at this site, including test excavations, is likely to produce significant information that could prove useful in the understanding of the historic and occupational sequence for the Namekagon River area. Therefore, this site should be considered eligible for the National Register.

Site No. 06-153-1

Site no. 06-153-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 20 NE 1/4 SE 1/4 (Figure 10). This site is situated on the north bank of the Namekagon River and includes a house foundation and dam embankment. This presumed house foundation measures approximately 15 by 25 feet with wooden lintels and fieldstones still in place. In addition, evidence of a rock dam was found in the river, directly south of the foundation. Limited shovel testing in the area of the structural remains failed to produce any cultural material. Historical research showed that most of T42N, R8W was purchased by a David Tozer from the St. Croix Dam and Boom Company in the 1880's. The St. Croix Dam and Boom Company between 1870 and 1887 built 19 dams on the St. Croix and its branches. It is possible that this site is one of these dams.

Site elevation is 1,250 feet with brown, gravely sandy soils. Present vegetation consists of a mixture of a red pine plantation and permanent pasture.

Further historical documentation and test excavations are necessary to determine the amount of significant cultural materials likely to be recovered through extensive excavations. This site should be considered eligible for the National Register until further testing has proven otherwise.

Site No. 06-180-1

Site no. 06-180-1 is located in Sawyer County, Wisconsin, T42N, R8W, Section 29 SW 1/4 SW 1/4 (Figure 10). This consists of the remains of a rock and log dam. Approximate size is 70 feet east to west by 20 feet north to south. An extensive survey of the surrounding area produced no cultural material that could possibly be associated with the dam remains. As a result, no temporal classification could be determined.

The site itself is located in the Namekagon River with a bank elevation of approximately 1,250 feet. Present vegetation cover is mixed pine with gray, sandy soils.

Further investigation of this site is unlikely to yield significant information needed for the understanding of the historic or industrial sequence for the Namekagon area. This site is not considered to be eligible for the National Register.

Site No. 07-125-1

Site no. 07-125-1 is located in Sawyer County, Wisconsin, T41N, R8W, Section 6 NE 1/4 NW 1/4 (Figure 10). This site is the location of a possible prehistoric campsite located on the Phipps Flowage above the existing Phipps Dam. Cultural material recovered through surface collection and limited shovel testing included two quartzite flat flakes, one quartzite blocky decortication flake, two basalt flat flakes and numerous fire-cracked rock. Based on the existing environmental situation of this site, it appears to be associated with wild rice exploitation. This site appears to fit criteria for a small campsite situated in an ideal location for the utilization of a specific resource.

This site is located on a small peninsula of land on the northern edge of the Phipps Flowage, at 1,220 feet elevation. Present vegetation appears to be second growth aspen with gray gravely sandy soils.

Extensive testing or excavation at this site is likely to uncover significant information necessary to the understanding of prehistoric occupation and exploitation of the Namekagon area. This site should be considered to be eligible for the National Register.

Site No. 07-154-1 (Phipps Dam)

The Phipps Dam site, site no. 07-154-1, is located in Sawyer County, Wisconsin, T41N, R8W, Section 6 SW 1/4 SW 1/4 (Figure 10). The Phipps Dam site is the site of the rock and log remains of a logging dam. McClure's map of 1879 shows this to be the Little Pucway Dam No. 1, probably built by the Namekagon and

Togtagic Dam Company in 1868 which become part of the St. Croix Dam and Boom Company in 1872. At the time of the field survey, the property containing this site was in private ownership and access was denied. Access was accomplished by canoe and site evaluation was undertaken. The remains of the dam measures approximately 80 feet north to south by 35 feet east to west (2,800 sq. ft.).

Flowage elevation at the dam remains at approximately 1,221 feet with the area presently being used as a public portage on now private lands. Public use of the dam site does not appear to be causing any significant damage to the site itself.

This site is a very good example of a logging dam dating to the 1860's period. The dam is in a relatively good state of preservation and should be considered as a very good example of a logging dam. Therefore, this dam should be considered as being eligible for the National Register.

Site No. 07-155-1

Site no. 07-155-1 is located in Sawyer County, Wisconsin, T41N, R9W, Section 12 NW 1/4 NE 1/4 (Figure 10). This is a house site that is located on the Hayward, Wisconsin Quadrangle. Field survey of the area uncovered late nineteenth century ceramics located on a slight rise above the Namekagon River. No evidence or surface features showing the location of the structure could be located. Cultural material was located over an area 200 feet north to south by 250 feet east to west (50,000 sq. ft.).

Site elevation is 1,220 feet with light brown, sandy soils. Present vegetation consists of a heavy grass cover with some mixed pine forest cover.

Further excavation or historical documentation is unlikely to result in the recovery of significant information important to the understanding of the historical occupation of the Namekagon River area. This site should not be considered eligible for the National Register.

Site No. 11-119-1

Site no. 11-119-1 is located in Sawyer County, Wisconsin, T41N, R9W, Section 27 NE 1/4 NW 1/4 within the confines of the present city of Hayward (Figure 10). This site is the area of a possible prehistoric campsite of indeterminate temporal classification. The known area of the site is restricted to a vegetable garden located behind the John O. Larson house. Field survey of the area produced chippage of both felsite and quartzite; no testing of the area was made because of private ownership. The

majority of the site area appears to be greatly disturbed by the urban development of the Hayward area.

Site elevation is approximately 1,190 feet with light brown to gray sandy soils. Present vegetation consists of the vegetable garden and lawn.

Further investigations, including test excavation, are necessary to determine the likelihood of recovering significant undisturbed prehistoric material important to the understanding of the cultural sequence for the Namekagon River area. This site should be considered as potentially eligible for the National Register.

Site No. 11-176-1

Site no. 11-176-1 is located in Sawyer County, Wisconsin, T41N, R9W, Section 27 SE 1/4 SE 1/4 (Figure 10). This site consists of the pillar supports of a former railroad bridge across Lake Hayward within the confines of the City of Hayward. This bridge was probably used in association with the Hayward Mill located in the vicinity.

Vegetation at the north end of the former bridge is swamp and scrub, and at the south end is urban development. Approximate size of the bridge ranges 440 feet north to south by 20 feet east to west. Average lake elevation is approximately 1,186 feet.

This property is considered locally important to the logging and railroad era in the Hayward area, but further investigation is unlikely to yield any significant information. Therefore, this site should not be considered eligible for the National Register.

Site No. 12-130-1 (Hayward Mill)

The Hayward Mill site no. 12-130-1 is located in Sawyer County, Wisconsin, T41N, R9W, Section 27 SW 1/4 NW 1/4 (Figure 10). This is the site of the Hayward Saw Mill which operated from approximately 1883-1922. The site area is presently occupied by the Lake Superior District Power Company, Electric Generating Station and, except for some remnants of the dam and mill pond, the area is heavily disturbed by urban development. The mill structure itself was reported destroyed in 1922. Field survey of the area failed to produce any cultural material that could be considered to be associated with the mill site itself.

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Because of the extensive modern disturbance of the area, further field investigations are unlikely to produce any significant information needed for the understanding of the industrial development of the Hayward area. This site should not be considered eligible for the National Register.

Site No. 13-155-1

Site no. 13-155-1 is located in Sawyer County, Wisconsin, T40N, R9W, Section 7 SW 1/4 NE 1/4 (Figure 13). This is the site of the remains of a logging dam or bridge. The remains consist of numerous logs and rocks held together by large metal spikes. The remains are restricted to the north bank of the river. This is probably one of numerous small dams or bridges built during the logging period of the Namekagon River. The site is located on property now owned and occupied by the Boy Scouts of America.

Surface elevation of the site is approximately 1,150 feet with low swamp scrub vegetation bordering the river on both sides.

These ruins, located in the Namekagon River are in a very poor state of preservation and the potential for the recovery of further information is very low. Therefore, this site should not be considered eligible for the National Register.

Site No. 13-179-1 (Cadotte Trading Post)

The Cadotte Trading Post site no. 13-179-1 is located in Sawyer County, Wisconsin, T40N, R9W, Section 7 SE 1/4 SW 1/4 NE 1/4 and SW 1/4 SE 1/4 NE 1/4 (Figure 13). This site is the reported site of Michel Cadotte's North West Company wintering post of 1784 on the Namekagon River. The site is located on what appears to be the remains of the Namekagon to Court Orveilles Portage Trail. Local informants, Mr. Tony Wise and Mr. Eldon Marple (Appendix A) both report this as Cadotte's site. The building depression itself, 37 feet east to west by 32.5 feet north to south, shows widespread disturbance by previous excavation. Numerous shovel tests of the disturbed areas failed to produce any cultural material.

Mr. Tony Wise is reported to have in his possession the materials that were supposedly recovered from this site. The field crew did not examine this material or make a determination of its authenticity.

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The Cadotte site is located on light brown, sandy soils at a 1,150 feet elevation with a mixed aspen and pine vegetation cover.

The site area shows widespread disturbance by previous excavation and further testing is unlikely to yield large quantities of significant information. Test excavations are needed to determine if any part of the site is in fact undisturbed. This site should be considered to be eligible for the National Register.

Site No. 14-144-1

Site no. 14-144-1 is located in Washburn County, Wisconsin, T41N, R10W, Section 34 SW 1/4 NE 1/4 SE 1/4 (Figure 13). This site consists of a cellar depression 5 by 20 feet and a dump site contained within the fieldstone walls of a former barn. The site appears to be a farmstead situated in a former agricultural field that has not been farmed for 20-25 years. Cultural materials recovered included historic ceramics, glass fragments and window glass dating to the early twentieth century, ca. 1910-1920.

Site elevation is approximately 1,140 feet with dark brown sandy soils. This site appears to be one of many early twentieth century farm sites in the area and exists in an archeological context. There is little probability that further testing would uncover significant material necessary to the understanding of the historic sequence in the Namekagon area. Therefore, this site should not be considered eligible for the National Register.

Site No. 14-164-1 (Stinnett Logging Camp and Dam)

The Stinnett Logging Camp and Dam site no. 14-164-1 is located in Washburn County, Wisconsin, T41N, R10W, Section 35 SW 1/4 SW 1/4 (Figure 13). This is the site of the former Stinnett Logging Camp and Dam site located on the Chicago-St. Paul Minneapolis and Omaha Railroad in 1901. McClure's map of 1879 shows a dam located here, Hanscom Dam, probably built by the St. Croix Dam and Boom Company after 1870. The 1881 Atlas shows the town of Stewart located in T41N, R10W, Section 35 on the railroad line. Stewart and Barker were partners in the St. Croix Dam and Boom Company after 1872. The land is presently occupied by Mrs. Virginia Buckman (Appendix A) who has never noticed any historic cultural material. Field survey of the area failed to locate any structural depressions or cultural material. An intensive survey including shovel tests was limited by the

presence of Mrs. Buckman's house and yard. Mrs. Buckman remembers the camp from 50-60 years ago, when her father worked at the lumber camp. The remains of the dam, consisting of log pilings, are located about 100 yards east of the camp in the Namekagon River.

Site elevation is approximately 1,140 feet with light brown sandy soils. Present vegetation is a combination of domestic grasses, birch and oak.

Further investigation of the Stinnett Logging Camp is likely to produce significant information that would be important to the understanding of the lumbering era of the Namekagon area. The site should be considered to be eligible for the National Register.

Site No. 16-149-1

Site no. 16-149-1 is located in Washburn County, Wisconsin T40N, R11W, Section 15 SE 1/4 SW 1/4 (Figure 14). This area consists of a historic dump site located along both sides of a logging road on the east side of the Namekagon River. Cultural material present in the dump included scrap enameled/tinware, broken white paste ceramic, German glass bottle fragments and jug fragments with "Western Stoneware Company," in oak leaf. The material was probably associated with a former house or logging camp dating to the 1920-1940 period. Materials were noted but not collected. An extensive field survey in the surrounding areas failed to locate any structural remains or depressions.

Site elevation is approximately 1,070 feet with light brown, sandy soils. The present vegetation is a mixture of immature hardwood and pine. The area shows extensive evidence of lumbering in the past including a clear-cut area not far to the northwest.

Little significant information could be gained through further investigation of this site. This site should not be considered as being eligible for the National Register.

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Site No. 18-117-1

Site no. 18-117-1 is located in Washburn County, Wisconsin, T40N, R12W, Section 36 SE 1/4 SE 1/4 (Figure 15). This area is the site of a possible prehistoric campsite of indeterminable temporal classification. Mrs. Buttenhoff, the present tenant and former owner (Appendix A), has located prehistoric material in a field adjacent to this site outside of the study area. An intensive field survey of the area, including limited shovel testing, produced five pieces of chippage, three quartzite flat flakes and two flint flat flakes. No additional prehistoric features or cultural material were located. This site is located adjacent to Site no. 18-117-2, the Veazie town site of 1877-1879. The recovered cultural material was restricted to a 600 square foot area.

Site elevation is 1,060 feet with light gray, sandy soils. Present vegetation is a permanent horse pasture with some scrub and swamp vegetation near the river edge.

Extensive shovel testing of the area has failed to produce additional prehistoric material. The likelihood of additional significant material being located by extensive excavation is very low. This site should not be considered eligible for the National Register.

Site No. 18-117-2 (Veazie town site)

The Veazie town site, (site no. 18-117-2) is located in Washburn County, Wisconsin, T40N, R12W, Section 36 SE 1/4 SE 1/4 SE 1/4 (Figure 15). The Veazie lumbering and logging town was founded by Walker, Judd and Veazie Lumber Company of Marine, Minnesota. The town was organized in 1877 and is shown on McClure's map of 1879 extending into both Sections 36 and 1. Veazie became a railroad town around 1880 in Section 36 only on the Chicago, Omaha, St. Paul and Minneapolis Railroad. A post office is recorded for the town of Veazie in 1888. It was also reported by Folsom that 150,000,000 board feet of lumber was produced in the town in 1888. Local informants Henry Hughlett and Ione Buttenhoff (Appendix A) also reported this area to be the site of the town of Veazie which boasted a 26 room log and lumber structure about 30 by 60 feet in size.

An intensive field survey of the area, including shovel testing, failed to locate any structural remains and the only cultural materials located consisted of seven machine-made square nails and three barrel hoop fragments.

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Site elevation is 1,060 feet with light brown, sandy soils. Present vegetation cover is a permanent horse pasture with evidence of widespread agricultural disturbance.

This site should be considered as an important area likely to produce significant information necessary to the understanding of the historic occupation of the Namekagon River. The site should be considered eligible for the National Register.

Site No. 18-117-3 (Veazie Dam Site)

The Veazie Dam site, 18-117-3, is located across the Namekagon River in Washburn County, Wisconsin, T40N, R12W, Section 36 SE 1/4 SE 1/4 (Figure 15). The structural remains of the dam are still present in the river from where the dam was "blown out" in 1901 (Chappelle, 1965). Construction of the dam occurred during the latter part of the nineteenth century. Vegetation in the vicinity of the site consists of mixed hardwoods and pine. The soil is sandy and elevation is 1,050 feet.

The Veazie Dam site is not considered eligible for the National Register. The remains of the dam are in a poor state of preservation and are unlikely to yield any additional significant information.

Site No. 21-115-1

Site no. 21-115-1 is located in Washburn County, Wisconsin, T40N, R12W, Section 18 NE 1/4 NW 1/4 (Figure 15). Prehistoric cultural material was found in a logging road about one-quarter mile from the Namekagon River. The cultural material consisted of one flint projectile point (Figure 8e) and three quartzite flakes. The point is a humpbacked triangular point dating to late prehistoric times.

Test pits (1 sq. ft.) were dug in all four directions from the area where material was found. Charcoal and burned wood were found in one test pit, but no artifacts or chippage. Other test pits in the area indicated the area has been burned over.

The site is situated in a mixed hardwood and pine forest. The soil is brown and sandy with mixed humus. Site elevation is 1,020 feet. Site size is restricted to the area from which material was collected, 20 feet northwest to southeast and 8 feet northeast to southwest (160 sq. ft.).

The site is not considered eligible for the National Register. The little information regarding the prehistoric era

which was recovered from extensive shovel testing does not suggest the likelihood of finding additional information through extensive testing.

Site No. 21-115-2

Site no. 21-115-2 is located in Washburn County, Wisconsin, T40N, R12W, Section 18 NW 1/4 NW 1/4 (Figure 15). The site consists of a surface scattering of six quartzite flakes found in a logging road cut. Extensive shovel testing conducted in all directions from the concentration of chippage produced no additional materials or evidence of a site. A similar concentration of chippage and one projectile point, (Figure 8e) was found in the same road cut 600 feet from 21-115-2. No material was found between the two concentrations. The site is identified as a possible chipping station of indeterminate temporal classification.

Site elevation is 1,020 feet. The area is densely wooded in a mixed hardwood and pine forest. Soil is a brown, sandy loam. Site size is restricted to the road cut area where chippage was found, 10 feet northwest to southeast and 8 feet northeast to southwest (80 sq. ft.).

Site 21-115-2 is not considered eligible for the National Register on the basis that little chippage was found, none was diagnostic and extensive shovel testing produced no additional information.

Site No. 21-135-1

Site no. 21-135-1 is located in Washburn County, Wisconsin, T40N, R12W Section 7 SW 1/4 SE 1/4 (Figure 15). The site is a possible Late Woodland habitation site. One quartzite, triangular, projectile point with a concave base (Figure 8c) was found in a road cut at the base of a hill. Bone fragments, charcoal and two pieces of quartzite chippage were found in pot hunter's excavations at the top of the hill. The area has been heavily disturbed by those excavations; some appear to be quite old and others are recent.

21-135-1 is located on the northwest side of the conjunction of Boyles Creek and the Namekagon River at 1,000 feet elevation. The area is densely wooded with a mixed hardwood forest and a dark sandy soil. The approximate site size is 250 feet east to west and 300 feet north to south (75,000 square feet). This area incorporates most of the hill itself and the southeast side of the hill down to the road.

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Further testing and/or excavations should reveal more information regarding the Late Woodland prehistoric occupation along the Namekagon River. The site is considered, at this time, to be worthy of the National Register.

Site No. 23-137-1

Site no. 23-137-1 is located in Washburn County, Wisconsin, T41N, R13W Section 29 NE 1/4 NE 1/4 NE 1/4 (Figure 18). The site consists of three pieces of chippage, two flint and one quartzite, found in a logging road cut. Evidence that the site might extend beyond the limits of the road cut was found during shovel testing. No other cultural material was found during shovel testing. The approximate site size is 100 feet north to south by 10 feet east to west (1,000 sq. ft.) but exact site limits cannot be determined without further testing.

