LOWER RIVER ISLANDS FEASIBILITY STUDY FOR THE CITY OF SAULT STE. MARIE

FEBRUARY, 1996

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Michigan Coastal Mgmt. Program, Dept. of Environmental Quality, Land and Water Mgmt. Division

Prepared By:

Capital Consultants, Inc. Gaylord and Lansing, MI

TC224 .M5 C28 1996

Lower River Islands Feasibility Study for The City of Sault Ste. Marie

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Lower River Islands Study Steering Committee
As Listed Herein

February 1996

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Background to Study

In 1986, the City of Sault Ste. Marie acquired ownership, by donation, of three islands within a group of six known as the Lower River Islands. Located within the St. Mary's River on the eastern side of the City of Sault Ste. Marie, the islands vary in size from one-half acre, seven acres, and fifty-five acres. Previous use of the islands was for recreational cottages. Now wildlife nesting, wetlands, and woodlots are present on the islands.

In October 1994, the City of Sault Ste. Marie received a grant from the Michigan Department of Natural Resources (MDNR) Coastal Management Program. The purpose of the grant was to provide a study to identify recreational uses on the Lower River Islands. (The Coastal Zone Management Program is now administered by the Michigan Department of Environmental Quality or MDEQ.)

In June of 1995, Capital Consultants, Inc. was retained by the City of Sault Ste. Marie to assist in the development of a Feasibility Study for the Lower River Islands. Direction and input for the study was led by Mr. James Hendricks and Ms. Barbara Lisiecki of the City of Sault Ste. Marie Planning and Development Department and by the Sault Ste. Marie Lower River Islands Study Steering Committee. Mr. Larry Wirth of the Community Services Board also worked with the Committee. The Committee members are as follows:

Lower River Islands Study Steering Committee

April 1995

Ms. Ellen Brey	Sault Ste. Marie Community Services Board
Mr. James Moody	Sault Ste. Marie Planning and Development Commission
Ms. Elizabeth Demaray	Member from the General Public
Mr. Daniel Donarski	Member from the General Public
Mr. Warren Parker	Member from the General Public

November 1995

Ms. Ellen Brey	Sault Ste. Marie Community Services Board
Mr. Robert Shimmens	Sault Ste. Marie Planning and Development Commission
Ms. Elizabeth Demaray	Member from the General Public
Mr. Daniel Donarski	Member from the General Public
Mr. James Moody	Member from the General Public

Additional background information on the Steering Committee members is included in Appendix A.

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This study document includes a description of the planning process, site analysis, including both cultural and natural aspects, concept scheme development, a final proposed site master plan, conceptual cost estimates, phasing plan, and a discussion concerning financing alternatives.

Planning Process and Development of the Study

The purpose of this study, as defined by the Sault Ste. Marie Lower River Islands Feasibility Study Committee, is to evaluate the potential recreational uses for the Lower River Islands while balancing the natural and potentially historic features of the islands. The Committee was formed to assist in the development of the study. The study was funded by a $12,500 grant from the Coastal Management Program and $12,500 in matching funds from the City of Sault Ste. Marie. The Coastal Management Program is administered by the Land and Water Management Division of the Michigan Department of Environmental Quality.

To assist in the development of the study, the consultant team of Capital Consultants, Inc. and Resource Management Group, Inc. was retained in July of 1995. To initiate the study, the consultant team and the study committee conducted a boat tour around the islands followed by a walking expedition of each of the three islands. Based on this information and research, a site analysis of the surrounding cultural and natural features was developed.

This site analysis information was reviewed with the committee. Based on this information, a brainstorming workshop was conducted to collect a wide range of potential ideas. This information was synthesized among the members, and by consensus, the committee determined that the focus for the island development would include bridges from Rotary Park to provide pedestrian access to the islands, passive recreational activities, and interpretation of not only the natural features, but also the existing artifacts of the previous resort cottage culture. Recreational activities would include, but not be limited to, walking, historical and natural interpretation, fishing, picnicking, and camping.

It was determined that continued evaluation of the heron rookeries, wetlands, potential historic structures, and the concerns of the Michigan Department of Environmental Quality, Michigan Historical Center (formally known as the Michigan Bureau of History), Army Corps of Engineers, and other agencies would be important. The sensitivity of the natural features on the islands were viewed as a high priority in considering development on the islands. Resource Management Group (RMG) analyzed and reported on the natural resources on the islands.

The site analysis information and the committee workshop results were developed into three conceptual site plans depicting solutions incorporating variations and levels of development on the three islands. These concepts were presented to the committee and discussed. Based on this discussion, a fourth concept (Concept D) was developed incorporating the discussion of the committee and City staff.

The four concepts were presented to the City Commission for review at its regular meeting on September 5, 1995. At the meeting the City Commission invited public comment and scheduled a public workshop for September 20, 1995. A copy of the

public notice and summary of the public workshop are included in Appendix C and Appendix D.

Comments received from the public workshop were considered and evaluated. Based on this evaluation, a fifth concept (Concept E) was developed. A final cost estimate, a phasing plan, and potential funding sources were developed and also incorporated into a draft study document. The draft of the plan was presented to the Study Committee.

Concept E was reviewed by the Study Committee at a final committee meeting on November 28, 1995. Final adjustments to Concept E were noted and a water-taxi was suggested as an option for access between Steere and Island No. 2. These comments have been included in the revised Concept E.

A copy of the resolution to adopt the Lower River Islands Feasibility Study by the City Commission of the City of Sault Ste. Marie is included in Appendix G.

Site Inventory and Analysis

The site inventory and analysis section of the plan provides identification and discussion concerning unique features surrounding the islands as well as located on the islands. The site inventory includes both cultural items such as location, surrounding land uses, and historic uses, as well as natural features such as wildlife, vegetation and ecosystems such as wetlands. This section of the report includes an indepth wildlife and vegetation inventory and analysis by Resource Management Group. Also consulted was a report intitled "Suggested Ideas and Concepts of the Facility Design for the Lower St. Mary's River Project", December 15, 1994, prepared as a student paper by Craig A. Gormley.

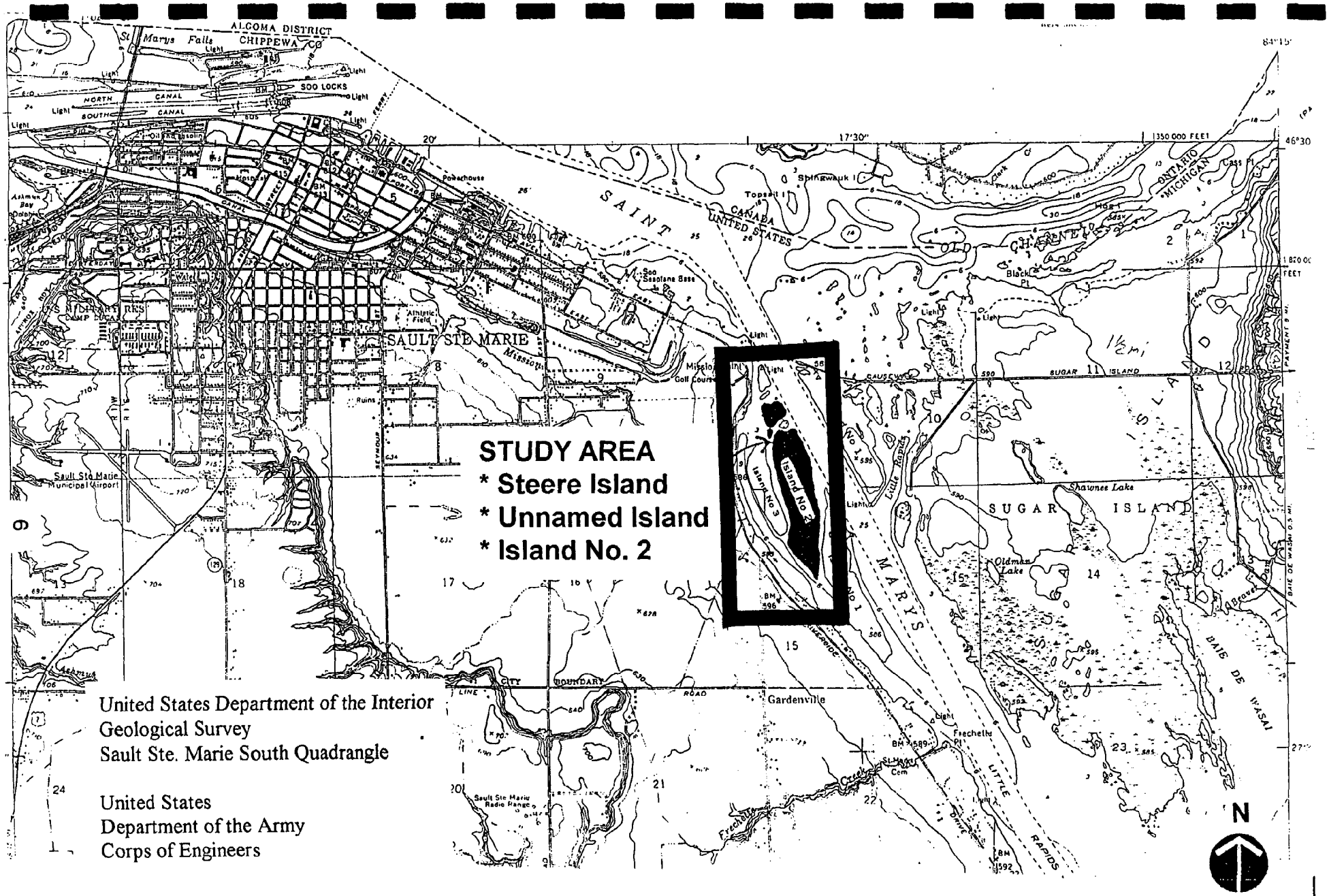
Location

The location of the Lower River Islands is within the City of Sault Ste. Marie in the St. Mary's River on the eastern side of the City, in Chippewa County, Michigan. A location map of the Islands area is included on the following page. The islands lie along the southern river bank edge of the St. Mary's River, 2.5 miles southeast of the Soo Locks.

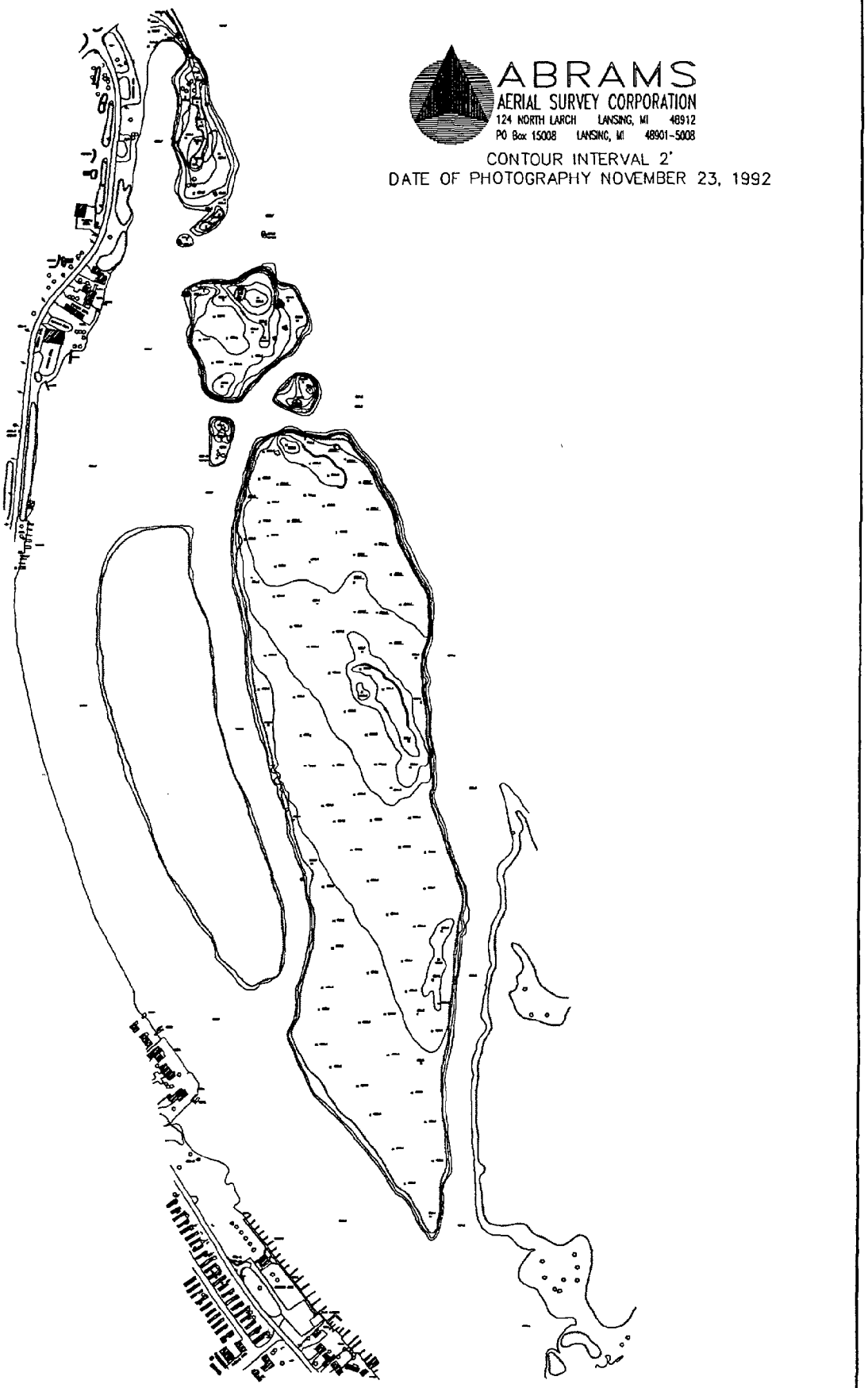
The islands form a chain aligned north and south of the mainland of the City. Steere Island, with a land area of seven (7) acres, is closest at 250' offshore from Rotary Park. An unnamed island, one-half acre in size, is located between Steere Island and Island No. 2, the largest of the three islands in the study at 55 acres. Located westerly, and to the north of Island No. 2, is Rotary Park; although not a formal portion of the study area, Rotary Park is a key part of the overall development of the islands. The other islands in the chain are privately held or federal property of the U.S. Army Corps of Engineers.

Topography

To establish the topography and elevations of the water surfaces and islands, a topographic map was developed by Abrams Aerial Survey based on an aerial flight of the islands. The topographic map appears on the page 7. An analysis of the information has been included within the Natural Features discussion of this section.



SHEET	LOCATION MAP	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS / DATE	SCALE:
1 of 1			820 N. WASHINGTON AVENUE, LANSING, MICHIGAN 48906, 517-371-1200 114 EAST MAIN STREET, GAYLORD, MICHIGAN 49735, 517-732-8131		PROJ. NO.: 95-187.01 DATE: /95



SHEET	TOPOGRAPHIC MAP	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS	DATE	SCALE: 1" = 200'
1 of 1						PROJ. NO.: 95-157.01
						DATE: JULY/96

Existing Land Use

The islands are uninhabited and covered with natural vegetation. A detailed description of these natural features is given in the Natural Features portion of this section. The islands are currently undeveloped with limited use via boat access by fishermen and other users. Functional docking facilities, pathways, or other public development do not exist.