Site elevation is 980 feet. Site 23-137-1 is located in a road, cut through an area of mixed scrub oak, pine and aspen vegetation and sandy soils.

This site should be considered eligible for National Register nomination but further testing will be required to determine exact site parameters and temporal placements.

Site No. 26-114-1 (Moore's Farm)

Site no. 26-114-1 is located in Burnett County, Wisconsin T42N, R14W, Section 28 SW 1/4 NW 1/4 NE 1/4 and NW 1/4 SW 1/4 NE 1/4, (Figure 18), on the north side of the Namekagon River. The site has been identified as an early homestead associated with lumbering activities. Brad Keshlear (Appendix A) reported the site to the field party and showed them boxes of metal artifacts that had previously been collected from the site. Additional artifacts are on display at the Grantsburg and Trego ranger stations.

During the survey, ceramics and glass were observed in a logging road in the reported area of the site. Materials were collected in fields on both sides of the road. Four depressions, each about 15 x 15 x 5 feet in size, two circular and two rectangular occur on the southwest side of the road between the river and the road. The depressions have been heavily disturbed by excavations. Erosional gullies near the western edge of this site are filled with metal debris including logging hardware such as hooks, chains, large horseshoes, files, rasps and iron rings. A selection of potentially dateable items was collected (Figure 6e).

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The site area extends 700 feet northwest to southeast and 400 feet northeast to southwest (280,000 sq. ft.).

A 20 foot tall stand of red pine plantation growth covers part of the site. One of the depressions is located in the plantation. Closer to the river, the site is covered by a natural regrowth of aspen, birch, scrub and grass. The soils consist of loose sand. Site elevation is 960 feet.

Ceramics from the site date from ca. 1870-1940. On McClure's 1879 map of the St. Croix River Territory, the area of this site is identified as Moore's. A D. R. Moore was a partner in the Shell Lake Lumber Company of Eau Claire, Wisconsin in 1880. This farm is reported to have supplied hay and potatoes for the Shell Lake Lumber Company until 1903. The site does appear to be a long-term occupation site.

The high density of artifacts and the presence of structural depressions indicates that a great amount of information may still be present on early homesteading and logging along the Namekagon River. The site has been considered eligible for the National Register.

Site No. 28-101-1

Site no. 28-101-1 is located in Douglas, County, Wisconsin T43N, R13W, Section 8 SW 1/4 SW 1/4 (Figure 18). The site consists of the remains of a log and stone dam across the St. Croix River in the extreme southwest quarter of Section 8. There was no evidence of any mining activities in the area that could be associated with the dam. Brad Keshlear (Appendix A) reports this site to be a copper mine sluice dam. On the 1879 E. W. McClure map of the St. Croix River, the vicinity of the site area is described as Coppermine Rapids. The site extends 120 feet east to west across the St. Croix River and is 15 feet wide. No artifacts were collected or observed in the field. The elevation of the river at this point is 1,080 feet.

The site area is remote and there is little chance of site destruction other than by natural climatic forces and the river. Further investigation of the site is unlikely to result in the recovery of significant information necessary to the understanding of the industrial or occupational sequence for the St. Croix area. The site should not be considered eligible for the National Register.

Site No. 32-109-1 (Dogtown Village, 47BT49)

Site no. 32-109-1 is located in Burnett County, Wisconsin, T42N, R14W, Section 29 SW 1/4 SW 1/4, Section 31 NE 1/4 NE 1/4

and Section 32 NW 1/4 NW 1/4, at the conjunction of the Namekagon River and Dogtown Creek (Figure 18). This is an historic Chippewa village occupied during the early part of the twentieth century and possibly earlier. Six to eight depressions of various sizes and one structural foundation were found on the south side of the Namekagon River west of Dogtown Creek. Eight depressions and one house depression associated with a root cellar were found on the north side of the Namekagon. Jimmy Moustache (Appendix A) reports that the village extended to the east side of Dogtown Creek, but no evidence of a site was observed there. Artifacts collected from the site consisted of one broken shovel, a broken file, window and bottle glass, brown glaze stoneware and deer bone. The ceramics are dated to the early twentieth century. The site extends over about 40 acres.

Short grass surrounded by aspen and pine plantation forests covers the site area on the south side of the Namekagon River. The north side is covered by a regrowth of mixed hardwoods. The soil is dark and sandy; site elevation varies from 900 to 920 feet.

In 1914, Charles E. Brown reported a Chippewa village site at the mouth of the Namekagon River. The U.T.M. description of 47BT49 places it at the conjunction of the Namekagon and St. Croix Rivers. The field team surveyed this area on both sides of the Namekagon and found no evidence of a Chippewa village. Mr. Jimmy Moustache and John and Marion Dunkley (Appendix A), who are Chippewa, reported that the site of Dogtown Village was located near the conjunction of Dogtown Creek and the Namekagon River. At this location, the field party found evidence of extensive historic occupation. The results of this field survey place the site at the latter location.

This site has the potential of providing significant information relative to the understanding of historic Chippewa occupation in the area and is considered eligible for the National Register.

Site No. 33-101-1

Site no. 33-101-1 is located in Burnett County, Wisconsin, T42N, R15W, Section 25 SE 1/4 SE 1/4 at the conjunction of the St. Croix and Namekagon Rivers (Figure 18). One piece of red transfer print pottery was found in the area. This type of earthenware may be dated pre-1850. However, the fragmentary nature of the specimen prevents a definite date. Mr. A. J. Long (Appendix A) reported that a logging camp was located here. Hersey, Staples and Bean, reportedly of the Stillwater Lumbering Company, bought this land between 1855 and 1860. The logging camp is probably associated with this company.

Site elevation is 900 feet. Vegetation consists of a mixed hardwood and pine forest and the soil is grey and sandy. Site size cannot be determined at this time. Further testing and documentation of this site should uncover significant information important to the understanding of the logging sequence of the St. Croix area. The site, at this time, should be considered eligible for the National Register.

Site No. 35-112-1 (Pansy Landing town site)

Site no. 35-112-1 is located in Burnett County, Wisconsin, T41N, R16W, Section 1, center of the NW 1/4 (Figure 19). This is the site of the former Pansy Landing town. Metal scraps, which appear to be stove parts or ceiling tiles, are scattered over the surface. There are no visible features. The area has been cleared and is now covered in grass. The soil is mixed sand and humus. Site elevation is 960 feet. Approximate site size is 300 feet east to west and 150 feet north to south (45,000 sq. ft).

Mr. Ace Atkinson (Appendix A) is 87 years old and has lived in the area since 1900. He ran the Pansy Landing Ferry, helped build the bridge and remembers the Pansy Landing settlement as having a post office, store, livery barn and saloon. All the buildings were log and until ten years ago, some of the logs were still in place. Now, even the cornerstones are gone. At this time, the site is considered to be eligible for the National Register. Extensive investigation of the town site would probably recover significant information relative to the understanding of early settlements within the St. Croix River area.

Site No. 35-124-1 (Pansy Landing Ferry and Bridge)

Site no. 35-124-1 is located in Burnett County, Wisconsin, T41N, R16W, Section 1 NW 1/4 NW 1/4 (Figure 19). Mr. Chipman and Mr. Ace Atkinson (Appendix A) reported the location of the Pansy Landing ferry and bridge to the field party. This location was confirmed by the presence of the mooring post from the ferry landing on the Wisconsin side of the St. Croix River and rocks and pilings from the bridge in the river. No artifacts were collected. The only evidence of a ferry landing on the Minnesota side of the river was an abandoned road which led to the river. The site extends across the river and is about 100 feet wide. Site elevation is 880 feet.

The area was platted as the town Neshadana for the Lake Superior Railroad in 1856 and was bought by David Tozer in the 1870's for the St. Croix Dam and Boom Company. More documentation and testing is needed on the Pansy Landing ferry and bridge. Mr. Atkinson's information would place the operation of the ferry and bridge construction in the extreme latter part of the nineteenth century and the early twentieth century. The site is considered eligible for the National Register.

Map has been removed from the electronic edition in an effort to protect sensitive cultural resources.

Site No. 36-107-1

Site no. 36-107-1 is located in Burnett County, Wisconsin in the NW 1/4 NW 1/4 of Section 27, T41n, R16W (Figure 19). The site consists of three mounds located on the west side of the Yellow River just before its intersection with the St. Croix River. This general area appears to be one of the more sensitive areas of the National Scenic Riverway in terms of prehistoric occupations. Two other sites were inventoried in this area. Site no. 36-107-2 is described in historical documents as a major Chippewa village. Artifacts were collected from this area during the 1976 survey. Site 36-107-3 was identified near the conjunction of Loon Creek and the Yellow River. This site consists of four mounds. Late Woodland pottery has been identified from this site. The mounds are almost directly across the Yellow River from 36-107-1.

Site No. 36-107-1 is located at a 920 foot elevation in a mixed hardwood and pine forest and sandy soil. Mound No. 1 measures 14 by 10 by 5 feet, is conical in shape and has deep pot hunter's holes in the center. This mound is located just outside the acquisition area for the National Scenic River. Mound No. 2 measures 16 by 14 by 7 feet, is conical in shape and also has deep pot hunter's holes in the center. Mound No. 3 is elongated with the eastern end prominent and the western end grading into ground level. This may be a natural land form and it has not been disturbed.

Mr. Chipman (Appendix A) reported that the mounds were already disturbed when he acquired the property in the 1930's. He has never seen nor heard of artifacts from the mounds or the area surrounding them. These mounds are considered eligible for the National Register. Testing is not recommended due to the potential sensitive nature of burial mounds. The general area and especially site 36-107-2 should be tested and further researched.

Site No. 36-107-2 (49BT48)

This site is located on the south bank of the St. Croix River, east of its conjunction with the Yellow River in Township 41N, R16W, SE 1/4 SW 1/4 of Section 22 (Figure 19). Wisconsin state site files describe this site as an historic Chippewa village, which was substantiated by current residents of the area, many of whom are Chippewa themselves. Visual survey of the site area produced no diagnostic historic artifacts other than one gun flint (Figure 8b) and twentieth century ceramics. A fragment of a white clay pipe stem was also found here, but like the other historic materials, may be associated with historic dumping activities which are evident at the site. Ceramics dating to a post World War I period have also been identified from this site (Figure 6c).

Currently, site 36-107-2 is occupied by several recently constructed houses, a gravel road and vacant lots near an adjacent boat launching area. Search of available cleared spaces produced several items of quartzite chippage, which would tend to extend the dating of this site to the prehistoric period, an argument which is substantiated by the Late Woodland projectile point which was found there by one of the current site residents.

As near as could be determined by surface examinations, site 36-107-2 extends along a slight ridge parallel to the St. Croix, at an elevation of 880 feet. Soil is light, sandy alluvium and vegetation consists of scrubby weeds and grasses.

Several historic references attest to the presence of Indian villages here, as well as fur trading posts. A Folle Avoine Chippewa village was first noted here on the Jonathan Carver map of 1766-1767. Hudson Bay Company records indicate that the first trading post was built here in 1796 by Joseph Duchaine of the North West Company. Subsequent mention of villages and posts at site 36-107-2 are made in 1802 (Nelson), 1803 (Curot), 1804 (Connor), 1820 (Doty) and 1832 (Schoolcraft, Allen and Clary). Other references are made to a village on a ridge, which may be site no. 36-107-3.

This site is considered potentially eligible for the National Register since it was a major historic Chippewa village along the St. Croix and may yield additional evidence of prehistoric occupations and fur trading activities. Testing and further research is needed to substantiate this opinion, despite the fact that this is one of the better-documented sites along the St. Croix.

Site No. 36-107-3

This site was relocated with the aid of local Chippewa residents of Danbury, Wisconsin. It consists of four mounds and a possible burial ground, presumably dating to the Woodland Period. The site is located in T41N, R16W, in the NE 1/4 NW 1/4 of Section 27, on a high ridge overlooking the confluence of Loon Creek and Yellow River (Figure 19). The ridge was called "Pekagunagun" or hip bone by Clary and Schoolcraft, 1831-1832. Nearby sites include sites 36-107-2 and 36-107-1, which may be associated with it.

Four mounds were located by the survey party. Mound 1 is very low and is sloughing off the edge of the ridge above Yellow River. Mound 2 is also on the bluff edge but is better preserved, maintaining a diameter of 15 feet and an estimated height of 3 feet. Mounds 3 and 4 are substantially larger than

the others and are more easily recognizable in the dense hardwood and pine forest that covers the ridge. Dimensions of Mounds 3 and 4 are 20 feet north to south by 14 feet east to west by 6 feet high and 16 feet north to south by 14 feet east to west by 3 feet high, respectively. Mound 4 has a large depression in its center and several other depressions are evident in the general vicinity, probably attributable to relic collectors. Flint and quartzite chippages and animal bone fragments were recovered from the area, mostly along a small cleared path and a garden plot near Mound 3.

Northwest and downslope from the mounds are located two modern houses. Occupants have recovered numerous pottery sherds, flint flakes and some finished artifacts including a gun flint (Figure 8a), in nearby garden plots. Pottery is grit-tempered and cord-marked and can tentatively be dated to the Late Woodland period. Burials reportedly have been found in the general area of the mound group, which further adds to its significance. Ceramic types illustrated in the 1897 Sears Roebuck reprint catalog have also been found here.

The ridge on which the mounds are located is at an elevation of 920 feet, while the garden plots where ceramics were found are some 40 feet lower. Soils are generally sandy, with a shallow covering of forest humus.

National Register potential for site 36-107-3 is considered high. The presence of mounds here, with associated burials, indicates that this may have been an important ceremonial center during Late Woodland times. Further significance can be assigned if site 36-107-3 is considered in context with sites 36-107-1 and 36-107-2, an additional mound site and nearby Woodland site, respectively. Testing of all these sites will clarify their relationships and importance.

Site No. 36-124-1

This historic and recent cemetery is located northeast of Danbury, Wisconsin in T41N, R16W, NW 1/4 SE 1/4 of Section 22 (Figure 19). Many of the graves are those of Chippewa residents who attended the Catholic Church, formerly adjacent to the cemetery, but which has burned and has been removed. Thirty marked and at least seventy unmarked graves are present, dating to at least the 1870's.

The cemetery property is owned and maintained by the Congregation of Our Lady of Perpetual Help in Danbury. Brush and high grass which has intruded on the cemetery had recently been cut and burned by a local Boy Scout group prior to our visit. No

shovel testing was performed, but adjacent dirt roads indicated that the soil is dark brown, sandy alluvium. Elevation is 940 feet.

Despite the historic interest generated by this cemetery, it is not considered eligible for the National Register. Information on the cemetery, in the form of church records, would prove useful for a detailed reconstruction of Danbury's history. But it is not evident from our investigations that the cemetery has been associated with persons or events significant for National Register eligibility.

Site No. 37-120-1

Minnesota state site files indicate that materials assignable to the Blackduck Phase (750-1,000 A.D.) have been uncovered by house construction activities at the junction of the St. Croix and Lower Tamarack Rivers. The site is northwest of the Lower Tamarack mouth, in the SE 1/4 SW 1/4 SW 1/4 and SW 1/4 SE 1/4 SW 1/4 of Section 18, T41N, R16W (Figure 19). Prehistoric materials found there may be debris from an early Late Woodland village, although there are also historic references to Sioux and Chippewa occupations of the same area in the late seventeenth and early twentieth centuries.

No additional materials were recovered by our survey, partially due to the developed nature of the area, which prevented shovel testing. However, the survey did locate at least two marked graves which are part of an historic Chippewa cemetery. Nearby residents were aware of the existence of the cemetery and also reported finding "arrowheads" at various spots in the general area.

Elevation of the site is 880 feet. Soil is sandy alluvium and disturbance to the site is minimal, other than summer house construction. Vegetation is a mixture of grassy lawns and second-growth hardwoods.

Sites with a long documented sequence of occupation, such as 37-120-1, are potentially valuable sources of information for cultural history reconstructions of the scenic riverway. For this reason and because this site is largely undisturbed, it is considered eligible for National Register nomination. Further research and testing will clarify the status of site 37-120-1 in this regard.

Site No. 40-102-1 (St. John's Landing Camp)

St. John's Landing Camp is the site of both historic and possibly prehistoric activities on the St. Croix. It is

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located in Pine County, Minnesota, T40N, R18W, Section 1 NE 1/4 NE 1/4 and T41N, R17W, Section 32 SW 1/4 SE 1/4 (Figure 21). Ed St. John was a half-Chippewa logger who operated a lumber camp here for the Walker, Judd, and Veazie Lumber Company of Marine, some of St. John's relatives, were aware of the camp's location and significance. They also knew that possible prehistoric burials had been unearthed at the site by WPA work crews in the 1930's when buildings for the YMCA camp which currently occupies the site were constructed. The burials were covered by Indian workmen to prevent further disturbance and could not be relocated by the recent survey.

As mentioned, a YMCA camp now occupies a major portion of the site, consisting of bunkhouses, administrative buildings and other structures and facilities. Construction has undoubtedly disturbed the site, but the extent cannot be determined without further investigations.

Most of the area is presently covered with pine and mixed hardwood forest, although certain areas like playing fields and canoe landings are grass-covered. Soil is dark sandy alluvium and the average elevation is 870 feet.

St. John's Landing is considered eligible for National Register nomination since it undoubtedly has significance for an understanding of the history and prehistory of the St. Croix region. Further research will yield information on the nature and extent of damage to the site and will aid in making further determinations of significance.

Site No. 40-104-1 (Little Yellow Banks - 21PN16)

Little Yellow Banks is located in Pine County, Minnesota, T40N, R18W, Section 1 SE 1/4 SW 1/4 in the St. Croix State Park (Figure 21). Unique historic significance may be attached to this site because it was one of few former Chippewa villages along the river once occupied by our informants. John and Marion Dunkley, of Hinkley, Minnesota, remember living at Little Yellow Banks after the turn of the century, until displaced by a Boy Scout Camp during the 1930's.

Prehistoric occupation of the site has also been recorded. Minnesota state site files note that chippage, bone fragments, grit tempered pottery sherds and one shell bead were found here, probably indicating a Woodland occupation (21PN16). No additional materials were recovered by the current survey, except one small quartzite flake. Occupation of the site may have been on a ridge of 900 foot elevation or nearer the river at

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the present canoe landing, at a slightly (50 feet) lower elevation. The site is bordered on the west by a swamp and is itself covered with pine and mixed hardwoods. Soil is sandy.