The islands have the remnants of a few abandoned cottage structures on Steere Island and Island No. 2. These islands, as well as several of the surrounding islands including Sugar Island, were the part of a cottage culture that was most prevalent in the 1920's through the 1960's. This community was established as a weekend and summer vacation destination for families, enjoying the waterfront location and solitude of the islands. Much of the history of this time is not recorded, although there is local knowledge passed through personal recollections. This culture was valued as an important part of the local vernacular which will be interpreted along with the regional Sault history. The cottages were all accessed by boat.

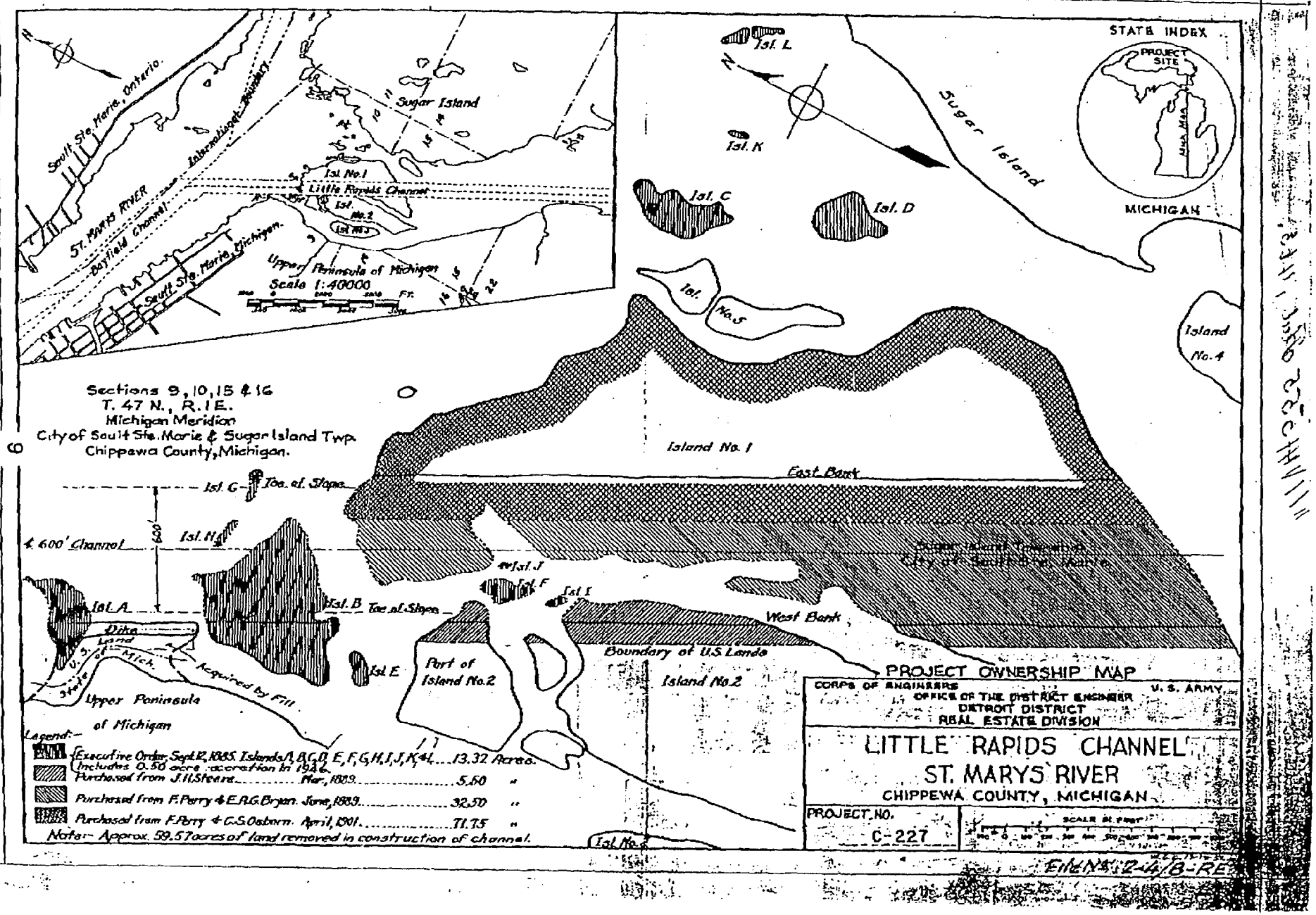
This popular pastime declined in the 1960's and the cottages were abandoned and fell into disrepair. However, one log cabin structure on Steere Island appears to be in reasonably sound condition and scenically faces Rotary Park. Possible uses discussed for the renovated use of the log cabin include an interpretive base for interpretation of the island cottage culture, a rest station for island visitors, a place for overnight rentals by non-profit groups, as well as a concession.

Physical History

All three islands were original islands within the St. Mary's River prior to the creation of the shipping channel. In the late 1880's the U.S. Army Corps of Engineers dredged the shipping channel through the surrounding islands to facilitate the larger ships. This channel has been continuously maintained and dredged as required to preserve the current shipping channel. Rotary Park Island is currently a third of it's original size. The remaining two-thirds of the island was dredged and hauled away. The eastern portion of Steere Island was removed, as well as a northern portion of Island No. 2. A map provided by the U.S. Army Corps of Engineers depicting the original island shapes and areas removed is shown on the following page.

Island Acquisition by the City

Acquisition of the Lower River Islands property by the City of Sault Ste. Marie was through donation on September 15, 1986. The three separate islands were transferred to the City by the "Island Associates" for the sum of $2,500 which covered legal transfer and outstanding property taxes for the properties. The Island Associates included the following individuals:


Sault Ste. Marie, Ontario
St. Marys River
Lake Huron
Boyfield Channel
Sugar Island
Isl. No. 1
Little Rapids Channel
Isl. No. 2
Isl. No. 3
Upper Peninsula of Michigan
Scale 1:40000
Sault Ste. Marie, Michigan
Isl. L
Isl. K
Isl. C
Isl. D
Isl. No. 5
Island No. 4
Island No. 1
East Bank
Isl. G
Toe of Slope
600' Channel
Isl. H
Isl. J
Isl. F
Isl. I
Isl. A
Isl. B
Toe of Slope
West Bank
Dike
Land
Mich.
State
U.S.
Acquired by Fill
Upper Peninsula
of Michigan
Isl. E
Part of
Island No. 2
Boundary of U.S. Lands
Island No. 2
Isl. No. 6
Legend:-
Executive Order, Sept. 12, 1885. Islands A, B, C, D, E, F, G, H, I, J, K & L ... 13.32 Acres.
Includes 0.50 acre accretion in 1926.
Purchased from J. H. Stearns ... Mar., 1889 ... 5.60 "
Purchased from F. Perry & E. A. G. Bryan. June, 1889 ... 32.50 "
Purchased from F. Perry & C. S. Osborn. April, 1901 ... 11.75 "
Note:- Approx. 59.57 acres of land removed in construction of channel.
STATE INDEX
PROJECT SITE
MICHIGAN
Sections 9, 10, 15 & 16
T. 47 N., R. 1 E.
Michigan Meridian
City of Sault Ste. Marie & Sugar Island Twp.
Chippewa County, Michigan.
PROJECT OWNERSHIP MAP
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
DETROIT DISTRICT
REAL ESTATE DIVISION
U. S. ARMY
LITTLE RAPIDS CHANNEL
ST. MARYS RIVER
CHIPPEWA COUNTY, MICHIGAN
PROJECT NO.
C-227
SCALE IN FEET
File No. Z-4/B-RE

Lester and Ruth Oberman
Kenneth Bailey
Philip T. Andary
Hugh and Elizabeth Madigan
Nellie DePaul
John P. And Joanne Haller
LAM Asset Company
-Lois A. MacDonald
-Victoria MacDonald Madl
-Davis A. MacDonald

St Mary's River Shipping Channel

The Lower River Islands are located on the southern side of the St. Mary's River, within 2.5 miles by river of the Soo Locks. In the 1994 season, over 4,000 cargo freighters and almost 7,000 pleasure craft, tour boats and other ships locked through the Soo Locks, passing the islands. This location provides a unique opportunity to observe the various ships traveling to and from the locks from Rotary Park and the Islands.

The islands are also effected by the wave action created by the shipping traffic. Locations of docking and fishing platforms will be evaluated with these conditions in mind. In addition, the water level surges and ice flow in the channel will impact the design and consideration of structures in and along the waterway.

St. Mary's River Trail

Water access to the islands will be important in the linkage to the St. Mary's River Trail. The trail is an interpretive watercraft route planned for various points of interest along the Michigan and Canadian shorelines. The planning and development of the trail is supported by the Michigan Department of Natural Resources as well as other interest groups. The St. Mary's River Trail will connect trail heads at Drummond and Lime Islands with the Sault area and Canadian water trail systems. Development of the Lower River Islands will interact with and support such regional recreation trails and should include provisions to attract and accommodate its users. Accommodations may include docking, picnicking, and camping facilities. A draft map of the MDNR trail head at Lime and Drummond Island is included on the following page. Supporting pictures and a map of Canadian destinations along the trail is also included.

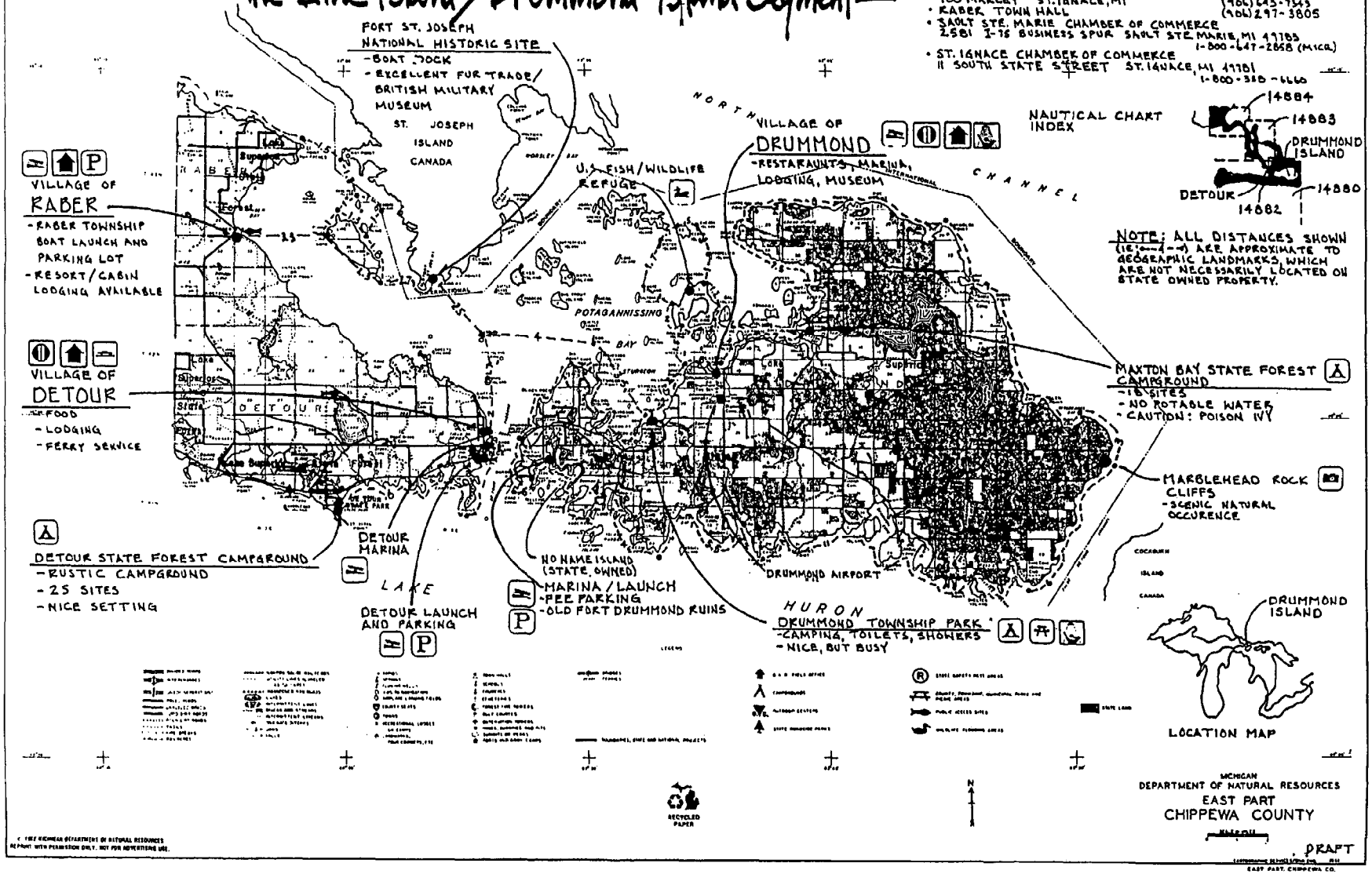
Surrounding Uses

Elements in the area surrounding the Lower River Islands contribute significantly to the recreation potential of the islands. A map depicting the surrounding land uses is on page 14. **Rotary Park** is a peninsular property to the north of Steere Island which is an

the ISLAND EXPLORER ...

#20 TRAIL

—the Lime Island/Drummond Island Segment—



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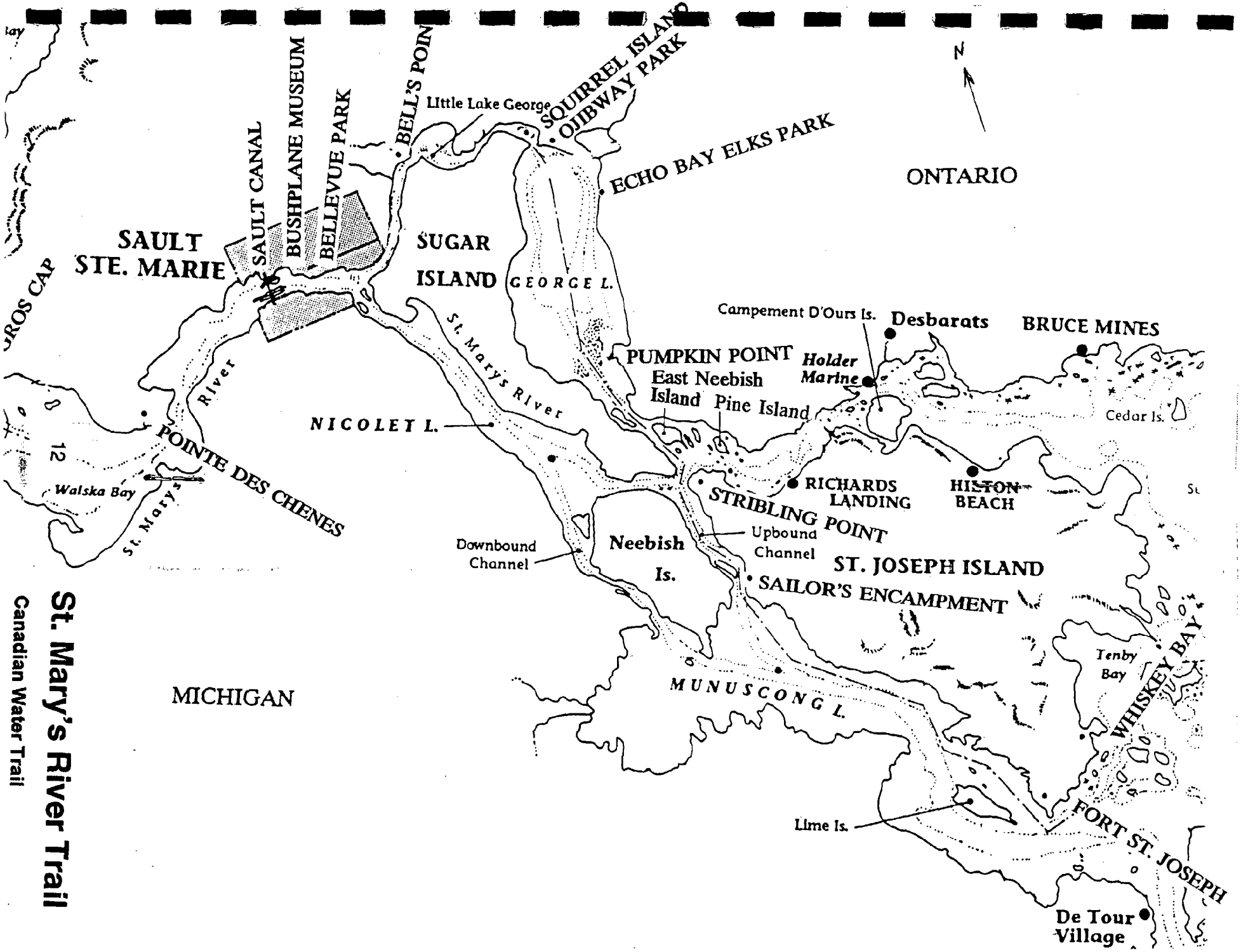
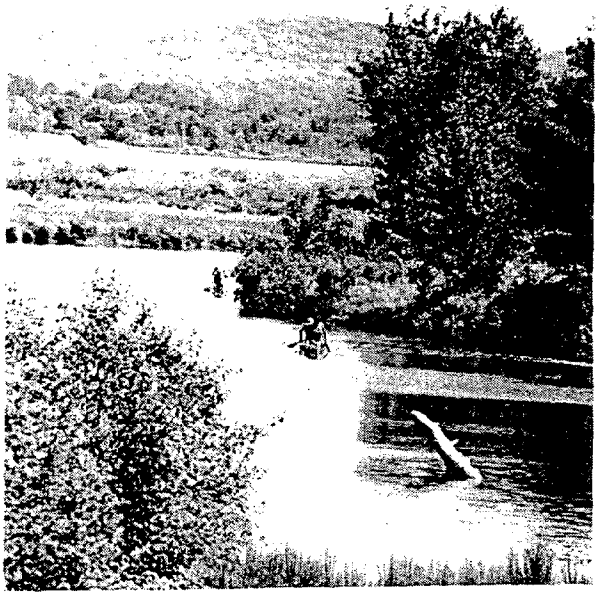
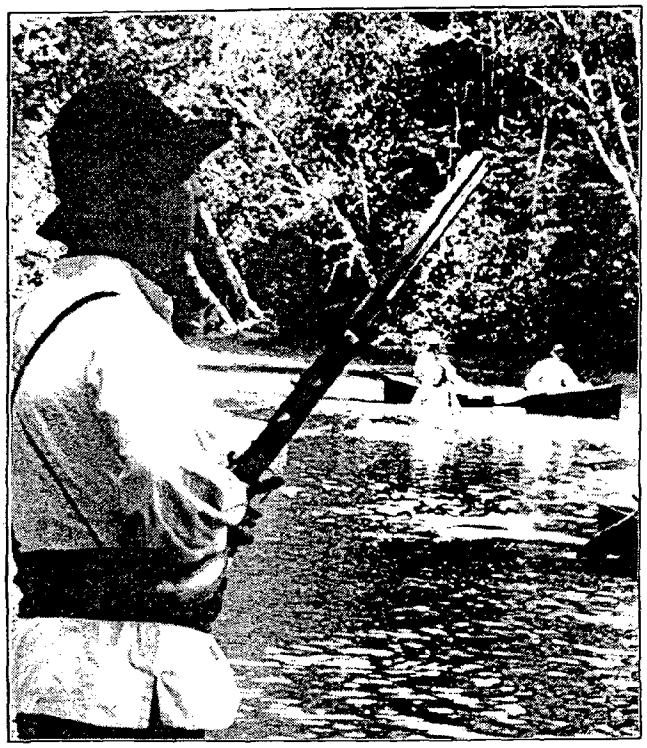

St. Mary's River Trail
Canadian Water Trail
N
ONTARIO
MICHIGAN
SAULT STE. MARIE
SAULT CANAL
BUSHPLANE MUSEUM
BELLEVUE PARK
BELL'S POINT
Little Lake George
SQUIRREL ISLAND
OJIBWAY PARK
ECHO BAY ELKS PARK
SUGAR ISLAND
GEORGE L.
St. Mary's River
Campement D'Ours Is.
Desbarats
BRUCE MINES
PUMPKIN POINT
East Neebish Island
Holder Marine
Pine Island
Cedar Is.
NICOLET L.
POINTE DES CHENES
Walska Bay
St. Mary's River
RICHARDS LANDING
HILTON BEACH
STRIBLING POINT
Upbound Channel
Downbound Channel
Neebish Is.
ST. JOSEPH ISLAND
SAILOR'S ENCAMPMENT
MUNUSCONG L.
Tenby Bay
WHISKEY BAY
Lime Is.
FORT ST. JOSEPH
De Tour Village

The St. Marys River Heritage Water Trail

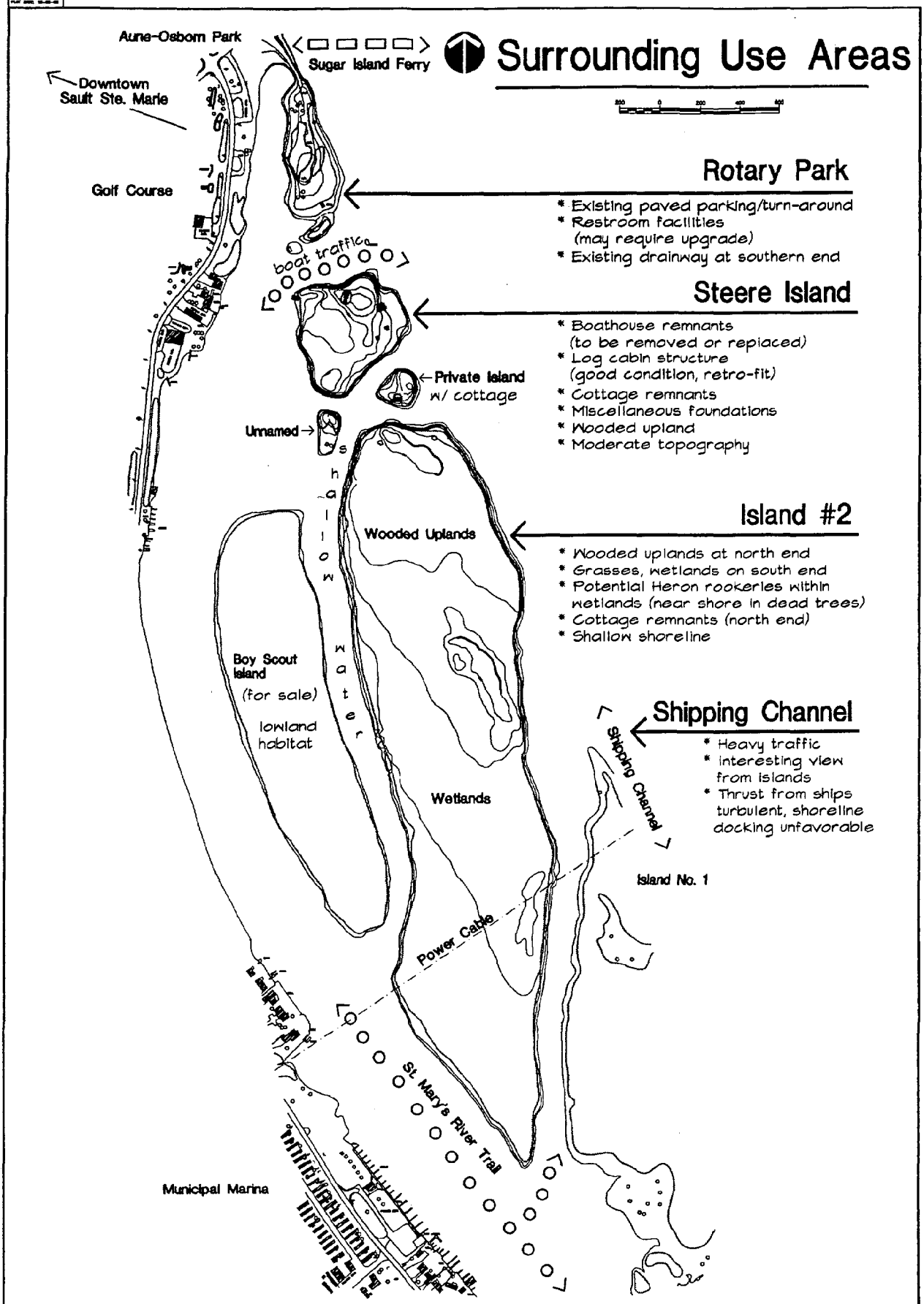


Photos by Rita Valiquette'



Caution: *This guide is for background information only and does not replace the need for official navigational charts. The writer and the Friends of the St. Marys River will not be responsible for errors or omissions.*

Some services may not be in place. Please phone.


Surrounding Use Areas
Aune-Osborn Park
Sugar Island Ferry
Downtown Sault Ste. Marie
Golf Course
boat traffic
Private Island w/ cottage
Unnamed
shallow water
Wooded Uplands
Boy Scout Island (for sale)
lowland habitat
Wetlands
Shipping Channel
Island No. 1
Power Cable
St. Mary's River Trail
Municipal Marina
Rotary Park
* Existing paved parking/turn-around
* Restroom facilities (may require upgrade)
* Existing drainway at southern end
Steere Island
* Boathouse remnants (to be removed or replaced)
* Log cabin structure (good condition, retro-fit)
* Cottage remnants
* Miscellaneous foundations
* Wooded upland
* Moderate topography
Island #2
* Wooded uplands at north end
* Grasses, wetlands on south end
* Potential Heron rookeries within wetlands (near shore in dead trees)
* Cottage remnants (north end)
* Shallow shoreline
Shipping Channel
* Heavy traffic
* Interesting view from islands
* Thrust from ships turbulent, shoreline docking unfavorable
1 of 2
SHEET
INVENTORY AND ANALYSIS
Feasibility Study
Lower River Islands
City of Sault Ste. Marie
CAPITAL CONSULTANTS ENGINEERS
REVISIONS
DATE
SCALE:
PROJ. NO.:
DATE:

excellent connection point to the mainland. Existing features within Rotary Park include a playground, picnic/open lawn areas, grills, small gazebo structure, toilets, and limited parking. The restrooms are small and require periodic septic pumping since all waste is held and carried away by a septic tank pumping service. Increased demands on the restrooms and parking due to development on the islands would require upgrading these elements.

Sugar Island is to the east of the islands and supports many cottages, homes, and a limited amount of commercial businesses. A portion of the Bay Mills Indian Community property is located within the center of Sugar Island, with much of the remaining property being undeveloped and/or owned by several state universities. Access to the island is via the **Sugar Island Ferry** service with docking facilities located immediately to the north of Rotary Park.

The **City of Sault Ste. Marie Municipal Marina** is located on the mainland along Riverside Drive off the southern end of Island No. 2 This marina is a public facility which provides seasonal and transient dockage for approximately 30 watercraft. A public boat launch is located adjacent to the marina with dual ramps, providing access to the St. Mary's River.

Water access is also provided at a launch site in **Aune-Osborn Park.** This city owned facility has approximately 100 camping sites. Eighty sites have full service hookup for water, sewer and electric; the remaining 20 are for group camping. It is located on the mainland shore, just north of the Sugar Island ferry dock by Rotary Park.

Regulatory Agencies

Various regulatory agencies were consulted during the analysis and planning process of the feasibility study. Included in these discussions were staff from the Army Corps of Engineers, Michigan Department of Natural Resources, Michigan Department of Environmental Quality, and the State of Michigan Historical Center. A listing of permits and agencies for potential recreational development has also been included within the Natural Resource Assessment report prepared by Resource Management Group.

Due to the location of the islands within a navigable waterway, **the U.S. Army Corps of Engineers** has maintained an interest in the proposed project. The Corps has provided valuable reference information in the form of maps and historical data included within the study. Its involvement in the creation of the St. Mary's shipping channel has been a valuable resource in tracing the history and development of the islands. Concern for the island development is primarily in maintaining unobstructed travel within the channel. Other uses and island development were generally supported by the Corps. Potential bridges between Rotary Park, Steere Island and Island No. 2 were not an issue as long as water access was maintained through the channel between Islands No. 1 and No. 2. Final approval will be withheld for any development on the islands until formal permit applications are submitted.

The **Michigan Department of Environmental Quality** Land and Water Management Division staff provided comments during the development of the feasibility study and a staff person attended the public workshop on the concept site plans for the Lower River Islands. Issues regarding sensitivity to heron rookeries and osprey nests have been addressed in the location of trails and facilities within the final concept plan. Additional revisions eliminate the extension of shoreline at this time, while maintaining barrier free pedestrian and maintenance access to the site. Discussion of the concept plan encourages sensitive location of fishing access and engineering of paved surfaces and restroom facilities as final design takes place. Future input and design review will be provided by the MDEQ as permits and grant funding are requested.

The City values the heritage of the cottage culture that was an important part of the previous recreational use of the islands. Based on preliminary investigations, it appears as though the log cabin cottage is in reasonably good condition and has a great possibility of adaptive reuse. In order to preserve the culture, as well as satisfy the needs of the **Michigan Historical Center,** the State Historic Preservation Office Environmental Review Coordinator, Ms. Kristine Wilson, was contacted. Initial conversations took place and a letter requesting the basis of the Center's historical interests was communicated to the Center. In response, the State Historic Preservation Officer provided a letter stating interests in the remaining log structure, as well as potential previous settlement by both Native Americans and Euroamericans. A copy of the State Historic Preservation Office's letter is included in Appendix B.

Based on this interest by the Center, more formal historical and archaeological research may be required at the time of actual development on the islands. The extent and type of research will be determined based on the actual proposed development and requirements by the State Historic Preservation Officer.

Natural Features

The natural features on the islands are of extreme importance in both significance and beauty. Of particular interest is the identification of heron rookery sites, osprey nesting, beaver activity, significant vegetation, topographic information, and areas of wetlands. Resource Management Group (RMG) conducted the natural features inventory and analysis of the islands. Based on additional site visits and research, Resource Management Group prepared an in-depth report entitled, "Natural Resource Assessment for Lower River Islands Feasibility Study." Due to the in-depthness and extreme importance of the natural features in the analysis, the report has been included within the following pages rather than in the Appendix.