Little Yellow Banks is considered eligible for nomination to the National Register, pending further studies, because of the knowledge it may provide on historic Chippewa and prehistoric settlement patterns and resource utilization along the St. Croix River.

Site No. 42-109-1 (Norway Logging Camp)

This site is located north of the Crex Meadows State Wildlife area, on the St. Croix River, in the NW 1/4 SE 1/4 of Section 30, T40N, R18W (Figure 21). Informants had reported this site to the survey crew as being a mid-nineteenth century logging camp. Research has indicated that the camp may have been owned by the Knapp-Stout Lumber Company and operated by a man named Ekdahl. This latter assertion may be strengthened by the presence of the Ekdahl Church, approximately 2.5 miles southwest of the site. A ferry landing was reported for the site area, also, but could not be substantiated through field survey.

A cleared picnicking and canoe launching area on the south bank of the river produced a few pieces of historic ceramics which resulted from historic utilization of the site. The historic ceramics can tentatively be dated 1890-1910. Quartzite chippage and bone fragments were also found on the surface, which might indicate prehistoric occupations as well. The possibility of a multicomponent historic and prehistoric site in this limited area should make site no. 42-109-1 potentially eligible for National Register nomination. Further research should clarify this position.

As mentioned, most of the site is now found in a cleared area, surrounded by mixed hardwood forest. Prehistoric materials were located on a footpath in the woods just west of the area. Soil is coarse sandy loam mixed with sandy alluvium.

Site No. 43-103-1

This site is located approximately three miles downstream from 42-109-1, in the SW 1/4 SE 1/4 of Section 35, T40N, R19W and shares the same soil and vegetational patterns (Figure 21). A nearby resident had informed us that an historic Chippewa village had been located here near the turn of the century. This story was corroborated by a similar account included in the master preservation plan for the St. Croix River.

The reported site location is at the northern terminus of Town Road 7-11, in a cleared canoe landing/picnicking area. Survey of the area included all cleared ground in the vicinity. No materials indicative of a large historic village were found. Small amounts of quartzite chippage were located in a footpath, however, and may mark a prehistoric campsite.

The possibility that 43-103-1 may be a temporary multicomponent site is important to an understanding of cultural change along the St. Croix. Further investigations are necessary to confirm its significance and potential eligibility for the National Register.

Site No. 45-101-1

This site was reported to us by National Park Service rangers as the former location of a paint mine. Presently, a modern quonset hut and two wooden outbuildings occupy the site, which is located in the NW 1/4 NE 1/4 of Section 29, T39N, R19W near Grantsburg, Wisconsin (Figure 21). Three depressions, supposedly shafts for the mining operations, were reported by Brad Keshlear (Appendix A). Only one depression was relocated by the field party; the remaining two, reportedly located in the swamps near the river bank were not visible. A road tiled with tar soaked wooden blocks, the size of bricks, leads to the mining operations. The buildings are in a partially cleared area paralleling the St. Croix River. Vegetation is mixed hardwoods (maple-basswood) with some pines. Soils are sandy.

Although this site has been given a separate site number, it should probably be considered as part of a group of sites, including at least one other (45-102-1) and possibly two additional sites. Site 45-102-1, consisting of a dam, sluice and mill, for the grinding of paint pigments, was probably part of the same operation as site 45-101-1. In addition, site 45-102-2, the site of a proposed sanitarium for Civil War veterans, stands nearby. Construction was never completed and it is probable that there is no demonstrable connection between sites 45-102-2 and 45-101-1.

Unless further research indicates otherwise, site 45-101-1 should be considered eligible for National Register nomination, as the location of a unique industry on the St. Croix River.

Site No. 45-102-1

Site 45-102-1 is located near the St. Croix River approximately 200 yards inland from site 45-101-1 with which it

may show historic affinities. This site is found in the NW 1/4 NE 1/4 of Section 29, T39N, R19W (Figure 21). The site is situated on sandy soil with red oxides. Mixed hardwood and pine vegetation occurs at the site. Elevation is 850 feet. Extant structures include a dam with millpond, a sluice and a concrete foundation mill house. No machinery remains from pigment processing at the site, other than some iron piping.

Water contained in the millpond at site 45-102-1 is heavily stained by iron oxide pigments, which obviously resulted from activities of the early twentieth century, when the mill was in operation. According to National Park Service rangers, several large wooden buildings also existed at one time, but have since been torn down. Lumber from them was sawed into short blocks, which were tarred and used to pave a short downhill road to site 45-101-1. This road, along with the existing buildings, constitute the interesting features of this site. Further documentation is needed, but preliminary investigations indicate National Register caliber for the site, as an important industrial site on the St. Croix River.

Site 45-102-2

This is one of the more unusual sites located during the 1976 field season. National Park Service rangers indicated that a sanitarium for Union veterans of the Civil War was planned here in the NW 1/4 NE 1/4 of Section 29, T39N, R19W (Figure 21). The site occupies a hill near the St. Croix River at an average elevation of 860 feet. Construction of the proposed facility was never completed and only a stone stairway and retaining wall exist to mark the site. The retaining wall circles the western edge of the hill paralleling the road to sites 45-102-1 and 45-101-1, nearer the river. From the base of the hill the stairway ascends the north face of the hill to the presumed site of the planned sanitarium. Both wall and stairway are finely constructed of river cobbles and mortar.

While site 45-102-2 is an interesting piece of mid-nineteenth century stone masonry, it is not considered to be of National Register significance. Since the sanitarium was never constructed and occupied, no further information of the Civil War period is expected to be derived from the site.

Site No. 45-103-1 (Pine City Ferry Landing)

This historic site marks the former location of a ferry which operated across the St. Croix River, linking Pine City, Minnesota with Grantsburg, Wisconsin. The presumed sites of the

two ferry landings (on opposite shores) are currently occupied by boat launches. On the Wisconsin shore, a paved ramp extends into the river as the terminus of Town Road 34-1. A campground and natural sand boat landing maintained by the National Park Service occupies the Minnesota shore at the end of County Road 18. Neither area yielded materials or structures pertinent to the ferry operation.

Site 45-103-1 may be precisely located in the NW 1/4 NW 1/4 SE 1/4 and NE 1/4 NE 1/4 SW 1/4 of Section 31, T39N, R19W (Figure 22). No further investigation is planned for this site, which is not of National Register significance.

Site No. 46-146-1

Prior to the 1976 field season, Dr. Joan Freeman, the Wisconsin State Archeologist, reported that a prehistoric site had been discovered at a developed camping area near Grantsburg, Wisconsin. Prehistoric materials in the form of flint and quartzite chippage were found on top of a bluff which overlooks a side channel of the St. Croix River in the NW 1/4 NE 1/4 SW 1/4 of Section 7, T38N, R19W (Figure 22).

Resurvey of the site in September, 1976, by Commonwealth archeologists produced additional pieces of chippage and small flakes, but no diagnostic artifacts or pottery. Forty pieces of flint and quartzite chippage were collected from 46-146-1 out of a total inventory of 102 pieces of lithic materials for the entire St. Croix Riverway 1976 survey. The second largest amount of chippage, 13 pieces, was collected from site 36-107-3. No features or disturbances were noted on the surface. The site is contained in a grove of mature pines, with underbrush cleared for camping sites. Light colored sandy soil caps the bluff on which the site is situated (830 feet) and there is a sheer 30 foot drop to the rocky stream bed to the northwest.

The apparent undisturbed nature of site 46-146-1 makes it important for an understanding of prehistoric settlement patterns in the region. Further detailed investigations of environmental factors and, possibly, evaluation of the temporal placement of the site should make it eligible for National Register nomination.

Site No. 46-146-2

This site was located while investigating the nearby prehistoric site designated 46-146-1. Stone foundations for

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several buildings were noted approximately 100 yards north of site 46-146-1, on the edge of a St. Croix side channel on the SW 1/4 SE 1/4 NW 1/4 of Section 7, T38N, R19W (Figure 22).

Foundations are of dressed stone and mortar. One is approximately 40 feet southeast to northwest by eight feet, southwest to northeast and extends six feet below ground level. The second, much smaller, is approximately six feet square and three feet deep; it is located about ten yards southwest of the former. The site is located in hardwood vegetation, with light sandy soil at an 800 foot elevation.

Records indicate that this site may have been the location of a mid-nineteenth century settlement, which included a flour and saw mill, a hotel and a store. The mill was operated by Canute Anderson around 1865. As an early industrial and settlement site on the St. Croix, this site is eligible for National Register nomination. Site testing and further documentation should verify this.

Site No. 48-103-1

A line of stone pilings across the St. Croix near Rush City, Minnesota indicates where a railroad line once crossed the river. Opposite shores have stone bridge abutments and the remains of abandoned railroad grades which extend outside the scenic riverway boundaries. Remains of the late nineteenth and early twentieth century bridge foundations are found in the SE 1/4 SW 1/4 of Section 8, T37N, R20W (Figure 23). A "ghost town," pioneer period cemetery and several historic house sites have also been reported for the area by the Minnesota Historical Society, but could not be relocated by the survey team. The houses in particular appear to have been destroyed. Vegetation in the vicinity of the former bridge consists of scrub and grass. The banks are sandy and site elevation is 780 feet.

No further information on the rail industry and its connections with nineteenth and twentieth century logging along the St. Croix can be reasonably expected from this site. Its presence should be noted, but site 48-103-1 is not eligible for the National Register.

Site No. 48-109-1 (47BT47-Norris Cemetery)

The Norris Cemetery is listed in the Wisconsin state site files as site no. 47BT47. Fifteen to twenty marked and unmarked graves are included in the cemetery, which is located on

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a ridge east of the St. Croix in Burnett County, Wisconsin. The site is at an elevation of 900 feet and is in the SW 1/4 SE 1/4 SE 1/4 of Section 5, T37N, R20W (Figure 23).

A modern wire fence surrounds the site, which is in a stand of second growth and mature hardwoods at the end of an overgrown path. The soil is sandy. Some eight graves have legible headstones and an additional 10-12 are visible as grave mounds or depressions. Two of the headstones are modern, while others date from the mid to late nineteenth century. Members of the Norris family are interred here, a Chippewa family who has lived on both sides of the river here since the mid-nineteenth century.

Site 48-109-1 is not considered eligible for the National Register. While it does contain graves from the last century, it does not appear to be of interest except as it pertains to the local native American community.

Site No. 49-101-1

N. H. Winchell's 1911 work, entitled The Aborigines of Minnesota, noted that two "earthworks" were located east of Rush City, Minnesota, along the St. Croix River. Attempts to relocate these sites have been unsuccessful (George 1973) possibly because the sites have been destroyed through cultivation practices. Our survey was unable to relocate the mound identified by George as 21CH16, in the W 1/2 SW 1/4 Section 20 T37N, R20W. However, a possible mound was pointed out to us by a local informant in the NE 1/4 NE 1/4 NE 1/4 Section 19 which may be the same site (Figure 23).

Dimensions of the mound are approximately 30 feet in diameter and five feet high. It is on the northern periphery of a marsh and lies some 300 yards northwest of site 49-102-1. The mound is covered with rock rubble and brush, while surrounding ground is obscured by long marsh grasses. No prehistoric artifacts were discovered on or near the mound. Some historic ceramic and glass fragments dated from 1850-1890 and 1880-1904 were collected. Elevation is 780 feet and soils are brown sandy alluvium.

Without further testing and documentation, we can only presume that this is a Woodland period burial mound. Its anomalous position on a level floodplain and proximity to site 49-102-1 tends to bolster this position. However, the large amounts of broken rock on the southern face of the mound, coupled with the historic materials present, tend to complicate the issue. Future investigations will be needed to determine if site 49-101-1 is actually of National Register significance.

Site No. 49-101-2

This site is the location of a late nineteenth century residence, located in the SW 1/4 NE 1/4 NE 1/4 of Section 19, T37N, R20W (Figure 23). A local informant, Mr. James D. Ordner, told Commonwealth survey crew members that the house had been extant until sometime around the turn of the century (Appendix A). All that now remains is a stone and mortar foundation approximately 15 feet north to south by 10 feet east to west. Mixed hardwood forest surrounds the site which lies on an old river terrace at elevation 800 feet, west of the St. Croix River. The soil is brown and sandy.

No artifacts were noted at the site, other than a rusting kerosene kitchen stove frame lying near the house foundation. No trademarks were evident for the stove which could not be dated. The site is probably a portion of the mid-nineteenth century settlement of Rusheba, first settled around 1855.

Additional research, including archeological testing, may yield further information on this site and late nineteenth century cultural patterns in general. For these reasons site 49-101-2 should be considered eligible for the National Register.

Site No. 49-101-3

This is one of three groups of depressions located along an 800 foot elevation river terrace, west of the former Rush City ferry landing. Site 49-101-3 is located in Chisago County, Minnesota in the SW 1/4 SE 1/4 NE 1/4 of Section 19, T37N, R20W (Figure 23). Two depressions were found at site 49-101-3; each is 20 x 10 x 4 feet deep, and has a gap at one end that may have once marked an entryway of some type. The pits are parallel along their long axes and are only a few feet apart. This proximity complicates possible interpretation of their function, making it unlikely that they are root cellar depressions for houses. Another reason for this confusion is that both depressions are on the very edge of the terrace and extend eastward, down the slope. The site is located at the edge of a mixed hardwood forest and a swamp. Soil is rocky, sandy and brown in color.

Testing is obviously needed here to determine the function and temporal placement of these two features. Further investigation should produce information on historic occupations of this region, making site 49-101-3 potentially eligible for National Register nomination.

Site No. 49-102-1

This site located near the former Rush City ferry landing, in the SW 1/4 NW 1/4 NW 1/4 Section 20, T37N, R20W (Figure 23). Winchell (1911) reported two "earthworks" from this area, of which 49-102-1 may be the remains of one. Minnesota state site no. 21CH15 has been assigned to Winchell's site and was relocated in the general area by George during his survey of the Upper St. Croix Regions, (George 1973). His surface collection of the plowed field produced two flakes and a grit tempered sherd.

Resurvey of the area in the fall of 1976 was completely nonproductive. All fields in the area have been allowed to go fallow, preventing inspection of the ground surface except around numerous gopher mounds. No artifacts or other cultural debris were noted. Mr. James Ordner, a local resident and informant (Appendix A) told us that his son had found several items of chippage, pottery sherds and what may be a Hudson Bay-type trade axe in a nearby field, to which we have assigned site no. 49-102-1. The collected materials could not be relocated at the time of the survey, but will hopefully be available for inspection in the future. The site is considered to be of National Register quality and extensive testing will determine its importance for an understanding of the prehistory of the St. Croix Riverway.

Site 49-101-1 is located only about 300 yards northwest of site 49-102-1 and may be a Woodland period buried mound, adding to the significance of this site - either as an occupation area or as the location of a destroyed mound, 21CH15.

Site No. 49-102-2

Extremely low water levels in the St. Croix River during the 1976 survey field season exposed patterns of rock which are parts of a nineteenth century logging operation at Rush City ferry landing. This has been designated site no. 49-102-2. Mr. James Ordner, a local resident, told us that a logging camp once existed on the Minnesota shore here, in the SW 1/4 NW 1/4 Section 20, T37N, R20W (Figure 23). The logging camp has long since been destroyed, largely through house construction activities, but the remains of a winding dam and log cribbing are still visible in the river. The wing dam extended almost 2,000 feet downstream from a point on the Wisconsin shore, serving to angle logs across the river toward the camp where they were contained by the rock and log cribbing pilings. The dam was built sometime before Nevers Dam (1889) further downstream.

Further documentation could produce information significant to a history of the regional logging industry. Since this appears to be a well-preserved example of such a wing dam structure, it is considered eligible for inclusion on the National Register.

Site No. 49-151-1

Site 49-151-1 is an historic site found just west of the Rush City ferry landing on the St. Croix River, in the SW 1/4 NE 1/4 SE 1/4 Section 19, T37N, R20W (Figure 23). This former homestead site was pointed out to us by Mr. James Ordner, a local resident (Appendix A). No buildings are standing on site 49-151-1; what remains are well constructed masonry cellar walls and a nearby masonry silo base. Dimensions of the cellar are 15 feet square and the silo foundation is 12 feet in diameter.

This site currently is situated on the southern edge of a partial river terrace which parallels the river here. Vegetation is immature hardwoods and scrub brush and elevation is 800 feet. The foundations are in fairly good condition due to the quality of their original construction and, in part, because Mr. Ordner has roofed over the cellar foundations with galvanized siding to form a subterranean "playhouse" for his grandchildren.

Assuming that this marks a late nineteenth century house site, it probably was part of the incipient town of Rusheba, platted and occupied in the last quarter of the 1800's by the Folsom, Newell, Ward and other families. Further documentation and testing should determine the historic significance of site 49-151-1 as an early house site and clarify its position as a potential National Register site.

Site No. 49-157-1 (Rush City Ferry)

Modern boat launching areas currently occupy the sandy banks where the Rush City ferry once operated. During the late 1800's, the area on both shores of the St. Croix River was active here; a lumber camp with associated wing dam (49-102-2), a post office and several homes were here, as well as the ferry itself. The small community of Rusheba developed along this stretch of the river, although it never consolidated as a true town. Located in the NW 1/4 SW 1/4 Section 20, T37N, R20W (Figure 23), the ferry site extends some 450 feet across the river with associated landing sites of approximately 20 by 40 feet on each bank. No other features actually associated with the ferry are visible.

While site 49-157-1 is important on a local historical level and should be noted in any future planning for the scenic riverway, no further information is expected that would render it eligible for National Register nomination. No further research is recommended.

Site No. 51-102-1 (Connor's Goose Creek Trading Post 21CH21)

Connor's Goose Creek Trading Post may very well be one of the most important historic sites located in the Upper St. Croix region. Several early accounts place Connor's post(s) at the mouth of Goose Creek during the 1842-1849 period, making him one of the earliest permanent white occupants of the area. Utilizing records and accounts maintained by the Minnesota Historical Society, Douglas C. George and G. Joseph Hudak attempted to relocate the post during their surveys of the Upper St. Croix in 1973 and 1974, respectively. Both noted that relic collectors had disturbed the site, especially in the area of a hearth, which was also relocated during our 1976 survey. No other surface features or artifacts were noted.