NATURAL RESOURCE ASSESSMENT
for
LOWER RIVER ISLANDS FEASIBILITY STUDY

City of Sault Ste. Marie
Chippewa County, MI

Prepared for

Capital Consultants, Inc.
P.O. Box 1398, Gaylord, MI 49735

November 3, 1995

Prepared By:

17
Resource Management Group, Inc.
P.O. Box 1252, Escanaba, MI 49829

I. INTRODUCTION

The City of Sault Ste. Marie received a grant to conduct a Lower River Islands Feasibility Study to assess the natural resource heritage of the Lower River Islands and plan recreational use and interpretive activities to feature that heritage. As part of that study, Resource Management Group, Inc. (RMG), was contracted by Capital Consultants to perform specific tasks encompassing Steere Island (7 acres), Island No. 2 (55 acres), and a small unnamed island (0.5 acre) between the two islands. These tasks included investigating and documenting: the extent of and activity within the known great blue heron rookery on Island No. 2; the occurrence of any threatened or endangered species on the three islands; the extent of wetlands on the islands; and a natural resource inventory of the islands, including any unique features potentially attractive to recreational pursuits.

RMG conducted comprehensive research of collateral data sources and performed an on-site investigation on July 5 and team coordination/field work on October 12 and 13, 1995, and submits this report summarizing the natural resource features investigated on the three islands. The maps included in this report were supplied by Capital Consultants and adapted by RMG.

II. NATURAL RESOURCES INVENTORY AND ASSESSMENT

Preliminary investigation via collateral data revealed several interesting features. First, while all of the subject islands were created historically with dredged material, two soil types are mapped for the islands. The two smaller islands and the northern cap of Island No. 2 contain the Rockcut-Pinconning complex, a somewhat poorly to poorly drained loamy sand to silty clay loam. The remainder of Island No. 2 contains the hydric Ermatinger silt loam, a poorly drained, highly organic soil. While Steere Island and the unnamed island exhibit considerable topographic relief (14 and 8 feet, respectively), Island No. 2 exhibits relatively flat topography, excepting two northwest-southeast oriented ridges.

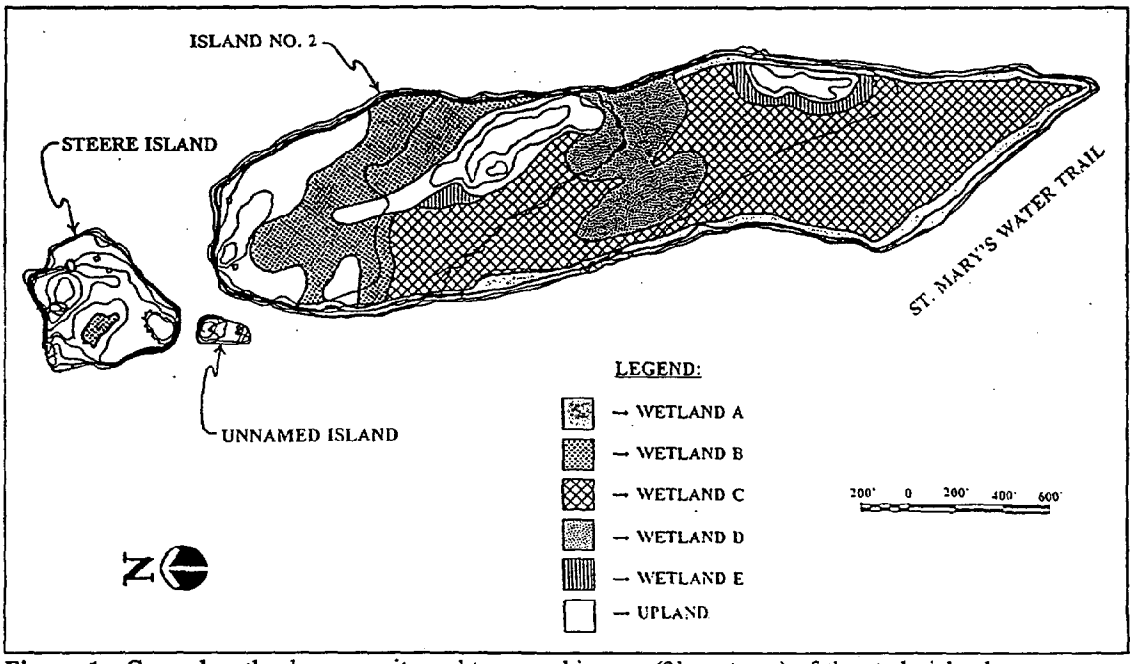


Figure 1. General wetland community and topographic map (2' contours) of the study islands.

The majority of Steere Island and the northern portion of Island No. 2 are forested, primarily by deciduous hardwoods. A northwest-southwest trending ridge on Island No. 2 is covered with coniferous forest as is a small upland knoll on the southeast shore. The unnamed island is dominated by a grassy community with blackberry and other herbaceous vegetation. Expanses of black ash swamps, mixed grasslands, and black spruce were evident from aerial blueprints. Figure 1 depicts the location and extent of various plant communities.

Heron Rookery

A great blue heron rookery is located in the northwest corner of Island No. 2 and was investigated by RMG staff to determine the extent and occupancy of nesting habitat (see Figure 2). Seven nests were located in a total of five trees, all live trembling aspen trees with a diameter at breast height between 12" and 18". The two most southern trees contained three nests that appeared to have been recently used by great blue herons. Two feathers, fecal stains on the tree and under recent leaf litter, and a large presumably heron egg shell fragment with the embryo sac partially intact were in the immediate vicinity of these two trees (see Photographs 1 & 2). The tree with one nest had conspicuously less herbaceous vegetation growing under the nest than did trees without nests, an indicator of the effects of herons' phytotoxic feces and current use. In addition, the nests appeared large (3' in diameter), dense, and in good repair. The remaining four nests in the other three trees were less dense and lacked evidence of recent use. Multiple tracks in the silty shallow water along the west shore of the island indicated recent heron foraging. However, no herons were observed while at the site.

Photograph 1. Two of the seven great blue heron nests observed in the heron rookery on Island No. 2.

Great blue herons generally nest in colonies ranging from a few nests to over two hundred. Upper Peninsular rookeries tend to contain fewer nests (i.e., up to 40 pairs) than in other more productive habitats, such as the upper Mississippi River floodplain.[1] The viability of any given colony is usually dependent upon three factors:[2]

1. Colony isolation from disturbance, both human and predators
2. Availability of foraging areas near the colony
3. Natural phenomena, such as blowdowns and effects of their phytotoxic feces

Courtship behavior and nest building occur April-June, while hatching occurs May-July. The heron's migration south occurs during late summer through early fall, with few herons remaining past October.[3]

Recreational planning should focus on management for optimal habitat to assure minimal disturbance to and encourage expansion of the heron rookery. The rookery is small and exhibits evidence of activity in only three of the seven nests during the current season. Nevertheless, small rookeries are the norm in northern climates such as Sault Ste. Marie. To maintain the viability of and optimize probability for expansion of the rookery, sensitivity to the three factors listed above is imperative during recreational planning. Therefore, RMG recommends developing a heron rookery policy in conjunction with any recreation plan to insure colony survival, promote its expansion, and provide an educational opportunity for the public, which can be compatible with colony viability. Specific recommendations based on cursory research are included in the Considerations for Recreational Planning section below.

Threatened and Endangered Species

RMG requested an Endangered Species Review through the Michigan Department of Natural Resources (MDNR) Natural Features Inventory (NFI). This search revealed the occurrence of only one species, the state-threatened osprey in the Lower River Islands area. An osprey nest is located on Island No. 1. No evidence to confirm use or abandonment could be obtained within the study period.

In addition to the NFI database check, RMG conducted an on-site search for threatened and endangered floral and faunal species in conjunction with other site investigation activities on October 12 and 13. No threatened or endangered species were discovered on the islands. With a confirmed osprey nest located on Island No. 1, the raptor probably utilizes the habitat on and between other islands, especially for feeding on fish in the river.

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[1] N.A. Wood. 1949. *The Birds of Michigan.* U-M Press, Ann Arbor, MI: p27-29.

[2] D.H. Thompson and M.S. Landin. 1978. An aerial survey of waterbird colonies along the upper Mississippi River and their relationship to dredged material deposits. U.S. Army Corps of Engineers, Technical Report D-78-13, Washington, D.C. 67p + 2 appendices.

[3] Wood. 1949.

Photograph 2: Great blue heron egg shell fragment (left-center foreground on base of tree trunk) discovered at the base of one of the nests in the rookery in Island No. 2.

Wetlands

Utilizing methodologies described in the MDNR *Draft Wetland Determination Manual* and the *Corps of Engineers Wetland Delineation Manual* (1987), RMG conducted a preliminary wetland determination on the three islands. Approximate wetland boundaries are depicted on Figure 1.Steere Island contained two small wetlands: an approximately 0.27 acre wetland near the center of the western half of the island; and an approximately 0.01 acre wetland swale at the far eastern point of the island. The larger wetland was forested with a canopy of red maple, trembling aspen, black ash, and American elm. The unnamed island is high at the northern end and slopes abruptly to a flat wetland area on the south end of the island. The small forested/shrub/scrub wetland encompasses approximately 0.07 acre.

No unique or special features were noted regarding wetland on Steere Island and the unnamed island. By virtue of their proximity to the St. Mary's River, all wetlands on those islands are regulated by State and Federal wetland protection statutes.

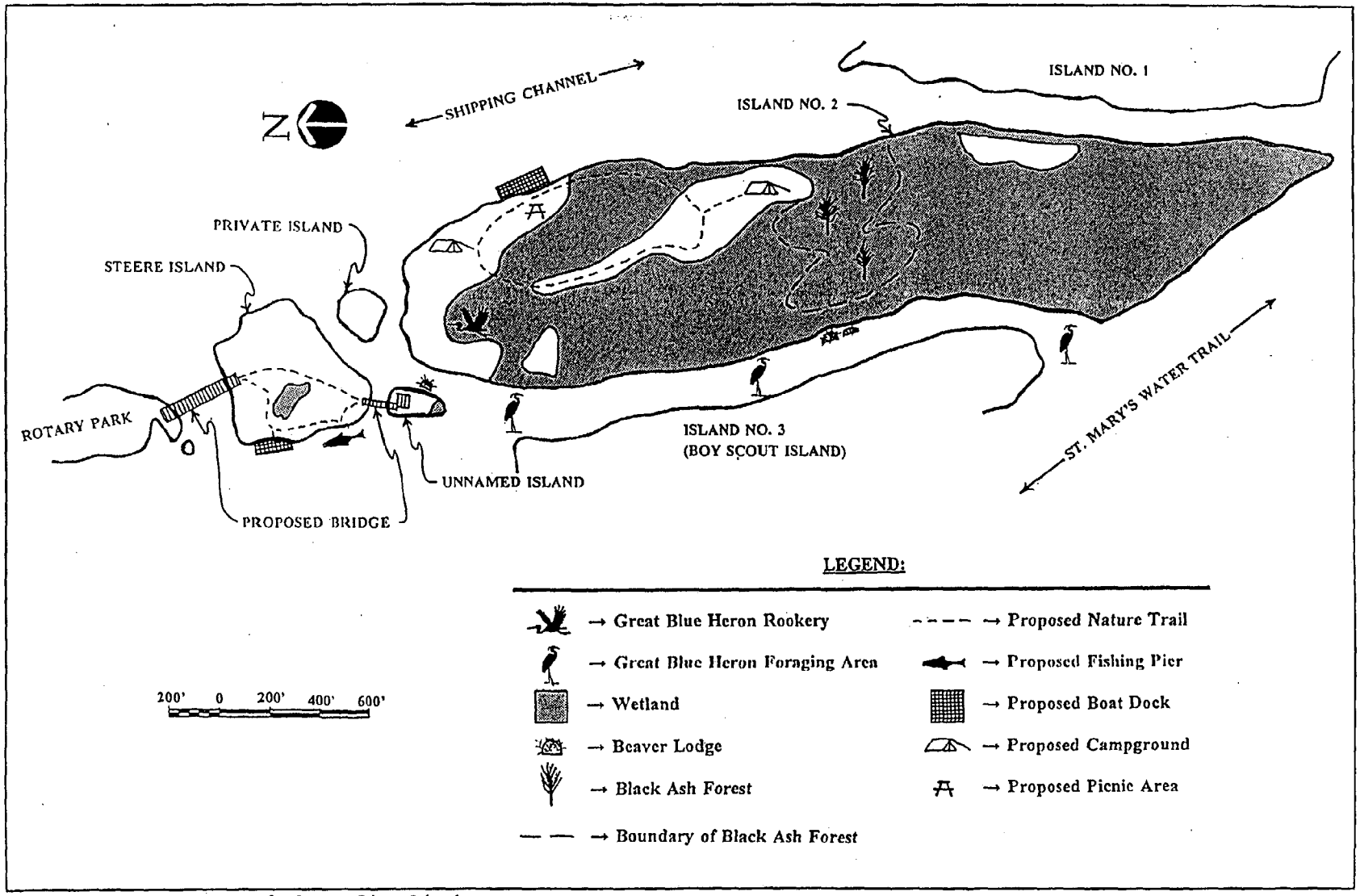


Figure 2. Key resource map for Lower River Islands.

Island No. 2 contained a large amount of wetland habitat, as shown in Figures 1 and 2. Figure 1 depicts the approximate boundaries of each of five general wetland habitats encountered on Island No. 2:

1. **Wetland A** is a strip of scrub/shrub vegetation occupying the west and part of the east shorelines and varied from 10-25' in width. Numerous seeps and drains from inland were easily observed via aerial blueprint and field-confirmed. Narrow-leaf meadowsweet, speckled alder, and fowl meadow grass (*Poa palustris*) were the dominant species in this zone.

2. **Wetland B** contained a mixture of conifers and hardwoods with interspersed pockets of inundation between slightly higher north-south oriented ridges. Overstory species included black spruce, trembling aspen, black ash, red maple, American elm, balsam fir, white birch, and white spruce, while understory species included spinulose woodfern, field horsetail, sensitive fern, and red maple seedlings.

3. **Wetland C** occupied a majority of Island No. 2 and was characterized by a mosaic of black ash swamps with fowl meadow grass (*P. palustris*) and saturated to inundated scrub/shrub wetlands dominated by sandbar willow, speckled alder, red-osier dogwood, narrow-leaf meadowsweet, constricted sedge, woolgrass, soft rush, and fowl meadow grass. The pockets of black ash were typically inundated by up to 2' of water. However, the majority of Wetland C was scrub/shrub wetland.

4. **Wetland D** was a large expanse of saturated to inundated black ash swamp with an herbaceous layer, when present, consisting of fowl meadow grass (*P. palustris*), rough-stemmed goldenrod, lake sedge, constricted sedge, and cinnamon fern, with inundation ranging up to 1.5' in depth. Black ash swamps such as this occur in depressional areas where cool air settles, thereby creating a frost pocket. This habitat is a remnant of an ecosystem that is relatively rare in the Upper Peninsula. Growing season length, hydrology, soils, and biotic factors vary in these areas from the surrounding region, and disparate community associations are formed due to these differences.

5. **Wetland E**, found in two locations, was a trembling aspen clone habitat with redtop panic grass forming the herbaceous component. Saturation in the loamy clay soils was within 12" of the surface.

Other Resource Features

RMG observed a variety of wildlife species via evidence of their use, such as tracks, scat, browsing, or travel corridors, during the on-site investigation.