Site 51-102-1 also contains a prehistoric component, 21CH21, ascertained through test pitting and chemical soil tests conducted by staff members of the Minnesota Historical Society (Hudak 1974). Tests produced quantities of St. Croix phase ceramics (400-500 A.D.), lithic tools and debitage and food remains (fish and animal bone). Soil testing also produced high phosphate levels, probably indicative of both the historic and prehistoric occupations of the site. Evidence of this testing was not observed by the 1976 survey crew. This combined historic/prehistoric site is located near the confluence of Goose Creek and the St. Croix River, in the SW 1/4 NW 1/4 SE 1/4 Section 30, T36N, R20W (Figure 23). This location was determined for the disturbed area noted by George; no other surface indications of either historic or prehistoric activities were observed.

Additional documentation and controlled testing is needed at 51-102-1. Definite temporal and spatial limits must be established for this important multicomponent site. Previous investigations indicate it is eligible for National Register nomination and future studies should confirm this.

Site No. 52-102-1 (S. W. Slack House Site)

This nineteenth century house site was relocated in the NE 1/4 SE 1/4 Section 33, T36N, R20W by utilizing maps included in an 1888 plat book for Chisago County (Figure 23). Slack lived in the house until at least 1914, farming surrounding property and raising cattle, sheep and horses. The site may date even

earlier. The ceramic sample includes a pearl glaze, semivitreous ware dated 1850-1880. Slack's property also included one of two large islands situated in the St. Croix River. The Slack House can be considered part of the "town" of Nashua, platted in 1857 for the S 1/2 of Section 33 and SW 1/4 of Section 34. Presently, the site exists as a cellar depression on a slight ridge (elevation 780 feet), measuring 15 feet east to west, 10 feet north to south and 8 feet deep. Ceramics, glass and metal fragments are scattered over an area 75 feet north to south and 50 feet east to west (3,750 square feet).

The site is situated in an open field covered in willows, grass and sumac. The soil is a sandy loam. The site is screened from the river by secondary vegetation growth in a dried up low area.

This site is considered to be eligible for the National Register. Further testing and historical documentation could provide significant information about early homesteading along the St. Croix River.

Site No. 52-102-2 (Sunrise to Nashua Ferry Landing)

Site no. 52-102-2 is located in Chisago County, Minnesota, T36N, R20W, Section 32 SW 1/4 NE 1/4 (Figure 23). The Sunrise to Nashua ferry landing is clearly visible on the Minnesota side of the St. Croix River and is currently used as a modern boat launch and landing. On the Wisconsin side it appears more like a wide path to the river and not a ferry landing. Secondary roads lead to the site from both sides of the river and were probably built originally as roads to the ferry.

The site is not considered eligible for the National Register. Only limited information, on a strictly local level, appears to be obtainable from this site. Testing or historical documentation is not expected to provide significant additional information.

Site No. 52-106-1

Site no. 52-106-1 is located in Polk County, Minnesota, T36N, R20W, Section 32 NW 1/4 NE 1/4 (Figure 23). A small concentration of prehistoric material was found in a road cut. One retouched bipolar flint core (Figure 8f), one piece of quartzite chippage and a bone fragment were collected. Shovel testing was conducted in all directions from the area of material concentration but no evidence of cultural material was found nor indications of the site limits.

The soil is sandy and vegetation consists of brush and a few mature trees. Site elevation is 780 feet. The site size is restricted to the area where material was observed, 15 feet east to west and eight feet north to south (120 square feet).

The site appears to have potential for revealing additional information about prehistoric occupations along the St. Croix River. Testing should be conducted. The site is considered as eligible for the National Register.

Site No. 53-101-1 (Ola Nelson House)

Site no. 53-101-1 is located in Chisago County, Minnesota, T36N, R20W, Section 35 SE 1/4 SE 1/4 (Figure 23). The 1888 Chisago County Plat indicates that a farm belonging to Ola Nelson was located in this area. Field investigations found one cellar depression of a house and foundations for a barn and silo. No cultural material was present. The features were located in a grass covered, cleared field with a sandy loam soil and elevation of 800 feet. Site size is approximately 200 feet northeast to southwest and 100 feet northwest to southeast (20,000 sq. ft.).

Ola Nelson settled here in 1886 from Sweden where he farmed and raised stock. The Minnesota census lists him as still living on the property with his son Conrad Nelson in 1914. The house was torn down in the 1960's. The National Park Service segment maps show one outbuilding still standing. There are currently no standing structures on the site. Both the house and barn were constructed of logs.

Site No. 54-101-1

Two cellar depressions identified as site no. 54-101-1 were found in a pasture in Polk County, Wisconsin, T36N, R19W, Section 31 NE 1/4 NE 1/4 NE 1/4 (Figure 23). One depression measures 8 by 6 by 4 feet with the edges built up and the second is circular with a three foot circumference and two feet deep. Total site size is estimated as 20 feet north to south and 30 feet east to west (600 square feet).

The site is situated in a pasture located just above a large swamp that extends southwest to the conjunction of the St. Croix and Trade Rivers. Grass and weeds cover the rocky and sandy soil of the pasture. Site elevation is 820 feet. No cultural material was collected from the site.

The site could contribute information about early homesteading along the St. Croix and has been considered eligible for the National Register. Further testing needs to be conducted to determine the exact temporal placement of the site.

Site No. 54-101-2

Three depressions and one foundation were located in an open field on a high knoll west of the Trade River and north of the St. Croix River. The deepest and most conical shaped depression measures 12 by 10 by 3 feet, the largest is 15 by 12 by 2 feet and the third is circular and six feet in diameter. The foundation consists of partially buried wooden beams measuring 10 by 12 feet. The area has been disturbed by amateur excavations and cultural material has been scattered throughout the area. Only those artifacts that appeared to be diagnostic were collected.

The site is located in Polk County, Wisconsin, in T36N, R19W, Section 30 SW 1/4 SE 1/4 (Figure 23), and measures about 20 acres. Site elevation is 820 feet. Soil is sandy. The area of the site has been cleared and is now a grass covered field surrounded by a mixed hardwood forest.

An unnamed ferry is reported on a 1881 map of Sterling Township as located in Section 31, just south of the site area. No landing site was observed during the field investigations. A farm and way station belonging to William Holmes, is reported to have been located at the Trade River, in 1875. Mr. Holmes returned to Amador in 1875 and died in 1876.

The ceramic sample collected from this site appears to date to the first half of the twentieth century. Further documentation and testing should be carried out to determine if either this site, 54-101-2, or 54-101-1, located on the other side of the Trade River, are associated with the reported ferry or Holmes farm and way station. The site is considered eligible for the National Register.

Site No. 55-111-1 (Nevers Dam)

Nevers Dam has been subjected to extensive historic documentation. It was built in 1890 by the St. Croix Dam and Boom Company, was used by the lumbering business until 1912 and was finally torn out in 1955 after being severely undermined by spring floods (Vezina, 1975). The dam was built across the St. Croix River within Chisago County, Minnesota, on one side and Polk County, Wisconsin, on the other, T35N, R19W, Section 9, SE 1/4 NW 1/4 and SW 1/4 NE 1/4 (Figure 24). All remains of the dam itself are gone, but a dike about one-quarter mile long still exists on the Minnesota side and a 200 foot long dike still exists on the Wisconsin side.

Map has been removed from the electronic edition in an effort to protect sensitive cultural resources.

The elevation of the bank at the dam site is 760 feet. The area on the Minnesota side is low and swampy with a large stand of young willows. The Wisconsin side has mixed hardwoods. The dikes are constructed of a gravelly fill dirt.

The area is important as the site of the largest pile driven dam in 1890, but the dam was completely destroyed in 1955 and nothing remains of the actual construction. The site is not considered eligible for the National Register.

Site No. 55-112-1 (J. M. Pulliam House)

Site no. 55-112-1 is located in Chisago County, Minnesota, T35N, R19W, Section 16 SW 1/4 SW 1/4 (Figure 24). The 1888 Chisago County plat indicates that a house owned by a J. M. Pulliam was located in this vicinity. Field investigations found a concentration of cultural material but no indication of features including structural depressions. Historic cultural material, metal, ceramics and glass, was found in a grass covered but open field near the Old Military Road in an area about 100 by 75 feet (7,500 sq. ft.). The St. Croix River is situated to the west of the site, Dry Creek to the north and Deer Creek to the south. Site elevation is 760 feet.

The house is reported to have been owned by a person named Willoughby in the 1850's. This date corresponds with the date of ceramics with blue flow transfer decorations found at the site which could be placed around 1845-1855. The ceramic sample also includes pearl glaze semivitreous sherds which are dated 1850-1890. This date corresponds to the period when Pulliam occupied the property. The site is considered eligible for the National Register on the basis that it can provide additional information on early homesteading along the St. Croix River.

Site No. 55-112-2 (Amador Town Site)

In George's Archeological Survey of the Sunrise - Upper St. Croix River (George 1973), groups of depressions found in Sections 16 and 17 of T35N, R19W are described as belonging to the town of Amador. The area was reportedly first settled in 1846 by Thornton Bishop. Amador was platted in 1857 by Dr. Carmi P. Garlick. Documentation supports that the town was settled in Sections 9 and 16. The extent of a "downtown" area is unknown. George's report describes a sawmill, hotel and ferry. However, the majority of the population appears to have occupied a scattering of house or farm sites throughout Sections 9, 16 and 17. Chisago County records show that Amador was vacated in 1944.

A field party surveyed the area described in George's report to reconfirm the location and check the condition of each site. Only four depressions and two dams were relocated in the NE 1/4 NW 1/4, Section 21, T35N, R19W (Figure 24). Two depressions and one dam, built on Spring Creek, were identified as 55-112-2. The depressions are rectangular, about 15 by 12 feet and are located next to the dam. The dam is built on a stone base with concrete upper portions, a sluice is still present, the sluice gate gone. These three structures could be part of the Southern Dam built by the Sunrise Electric Company in 1918 for a trout pond. The trout pond was in existence from 1918 to 1950.

A second dam and bridge were located upstream from the first dam. Associated with the second dam and bridge were two depressions which appear to be borrow pits, possibly for the earth fill of the dam. These features are also considered part of 55-112-2. A bridge and dam were reportedly built by the township in the early 1900's. These could be the same structure.

The remaining depressions described in George's report were not relocated. There are many small low places in the field which could have been identified as depressions. The area is now an open field in grass and fallow corn stubble about 18-24 inches tall. Visibility is poor and the ground surface undulating. The soil is light brown and sandy. The area around Spring Creek has some mixed hardwoods. Site elevation is 760 feet. The site area of the first two depressions is estimated as 50 by 100 feet (50,000 sq. ft.). No cultural material was found. The site area of the second two depressions and dam is estimated to be smaller, about 20 by 30 feet (600 sq. ft.).

The area definitely needs extensive testing and additional historical documentation. The site is considered eligible for the National Register.

Site No. 56-103-1 (G. Jerome House)

One structural depression, possibly a cellar, about eight feet square was found in an area shown on the 1888 plat map of Chisago County as the G. Jerome House. Site 56-103-1 is located in Chisago County, Minnesota, T35N, R19W, Section 21 NE 1/4 NW 1/4 (Figure 24). The St. Croix River flows only a few yards east of the site and Dry Creek about 200 yards to the west. Artifacts were present in anthills around the depression. Additional material was found by shovel testing. Artifacts include ceramics, window glass, bone, mortar and brick. Two undecorated ceramics from the site may be dated pre-1850, but the fragmentary nature of the material does not allow a positive date. Blue flow decorated ceramics may be dated 1890-1910.

The site is approximately 50 feet square and is situated in a pine plantation. The soil is a sandy loam and elevation is 760 feet.

Although the site is listed on the 1888 plat map, Jerome is not listed on the 1885 or the 1895 census for the area. The fact that Jerome's name does not appear on the census could mean that the site was occupied by other individuals prior to or after 1888.

This site is considered eligible for the National Register on the basis that it can provide additional information on early homesteading along the St. Croix River.

Site No. 56-116-1

Site no. 56-116-1 is located in Polk County, Wisconsin, T35N, R19W, Section 27 NW 1/4 NE 1/4 (Figure 25). One felsite flake, with a striking platform, was found in an open field on a ridge above a small stream that flows into the St. Croix River. The field was cleared, is now fallow and has been greatly disturbed by rodent burrowing activities. Visibility was good in the disturbed areas. This area was assigned a site number on the basis of the favorable location and the occurrence of the one flake. Site size and temporal classification could not be determined.

Further testing is not recommended since the heavy rodent activity provided a good examination of subsurface materials. The site is unlikely to yield significant information and is not considered eligible for the National Register.

Site No. 58-108-1 (Chippewa-Sioux Battle Site 47PK35)

In 1770 the Chippewa won a battle against the Fox and Sioux at site 58-108-1. As a result of this Chippewa victory, the Fox were driven permanently out of the area. The site is located in Polk County, Wisconsin, T34N, R18W, Section 18 SE 1/4 SW 1/4 and Section 19 NE 1/4 NW 1/4 (Figure 25). The area currently has been cleared and converted into a park. Ground visibility was poor and no shovel testing was conducted to preserve the integrity of the park. Therefore no cultural material or features were found. The site area was identified from the Wisconsin State records as an historical marker.

Vegetation in the site area has been cleared and the site is now grass covered. The soil is sandy and site elevation is 780 feet. The site is considered eligible for the National Register.

Map has been removed from the electronic edition in an effort to protect sensitive cultural resources.

TABLE 2

SUMMARY ARCHEOLOGICAL SITES

Site No.	State Site No.	Identity	Environmental Subregion	Possibility Of Destruction	National Register Eligibility	Recommendation
01-110-1		Dam ruins and logging camp	1	none	no	none
03-132-1		Logging dam ruin	2	none	no	none
04-133-1		Water mill with sluice and dam	2	none	yes	Testing and historical documentation
04-133-2		Steam mill and log driving camp	2	none	yes	Testing and historical documentation
04-150-1	47-BA-4	Prehistoric campsite	2	none	yes	Testing
04-153-1		House and barn site	2	none	yes	Testing and historical documentation
04-161-1		Lumber camp and log landing	2	none	no	none
04-167-1		House site	2	none	no	none
05-112-1		House outline and cellar depression	2	none	yes	Testing and historical documentation
05-126-1		Structural depression	2	none	yes	Testing and historical documentation
05-136-1		Chippewa village and cemetery	2	none	yes	Testing and historic documentation
05-137-1		Pacwawong dam ruins	2	none	no	none
05-139-1		Two possible burial mounds	2	none	yes	none
06-145-1		Doran's crossing and lumber camp	2	yes - local collectors	yes	Site should be mapped and tested
06-153-1		Dam embankment and house foundation	2	none	yes	Testing and historical documentation
06-180-1		Dam remains	2	none	no	none
07-125-1		Prehistoric campsite	3	none	yes	Testing
07-154-1		Logging dam	3	none	yes	none
07-155-1		House site	3	none	no	none
11-119-1		Prehistoric habitation site	3	none	yes	Testing
11-176-1		Railroad bridge ruins	3	none	no	none
12-130-1		Hayward mill	3	none	no	none
13-155-1		Dam ruins	3	none	no	none
13-179-1		Cadotte trading post	3	yes - local collectors	yes	Document existing collections
14-144-1		Cellar depression and dump	4	none	no	none
14-164-1		Stinnett logging camp and dam	3	none	yes	Historical documentation and testing
16-149-1		Dump site	4	none	no	none

TABLE 2 (Continued)

SUMMARY ARCHEOLOGICAL SITES

Site No.	State Site No.	Identity	Environ-mental Subregion	Possibility Of Destruction	National Register Eligibility	Recommendation
18-117-1		Prehistoric campsite	3	none	no	none
18-117-2		Veazie town site	3	none	yes	Historical documentation and testing
18-117-3		Veazie dam	3	none	no	none
21-115-1		Prehistoric campsite	3	none	no	none
21-115-2		Prehistoric chipping site	3	none	no	none
21-135-1		Prehistoric habitation site	3	yes - local collectors	yes	Testing
23-137-1		Prehistoric campsite	5	none	yes	Testing
26-114-1		Moore's farm	2	yes - local collectors	yes	Historical documentation and testing
28-101-1		Copper mine sluice dam	2	none	no	none
32-109-1	47-BT-49	Dogtown village	2	none	yes	Historical documentation and testing
33-101-1		Logging camp	2	none	yes	Historical documentation and testing
35-112-1		Pansy landing town site	2	none	yes	Historical documentation and testing
35-124-1		Pansy landing ferry and bridge site	2	none	yes	none
36-107-1		Three mounds	8	none	yes	Prehistoric documentation from 36-107-2 and 36-107-3
36-107-2	47-BT-48	Chippewa village	8	none	yes	Historical documentation and testing
36-107-3		Four mounds	8	none	yes	Testing in area of the mounds
36-124-1		Historic Chippewa cemetery	8	none	no	none
37-120-1		Historic Chippewa cemetery and pre-historic to historic village	7	none	yes	Historical documentation and testing
40-102-1		St. John's landing camp	9	yes - construction	yes	Historical documentation and testing
40-104-1	21-PN-16	Little Yellow Banks	9	none	yes	Historical documentation and testing
42-109-1		Norway logging camp, ferry landing, pre-historic campsite	11	none	yes	Historical documentation and testing
43-103-1		Prehistoric campsite	10	none	yes	Testing
45-101-1		Paint mine	10	none	yes	none
45-102-1		Mill, milldam, sluice	10	deterioration	yes	Historical documentation and testing
45-102-2		Stone stairway and wall	10	none	no	none
45-103-1		Pine City ferry landing	10	none	no	none
46-146-1		Prehistoric chipping station or habitation site	10	yes - campers	yes	Testing

TABLE 2 (Continued)

SUMMARY ARCHEOLOGICAL SITES

Site No.	State Site No.	Identity	Environ-mental Subregion	Possibility Of Destruction	National Register Eligibility	Recommendation
46-146-2		Mill site	10	yes - campers	yes	Historical documentation and testing
48-103-1		Railroad bridge	15	none	no	none
48-109-1	47-BT-47	Indian cemetery	12	none	no	none
49-101-1		Possible mound	15	none	yes	Testing in the area by the mound
49-101-2		Cellar depressions	15	none	yes	Historical documentation and testing
49-101-3		Cellar depressions	15	none	yes	Historical documentation and testing
49-102-1	21-CH-15	Prehistoric habitation site	15	none	yes	Testing
49-102-2		Dam and cribbing	15	none	yes	none
49-151-1		Cellar and silo base	15	none	yes	Historical documentation and testing
49-157-1		Rush City ferry landing	15	none	no	none
51-102-1	21-CH-21	Connor's Goose Creek trading post	15	yes - local collectors	yes	Historical documentation and testing
52-102-1		S. W. Slack house	13	yes - local collectors	yes	Historical documentation and testing
52-102-2		Sunrise to Nashua ferry landing	13	none	no	none
52-106-1		Prehistoric chipping station	12	none	yes	Testing
53-101-1		Ola Nelson home site	13	none	yes	Historical documentation and testing
54-101-1		Cellar depressions	12	none	yes	Historical documentation and testing
54-101-2		House site	12	yes - local collectors	yes	Historical documentation and testing
55-111-1		Nevers Dam	13	none	no	none
55-112-1		J. M. Pulliam house	13	none	yes	Historical documentation and testing
55-112-2		Amador town site	13	none	yes	Historical documentation and testing
56-103-1		G. Jerome house	13	none	yes	Historical documentation and testing
56-116-1		Prehistoric campsite	16	none	no	none
58-108-1	47-PK-35	Chippewa-Sioux battle site	18	yes - park utilization	yes	none

CHAPTER 7
CULTURAL MATERIAL

LITHICS

Over 75 percent of the lithic sample collected from the scenic riverway survey area consists of quartzite chippage. Of the 102 pieces of chippage and artifacts found, 78 are quartzite, 17 are flint, 5 are felsite and 2 are basalt (Table 3). There are 24 inventoried prehistoric sites in the study area. Collections were obtained from 15 of them. Of these 15 sites, 05-136-1 and 56-116-1 have the lowest quantity of chippage with only one piece of felsite chippage; 36-107-3 and 46-146-1 have the greatest amount of lithic material, 13 and 40 pieces respectively. At the remaining 11 sites, between 2 and 9 pieces of lithic materials were found.