White-tailed deer tracks and evidence of browsing were observed on all three islands. An abundance of deer tracks remained in the shallow water along the west side of Island No. 2, and numerous deer beds were located on the upland knoll south of the heron rookery. It is obvious that deer travel freely between the island and the mainland finding food, cover, and security in the remote island setting.

Beavers also occur on the subject islands. Beaver cuttings of ash, varying from 1-5 years-old, in the north part of Island No. 2 led to the detection of an inactive lodge on the southeast side of the unnamed island.

Recent beaver cuttings of aspen and ash along the west side of Island No. 2 indicated the presence of nearby active lodges, two of which were found along the shore (see Figure 2). Both beaver and muskrat tracks and drag trails were evident along the west side of Island No. 2.

A prominent aquatic resource within easy access of the islands is the diverse fishery of the St. Mary's River. During the investigation, RMG observed numerous chinook salmon and their spawning beds on the shoals west and south of the unnamed island. The deeper water near shorelines, especially where trees have fallen into the water, provides excellent smallmouth bass habitat, as evidenced by several bass observed by RMG fisheries biologists and other staff. A variety of other fish species either occur in the vicinity or have suitable habitat, including coho salmon, pink salmon, northern pike, muskellunge, whitefish, sucker, brown trout, largemouth bass, and Atlantic salmon, which is stocked in the region.

While not a "natural" resource, passing freighters and other large ships within the St. Mary's Shipping Channel do provide an aesthetic and/or visual asset. Several areas were identified as potential vantage points, such as: the small cobblestone/sand beach on the southeast corner of Steere Island; and the entire eastern shore of Island No. 2 north of Island No. 1.

A feature with unknown origin is located in two areas in the northern tip and in one area near the center of Island No. 2. Ten 6'x10'x3' excavated/dug holes with straight sides were located in elevated areas, but most were filled with water. No man-made material was present in the sides, bottom, or vicinity, and the holes did not appear of recent origin. The random layout and small sizes of the grouped holes did not suggest historic building foundations, which would more likely display a pattern. RMG cannot offer an explanation for the excavated holes. They are reported here as a possible research topic.

III. KEY RESOURCES

While the Lower River Islands are themselves unique ecosystems due to their location and origin, certain features appeal more to the public than others. RMG identified seven such key resources available for incorporation into a recreational plan for the Lower River Islands (see Figure 2):

1. Great blue heron rookery and forage area on Island No. 2
2. Excellent fisheries resource adjacent to Steere Island and the unnamed island
3. Direct access to the St. Mary's Water Trail System
4. Rare black ash swamp on Island No. 2
5. Active beaver lodges on Island No. 2 and an inactive beaver lodge on the unnamed island
6. Visual appeal of the St. Mary's River Shipping Channel
7. Osprey nest on adjacent Island No. 1

Each of these key resources has particular value and can be readily incorporated into a comprehensive recreational plan for the islands. Some suggestions appear in the following section.

IV. CONSIDERATIONS FOR RECREATIONAL PLANNING

During the investigation and subsequent analysis of information collected at the Lower River Islands, RMG staff generated several ideas and considerations for recreational development planning. The various

features are diagrammed in Figure 2. These considerations were formulated with the overall idea of allowing the recreating public to view unique aspects of the islands' natural resource base while enhancing their appreciation for these resources.

Great Blue Herons

A primary consideration in planning interpretive features regarding the great blue heron rookery is to minimize human disturbance. Literature and personal contacts with great blue heron researchers suggest a 300' buffer is the minimum buffer to be considered. To afford appropriate protection for the viability of the small heron colony, we suggest that no interpretive features be installed on Island No. 2. Alternatively, a viewing platform with a spotting scope could be installed on the unnamed island with a vantage toward the colony. Interpretive boards could be installed adjacent to the viewing platform. The western shoreline of Island Number 2, a primary heron foraging area, should remain wholly undisturbed.

Trails/Camping

Because of its size and variety of habitats, Island No. 2 offers the best opportunity for hiking/interpretive trails and camping facilities. Refer to Figure 2 for the location of a proposed loop trail to access the northeast portion of Island Number 2. The suggested trail route takes advantage of existing upland to the extent possible. Where an elevated boardwalk or fill would be necessary to traverse wetland, Federal and State permits would be required. Hikers would be exposed to a number of vegetative communities including a grassland/hardwood mosaic, an aspen clone, and the large black ash swamp occurring near the center of the island. The variety of habitats would afford opportunities to view a wide variety of birds and other wildlife. Warblers and other songbirds could be observed feeding and nesting, an assortment of mammals from squirrels and chipmunks to white-tailed deer utilize the habitats along the route, and, in areas offering a view of the waterfront, hunting ospreys or other raptors would be visible. Interpretive boards along the route could explain the various life-cycle functions of selected species and their dependence on the particular habitat at designated locations. Since there is an abundance of wetland habitat acreage of various types, an enhancement for appreciation for that vital landscape feature could easily be incorporated. Consideration was given to the construction of a boardwalk/trail to access the active beaver lodges but was eliminated as not feasible due to the excessive length (600+') and associated cost.

Two potential campsite locations are recommended, one in the "interior" and one on the exterior of Island No. 2. The "interior" location indicated on Figure 2 is where the upland ridge widens in proximity to the black ash swamp. The other area near the north end of the island offers a view of the St. Mary's River Shipping Channel and related freighter traffic. Campsites should insure maximum separation from the great blue heron rookery.

Fisheries and Boating

Since it is located on the St. Mary's Water Trail System, boat access to the islands is an important consideration. Boat access must be planned in light of several important factors, including minimization of disturbance to the heron rookery, access to key resource interpretive areas, and safety of boats and boaters. Considering those restrictions, two locations for boat docking are suggested. The first is on

Steere Island. A permanent dock with floating finger piers could be constructed along the west shore of the island. That site offers direct access to boaters utilizing the St. Mary's Water Trail System, shelter from the wakes of freighter traffic, and a prime fishery area. A fishing pier, either cantilevered over the water or skid-pier type construction for removal in the winter, is also recommended adjacent to the boat dock in this locale. As mentioned earlier in this report, RMG biologists identified and observed significant numbers of chinook salmon and smallmouth bass along the western shore of Steere Island. Therefore, the suggested location is a logical one for the fishing pier and allows fishing and viewing of salmon during spawning season, a popular activity even for non-fishermen.

The second suggested boat docking location is along the east shore of Island No. 2 (see Figure 2). This dock would be exposed to the wash of passing freighters, so again a permanent dock along the shoreline with floating finger piers is recommended. This docking facility would allow hikers and campers to dock in proximity to trail and camping areas. To complement recreation and concentrate impact, a picnic area with tables, vault toilets, barbecue grills, and refuse barrels could be constructed near the docks.

Regulatory

Any activity within wetlands on the study islands, including filling, dredging/excavating, draining, or construction will require a permit from the Michigan Department of Environmental Quality (DEQ) under authority of Part 303 of the Natural Resources and Environmental Protection Act (PA 451 of 1994) and a corresponding permit from the Corps of Engineers (Corps) under authority of Section 404 of the Clean Water Act. Facilities such as piers/docks or platforms, which extend over the bottomland of the St. Mary's River to enhance fishing or boating opportunities, will also require State and Federal permits. MDEQ regulates such activities, including filling below the Ordinary High Water Mark (579.8' IGLD-1955) under authority of Part 325 of Act 451 of 1994. Corresponding Federal authority is embodied in Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

When planning such facilities, contact with RMG or those agencies is recommended to clarify regulating questions.

Other Considerations

To enhance access by non-boaters, Steere Island and the unnamed island could be interconnected with bridges, with the chain originating at Rotary Park. Bridges over or on the bottom of the St. Mary's River would require permits from State and Federal regulatory agencies. To increase the probability of permit issuance, bridges, if proposed, should be clear-span wherever feasible. To protect the heron rookery from direct pedestrian access, a bridge between the unnamed island and Island No. 2 is not recommended and is, in fact, discouraged.

Budgetary considerations always rank as a primary factor in community recreational planning. To at least partially mitigate the cost of construction of features recommended above, RMG suggests the following:

1. Establish a "points" program where voluntary labor is exchanged for free camping permits or other rewards donated by local businesses. Potential sources of voluntary labor include local conservation and civic organizations, charity groups, and scouting organizations.

2. Utilize persons performing "community service" time for construction and/or maintenance activities.

SUMMARY

The Lower River Islands host a number of unique and special features, such as a great blue heron rookery, a black ash swamp, excellent fisheries, access to the St. Mary's Water Trail System, and the visual experience of freighter traffic in the Shipping Channel. These resources can be "employed" to enhance the quality of life of residents and visitors to Sault Ste. Marie. Potential recreational facilities identified by RMG to enhance appreciation for the natural resources on the study islands include a nature/interpretive trail, a campground, a viewing platform for the heron rookery, a fishing pier, docks, and a picnic area, all easily accessed by users of the St. Mary's Water Trail System. Providing access to the unique solitude of the subject islands and yet preserving the natural resource heritage that makes them attractive to humans requires delicate balancing. It is hoped that the information and suggestions provided in this report will contribute toward the City of Sault Ste. Marie's goal of providing quality recreational experiences with the underlying theme of natural resources stewardship.

Committee Brainstorming Session and Design Intent

On July 20, 1995 the Feasibility Study Committee met to continue with the development of the study by holding a brainstorming session. The meeting began with a review and discussion of the visit to the islands by the committee and the site analysis data collected to date. The purpose of the session was to collect various ideas for the development of the islands. Discussion took place with each item as it was presented. The Committee's list of ideas are summarized below.

Unique Features of the Islands

- Interesting flora and fauna
- Previous resort/cottage culture
- Heron rookery site
- Islands are adventurous places
- Adjacent shipping channel and freighter "watching"
- A site along the St. Mary's River Water Trail
- Too many Canadian Geese and Seagulls as a problem

Access Methods

- Bridges to the Islands which link either one island or all islands
- Docks for boats
- People ferry
- Causeway of land connecting islands
- Self propelled raft (like at Spring State Park)
- Rental boats and canoes (from Marina or Rotary Park)
- People aerial lift (like at ski resort)
- Car access for island users was ruled out

Types of Bridges

- Bridge with lifting portion to allow passage of pleasure crafts
- Concern over level of winter ice
- Clearspan bridges
- Causeway to narrow area of land to be spanned by bridge
- Roll out retractable dock bridges

Island Activities

- Picnic areas
- Wetland walkway
- Rustic camping
- Hiking
- Boat docks
- Fishing piers
- Unique features signage
- Biking paths
- Bike racks

Cross country skiing
Interpretive signage
Group activity area
Observation tower
Playground
Story telling/star gazing area
Open play area

Log Cabin Uses

"Ghost structures"
Rental for overnights and day use for non-profit groups
Concession
Visitors center/interpretive building of cottage culture
Warming building
Sault cultural history museum

Based on the brainstorming session, the Committee easily developed a consensus regarding the overall proposed development basis for the islands. In summary, the consensus included the following basis of understanding:

Recreational use will be more intense on Steere Island with a step down to less intense usage of the Unnamed Island and Island No. 2.

Sensitivity to natural areas should concentrate use on Island No. 2 to upland areas thereby limiting intrusion into the wetland areas.

Natural features and previous resort cottage culture should be included in the interpretation.

Interaction with the St. Mary's River Trail and shipping channel will remain important.

Recreational uses will be more passive in nature.

Concept Plan Development

The conceptual plan design process involved incorporating the results of the brainstorming session and the site inventory and analysis information into the preparation of three separate site plans, Concepts A, B, and C. These concept alternatives reflected several common themes, but included different details and design elements to assist the committee in clarifying what the final plan might include. These concepts are depicted and explained in greater detail in Appendix F.

In general, all three concepts encompassed a common approach for Steere Island, with some variations. Some of the distinctions between the concepts included variations in access. Concept A included bridge linkages between all of the islands as well as an optional filling and extension of Rotary Park to lessen the distance between Rotary Park and Steere Island. Other options included limited access by bridge to Steere Island with no bridges being extended to the Unnamed Island and Island No. 2. The design of the bridge structures also ranged from smaller light weight pedestrian bridges to those which could accommodate a small pickup truck for routine maintenance.

Common features in the three concepts for Steere Island included a circumferential pathway, interpretive signage, fire bowl, fishing docks, picnicking, and adaptive reuse of the log cabin structure. Adaptive reuses of the log cabin structure included uses for interpretation of the island culture and natural resources, a site for group overnight lodgings, and a possible concession and restroom facility. Variations between the concepts also included differences in the level of visitor activity on the island ranging from passive walking uses, to more active use with playground structures and group picnicking.

The design approaches for Island No. 2 varied somewhat, but again included some common themes. Camping areas were shown with the options of grouping the sites into a larger camping area to accommodate both individual as well as group camping, as well as separate campsites for individuals and groups with locations varying from the shore side to more interior island locations. Pedestrian pathways were included in all of the concepts but varied in individual routings and in pathway materials from woodchips, limestone, to bituminous pavement. Some of the distinctive features of the three Concepts included a greater or lesser emphasis on group activities including the layout of camping, picnic shelters, and the inclusion of a challenge ropes course, to the lesser level of activity with individual picnicking sites. As mentioned above, access to Island No. 2 varied with the use of full barrier free bridge structures to access via boat transportation only.

Following a subsequent review session by the committee, a composite plan, Concept D, was developed as the mark-up plan for further detailing. This Concept D reflected the committee's choice of preferred features from the three earlier concepts which included but was not limited to the use of bridges between all three islands, the passive use of Steere Island for walking/biking, interpretation, reuse of the log cabin for

interpretation, fishing, and picnicking, and the use of Island No. 2 for walking, interpretation, grouped camping, and picnicking. This Concept D is further detailed and explained in Appendix F, along with preliminary cost estimates.

With additional detailed natural resource information provided by Resource Management Group, Inc., further information provided to the committee after a public workshop on the plan, and Michigan Department of Environmental Quality review and comments, Concept D was modified and articulated into a Concept E that reflected a few significant changes from the mark-up plan, specifically, the Rotary-Steere bridge was raised to a 16 foot clearance for boat traffic and the use of an extended shoreline as shown in Concept A was eliminated in favor of a much longer bridge that would not involve any filling or extension of the Rotary Park land base. Equally as significant, the bridge connections to Island No. 2 and the small island between No 2 and Steere Island were eliminated due to the proximity of the heron rookery at the northerly end of Island No. 2.

This Concept E was given some final adjustments at a committee meeting on November 28, 1995, at which time the entire plan was reviewed in detail. The Plan Development section below, describes the Concept E Plan as modified and elaborated at this final committee meeting.

The Plan of Development

In finalizing the master plan several key considerations were evaluated including the previous concepts, the natural resource inventory, and comments received from the Michigan Department of Environmental Quality, the Michigan Historical Center, the U.S. Army Corps of Engineers, the Steering Committee, and comments from the citizens at the public workshop as well as conceptual cost estimates. The general focus of development is to provide easy access to Steere Island via the use of bridges for recreational walking and biking, interpretation of the past cottage culture, picnicking, and fishing, with the use of Island No. 2 as a more remote island with limited access via boats for rustic camping, hiking, and wildlife observation.

Key Issues Addressed in the Plan

Several controlling issues needed to be addressed as part of the design development for the Lower River Islands. These are summarized below, together with a discussion and explanation of the alternatives considered and the rationale for the final choices made.