Only six of the 102 pieces are tools (Figure 8). One isosceles, quartzite projectile point with a concave base was found at site 21-135-1. The point measures 17 mm at the base and is 17 mm in length and 5 mm in thickness. It has been assigned to the late Woodland period (Figure 8c). A second projectile point was found at site 21-115-1. This point is described as a humpbacked, triangular point dated to the late Woodland period (Figure 8e). The point measures 19 mm at the base, 36 mm in length, 10 mm in thickness, and is light buff in color. Two historic gun flints were found, one at each of sites 36-107-2 and 36-107-3 (Figure 8a and b). They are both used on three sides and heavily ground on the fourth. The gun flint from 36-107-2 measures 34 mm in length, 25 mm in width, 11 mm in thickness with color grading from dark to medium grey. The gun flint from 36-107-3 measures 33 mm in length, 24 mm in width, 12 mm in thickness and grades in color from dark to a light grey. A bipolar core of yellow to buff colored flint, retouched on three sides, was found at 52-106-1 (Figure 8F). The artifact has not been assigned to any temporal classification. It measures 26 mm in length, 25 mm in width and 11 mm in thickness. The last artifact is a felsite biface fragment from site 05-136-1 (Figure 8d). The biface measures 111 mm in length, 77 mm in width and 31 mm in thickness. It is medium grey in color and has not been assigned to any temporal classification.

PREHISTORIC CERAMICS

Five pieces of pottery dated to the late Woodland period have been found at 36-107-3. One piece is decorated with a twisted cord over cord-marked design. Four are cord-marked. All are grit-tempered and measure 5 to 6 mm in thickness. Four are reddish buff in color and one is medium grey.

TABLE 3

LITHIC MATERIAL DISTRIBUTION

	05-136-1	07-125-1	11-119-1	18-117-1	21-115-1	21-115-2	21-135-1	23-137-1	36-107-2	36-107-3	42-109-1	43-103-1	46-146-1	52-106-1	56-116-1	TOTAL
FLINT																
Projectile point					1											1
Gun flint									1	1						2
Retouched bipolar core														1		1
Retouched flat flake													1			1
Retouched flat decortication flake				1												1
Blocky retouched flake									1							1
Flake of bifacial retouch													3			3
Flat flake								2		2			2			6
Flat decortication flake				1												1
QUARTZITE																
Triangular point - concave base							1									1
Bifacially retouched flake													1			1
Retouched decortication flat flake			1													1
Flake of bifacial retouch													1			1
Flat flake		2		3	1	5		1	4	6	5	3	10			40
Flat decortication flake						1			2							3
Blocky flake					1		2			2			13	1		19
Blocky decortication flake		1			1				1	2			7			12
FELSITE																
Biface	1															1
Flat flake with striking platform			1												1	2
Flat flake													2			2
BASALT																
Flat flake		2														2
TOTAL	1	5	2	5	4	6	3	3	9	13	5	3	40	2	1	102

This pottery was not collected by the field party, but was donated by Mr. John Staples, (Appendix A) who occupies this site. He has found larger and more decorated pieces of pottery at this site but has given away all the more aesthetic samples.

GLASS

A significant portion of the historic antifact assemblage recovered during the survey consisted of flat, or window, and vessel glass. All of the examples comprising the latter category consisted of utilitarian bottle or tumbler forms. Although it should be expected that further testing would reveal a range of decorated glass forms, these proved to be entirely absent within the collected sample.

The dominant vessel forms encountered during the field investigation were composed of bottles which are subdivided in Table 4 according to glass coloration; these include colors designated as clear, brown, green and purple. The majority of this sample is formed by essentially nondescript fragmentary sherds. The three clear glass specimens associated with 26-114-1 and 52-102-1 fall within this category, exhibiting little more than color for attribute analysis. A small sample of two brown glass sherds were also recovered from 26-114-1 and probably represent beer bottle fragments of the Prohibition period.

The largest sample of bottle glass sherds consisted of green colored specimens, which ranged in tone from the light "German" green tint typical of early nineteenth century window glass to the more decidedly green hues (Gallatian 1853 21:2236). Among the four sherds collected from 26-114-1, only two specimens provide any information relative to vessel form. One of these is represented by a fragmentary three piece molded bottle base embossed with a manufacturing mark "SB & Co/49." The other specimen represents a bottle mouth with an applied collar rim. A three piece molded bottle base fragment embossed with the numeral "6" or "g," was also recovered from 54-101-2. The bases of three additional bottle fragments were collected from sites 32-109-1 and 52-102-1. That associated with the former site consisted of an unmarked three piece molded specimen measuring 7.4 cm in diameter. The two specimens recovered from site 52-102-1 consisted of two paneled forms, one of which measured 4.1 cm by 2.1 cm in base dimension and was embossed along either side with the product name and point of origin "..RKEE & Co/...W York." The other bottle base was of two piece mold construction, exhibited horizontal corner fleeting and a pontil mark. As with the formerly described bottle from this site this latter specimen possessed a rectangularly shaped base measuring 2.8 cm by 1.7 cm.

TABLE 4

GLASS DISTRIBUTION

VESSEL GLASS	6-145-1	14-144-1	26-114-1	32-109-1	42-106-1	52-102-1	54-101-2	55-112-1	56-103-1	TOTAL
BOTTLE										
Clear			1			2				3
Brown			2							2
Green		1	4	1	1	2	1			10
Purple	1		5							6
TUMBLER										
Clear			4							4
MISCELLANEOUS										
Marble			1							1
Burned	1					26		1		28
Flat glass		2		6		10	1	2	3	24
TOTAL	2	3	17	7	1	40	2	3	3	78

Other bottle fragments collected during the survey included five purple tinted body sherds associated with site 26-114-1 and a single purple tinted neck fragment recovered from site 6-141-1. A small sample of four clear glass tumbler rim fragments were also recovered from site 26-114-1, as was one glass "cat's eye" marble.

Although the calibration of flat glass thickness ratios has been suggested as a possible dating mechanism, its usefulness appears to be restricted to the identification of modal increases which occur in a post 1850 archeological context (Demeter and Lowery n.d.). The 24 flat glass sherds collected during the investigation do not provide enough information which might allow for further testing of this hypothesis. The range of variance noted in the sample (1.8 mm to 3.0 mm) is, however, indicative of late nineteenth and twentieth century utilization.

EARTHENWARES

The widespread occurrence of this artifact category renders it as a critical component in historic site analysis. Not only do earthenwares provide potentially useful data for socioeconomic interpolations, but also form a relatively reliable dating mechanism. This is especially true of those sites dating through the late eighteenth and nineteenth centuries. During this period relatively rapid changes occurred in the use of certain decorative motifs, color arrangements, vessel forms and the introduction of new glazes. The systemization of these trends has been dealt with by numerous investigators (Brose 1965; Hume 1971; Pilling 1967 a, b, c; South 1972).

The largest single artifact category recovered during the survey consisted of earthenwares. The majority of these were associated with a post 1900 temporal context, with only a small segment of the collection dating to the mid-nineteenth century.

The appended table has been designed in order to express certain morphological traits which lend themselves to the generalized type of approach employed in descriptive analysis (Table 5). This system is based upon certain characteristics such as bisquit or paste coloration, the relative appearance or hardness of the bisquit body (i.e., soft, semivitreous and vitreous), the associated decorative techniques employed and glaze coloration.

Cream colored glazed wares were initially introduced by the Staffordshire potteries as a luxury item, commonly referred to as Queens Ware, during the early 1760's (Miller

TABLE 5

EARTHENWARE DISTRIBUTION

	1-110-1	4-153-1	6-145-1	14-144-1	26-114-1	32-109-1	33-101-1	36-107-2	36-107-3	42-109-1	49-101-1	52-102-1	54-101-2	55-112-1	56-103-1	TOTAL
WHITE BISQUIT:																
SOFT PASTE																
White glaze	2	6	2		6											16
Cream glaze		3											3			6
Pearl glaze															2	2
Buff glaze					5											5
Pink glaze			2													2
Brown transferprint			3		3											6
Red transferprint							1									1
Decalcomania	4				3			1								8
Blue flow										1						1
Pink floral					2											2
Gold lined	3	5							2							8
Brown lined									2							2
Banded													7			1
SEMIVITREOUS PASTE																
White glaze											3			2		5
Pearl glaze			1		11							14		9		35
Blue flow transfer-print														1		1
Blue slip								1								1
VITREOUS PASTE																
White glaze						1		1								2
Blue transferprint				5												5
(SUBTOTAL)	9	4	8	5	30	1	1	3	2	1	3	15	3	12	2	109
COLORED BISQUIT																
SOFT PASTE																
Unglazed												2				2
SEMIVITREOUS PASTE																
Salt glaze					4											4
Brown glaze			2		4	2								1		9
White glaze					2	2				1				1		5
(SUBTOTAL)			2		10	4				1		2		1		20
TOTALS	9	14	10	5	40	5	1	3	2	2	3	17	3	13	2	129

and Stone 1970:42). The extensive manufacture of cream colored wares during the next several decades had by the turn of the nineteenth century relegated it to a common glaze variety for table wares. At about this period a rapid decline in its manufacture and popularity is demonstrated through its limited archeological occurrence. Although these wares continued to be produced throughout the first half of the nineteenth century, they comprise only a minute segment of the total ceramic artifact assemblage recovered from sites dating to this period.

The six undecorated cream colored glazed sherds recovered from sites 4-153-1 and 54-101-2 date to the first half of the present century and are possibly representative of American produced wares (Ramsey 1939:152).

Pearl glazed wares were developed and introduced as a replacement for cream colored wares by Josiah Wedgwood in about 1779 (Hume 1969:320). The two glaze varieties can be distinguished in that the former is marked by a bluish tint which is most readily discernible along the interior of the standing ring and other crevices where the glaze tends to puddle. Cream colored wares, on the other hand, exhibit a yellow or cream colored tint which often exhibit a yellow greenish puddling zone along the interior of the standing ring.

During the 1820-1830 period, the apparent reduction of cobalt additives in the glaze composition reduced the heavy bluing effect characteristic of the earlier pearl glazed white soft paste wares. The lighter blue tones associated with this later glaze variety has tentatively been interpreted by Hume as representing the "New White Ware" listed in the Wedgwood factory price guide of 1810 (Hume 1969:97). However, for the purposes of this analysis specimens representative of this lighter blue toned glaze have been grouped under the pearl classification. These include two undecorated sherds recovered from site 56-103-1, six brown transfer-printed sherds associated with 6-145-1 and 26-114-1 and possibly a single red transfer-printed sherd recovered from site 33-101-1 (Table 5). Although these specimens may date to a pre-1850 temporal context, their fragmentary nature precludes any definitive assessment of their correct chronological placement. Another specimen which may be classified under the pearl glazed category is a sherd possibly from either a small pitcher or mug decorated with a blue, white and black banded motif. This sherd was collected from site 52-102-1 and represents a ware produced throughout the nineteenth century by both the English, American and German potteries (Sprago 1972:164).

The two undecorated sherds collected from site 56-103-1 may actually be representative of a later variety of blue flow decorated white soft paste earthenware similar to that recovered from site 42-109-1, and which appears to have been a relatively popular motif during the ca. 1890-1910 period.

Approximately 62 percent of the white soft paste earthenwares collected during the survey consisted of a clear or white glazed variety. These were largely of American manufacture and generally date to a post 1900 context. Included among the decorated varieties within this classification are eight sherds exhibiting various overglaze decalcomania motifs recovered from sites 1-110-1 and 26-114-1. The four sherds collected from the former site represent a bowl form measuring 16 cm in diameter. The associated black transfer-printed bottom mark "Steubenville/ China" identifies it as a product of the Steubenville Pottery Company, an Ohio firm which had been established in 1879 (Kovel 1962:26) (Figure 6f). This specimen is decorated with a blue bird motif commonly associated with the productions of a wide range of American manufacturers during the ca. 1910-1930 period. A single cream colored glazed sherd decorated with a decalcomania overglaze motif was also recovered from site 36-107-2. Two additional overglaze decorated plate sherds were recovered from site 26-114-1. This decoration consisted of a handpainted pink floral motif which was largely obliterated.

Two dinner plates are represented by eight overglaze gold decorated sherds recovered from sites 1-110-1 and 4-153-1. Both specimens were manufactured by the Edwin Knowles China Company, a probable successor to the Knowles, Tyler, Knowles pottery of East Liverpool, Ohio (Kovel 1962:79). While both specimens are marked with identical green transfer-printed manufacturers marks, that recovered from 1-110-1 is enumerated "20-2-3," (Figure 6d), while the other example exhibits a slightly different number, "20-2-1," which is partially obliterated by a break line. It is possible, when considering the temporal context indicated at both sites, that this form of enumeration may represent either patent or production dates (i.e. February 3, 1920, etc.), or might possibly be indicative of pattern identification numbers. Information relative to this problem is lacking in the available literature.

The collections made from site 36-107-3 include two clear glazed cup and saucer fragments. Both are decorated with a brown underglaze band along the rim which also contains traces of an overglaze luster applique. This type of band motif is generally associated with a variety of decoration normally referred to as "tea leaf" in the antique trade. It is illustrated in

the Sears, Roebuck reprint catalog for 1897, and is designated as "Luster Band," a ware "so well known that a description is hardly necessary."

Included among the undecorated white glazed earthenware sample are two marked specimens recovered from sites 1-110-1 and 26-114-1. These include a platter collected from site 1-110-1 and manufactured at the Laughlin Pottery of East Liverpool, Ohio, which was established in 1872 (Kovel 1962:83) (Figure 6g). The other specimen bears the mark of the Mt. Clemens Pottery Company of Mt. Clemens, Michigan. This pottery had been established in 1913 and distributed its wares on a nationwide basis through the S. S. Kresge dime store chain during the post World War I period (Kresge, 1913) (Figure 6e).

Those earthenwares included under the heading of semivitreous possess a hard granular paste similar to porcelain but lacking its translucent qualities. As employed by numerous manufacturers of the nineteenth century, such labels as Granite, Stone China, Opaque China or even Ironstone were in many instances little more than an attempt to impress upon the public mind the concept of an improved and more durable tableware. While such specimens are characteristically thicker in composition, tests for hardness often prove to be inconclusive. A number of earthenware listed in Table 5 as white soft paste varieties, such as the two Knowles "Vitreous" specimens, are representative of this situation.

A total of 42 sherds collected during the survey may be placed within the semivitreous category. The majority of these 35 sherds possess a glaze tone reminiscent of the bluing effect associated with the previously discussed soft paste pearl wares (Table 5). This variety of blue tone glazed semivitreous earthenware appears to be identified in contemporary ceramic advertisements of the mid-nineteenth century as "pearl" glazed (Collard 1967:131). Although archeological evidence relative to the temporal distribution of this ware is sketchy, a tentative 1850-1890 date range is suggested by the available information.

A total of only five white or clear glazed semivitreous earthenware sherds were recovered from sites 49-101-1 and 55-112-1. The three sherds collected from the former site represent a chamber pot and lid. This specimen is undecorated and possesses a black transfer-printed manufacturers mark of "Mellor, Taylor & Co.," a company which operated out of Staffordshire, England, between 1880 and 1904 (Godden 1964:432, Figure 2647).

A single semivitreous earthenware sherd decorated with a blue flow transfer-printed motif was recovered from site 55-112-1. Both documentary and archeological evidence place the introduction of this ware into the North American markets as dating to 1844, remaining as a popular form until ca. 1855 (Collard 1967:118).

A relatively recent semivitreous pitcher fragment was recovered from site 36-107-2. This specimen exhibited an extremely dark exterior blue glaze and possessed an as yet unidentified black transfer-printed manufacturers mark of an American producer (Figure 6c).

A total of seven vitreous or porcelain sherds were recovered from sites 14-144-1, 32-109-1 and 36-107-2. The bulk of this sample was associated with the first of the above sites and consisted of five blue transfer-printed underglaze sherds reminiscent of the Japanese porcelains which served as a common replacement for the previously popular German manufactured wares during the post World War I period. The single specimen recovered from site 32-109-1 was exteriorly glazed and undecorated, while that associated with site 36-107-2 was pierced along the rim, quite possibly for suspension of a prism, suggesting its probable function as a lamp shade.

A number of colored bisquit "utilitarian" wares were also collected, the largest segment of which consisted of semivitreous or stonewares. Among the stoneware sample, only four specimens exhibited the exterior salt glaze finish normally associated with the earlier dating varieties of this ware. The majority of the recovered sample consisted of either white/grey or brown glazed sherds indicative of a late nineteenth to early twentieth century period of manufacture (Table 5). A sample of two unglazed terra cotta or red ware sherds were collected from site 52-102-1 and may be identified as flower pot fragments.

Besides the above mentioned earthenwares, five clay smoking pipe fragments were also recovered during the survey from sites 4-153-1, 6-145-1 and 36-107-2. All of these specimens exhibited ovoid stem forms, a pattern which appears to be largely assignable to a post 1850 context (Martinez n.d.). Actually, the ceramic associations of all three sites are clearly indicative of a post 1900 period of utilization. The two marked stem fragments recovered from site 6-145-1 may eventually prove to be critical as a dating tool (Figure 6a and b). However, as research upon this later phase of pipe manufacture has remained marginal, we

presently lack any available source materials which would facilitate comparative analysis.

METAL

The metal artifacts collected consist of a sampling of diagnostic artifacts observed in the field and not the total metal inventory available. At sites such as 26-114-1, Moore Farm, the extent of metal artifacts lying on the surface is so great that it would not be practical to collect, process and store all of them. Therefore, only potentially diagnostic pieces were collected. There was evidence at 26-114-1 and 6-145-1 that pot hunters had been excavating, most probably with the aid of a metal detector since most of the surface material consisted of metal objects.

Of the 73 metal artifacts collected, two are made of brass and 71 are iron and steel. A brass buckle fragment was found at 52-102-1, S. W. Slack House, and a brass harmonica reed board was found at 32-109-1, Dogtown Village (Table 6). The iron and steel artifacts are those most commonly associated with homesteading and logging sites. The largest sample of any metal artifact type is 17 square cut nails. The majority of these were found at two sites: seven at 18-117-2, Veazie town site; and six at 52-102-1, S. W. Slack House. Six horseshoes were collected: five at 01-110-1, a logging camp; and one at 26-114-1, Moore Farm. There were 12 additional horseshoes observed at the Moore Farm site, but it did not seem profitable to collect all of them.

There are 20 categories of identifiable iron and steel artifacts (Table 6). These are found at 12 sites, three of which have been previously identified as logging sites, 1-110-1, 6-145-1 and 26-114-1. The remaining nine sites are historic occupation sites such as homesteads, town sites and native American villages. Of the 20 categories, 11 were restricted to the logging sites, six to the occupation sites and three were found at both. The categories found at both types of sites are square cut and wire nails and stove fragments.

There is no correlation between the categories of artifacts found at occupation or logging sites. Those categories restricted to occupation sites are barrel hoops, file fragment, shovel blade, button front, tin can fragments and a horseshoe nail. These artifacts would not be uncommon at a logging site. Those categories restricted to logging sites are axe heads, bolt fragment, chain, handle, hinge, hook, horseshoes, pintle, spike, kerosene lamp wick holder and spoon. Again, these categories of artifacts would not be uncommon at occupation sites.

TABLE 6

METAL DISTRIBUTION

	1-110-1	04-153-1	5-136-1	6-145-1	18-117-2	26-114-1	32-109-1	35-112-1	36-107-2	52-102-1	54-101-2	55-112-1	TOTAL
BRASS													
Buckle fragment										1			1
Harmonica reed board							1						1
IRON AND STEEL													
NAILS													
Horseshoe		1											1
Square cut			1	3	7					6			17
Wire						3	1				1		5
OTHER													
Axehead				1		1							2
Barrel loop					3		1						4
Bolt fragment				1									1
Button front							1						1
Chain						1							1
File fragment							1						1
Handle						1							1
Hinge				1		1							2
Hook				1		1							2
Horseshoes	5					1							6
Kerosene lamp wick holder				1									1
IRON AND STEEL (CONT'D)													
OTHER (Cont'd)													
Pintle				1									1
Shovel blade							1						1
Spoon	2												2
Spike	1												1
Stove fragment				2				3					5
Tin can		1									2		3
UNIDENTIFIABLE						3			1	8		1	13
TOTAL	8	2	1	11	10	12	6	3	1	15	3	1	73

The large number of categories restricted to logging sites is not indicative of the site type. Twelve of the categories were found at sites 6-145-1 and 26-114-1. Eight categories are found only at these two sites. These sites have been disturbed by amateur collectors' excavations, possibly with the aid of a metal detector, and metal artifacts were more numerous on the surface than at other logging and occupation sites.

CHAPTER 8
CULTURE HISTORY

The archeological record along the St. Croix and Namekagon Rivers shows that the earliest recorded occupation dates to the Archaic period. The Wisconsin state archeological site files have records for site 47BA4, renumbered for this survey, 04-150-1. Located in the eastern part of the Namekagon Riverway (Figure 8), this is the earliest site reported from the National Scenic Riverway and the only one of the 24 prehistoric sites inventoried that can be assigned to the Archaic period. Wisconsin archeologists reported finding artifacts assignable to the Archaic period at this site; however, no diagnostic artifacts were found here during the 1976 survey.

The initiative for Archaic occupation in this area cannot be documented from data recorded along the riverway and statements about earlier occupations cannot be supported through the archeological record. The Archaic period is generally described as a time when greater utilization was made of available resources for food procurement than in the preceding Paleo-Indian period. A greater diversity of wild foods were gathered and with the extinction of large post-Pleistocene animals, smaller and more diverse species of animals were hunted. The attraction of the St. Croix and Namekagon Rivers to these Archaic peoples was probably hunting and gathering, on a seasonal basis, of plants and animals living along the rivers.

Eight of the 24 inventoried prehistoric sites can be assigned to the Woodland period. One site, 51-102-1, has been dated to the St. Croix phase, a transitional period between the Middle and Late Woodland periods occurring approximately A.D. 500-800 (Gibbon and Caine 1976). Site 37-120-1 has been dated to the Blackduck Phase, an Early Woodland period occurring about A.D. 800-1200. Four sites have been assigned to the Late Woodland period. A Late Woodland triangular point was found at 21-135-1; grit-tempered, cord-marked, pottery sherds were recovered from 36-107-3; and a Late Woodland projectile point was photographed from a private collection found at 36-107-2. A humpbacked, triangular, late prehistoric or Late Woodland point was recovered from 21-115-1. Little Yellow Banks, 40-104-1, Minnesota state site number 21PN16; and site 49-102-1, Minnesota state site number 21CH15, have been identified on the state records as Woodland occupations. No diagnostic materials were recovered from these last two sites during the 1976 field survey.

TABLE 7

SITE SUMMARY BY HORIZON

	ENVIRONMENTAL SUBREGION																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
PREHISTORIC SITES																			
Archaic		1																	1
Woodland			2				1	2	1						2				8
Intermediate		2	4		1			1	1	2	1	1			1	1			15
TOTAL	-	3	6	-	1	-	1	3	2	2	1	1	-	-	3	1	-	-	24
HISTORIC SITES																			
Trading posts			1												1				2
Logging sites	1	10	5	-	-	-	-	-	1	-	1	-	1	-	1	-	-	-	20
Native American Settlements and Cemeteries	-	2	-	-	-	-	1	2	1	-	-	1	-	-	-	-	-	-	7
Euro-American Settlements	-	5	2	2	-	-	-	-	-	-	-	2	5	-	3	-	-	-	19
Ferry Landings and Bridges	-	1	1	-	-	-	-	-	-	1	1	-	1	-	2	-	-	-	7
Other	-	1	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	1	6
TOTAL	1	19	9	2	-	-	1	2	2	5	2	3	7	-	7	-	-	1	61

The remaining 15 prehistoric sites inventoried cannot be assigned to any general cultural period. Most were identified by a scattering of undiagnostic chippage. More information needs to be obtained before any conclusive observations can be derived.

One of the greatest resources available to Indian populations during the Woodland Period was wild rice. Enough wild rice was harvested during prehistoric times to be considered a staple vegetable food. The harvesting of wild rice in northern and eastern Minnesota has been well documented from Late Woodland sites and from a few Middle Woodland sites (Johnson 1969). It is still harvested throughout the St. Croix Scenic Riverway although today harvesting is controlled by state rules and regulations.

Wild rice is an annual aquatic grass which grows in shallow lakes and along streams in water one to three feet deep. The rice matures in late summer and is harvested by canoe. Historic Chippewa set up temporary camping sites near lakes and streams where wild rice grows. The rice was harvested and then processed in the temporary camp before being transported to the main village for storage. Archeologists would expect to find evidence of small temporary wild rice procurement sites associated with the St. Croix and Namekagon Rivers.

Contemporaneous with wild rice sites are the larger villages. Sites 36-107-2 and 36-107-3 are located at the conjunction of the St. Croix and Yellow Rivers. Schoolcraft describes a Chippewa village of approximately 382 people located at this site in his 1832 expedition on the St. Croix and Namekagon Rivers. However, field investigations from the 1976 survey located seven mounds in this area along with strong evidence of Late Woodland occupations (see site descriptions for sites 36-107-1, 2 and 3). This suggests a long-term occupation. At site 37-120-1, located at the conjunction of the Lower Tamarack and the St. Croix River, George (1973) reported Blackduck Phase pottery dated A.D. 750-1000. A Chippewa cemetery is also located at this site. One of the people interred there is a relative of Mrs. Dunkley (Appendix A), a local informant interviewed during the 1976 field survey. Several of the occupants in that area appeared to be of Indian descent. Just as at the Yellow River and St. Croix River conjunction, the Lower Tamarack area appears to have been occupied by Indians from the Early Late Woodland and historic periods. There is no archeological evidence for continuous occupation.

Site 05-136-1, another village, is located on the Namekagon River at Pacwawong Lake, a well-known source for wild rice. This is another site with potential long-term occupation. The field party located only one piece of chippage (Table 3) at this site but Jimmy Moustache (Appendix A), another local Chippewa informant, described a village at this site. Other informants

living in the vicinity supported his statement. A reported burial ground is also located at this site. This site is located on the David Dale Owens Map of the Chippewa Land District of 1847 and Mr. Moustache reports that the village was abandoned ca. 1909-1910.

The field party could find no visible evidence of prehistoric or historic occupations at the conjunction of the Snake and St. Croix Rivers. Yet, Schoolcraft describes a village and trading post located at this place, with a population of 301 Indians and 38 of mixed descent. The principal chief, Pezhichi, was one of a delegation that had visited Washington, D.C. Further research and testing will have to be conducted at this location.

Europeans were first attracted to this area for the exploitation of furs. Early independent fur traders worked with local Sioux and Chippewa tribes who competed against each other for domination of this area. Fur companies established trading posts on the Namekagon River in 1784 and along the St. Croix River at its conjunction with both the Yellow River and the Snake River.

The Site of the Michel Cadotte fur trading post, site number 13-179-1, was relocated during the 1976 survey. This North West Company site was established in 1784 on the Namekagon River (Figure 13). A second trading post was relocated at the mouth of Goose Creek along the St. Croix River. Site number 51-102-1, Connor's Goose Creek Trading Post, was established here between 1842-1849. Attempts to relocate the trading posts at the mouth of the Snake River and Sammuels Fur Trading Post located in George's 1973 report were unsuccessful.

After the furbearing animal population had been reduced and fur trading was no longer profitable on a large-scale business level, investors began acquiring lumbering rights along the Upper St. Croix and Namekagon Rivers. Twenty sites were inventoried in the National Scenic Riverway which are associated with the lumbering period (Table 7). Eight sites are logging camps, two of which are associated with dams and one with a log landing. Eight sites are dams only. One is a dam and house site, 6-153-1, probably associated with the lumbering era. The remaining sites are mills associated with lumbering, 04-133-1, 04-133-2 and 12-130-1. Nevers Dam, 55-111-1, is the only lumbering associated site located in the southern portion of the National Scenic Riverway. Most of the lumbering sites are located along the Namekagon River and the northern portions of the St. Croix River. These sites would be associated with the Great Lakes Pine forests and the Northern Hardwoods (Figure 3). Vegetation in the southern portions of the St. Croix Riverway consists of maple-basswood forests which are not conducive to logging.

The artifactual debris associated with historic/archeological sites from which collections were taken exhibit a maximal temporal spread of ca. 1850-1950, with the bulk of the material falling within the latter half of this range. These sites are largely represented by randomly dispersed midden concentrations which occur either as shallow refuse pits on sheet deposits, with only one site (1-110-1) possessing an extensive refuse mound. As might be anticipated, the amount and variety of waste materials observed at these sites increased in conjunction with a corresponding decrease in time depth. The majority of the site areas with high artifact yielding are assignable to a post 1890 context.

Historically, the economic strategies of this later period were an intensification of lumbering activities and development of the region's agricultural potential. This situation naturally led to increased settlement and the further elaboration of communication and transport networks. The creation of new road networks and the further expansion of the railroad system had the immediate effect of allowing far greater importation of eastern manufactured goods into the area,a fact which is readily discernible in an archeological context.

Among the more apparent transitions which occurred during this period is a dramatic increase in the amount and variety of ceramic tablewares associated with the later sites. Prior to this period it was extremely probable that the preferred, or at least more readily available, table services consisted of the more durable and cheaper enameled metal wares and wooden wares. Such a pattern has been postulated for the economically and geographically isolated communities of early nineteenth century north central Ohio and was also in evidence during surveys conducted by Commonwealth Associates at the early twentieth century Finnish settlement of Johnswood on Drummond Island in northern Lake Huron (Miller and Hurry n.d.; Weir and Demeter 1975). Although significant amounts of enameled wares were observed during the survey, relatively few examples were collected due to both problems in transport and the relatively meager amounts of information which such materials presently offer. It should also be noted that the bulk of those wares recognized in the field were almost entirely associated with the post 1890 occupation areas. The fact that few examples were identified in association with the earlier site areas such as 55-112-1 or 52-102-1 may well demonstrate a heavier preference for the use of wooden wares which may have been produced locally in conjunction with the lumber industry. However, it is impossible to render any judgments relative to this problem solely on the basis of negative archeological evidence. Judging from the deteriorated

condition of collected specimens, it is not improbable that the lack of evidence supporting the argument for heavy reliance on metal and/or wooden wares during the early phases of settlement may well be the result of poor preservation conditions.

The historic earthenwares collected during the field investigation appear to provide some evidence for sequential patterning of settlement. This becomes particularly evident through the distribution of the semivitreous or iron stone-like wares which can generally be attributed to a pre-1900 context. Although the sampling techniques employed during the examination of high yield sites such as 1-110-1 were essentially biased, in that diagnostic forms were discriminated for during collection, a clear modal shift in the occurrences of soft white paste and semivitreous earthenwares is indicated in Table 5. A clear drop in the occurrence of the latter ceramic variety at those sites situated north of survey segment number 49 is indicated. Although minor amounts are represented in the samples associated with 26-114-1 and 6-141-1, these clearly appear to be in the minority and are indicative of the long-term utilization of both sites. The high frequency of soft white paste wares collected from five sites along the Namekagon River, survey segments 01 to 26, is suggestive of a later period of intensive land use which is attributable to a post 1900-1910 context.

CHAPTER 9
PREDICTIVE MODEL

TOTAL SITE DISTRIBUTION

A primary objective of the 1976 Phase I survey was to develop a predictive model of site locations for the St. Croix National Scenic Riverway. There were three major reasons for taking this approach. First, it would allow the National Park Service to develop a management plan for archeological resources even if funds were not made available for completion of the total survey in future years. That is, the 1976 survey would provide exact information on 20 percent of the riverway area and would identify subregions with the highest potential for containing archeological resources in the unsurveyed portions.

The other two purposes were addressed to both the theoretical and practical aspects of survey technology. There have been a number of recent studies of survey technology utilizing sampling techniques (Lovis 1976, Mueller 1974, Brose 1976). These have dealt with the theoretical aspects of site prediction utilizing environmental models. To date, there has been little attempt to test the effectiveness of these models. The St. Croix Project would allow the development of site density and distribution models, utilizing an environmentally-stratified sample, which could be tested during subsequent years of the project, provided funding was made available for such survey. An additional practical application would be in planning such surveys. Since surveys will spread over several fiscal years, and continued funding will not always be certain, the initial follow-up survey could be concentrated in areas of high site potential, assuring a greater return of actual site location information for each survey dollar in the earlier stages.

The original goal was a 20 percent survey of each subregion and a 20 percent survey of the entire study area. As indicated earlier, the study area was stratified into 18 subregions on the basis of environmental variables (Table 1). It should be noted from the start that these subregions are all located along the riverway and represent an area favorable for both prehistoric and historic settlement. The site density figures derived from this study are applicable only to the survey area and cannot be extrapolated into the uplands away from the river, even in areas where there is an extension of the same environmental zones.

For a number of reasons, largely resulting from the complex pattern of land ownership and attitude of many private landowners toward the survey effort, we were not able to obtain a full 20 percent sample of all subregions, although we did obtain

a 20 percent sample from the entire study area. The subregions, areas, areas surveyed, sites recorded, and site density predictions, are presented in Table 8.

It should first be noted that the weighted mean of 468 projected sites is different from the projected 383 sites that would be derived from the total survey figures. The obvious reason for this is that more than half of the study area is included in subregions which contain more than the average number of sites for the entire study area.

However, two of the subregions, Subregions 8 and 12, were not adequately sampled. Only 5 percent of Subregion 8 and 8 percent of Subregion 12 were sampled, and these were visited primarily to recheck known sites. It will be necessary to more intensively sample these areas before they can be included in the site density projections with any degree of reliability. However, it was decided that the other small samples would be included in the projection, since they are greater than 10 percent and, presumably, more reliable.

The implications of the two unreliable sample units, where the major survey activities were rechecking previously reported sites, are important. These two subjections account for only 8 percent of the total survey area, but more than 25 percent of the predicted number of sites are contained within them.

The initial plan of concentrating survey efforts in areas of known cultural resources might have biased the sample in other ways as well. The implications for both prehistoric and historic site distribution will be considered in the sections of this chapter dealing with specific site type. The results suggest that far fewer than 468 sites will be located. Still it is necessary to consider total site projections before this detailed internal study.

The remaining survey areas have been separated, for planning purposes, into areas of high, medium and low site potential. Areas of high site potential are survey subregions with a density of .01 or more sites per acre, or approximately six or more sites per square mile. Three Subregions, 10, 13 and 15, were included in this category. Areas of medium potential consisted of those subregions with .0041 to .0079 sites per acre, or three to five sites per square mile (the projected average site density for the entire study area is slightly less than five sites per square mile). This group included Subregions 2, 3, 4, 7, 11, 14, 16 and 18.