Access to Steere Island

The precise method of providing access to Steere Island involved a wide-ranging review of all alternatives. The various options and decisions are summarized below:

a. Bridge vs. Other options: Several options for access to the Islands were discussed in the initial brainstorming session of the Steering Committee. These included water taxis and ferry services, rope bridges, floating docks as well as bridge options. It was determined that the easiest form of access for park visitors to use would be the bridges. The bridges will allow for unlimited access which is year round since no operator is required nor is an open channel required. People will be able to freely access on and off from the Island at their desire. The bridges can also be gated and locked for night time security.

b. Type of bridge: Bridge types discussed ranged from light weight pedestrian only bridges to more heavy duty bridges which will accommodate vehicular traffic. It was determined that the bridges must be at least eight feet wide to accommodate to passing wheel chairs. A width of ten feet will allow a small service pick up truck to access the island for maintenance. The final recommendation was for a ten foot wide bridge designed structurally to carry a 10,000 lb vehicle load.

c. Construction Method: The easiest form of construction will be to design the bridges to be clear span from Rotary Park to Steere Island which will not require a

bridge abutment within the river channel. This will require a premanufactured steel bridge structure but will reduce the actual on-site construction required within the channel. The extension of Rotary Park shown on Concepts A and D initially appealed to the Committee. However, after further consideration, the Committee opted for a bridge over the entire distance from Rotary Park to Steere Island rather than the land extension which would change the waterway configuration.

d. Height of Bridge: The bridges were initially presented with a design height of 10' of clearance from the water level to the bottom of the bridge structure. This height was provided by the Army Corps of Engineers as an elevation that would allow for surges in water level, clearance regarding ice build up, and a height to allow smaller pleasure craft to pass under. (Since access for larger pleasure craft and sailboats is available to the south of Island No. 2, access for all boats was not a concern to the Corps). Based on the comments received at the public workshop, it was determined that a 16' bridge height would accommodate larger pleasure craft equipped with radio antennas. The committee decided to increase the height of the bridge height from 10' to 16'. The increased height of the bridge will increase the bridge development costs in regard to the need to add additional pathway ramping to accommodate barrier free access to the bridge and island.

e. Selected Version: The final selected version of access to Steere Island is the utilization of a 16' high clear span bridge 10' in width which will accommodate pedestrians and a light weight pick up maintenance truck. The bridge will extend from the existing south end of Rotary Park to Steere Island. Permits from the U.S. Army Corps of Engineers and the Michigan Department of Environmental Quality will be required for construction of bridges or placement of fill.

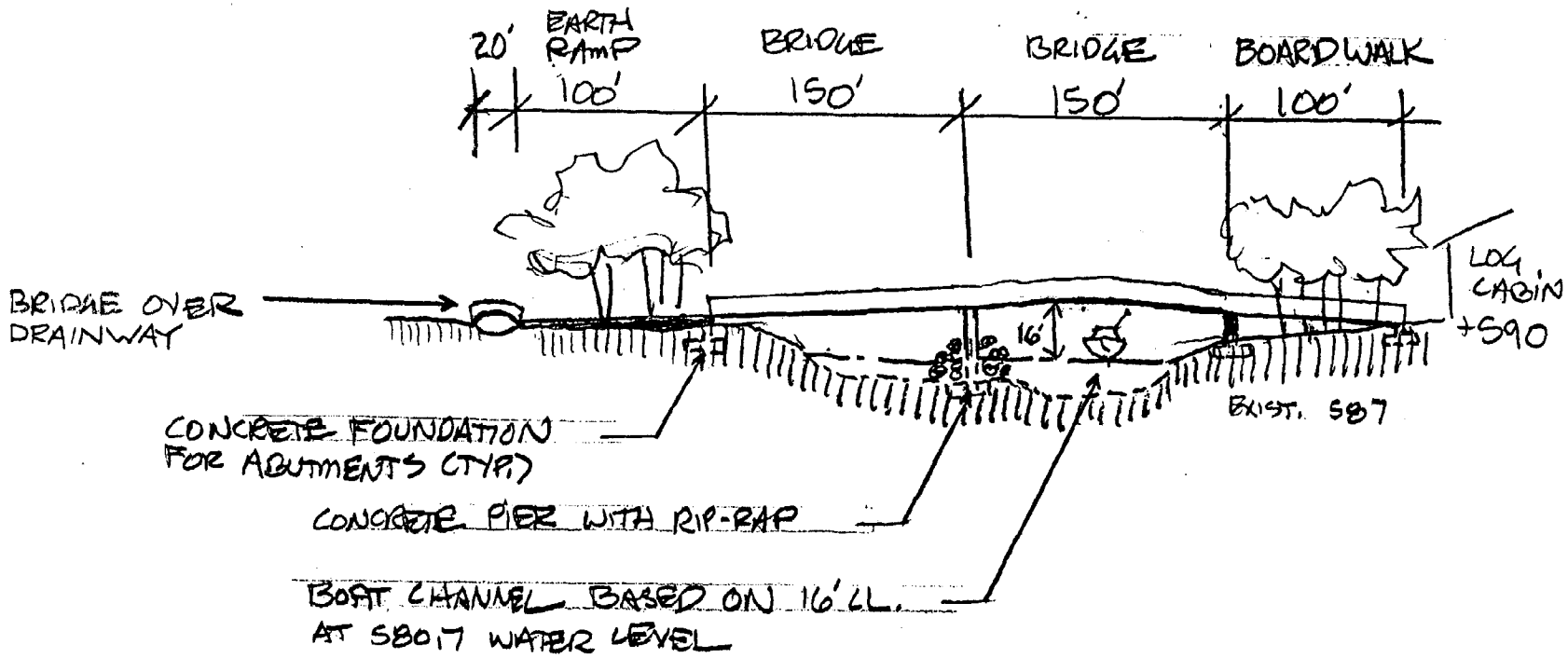
f. Cost Implications: Four options of bridge construction were evaluated regarding access to Steere Island. Both 10' and 16' height clearance from the water to the bottom of the bridge structure were evaluated for both filling and no-filling options to the end of Rotary Park. Without the filling in Rotary Park, additional bridge sections will be required to accomplish the 16' height and to maintain barrier free access. The bridge construction is premanufactured clear spanning truss bridges. The bridges have an arched chamfer where the highest portion of the arch meets the height requirements. The basic layout of the bridge is shown in the sketch immediately following. The conceptual costs can be summarized below.

10' Bridge Height with filling of Rotary Park (100' long)	$105,000
10' Bridge Height without filling of Rotary Park (300' long)	$300,000
16' Bridge Height with filling of Rotary Park (250' long)	$340,000
16' Bridge Height without filling of Rotary Park (300' long)	$364,000

Rotary Park

(EXISTING SHORELINE - NO FILL)

Skeere Island



NOTE: 1) BRIDGES MAINTAIN ACCESSIBLE SLOPE AND SUPPORT LOADING FOR MAINTENANCE VEHICLES

2) 100' BOARDWALK ELIMINATED IF CHANNEL CLEARANCE IS 10'

CAPITAL CONSULTANTS ENGINEERS

Bridge Concepts (Concept E)

South Ste Marie - Feasibility Study 11-3-95

1"=100' HORIZ.

1"=40' VERTICAL

Access to Small Unnamed Island and Island No. 2

Access to Island No. 2 and the small Unnamed island between Steere and Island No. 2 also involved a review of different alternatives.

a. Bridge vs. Other options: Several options to provide access to Island No. 2 from Steere Island were discussed. These options included the construction of similar bridge structures which would include a bridge from Steere Island to the Unnamed Island and a second bridge from the Unnamed Island to Island No. 2. The cost for the two bridge structures was estimated at $160,000.

Also considered were access by private boats via the use of a dock on Island No. 2, water-taxis or ferry services from Rotary Island, Steere Island, or the Municipal Marina. Boat and canoe rentals from the Marina were also discussed. The bridge options have the highest initial construction cost but as discussed earlier allow for unlimited year round access for park users. The taxi services will require ongoing daily maintenance and operational costs, are seasonal to the summer months only, introduce other liability and insurance issues, but would enhance the "island experience" for visitors. Any bridge landings or dockage points for the boats require consideration of the identified heron rookery on the northwest end of Island No. 2. Boat rentals from Steere Island were not seriously considered due to area water currents and the proximity of the shipping channel.

b. Selected Version: The final plan includes a water taxi service to provide access from Steere Island to Island No. 2. A water taxi service would emphasize the park's island character and can be located toward the easterly side of Island No. 2 away from the heron rookery. To facilitate the taxi and boats, boat docks are proposed on the south side of Steere Island and the northeast end of Island No. 2 with both boat docks located on the channel between the two islands. The bridge option may be re-evaluated in the future once the first phase of development (Rotary Park/Steere Island) is complete and access/use parameters can be better defined. Protection of the heron rookery will continue to be a consideration in any bridge placement.

Old Island Structures

As was discussed in the Site Inventory and Analysis section of the plan, the previous use of the islands was for resort cottages which has provided a background for the interpretation of the cottage culture prevalent in the area from the 1920's to 1960's. Remnants of these cottages still remain on the islands with the most prominent being the log cabin located on Steere Island facing Rotary Park.

a. Significance to Plan: Based on the Site Inventory and Analysis it was determined that the remnants of the cottage structure offered a unique window into this once dominant culture to the islands and would be very interesting to interpret to

visitors. The log cabin on Steere Island remains in relatively good condition and is suitable for renovation and reuse.

b. The Log Cabin: The log cabin is a two story building with a main living room and kitchen on the first floor and bedrooms and a bathroom on the second story. Outbuildings are also attached to the main structure. The building appears to be in reasonable condition with the roof being able to keep the rain out. All doors and windows are missing within the building. Options discussed for the reuse of the building included use as a restroom and concession for the park, a lodging for overnight retreats, and as an interpretive center. It was determined that at this time, no utilities or restroom facilities will be proposed for Steere Island, therefore limiting many of the options for use of the log cabin. The selected adaptive reuse of the cottage will be to open the first floor of the cabin as a shelter and interpretive center for the island without restrooms or electricity.

Log Cabin Structure on Steere Island as viewed from Rotary Park

c. "Ghost Structures" vs. Interpretive Signage: In order to interpret the other remnant of the cottage structures on the islands, two options were discussed. The first option being the use of interpretive signage and graphics to illustrate the other previous buildings, owners, and resort activities, and the second the use of pole-like "ghost structures" to define the previous structures. It was determined that the sole use of interpretive signage with maps, drawings, graphics, and possibly photos, could significantly provide insight to visitors to the island.

Natural Features on Island No. 2

Island No. 2 provides a unique blend of natural features including the heron rookery and beaver dam as well as the Black Ash grove and the wetland systems. These features provide an opportunity to vary the trail experience and interpret the features along the walk. Island No. 2 also provides the opportunity for remote rustic camping and trail exploration.

Utilities and Lighting on Islands

The installation of utilities and lighting of the two main islands was discussed. These discussions included the need for water and sanitary sewer, as well as electricity for lighting of the log cabin and possible decorative lighting along the pathway. It was decided that for the current planning no utilities will be extended to the islands. Rustic toilet facilities will be provided on Island No. 2, but at this time no facilities will be provided on Steere Island. The possibility of attaching the utilities to the bridge structures were discussed, and this option will remain for consideration in the future.

The Plan in Detail

This section of the plan includes a detailed description of the master plan developed for the islands. A graphic of the plan, titled Concept E, is included on the following page for easy reference.

Rotary Park Development

Although initially not included within the development of the islands, several improvements will be required within Rotary Park in order to help support the usage of the islands. Once connected, the islands and Rotary Park may be considered portions of one continuous recreational area.

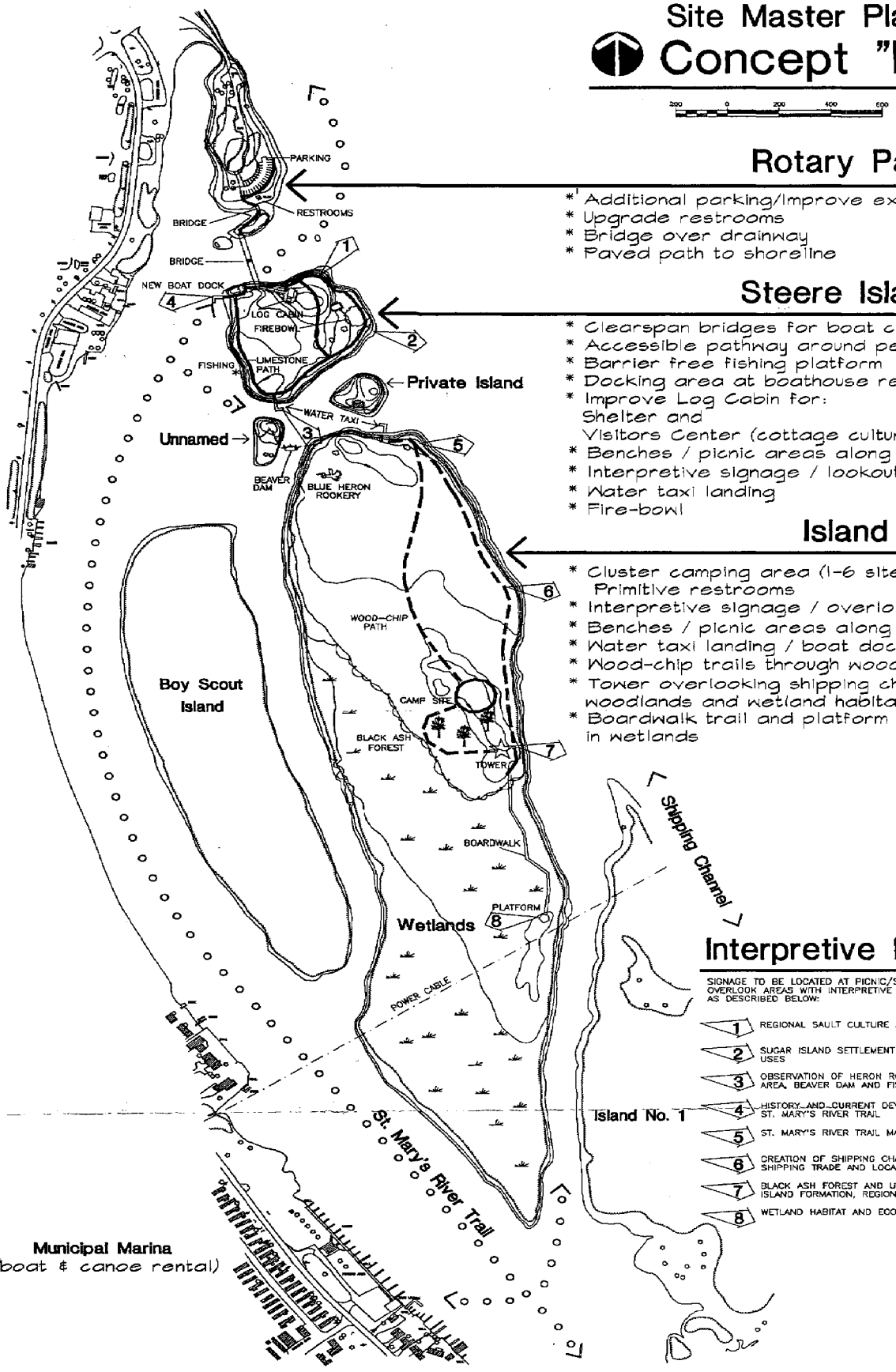
a. Parking: The parking in Rotary Park is currently quite limited and unorganized. In the master plan it is proposed that the parking area be expanded and improved to provide parking for the increased park and island use. The plan proposes a 28 space bituminous paved parking lot. Improvements to the drives have not been included at this time.

b. Bathrooms: Rotary Park currently is served by rustic public restrooms which are located along the drive in the northern region of the park. It is proposed that new rustic restrooms be constructed more to south in the park to better serve both Rotary Park and Steere Island. The barrier-free restrooms will have a men's and women's stall. A sketch of the restrooms is provided on page 40. As the cost to construct public utilities to the park is quite prohibitive at this time, the replacement restrooms will also be rustic. At such time that utilities are more available, modern restrooms should be considered.

c. Bridge Over the Drainway: In between the parking area and the small island leading to Steere Island is a small drainway that at certain times of the year contains flowing water. A small 20' bridge is proposed to cross this drainage way. The bridge will be built of similar construction to the other bridge(s) and will be 10' wide with the structural capability to allow for a small pick-up truck.

d. Paved Path: A 10' wide bituminous paved path is proposed to provide access from the parking lot to the bridges. The pathway will require grading for barrier free slopes.

Site Master Plan
Concept "E"



Rotary Park

* Additional parking/Improve existing
* Upgrade restrooms
* Bridge over drainway
* Paved path to shoreline

Steere Island

* Clearspan bridges for boat clearance
* Accessible pathway around perimeter
* Barrier free fishing platform
* Docking area at boathouse remnants
* Improve Log Cabin for:
  Shelter and
  Visitors Center (cottage culture, etc)
* Benches / picnic areas along trail
* Interpretive signage / lookouts
* Water taxi landing
* Fire-bowl

Island #2

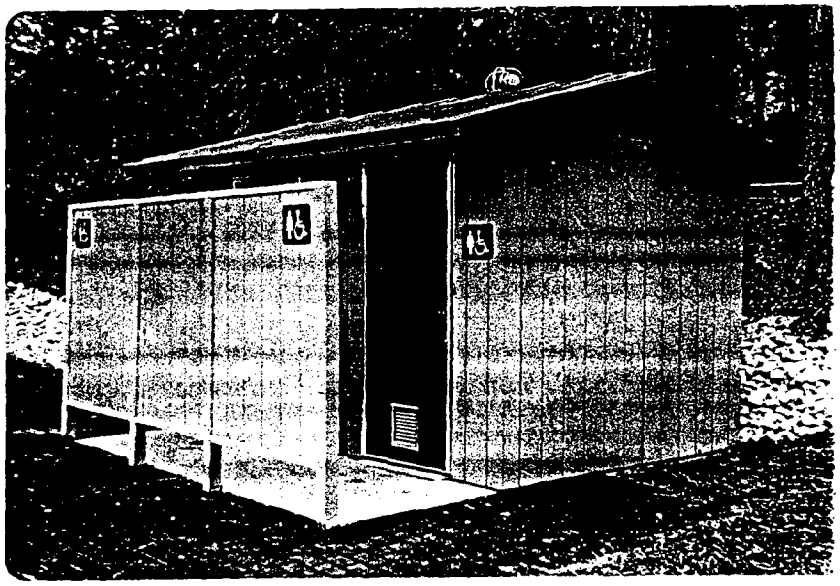
* Cluster camping area (1-6 sites)
  Primitive restrooms
* Interpretive signage / overlooks
* Benches / picnic areas along trail
* Water taxi landing / boat dock
* Wood-chip trails through woodlands
* Tower overlooking shipping channel, woodlands and wetland habitat
* Boardwalk trail and platform in wetlands

Interpretive Key:

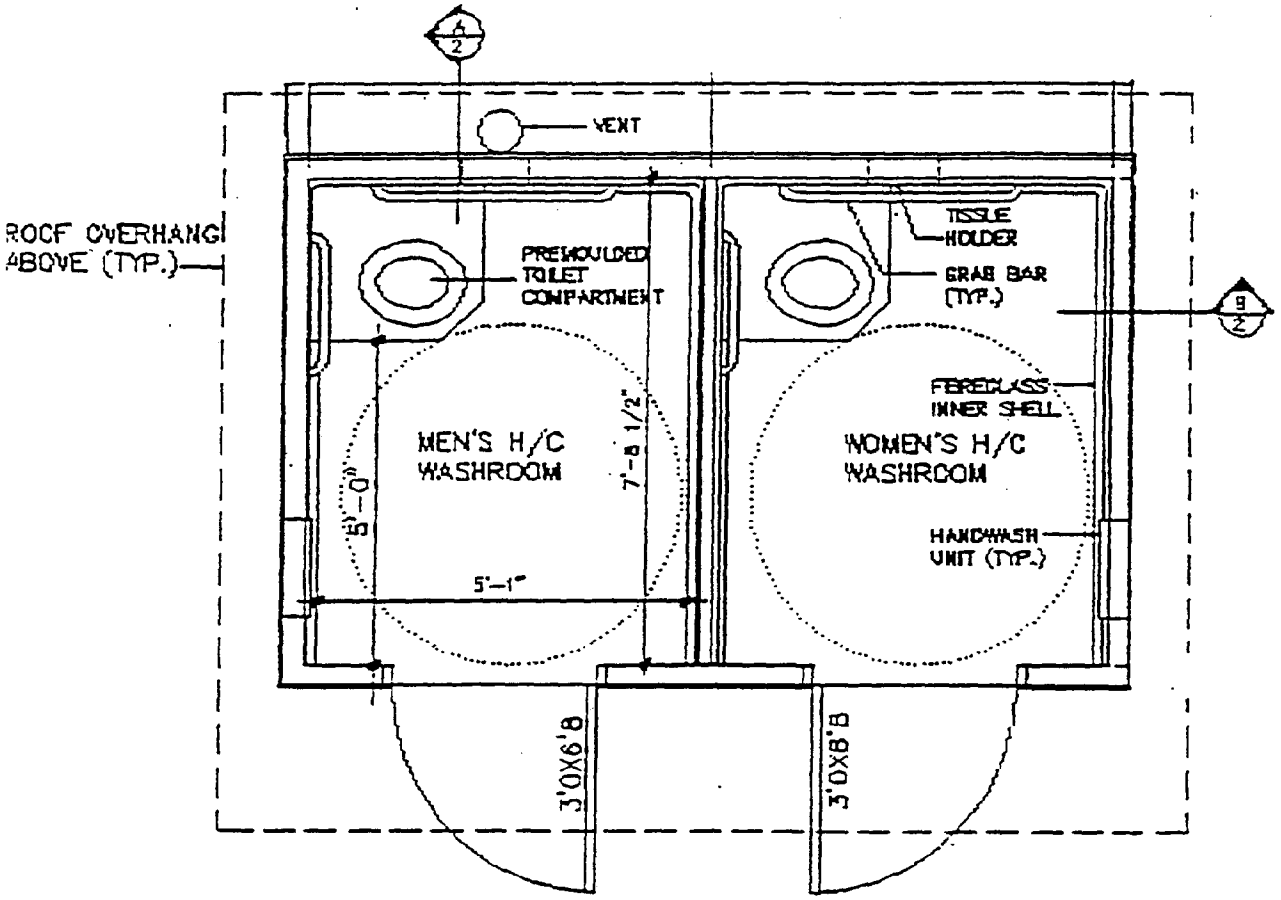
SIGNAGE TO BE LOCATED AT PICNIC/SEATING OVERLOOK AREAS WITH INTERPRETIVE INFORMATION AS DESCRIBED BELOW:

1. REGIONAL SAULT CULTURE AND HISTORY
2. SUGAR ISLAND SETTLEMENT AND CURRENT USES
3. OBSERVATION OF HERON ROOKERY AND FEEDING AREA, BEAVER DAM AND FISHING HOLE
4. HISTORY AND CURRENT DEVELOPMENT OF THE ST. MARY'S RIVER TRAIL
5. ST. MARY'S RIVER TRAIL MARKER
6. CREATION OF SHIPPING CHANNEL, CURRENT USE SHIPPING TRADE AND LOCAL ECONOMY
7. BLACK ASH FOREST AND UPLAND HABITAT ISLAND FORMATION, REGIONAL GEOGRAPHY
8. WETLAND HABITAT AND ECOSYSTEMS

SHEET		Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS	DATE	SCALE: 1" = 200'
1 of 1	SITE MASTER PLAN					PROJ. NO.: 95-187.01
						DATE: JULY/95



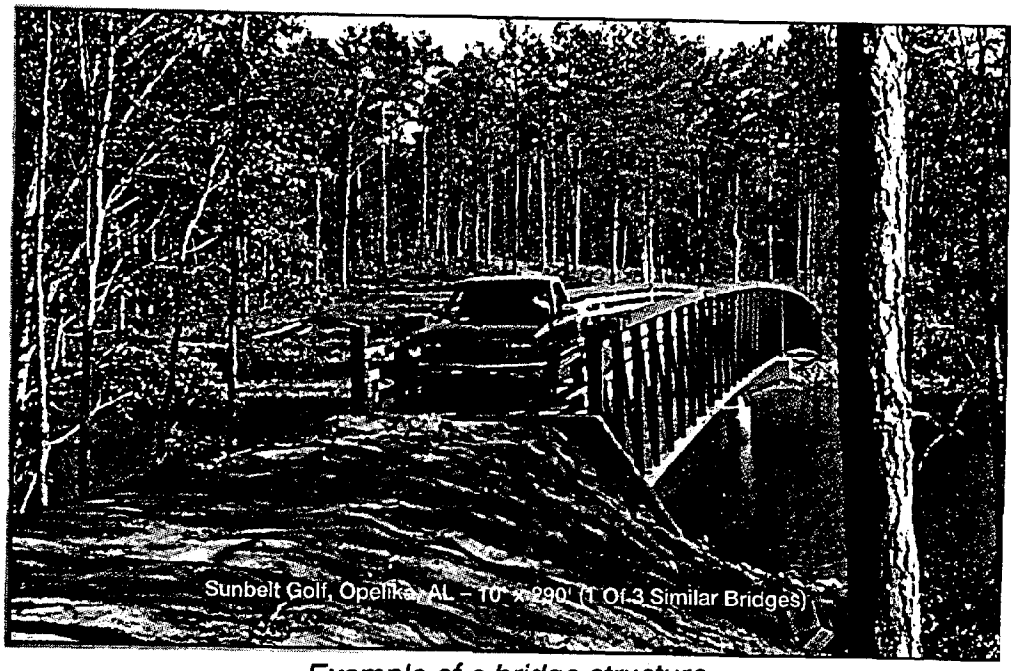
Barrier-free Restroom



Steere Island Development

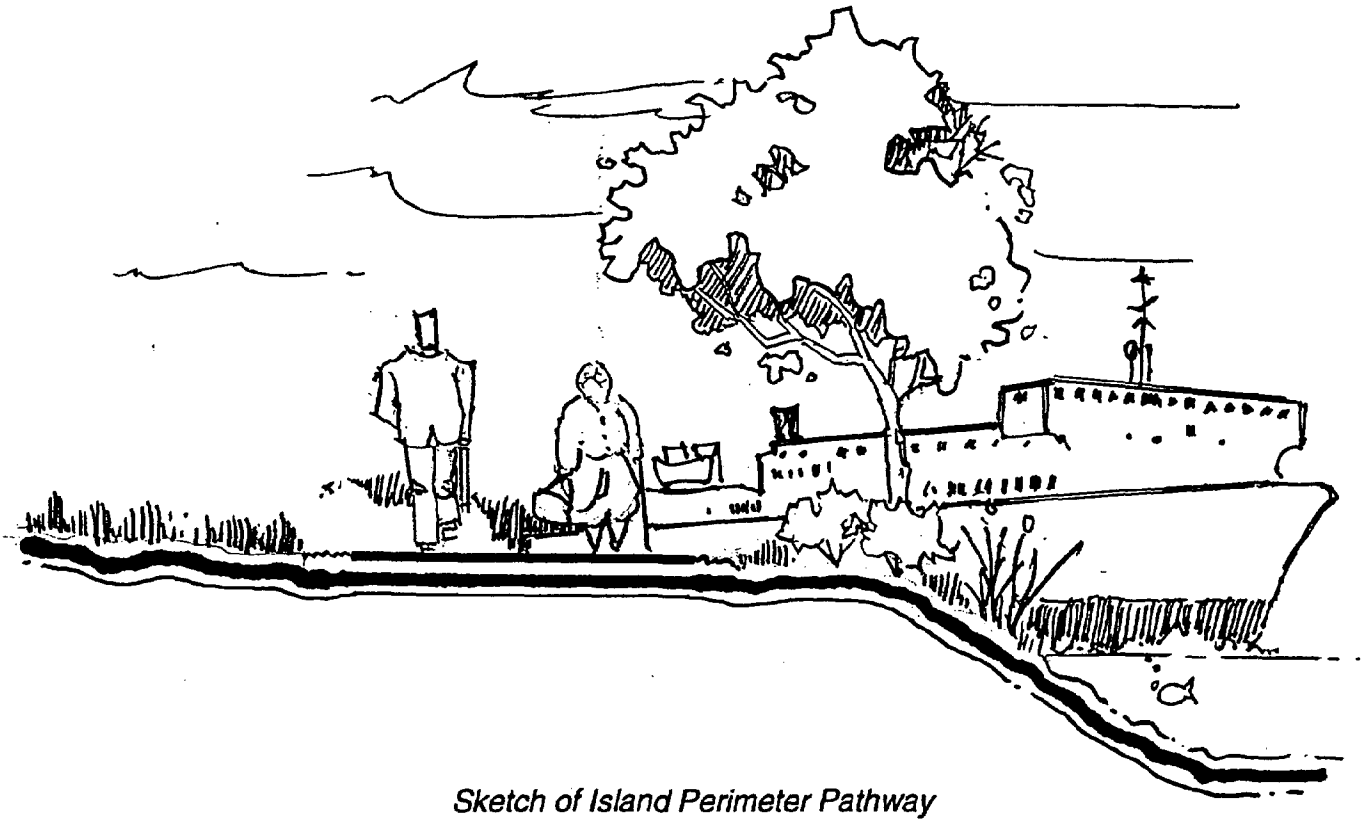
Steere Island is the middle island located directly south of Rotary Park and will be the landing point of the connection bridge from Rotary Park and will have a more intensive use by visitors than Island No. 2.

a. Bridge Development: As discussed previously, a bridge will be constructed to connect Rotary Park and Steere Island. The bridge will be fully barrier free accessible, 10' wide, and be structurally designed to carry a small pick up truck for maintenance. The bridge will span the entire channel and be constructed out of steel with wood decking and handrails. The length of the bridge will be approximately 300 lineal feet. A photo of a similar structure is shown below.



Example of a bridge structure

Due to design limitations regarding the length of such bridges, two bridge units will be required. A concrete pier with protective riprap is proposed to support the two bridge units. Additional ramps are also proposed at each end of the bridge to achieve a clearance height of 16'.