TABLE 8

1976 SURVEY SUMMARY

Environmental Subregion	No. Total Acres	No. Acres Surveyed	Percent Surveyed	No. Sites	Sites No. Acres Surveyed	Projected Total Sites
1	2,203	622	28	1	.0016	4
2	19,393	5,177	27	21	.0041	80
3	9,652	1,909	20	15	.0079	76
4	1,926	486	25	2	.0041	8
5	2,969	641	22	1	.0016	5
6	477	63	13	0	0	0
7	2,233	266	12	2	.0075	17
8	2,291	111	5	4	.0360	82
9	5,056	584	12	1	.0017	9
10	2,844	489	17	7	.0143	41
11	1,142	175	15	1	.0057	7
12	2,776	228	8	3	.0132	37
13	3,089	653	21	7	.0107	33
14	1,908	216	11	2	.0093	18
15	2,526	493	20	8	.0162	41
16	1,200	211	18	1	.0047	6
17	479	79	16	0	0	0
18	680	182	27	1	.0055	4
	62,844	12,585	20	77		468*

*Weighted Mean: This is a different value from the less exact value derived from the 1976 total survey mean which is 383.

Areas of low site potential are those which contain fewer than .0017 sites per acre, or approximately one or fewer sites per square mile. Two Subregions, 6 and 17, might be expected to contain no evidence of human habitation. The one site located in Subregion 5, conifer bogs, was in a unique, dry, microenvironmental setting and with a projection of four additional sites, this setting may be unrealistically high. The other two subregions in this group are Subregions 1 and 9.

A summary of this data by site potential classification is presented in Table 9. This information clearly establishes survey priorities for the remaining portions of the project. If the projections from the two unreliable samples are validated in subsequent surveys, we can predict that 50 percent of all sites will be concentrated in 21 percent of the study area and 96 percent of all sites will be found in 82 percent of the study area.

The results of the total site sample allows us to make some statements on the total pattern of prehistoric and historic settlement along the St. Croix National Scenic Riverway. The areas of highest site density are in maple-basswood or Northern Floodplain Forest areas with productive soils, primarily in areas with more than 120 frost-free days. The areas with the lowest site density are marked by poorer soils, northern hardwood or conifer cover, and are primarily located in areas of fewer than 120 frost-free days. Site density is greater in the lower portions of the Upper St. Croix River than it is in the upper portions. This is consistent with the even greater site density that is known for the Lower St. Croix area.

TABLE 9

POTENTIAL OF SURVEY AREAS

	High Potential	Medium Potential	Low Potential	Unreliable Data	Total
Survey Information:					
Area in Acres	8,459	38,134	11,184	5,067	68,844
Projected Sites	115	216	18	119	468
Total Survey:					
% Total Area	13	61	18	8	100
% Projected Sites	25	46	4	25	100
Total Survey with Exclusion of Unreliable Data					
% Total Area	15	66	19		100
% Projected Sites	33	62	5		100

PREHISTORIC SITE DISTRIBUTION

It should be clear from the preceding chapters that the 1976 season survey did not uncover evidence of large-scale prehistoric utilization of the St. Croix National Scenic Riverway study area. Most of the 24 sites which produced evidence of prehistoric occupation yielded only scattered and nondiagnostic chippage. One site was considered to be specifically Archaic, but this determination was made on the basis of previously reported information in the Wisconsin State site files, rather than as a result of information collected by the survey party. Eight sites were classified as Woodland, but only one produced any prehistoric pottery and two, Late Woodland projectile points. One site was identified as Late Woodland from materials in a private collection and the remaining four as Woodland on the basis of previous survey reports and site files. In short, the 1976 survey recovered diagnostic materials from only three of the 24 prehistoric sites.

The projected distribution of prehistoric sites in the study area, based on the current sample data, is presented in Table 10. At face value, 185 prehistoric sites are projected for the entire study area, or 161 sites in addition to the 24 that have been recorded to date. However, several of these site figures are suspect since they are based on the unreliable samples from Subregions 8 and 12. If these samples are eliminated, there is a projected total of 111 sites for the remaining portions of the St. Croix study area. It might again be mentioned that the single site recorded for Subregion 5 is in a unique microenvironmental situation and it might be unrealistic to expect to find four additional sites in the conifer bogs.

If we use the average prehistoric site density for the 1976 survey (24 sites in 12,585 acres = .0019 sites per acre = one site per square mile) for the two unreliable sample areas, we would obtain projections of four sites for Subregion 8 (of which three have already been identified) and five for Subregion 12 (of which one has already been identified). This would give a total of 120 projected sites. Since 24 sites have already been located, 96 additional prehistoric sites might be expected in the study area and this might be reduced to 92 additional prehistoric sites by the elimination of the shaky projection for Subregion 5.

The survey information and projected prehistoric site distribution is significantly different from the total site distribution pattern. Prehistoric site density in the St. Croix study area is greater along the upper portion of the river. All Archaic sites, and a majority of all prehistoric sites, seem to occur in northern hardwood and Great Lakes pine forests, in areas with a growing season of less than 120 frost-free days. The most significant concentration of prehistoric sites in the lower

TABLE 10

PREHISTORIC SITE POTENTIAL

Subregion	Total Area	Area Sampled	Archaic Sites No.	Archaic Sites Projected	Woodland Sites No.	Woodland Sites Projected	Total Prehistoric No.	Total Prehistoric Projected
1	2,203	622	0	0	0	0	0	0
2	19,393	5,177	1	4	0	0	3	11
3	9,652	1,909	0	0	2	10	6	30
4	1,926	486	0	0	0	0	0	0
5	2,969	641	0	0	0	0	1	5
6	477	63	0	0	0	0	0	0
7	2,233	266	0	0	1	8	1	8
8*	2,291	111	0	0	2	41	3	62
9	5,056	584	0	0	1	9	2	17
10	2,844	489	0	0	0	0	2	12
11	1,142	175	0	0	0	0	1	7
12*	2,776	228	0	0	0	0	1	12
13	3,089	653	0	0	0	0	0	0
14	1,908	216	0	0	0	0	0	0
15	2,526	493	0	0	2	10	3	15
16	1,200	211	0	0	0	0	1	6
17	479	79	0	0	0	0	0	0
18	680	182	0	0	0	0	0	0
Totals			1	4	8	78	24	185
Less Unreliable Sample				0		41		74
				4		37		111

*Unreliable predictive data

portion of the study area is in Subregion 15, an area of potentially favorable agricultural soil, northern floodplain forest and a longer growing season. The majority of these sites might be expected to be Late Woodland, and approximately 25 percent of all projected Lake Woodland sites are to be expected in this subregion, although it constitutes only 4 percent of the study area.

Several very tentative conclusions could be drawn from this data. The St. Croix was known to have been a buffer zone between groups with different adaptive patterns in the historic period and the same thing may have been true for the prehistoric period as well. To date, there is no evidence of Paleo-Indian occupation within the study area. Archaic occupations may be expected to be concentrated in Subregion 2, the largest of the subregions, with major elements around the confluence of the St. Croix and Namekagon and around Seeley and Cable along the Namekagon. It is very likely that these will be transient summer season sites of groups with major winter villages along the lower St. Croix outside of the study area.

If Woodland villages are to be found, it is likely that they will be encountered in the area between St. Croix Falls and Grantsburg. It is very likely that any Woodland sites found above Grantsburg would be seasonal hunting or collecting camps. Sites of this type are likely to be small, but may be more numerous than the Woodland sites in the southern portion of the study area.

HISTORIC SITE DISTRIBUTION

Historic archeological sites were more numerous in the study area than prehistoric sites, but like prehistoric sites, there are problems in taking the survey projections at face value. A summary of historic site survey distribution data, by site type and subregion, is presented along with projections by subregion in Table 11. The base data on total and sample acreage for these subregions has been presented in both Table 8 and Table 10, so it is not presented again in Table 11.

At face value, a total of 345 archeological sites with historic components would be projected for the study area. In examining each category, there are reasons to reduce this estimate. The problem of the unreliable samples from Subregions 8 and 12 is again significant for the projections in each site category.

A total of 10 historic trading posts are projected for the study area. We have found documentation of only six trading posts. Two were located in the 1976 survey and the survey parties covered areas where two additional posts were reported located

TABLE 11

HISTORIC SITE POTENTIAL

Subregion	Trading Posts		Logging Sites		Native American		Euro-American Settlements		Ferries and Bridges			
	No.	Projected	No.	Projected	No.	Projected	No.	Projected	No.	Projected	No.	Projected
1	0	0	1	3	0	0	0	0	0	0	0	0
2	0	0	10	37	2	7	5	18	1	4	1	4
3	1	5	5	25	0	0	2	10	1	5	0	0
4	0	0	0	0	0	0	2	8	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	1	8	0	0	0	0	0	0
8*	0	0	0	0	2	41	0	0	0	0	0	0
9	0	0	1	9	1	9	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	1	6	4	23
11	0	0	1	7	0	0	0	0	1	7	0	0
12*	0	0	0	0	1	12	2	24	0	0	0	0
13	0	0	1	5	0	0	5	24	1	5	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	1	5	1	5	0	0	3	15	2	10	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	1	4
Totals	2	10	20	91	7	77	19	99	7	37	6	31
Less Unreliable Sample		0		0		53		24		0		0
		10		91		24		75		37		31

*Unreliable predictive data

without finding any physical evidences of them. Subsequent survey should reveal the actual locations of these sites. While it is possible that there are four additional trading posts for which we have found no documentation, it would be surprising if we found physical traces of more than six.

Logging Sites, including camps, mills and dams, are one of the most numerous archeological features in the study area. The 1976 survey located 20 sites of this type and the projection of 91 sites seems realistic. It is not surprising that they are concentrated in the upper portions of the study area in regions of natural Great Lakes pine cover.

The projection of a total of 77 for Native American Villages and Cemeteries is completely unrealistic. More than two-thirds of this projection is derived from the unreliable sample areas where the survey parties were directed to specific sites by local informants. The revised estimate of 24 Native American Sites is probably more realistic.

Historic Native American Sites will probably be concentrated in those areas of the river above Grantsburg. Historic Native American Settlement appears to be concentrated in areas marginal to Euro-American agricultural activities and is probably more directly correlated with logging activities. It is important to note a possible correlation between prehistoric and historic Native American Sites. This may reflect a traditional utilization of certain areas or a preference for site location in certain microenvironmental settings not yet identified.

Euro-American Settlements were projected to be the most numerous type of historic sites in the 1976 survey, but when the unreliable sample projections are excluded, we would expect fewer town sites and farm sites than logging sites along the river. The projected total of 75 sites for this category seems more realistic. These sites seem to be concentrated in two areas: near the logging sites in the upper portions of the study area and below Grantsburg in favorable agricultural localities.

The projection for ferries and bridges also may be high. Most of the areas with mapped roads leading up to ferry and bridge sites were travelled or visited in 1976. While additional sites of this type, where access roads intersect the rivers were either unplatted or since have been abandoned, it is unlikely that more than seven sites for this type, for a total of 14, will be encountered.

The category of "Other" sites contains a variety of unique locations. These cannot be predicted on any regular basis and there is no good reason for not accepting the figure of 31 for the projected number of unique sites.

From this review, it can be seen that in spite of the prediction of a total of 345 historic archeological sites, we feel that a total of 243, of which 61 have already been located, would be more realistic. This would include six trading posts, 91 logging sites, 24 Native American Sites, 75 Euro-American settlements, 14 ferries and bridges and 31 unique sites.

Historic archeological sites are distributed in different, but predictable, patterns according to site type. Trading posts and bridges and ferries are distributed evenly within the study area. There would have been no advantage in clustering sites of this type and spacing might be expected as a rule. Logging sites are concentrated in the portions of the river with the greatest natural potential for logging activities. Native American Sites tend to be located in areas less favorable to agriculture, and to some extent, are associated with logging sites. Euro-American sites have a bimodal distribution, with one cluster near the logging region and a second in the area of some agricultural potential below Grantsburg. The unique sites follow a random distribution.

SITE PREDICTION REVISIONS

The initial presentation of the grouped survey data by subregion suggested that a total of 468 archeological sites might be expected for the survey area (Table 8). Out of this number, 75, or 16 percent, had already been located. A careful examination of the reliability of the survey data, and the specific biases of the 1976 survey, has indicated that there should be a downward revision of this projection.

It has been suggested that a total of somewhere around 116 total prehistoric sites might be more realistic than 185 sites of this period. It has further been suggested that 243 might be a more accurate projection for the total number of historic sites than the raw figure of 345. This would give a total of 359 prehistoric and historic components. In the 1976 survey, approximately 10 percent of all sites contained multiple components (85 prehistoric and historic components less 77 total sites = 7 sites with both prehistoric and historic components, one of which has two historic components). The total number of sample sites, 77, could be obtained by dividing the total number of prehistoric and historic components by 1.10. By dividing 359 by 1.10, we would obtain a total site projection of 326. The probable distribution of these sites has been discussed in the preceding sections. If this figure is used, the 1976 survey located 24 percent of the projected number of sites in the study area.

CHAPTER 10
MANAGEMENT RECOMMENDATIONS

Seventy-seven archeological sites were recorded along the St. Croix National Scenic Riverway. Twenty-four of these sites contain a prehistoric component and 61 an historic component, while seven sites are multicomponent. One of the multicomponent sites, 42-109-1, contains two historic components and one prehistoric component. All 77 sites will be included on an inventory of archeological sites for the riverway, but not all are of a quality suitable for the National Register of Historic Places.

The interim report submitted November, 1975, stated that 51 of the 77 sites were considered to be potentially eligible for the National Register based on information recovered during the 1976 field investigations. Further historical documentation was conducted by Woolworth Research Associates, on 38 of the 51 sites that contained historic components. On the basis of the information provided by Woolworth Research Associates, five sites were excluded from the list of sites potentially eligible for the National Register. These are 07-154-1, 35-124-1, 45-101-2, 49-102-2 and 58-108-1. Table 2, submitted with the interim report, has been revised to include these recommendations.

After the entire St. Croix Riverway has been subjected to survey, a testing program will be designed for all sites considered potentially eligible for the National Register. This will include the 46 prehistoric and historic sites deemed potentially eligible in this report plus any additional sites inventoried from subsequent surveys. It is predicted that additional sites will be excluded from the eligibility list after testing.

Twelve sites considered potentially eligible for the National Register are in imminent danger of destruction. Most of this danger has been brought about by the increased recreational use of the riverway in the past few years. The utilization of the riverway is anticipated to increase in the future which will subsequently create a greater threat to cultural resources. Seven sites appear to be recently disturbed by unauthorized excavations. These are 6-145-1, 13-179-1, 21-135-1, 26-114-1, 51-102-1, 52-102-1 and 54-102-1. Three sites, 46-146-1, 46-146-2 and 58-108-1, are undisturbed, but are located in campsites and picnic areas. One site, 45-102-1, is a mill with the standing structure intact but in deteriorating condition. The last site, 40-102-1, is located in an area being developed for a YMCA camp. Construction of cabins is occurring in the site area. The following special recommendations are made for mitigation of those sites considered in immediate danger of destruction.

Doran's Crossing, 06-145-1, is the best archeological example of a logging camp found along the St. Croix or Namekagon Riverway. Several features are clearly outlined, so the layout of structures within the camp is visibly discernible. The site has been vandalized by relic hunters working with metal detectors and metal artifacts are scattered across the surface of the site. Special protective procedures should be immediately undertaken to preserve the integrity of this site. According to the segment maps, this site is still in private ownership. Attempts should be made to acquire title to this land as soon as possible. The features should be surveyed, mapped in detail and the site area should be tested. This is one of the few sites on the inventory that could easily be developed as an educational or interpretive center.

Moore's Farm, 26-114-1, is another outstanding example of a logging site along the St. Croix or Namekagon Rivers. Although not as distinct as Doran's Crossing, many features and structural depressions are visible at this site. This area should be surveyed, mapped in detail and tested. Several features have been disturbed by amateur excavations and piles of metal artifacts in erosional gullies suggest that people working with metal detectors have been collecting from this site. The area of this site is owned by Burnett County; therefore, public access could be limited.

Site number 54-101-2 is a house site, dated 1875, which could be the farm and way station of William Holmes. Further historical documentation along with archeological testing is needed to identify this site. Several features are visible and should be surveyed and mapped in detail. The area has also been disturbed by amateur excavations. Fragments of artifacts are scattered over the surface and features have been potted. The area is owned by Northern States Power and title will soon be transferred to U.S. ownership. Public access to this area could be regulated.

Cadotte Trading Post, 13-179-1, is presumed to be totally excavated; however, the site should be tested to determine if anything remains in situ. If the site has been totally excavated, the collections and field notes should be studied and the information from them included in the Phase III report. A marker could be posted along the Court Orielles Portage Trail, to indicate to hikers the location of one of the few trading posts along the Namekagon River. If some portion of the site remains intact, this could be developed into an educational or interpretive center describing the fur trading era. The site is in USA title and public access to this area could be regulated.

The prehistoric site 21-135-1 is situated at the top of a hill in a forested area. The area is accessible by logging

roads and by the river. It is currently owned by Northern States Power Company. The site needs to be tested to determine the extent of its significance. If the site is determined to contain significant information about prehistoric utilization of the river, protective measures should be employed to reduce the likehood of unauthorized excavations. This could start with the removal of a canoe landing located close to the site. The canoe landing is the only public access to the site.

The S. W. Slack House, 52-102-1, consists of a large structural depression in an open field. The feature has been subjected to extensive vandalization and cultural debris is scattered over a wide area. The area should be tested to determine if additional information can be found. Data recovered from testing will mitigate adverse effects from unauthorized excavations. The area is not easily accessible from the river or roads in the area. It is known by local people and it can be assumed that the vandals are local people. The area is owned by Northern States Power Company and will soon be transferred to USA title. Public access to the site can then be regulated.

Connor's Trading Post, 51-102-1, was relocated by the description of pot hunter's holes in George's report. No additional unauthorized digging appears to have been done since his survey in 1972. The site occurs in heavy wooded cover about 10 feet from a nature trail and 150 feet from a public picnic area. Testing should be conducted to determine the location of the structure and the site size. The best protection for the site would be to cover all excavations and allow the forest to disguise the location.

Of the three sites that are currently undisturbed but are located in or near public access areas, 46-146-1 and 46-146-2 are located in the same campground and canoe landing. 46-146-1 is a prehistoric site with a far greater number of chippage found on its surface than any other prehistoric site in the St. Croix National Scenic Riverway. Although the site has not been subjected to vandalization, a camping ground area has been developed on the site area. Site 46-146-2 is a mill foundation. It is located closer to the canoe landing area. Increased public access and utilization of this area threatens the security of the sites. Both sites should be tested and, if found to be significant, then the camping ground and canoe landing should be removed.

A park has been constructed at the Chippewa-Sioux battlefield site, 58-108-1. No artifacts were located in the park area which is grass covered and fairly well protected by ground cover. Testing has been recommended to determine the extent of the site. The site can be patrolled from either a main highway or the river, so the condition of the site can easily be monitored. If unautho-

rized excavations or disturbances occur, steps can be taken to protect the area by more extensive supervision of the area. The park is well equipped with playground equipment and to move it would be costly; however, this step could be retained as possible mitigation.

The St. John's Landing site, 40-102-1, contains both a logging camp and a possible prehistoric component. Mr. Dunkley, a local Chippewa, reports that a burial area exists within the site. He attempted to protect the burials from looters many years ago by dumping boulders in the area to discourage their excavation. The site is located in the St. Croix State Park, but some agreement has been made between the park and the YMCA Camp, for the latter is privately developed and not open to the public as is the rest of the park. The YMCA Camp is constructing cabins in the site area which could disturb the burials. Steps should be taken to halt construction or camp activity in that area. Testing could be done outside the burial area to help date the site.

Site number 45-102-1 consists of a mill house in a poor state of preservation, mill dam, pond and sluice. The site should be mapped, measured and photographed in detail. Testing in the general area could provide additional significant information. Preliminary historical documentation failed to uncover background information regarding the date and function of the mill. It is presumed to be associated with a paint mine, 45-101-1, which operated until 1939. This is the only partially standing mill structure located to date along the riverway and attempts should be made to preserve this site. This property is still in private ownership. Protection of the site would be easier to implement if the property was owned by the National Scenic Riverway.

Different mitigative measures should be employed for sites that are considered eligible for the National Register and for those special cases where potential National Register sites are in imminent danger of destruction or disturbance. Recommendations for some level of protection have been discussed in this chapter for sites in immediate danger of disturbance. Attempts should be made to acquire title to sites still in private ownership as soon as possible and testing should be conducted to determine the full extent, size and significance of these sites. After the survey of the entire riverway is completed, a testing model for all sites considered potentially eligible for the National Register should be designed.

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Pilling, Arnold R., (Con'd)
1967b "Nineteenth Century Glazed Ceramics in Michigan and Elsewhere: Part II: Archaeological Evidence." Coffinburry News Bulletin, Vol. 14, No. 6, pp. 60-71. Michigan Archaeological Society, Wright L. Coffinburry Chapter.

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1960 Indian Life In The Upper Great Lakes, The University of Chicago Press, Chicago.

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1972 "Roster of Excavated Prehistoric Sites in Minnesota to 1972." Minnesota Prehistoric Archaeology Series, No. 7.

United States Geological Survey
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Walker, John W.
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APPENDIX A

LIST OF INFORMANTS

Name	Address
Lawrence Anderson	Burnett County Historical Society Webster, Wisconsin
Mr. Asa (Ace) Atkinson	Pansy Landing Road about 2 Miles east of Pansy Landing Site 35-112-1
Mrs. (Harold) Virginia Buckman	Lives on the site of Stinnett Lumber Camp (14-164-1)
Mrs. Ione Buttenhoff	Lives on Parcel 18-127 and 18-128 near former Veazie town site 18-117-2
Jack Canfield	Trego, Wisconsin
Mr. M. C. Chipman	Chipman Groceries Danbury, Wisconsin
Clarence Currie	East of Hinkley, Minnesota near St. Croix State Park
Burton Dahlberg	State of Wisconsin, Dept. of Natural Resources, Spooner, Wisconsin
John and Marion Dunkley	Route 48, East of Hinkley, Minnesota
Henry Hughlett	Head Ranger St. Croix National Scenic Riverway, St. Croix Falls, Wisconsin
Gustaf Hultman	Park Superintendent St. Croix National Scenic Riverway St. Croix Falls, Wisconsin
Don Jeuneman	Park Manager St. Croix State Park, Minnesota
Ellen Johnson	Burnett County Historical Society Webster, Wisconsin
Brad Keshlear	National Park Service Ranger Grantsburg Ranger Station

Name	Address
Joseph Krussel	Beloit, Wisconsin
Kenneth Lehman	Sunrise, Minnesota
Arnie J. Long	District Ranger, National Park Service Trego Ranger Station, Trego, Wisconsin
Eldon Marple	Hayward, Wisconsin
Mrs. Ellen Welch Miller	Lives on the site of Big Brook Logging Camp (4-161-1)
James (Jimmy) Moustache	Historyland Hayward, Wisconsin
Leonard Nelson	Lives on the site of the Radloff Mills and Log Driving Camp (4-133- and 1&2)
Lois Nestle	Director, Natural History Museum Cable, Wisconsin
James D. Oldner	Rush City, Minnesota
Mr. Gil Rasmussen	Western edge of Pacwawong Lake
Mrs. Felix Schmidt	Burnett County Historical Society Webster, Wisconsin
Mrs. Donald Springer	Springbrook, Wisconsin
John Staples (Uncle of Sanders Staples)	Lives on Site 36-107-3 Danbury, Wisconsin
Mrs. Staples	Lives on Site 36-107-2 Danbury, Wisconsin
Sanders Staples (son of Mrs. Staples)	Lives on Site 36-107-2 Danbury, Wisconsin
Mr. A. Thompson	Lives east of Chippewa Village at Pacwawong Lake
George Vodvarka	
Chester Westphal	Springbrook, Wisconsin
Mr. Williamson	Hayward, Wisconsin
Tony Wise	Telemark Lodge Cable, Wisconsin

JAMES E. FITTING
Supervisor – Cultural Resources

Extensive background of over 15 years experience in archeology, anthropology, history and historic preservation including positions with private and public universities, governmental, and engineering firms.

EXPERIENCE:

1975 to Present — **Gilbert/Commonwealth since 1975**
Supervisor – Cultural Resources responsible for directing a group of professionals involved in cultural resources evaluations including literature searches, field evaluations, test excavations and historical, archeological, and anthropological planning on more than 40 projects throughout the United States.

1972-75 — **State of Michigan**
State Archeologist responsible for organizing first meeting of state archeologists in Washington, D.C.; served as a member of the Michigan Intergovernmental Environmental Review Committee; and was a contributor to the State Historic Preservation Plan.

1964-72 — **Case Western Reserve University, University of Michigan and Wayne State University**
Instructor, Research Assistant, State College Fellow, Assistant Professor, Professor and Chairman of the Anthropology Department in these institutions.

Involved in research projects in eastern and southwestern U.S., Guatemala and the Virgin Islands. Principal investigator for 24 research and training grants and cultural resources management contracts between 1963 and 1975.

EDUCATION:
B.A., Division Social Science (with High Honor), Michigan State University, 1960
M.A., Anthropology, University of Michigan, 1962
PhD., Anthropology, University of Michigan, 1964

CERTIFICATION: NASDS SCUBA Certification, 1973

SOCIETIES:
Society for American Archeology
Society for Historical Archeology (Board of Directors 1976-79)
American Anthropological Association (Fellow)
Society of Professional Archeologists
Eastern States Archeological Federation

(Continued)

SOCIETIES: (Cont'd)

American Institute of Nautical Archeology
American Society for Conservation Archeology
Approximately 20 State and Local Historical and Archeological Societies

PUBLICATIONS: (Over 100 books, monographs, articles, chapters and reviews in the fields of archeology, anthropology, and history.)

Editor of THE MICHIGAN ARCHEOLOGIST, CASE WESTERN RESERVE UNIVERSITY STUDIES IN ANTHROPOLOGY, SOUTHWESTERN NEW MEXICO RESEARCH REPORTS and MICHIGAN HISTORY DIVISION, ARCHEOLOGICAL SURVEY REPORTS. Served on the editorial committees of ABSTRACTS IN ANTHROPOLOGY, BULLETIN OF THE TOLEDO ABORIGINAL RESEARCH CLUB and the Smithsonian Institution HANDBOOK OF NORTH AMERICAN INDIANS.

"Environmental Potential and the Postglacial Readaptation in Eastern North America," *American Antiquity*, Vol. 33, No. 4, pp. 441-5, 1968.

"Settlement Analysis in the Great Lakes Region," *Southwestern Journal of Anthropology*, Vol. 25, No. 4, pp. 360-77, 1969.

"*The Archeology of Michigan: A Guide to the Prehistory of the Great Lakes Region*," The Natural History Press, 290 pages, 1970. Revised and enlarged paperback edition published by Cranbrook Institute of Science in 1975.

"The Schultz Site at Green Point: A Stratified Occupation Area in the Saginaw Valley of Michigan," *Memoirs of the Museum of Anthropology, University of Michigan*, No. 4, 329 pages, 1972.

"*The Development of North American Archeology*" published simultaneously by Doubleday-Anchor (paper) and University of Pennsylvania Press (hardcover) 319 pages, 1973.

CANDICE H. BENN
Archeologist/Historic Site Specialist

Background in prehistoric and historic sites survey and evaluation, lithic technology, applied anthropology and computerized data retrieval systems.

EXPERIENCE:

1974-77 — **Gilbert/Commonwealth since 1974**
Responsible for data collection, interpretation, report writing and editing. Project Coordinator on St. Croix National Scenic Riverway Survey in Wisconsin and Minnesota. Phase Coordinator for Potomac Edison transmission routing historic/archeological evaluations in Maryland. Survey team leader for projects in Delaware and Illinois.

1970-72 — **University of Arizona**
Graduate Research Assistant and computer specialist, Division of Business and Economic Research. Marketing studies, graduate study in Applied Anthropology and Archeology.

1968-70 — **University of Kansas**
Field Archeologist and laboratory supervisor. Participated in projects in Kansas, Nebraska and Missouri. Participated in excavation of an Upper Paleolithic rock shelter in the Dordogne region of France. Special study in lithic technology.

EDUCATION:
B.S., Anthropology, University of Kansas, 1970
M.A., Anthropology, University of Arizona, 1972

PUBLICATIONS:
"Two Nebraska Culture Storage Pits from Doniphan County, Kansas," PLAINS ANTHROPOLOGIST, Vol. 15, No. 47, 1970.

DONALD J. WEIR
Archeologist

Background in archeological research, test excavation, survey, mitigation, historical literature search and report preparation with particular emphasis on power generation facilities, pipelines, national parks and historic sites, levees, harbors, reservoirs, etc. for utility, commercial, and governmental clients.

EXPERIENCE:

Gilbert/Commonwealth since 1974

1975 to Present — Project Archeologist responsible for survey, excavation, mitigation, and report preparation for such typical projects as: ± 230 kV transmission line project for Cooperative Power Association/United Power Association (CPA/UPA); historic battlefields, county jails; Louisville Lake Reservoir, Madrid Bend Levee and Underwater Survey of Detour Harbor for the U.S. Army Corps of Engineers; Nicolet National Forest and Upper Choptank Watershed for U.S.D.A.; Foote Wash and No Name Wash, St. Croix Scenic Riverway for the National Park Service; transmission line for Pennsylvania Power and Light Company; Erie Nuclear Plant for Ohio Edison Company; East Bend Station for Cincinnati Gas and Electric Company; and pipelines for oil companies.

1975 — Project Manager on the archeological survey, historical literature search and report preparation for the Loran Chain Site for the U.S. Coast Guard in Chippewa County, Michigan.

1974 — Project Archeologist on archeological and historical literature search for an environmental report for 130 miles of pipeline routing for Mobil Pipeline Company; and field survey and report preparation for construction of I-275 for the Michigan History Division.

1971 — **Foundation for Latin American Anthropological Research**
Field Assistant during excavations of classical Mayan ruins at Lake Yaxha, Guatemala, including underwater recovery of materials in the lake, site mapping, excavations and student instruction.

1968-70 — **Michigan State University, E. Lansing, Michigan**
Museum Assistant involved in research of archeological material of Michigan, specifically in the northern part of the state. Field work in Traverse Corridor area and at the O'Neil site.

EDUCATION:

B.S. (with honors), Social Science – Anthropology, Michigan State University, 1970
Graduate courses toward a Master's Degree, Anthropology, 1975–present

(Continued)

CERTIFICATION: YMCA SCUBA Certification (1965)

SOCIETIES:
Michigan Archeological Society
Society for Historical Archeology
Society for American Archeology
American Society for Conservation Archeology

STEPHEN R. CLAGGETT

ARCHAEOLOGIST-HISTORIC SITE SPECIALIST

LAND PLANNING SERVICES

PRESENT POSITION . . .

With training in both history and archaeology, Mr. Claggett is involved in field survey and report preparation on projects with the Cultural Resources Section of the Land Planning Services Department. His particular areas of specialization are in the midwestern and southeastern United States. His current assignment is with the Louisville Lake Cultural Resources Survey in Illinois which is being carried out for the Louisville District of the U.S. Army Corps of Engineers.

EXPERIENCE SUMMARY . . .

1975-76 Archaeologist, Bernheim Forest, Clermont, Kentucky.

1975 Survey of Louisville Gas and Electric Company Plant Site, Trimble County, Kentucky, and Field Supervisor of the Centre College Archaeological Field School at Shakertown, Kentucky.

1974-75 Laboratory Assistant, Museum of Man, Wake Forest University.

1974 Archaeological Excavations at Duke Power X-81 Plant Site, Davie County, North Carolina.

1973 Cultural Resources Survey of Clark County, Indiana.

EDUCATION . . .

BA, History, Centre College, 1973
MA, Anthropology, Wake Forest University, 1976

MEMBER . . .

Society For American Archaeology
American Anthropological Association
Kentucky Archaeological Association
Eastern States Archaeological Federation
Phi Alpha Theta History Honorary

TECHNICAL PUBLICATIONS . . .

"Seriation of Archaic Projectile Points from North-Central Kentucky." MA Thesis, 1976.

"An Archaeological Survey of the Great Bend Area of the Yadkin River" (with J. N. Woodall). North Carolina State Department of Archives and History (in press).

C. STEPHAN DEMETER

Historical Archaeologist

Landplan Systems

PRESENT POSITION . . .

Mr. Demeter provides the Landplan Systems Division with special experience in historical archaeology. He is involved in archive research relating to the appraisal of historical resources necessary for environmental reports and additionally serves as field archaeologist.

EXPERIENCE SUMMARY . . .

Prior to joining Commonwealth Mr. Demeter served as Archaeological Consultant to the River Rouge Flood Control Project and the Pointe Mouillée Disposal Site, Michigan. He also held the position of historical/archaeological consultant to the Renaissance Center Partnership and most recently served as Field Director for the Archaeological Salvage Program conducted at the Renaissance Center Development, Michigan.

EDUCATION . . .

BA, Anthropology and History, Wayne State University, 1971
Graduate Courses in Anthropology, Wayne State University, 1971-72.

MEMBER . . .

Michigan Archaeological Society
Society for Historical Archaeology

TECHNICAL PUBLICATIONS . . .

"Archaeological Survey of the River Rouge Flood Control Project" (Section B), August 1972, U.S. Army Corps of Engineers, Detroit District

"Archaeological Survey of the Pointe Mouillée Disposal Site," December 1972, U.S. Army Corps of Engineers, Detroit District

NANCY L. WOOLWORTH

WOOLWORTH RESEARCH ASSOCIATES

PRESENT POSITION . . . .

In her position with Woolworth Research Associates, Mrs. Woolworth is responsible for ethnohistorical research, literature and archives research, and archaeological and historical field investigations on a variety of projects in Minnesota, Wisconsin, and surrounding states. She is also a director of the White Bear Lake Historical Society and serves as a member of the Power Plant Siting Advisory Committee of the Minnesota Environmental Quality Council.

EXPERIENCE SUMMARY . . .

Mrs. Woolworth has assisted in the direction of archaeological excavations at Grand Portage National Monument since 1961. She has studied historical architecture at a number of sites in North Dakota and Canada and has conducted field research to locate approximately 400 historic sites in western Wisconsin and eastern Minnesota.

In 1968, she published her first book, The *White Bear Lake Story* and in 1973 prepared the study for the architectural reconstruction of a Metis fur trading post.

EDUCATION . . .

B.A., Education, The University of Michigan, 1954
M.A., History, The University of Michigan, 1959
Post graduate studies in American History and American Studies,
University of Minnesota, 1965-74.

PUBLICATIONS . . .

In addition to her book length study, *The White Bear Lake Story,* Mrs. Woolworth has published 12 articles in such journals as *North Dakota History, The Detroit Society for Geneological Research Magazine, Ramsey County History, Central States Archaeological Journal, The Michigan Archaeologist,* and *Minnesota History.*

ALAN R. WOOLWORTH

WOOLWORTH RESEARCH ASSOCIATES

PRESENT POSITION . . .

In addition to his consulting actvities with Woolworth Associates, Mr. Woolworth serves as Chief Archaeologist with the Minnesota Historical Society in St. Paul, Minnesota. Prior to becoming Chief Archaeologist in 1969, he served with the Minnesota Historical Society as Chief of the Museum and Historic Sites Department in 1967 and 1968 and as Museum Curator for the Society between 1960 and 1967.

EXPERIENCE SUMMARY . . .

Between 1957 and 1960, Mr. Woolworth was Curator of Exhibits at the Dearborn Historical Museum in Dearborn, Michigan. From 1952 through 1957 he was Staff Archaeologist for the State Historical Society of North Dakota.

His archaeological field experience dates back to 1949 and he has since participated in many field projects in Nebraska, North Dakota, and most recently, in many areas within the state of Minnesota. He has also conducted ethnohistorical research on Indian Land Claims and is a recognized authority on historic sites archaeology, having served as Chairman of the North American Fur Trade Conference in 1965 and Program Chairman for the Society for Historical Archaeology in 1973. From 1973 until 1976, he was a member of the Board of Directors of the Society for Historical Archaeology.

EDUCATION . . .

B.A., Anthropology and History, University of Nebraska, 1950
M.A., Anthropology, University of Minnesota, 1956

TECHNICAL PUBLICATIONS . . .

Author of 15 articles or reports and coauthor of seven articles or reports with ten additional manuscripts either in press or being prepared for publication. These reports have been published in *North Dakota Outdoors, North Dakota History, The Plains Anthropologist, The Beaver Magazine, The Minnesota Archaeologist, The Michigan Archaeologist, Ramsey County History,* and in the *Bureau of American Ethnology Bulletins.*