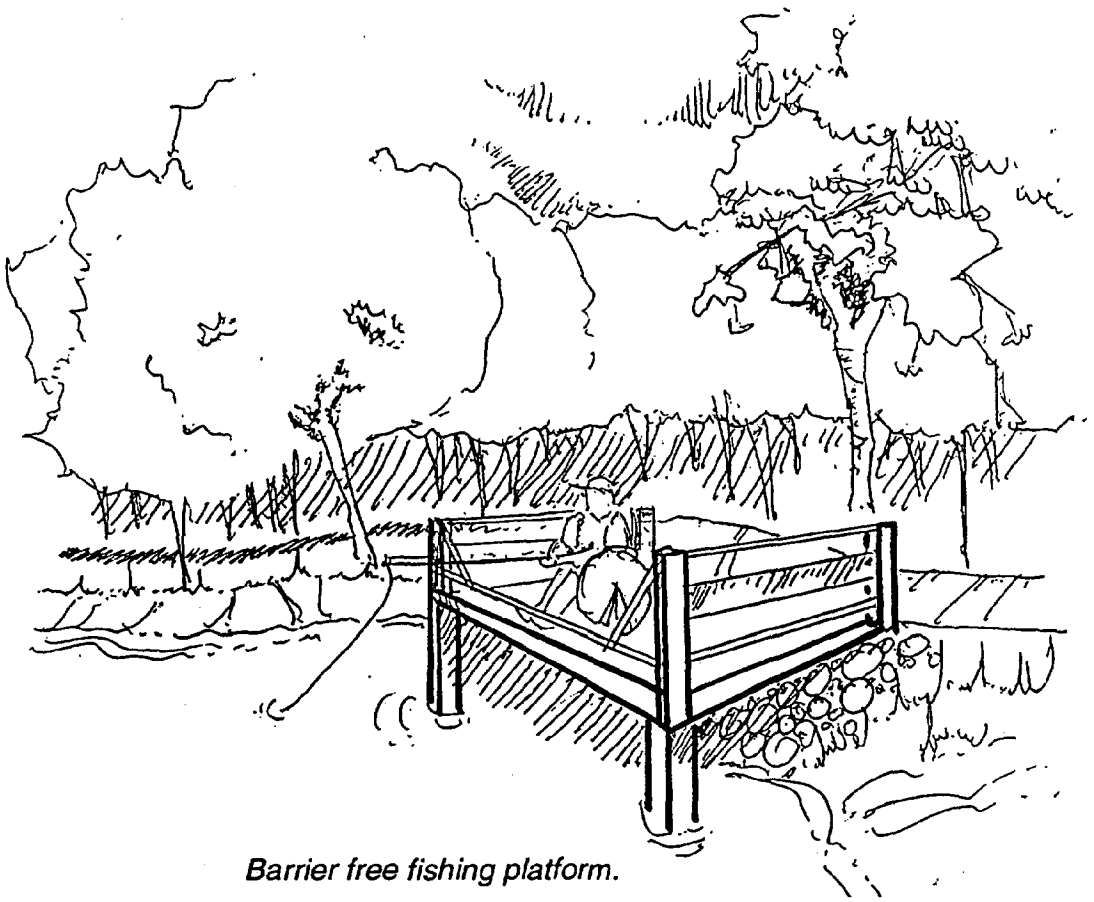


Sketch of Island Perimeter Pathway

b. Pathway around Perimeter: A barrier free pathway will be constructed around the perimeter of Steere Island and one pathway that bisects the island for a total of 2,200 lineal feet. The pathway will be 10' wide and constructed of rolled crushed limestone material to provide a barrier free surface. Bituminous material is not proposed due to the difficulty in constructing the path with limited access for large equipment and hot bituminous mix.

c. Lookouts, Benches and Picnic Areas: Twelve benches and three picnic tables have been included to be placed around Steere Island. The exact locations should be selected at the time in which the actual pathway is laid out in order to take full advantage of the scenic views and restful spots.

d. Barrier free Fishing Platform: A fishing platform has been proposed for the west side of Steere Island. The platform will extend over the water surface to allow for shoreline fishing. The platform size will be approximately 10' wide by 20' long and will be constructed out of wood members. The platform and access to the platform will be designed in accordance with barrier free standards. A concept sketch of the platform is shown on the following page. Permits from the U.S. Army Corps of Engineers and Michigan Department of Environmental Quality will be required.



Barrier free fishing platform.

e. Docking Locations (Boat House and Water Taxi): Two docking locations will be developed on Steere Island. The first proposed structure will be located at the previous site of an old boat house on the northwest end of the island. This new structure will require barrier free access. Permits to construct the docking facility will be required from the U.S. Army Corps of Engineers and Michigan Department of Environmental Quality. It has been discussed that this would be a fitting location to dock as it will replicate the docking location for the original cottage owners of the log cabin. The design of this structure would be most interesting if it could replicate the original structure. A photo of the structure is shown on the following page, although fewer remnants now exist.

A second dock will be needed on the south side of the island to accommodate the proposed water taxi to Island No. 2. The final design plan will need to consider barrier free access, the specific vessel, and commercial operation details. Further analysis will be required prior to construction.

f. Log Cabin Use: As discussed previously, the log cabin will be renovated into a shelter and interpretive center for the island. The cabin will not be serviced by utilities. The 20' x 40'± cabin will require improvements to the outside shell and roof, new doors, new windows, as well as interpretive materials. At the time of development a further architectural survey should be completed. An archaeological research report may also be considered. A picture of the front porch is on the following page.

Boat house remnants.

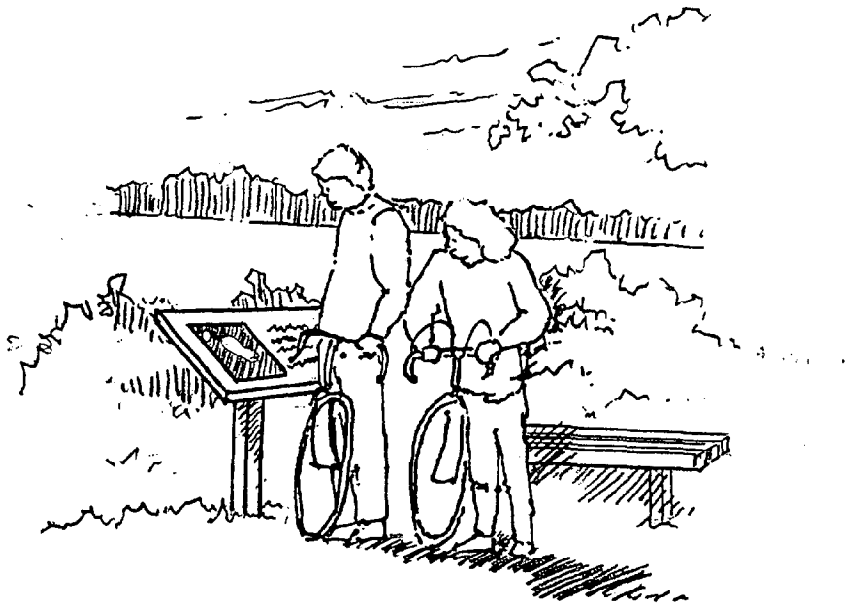
Log cabin front porch.

g. Fire-bowl: On the eastern end of the island a group fire-bowl and interpretive classroom area has been included. The bowl was placed on the eastern end of the island to place it away from the city lights and limit disturbance of the heron rookery. The bowl area will be approximately 100' in diameter with timber benches arranged around the center and will accommodate approximately 50-75 people. The bowl area will provide an area for stargazing, outdoor education classes, as well as a group campfire area.

h. Interpretive Signage: Interpretive signage has been proposed for both Steere and Island No. 2. Proposed signage will include text, graphics, maps, and possible photos to present the information. Materials such as silkscreened metal or plexi-glass materials which allow a high level of detail should be considered. A sketch of possible signage is shown below.

Signage is proposed for the interior of the log cabin with information relating to the cottage culture. The cost for this signage has been included in the allowance for the cottage renovation.

Additional signage is proposed for the sites identified by number on the site plan Interpretive Key. Signage keyed No. 1 is located at the northeast end of Steere Island and describes the regional Sault culture and history. Signage keyed No. 2 is located on the eastern shoreline facing Sugar Island and provides information regarding the Sugar Island settlement and current land uses. Signage keyed No. 3 is located near the water taxi landing on the south end of the island and provides interpretation and observation of the heron rookery and feeding area, the beaver dam, and the fishing site. A fourth area, keyed No. 4, is located at the site of the boat house remnant and new dock and provides interpretation of the history and current development of the St. Mary's River Trail.



Island No. 2 Development

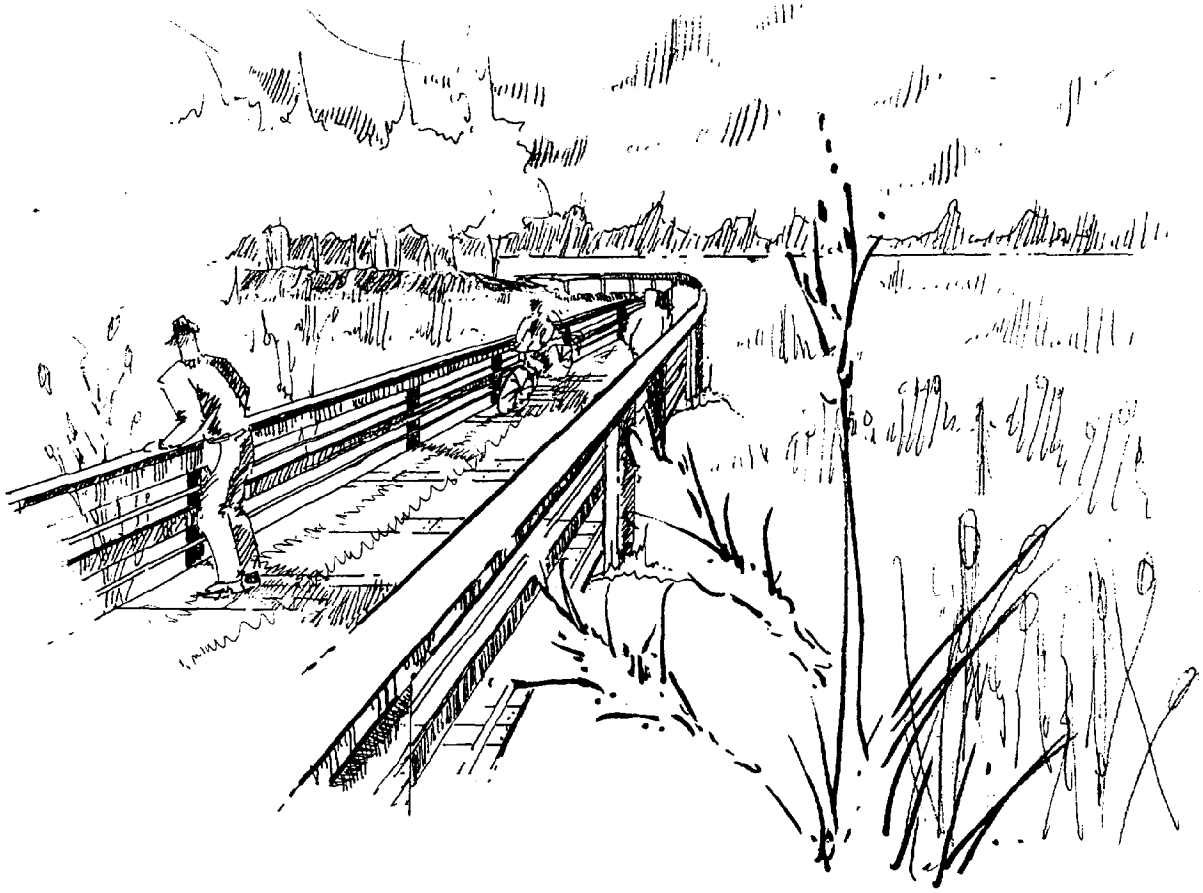
It is the intent of the plan that development on Island No. 2 will be less intensive with more limited access than that on Steere Island. Island No. 2 development includes nature trails, camping, and picnicking.

Woodchip woodland path.

a. Trail Development: The pathway system on Island No. 2 provides a loop along three sides of the island and cuts across the mid point of the island maintaining the trail on the upland areas. The trail as proposed will be 10' wide and constructed from wood and bark chips. The pathway is approximately 3,250 lineal feet and also connects the camping area to the pathway system. Other trail material such as limestone may be considered at the time of final design. Evaluation factors may include accessibility, construction methods, and level of maintenance, while still preserving the woodland atmosphere.

b. Wetland Boardwalk and Overlook: A large portion of the island is made up of wetland areas. A boardwalk into the wetland area is proposed with an overlook at the terminus. This arrangement will allow island visitors the opportunity to explore the wetland while minimizing human disturbance to the wetland. The proposed boardwalk will be approximately 680 lineal feet and constructed 10' wide of wood decking and railings with steel abutments and supports.

The overlook will be located at the terminus of the boardwalk and be sited to allow for observation of both the St. Mary's shipping channel as well as the wetland areas. The proposed tower will be approximately 10' x 10' with an observation deck height of 20'. Proposed construction will probably be a combination of wood and steel. Soil conditions, surrounding vegetation, and other relevant items will need to be considered when finalizing the exact site and tower design. Construction in the wetland area will require appropriate permits from the Michigan Department of Environmental Quality and other agencies as required.



Wetland Boardwalk

c. Camping Area and Restrooms: The camping area has been clustered to provide six camping sites. By clustering the sites, the camping area can serve six individual campers or one large camping group. The camping area is located on the higher ground within the island and is set back from the shoreline in order to provide a separation from the visitor pathway along the shoreline. The camping area will be for primitive tent camping. Rustic composting restrooms, similar to those proposed for Rotary Park, will provide services to the camping area and island visitors. A single men's and women's stall will be provided.

d. Interpretive Signage: As discussed for Steere Island, similar interpretive signage has also been included for Island No. 2. Points of interest included the key item No. 5 which provides for the official St. Mary's River Trail marker and additional information and is located near the docking location at the north end of the island. Item No. 6 is located along the eastern shore and the St. Mary's River shipping channel and provides for the interpretation of the creation of the shipping channel, the current shipping trade, and the impact on the local economy. Marker No. 7 is located within the central portion of the island and discusses the significance of the Black Ash Forest and upland habitat on the Island. The final sign is located at the observation tower in the wetlands and provides for interpretation of the wetland habitat and ecosystems. Additional signage may be desired once the final trail layout is completed on-site.

e. Scenic Overlook, Benches, and Picnic Areas: As proposed for Steere Island, similar resting spots have been proposed for Island No. 2. A total of twelve benches and six picnic tables have been included for Island No. 2. The final location for these should be determined with the final pathway layout on site in order to identify the best views and restful sites.

f. Shoreline Fishing: No formal fishing areas have been identified on Island No. 2. It is proposed that fishing will be less structured and be offered informally along the shoreline.

g. Boat Dock and Water Taxi Landing: A boat dock is proposed which will accommodate both private boats and canoes docking at the island, as well as an embarking site for the water taxi from Steere Island. The proposed site is at the northeast end of the island, avoiding the heron rookery at the northwest end. The boat dock and water taxi landing will be designed to be barrier free and accommodate the selected vessel and meet commercial boat service needs. Although many options exist for this facility, two L-shaped 30'x40'x12' wide floating piers are listed as a possibility for the landings, tendered by a customized 10 person commercial grade pontoon boat. Greater research will be required at the actual time of construction to address undetermined variables including, but not limited to, safety issues, barrier free access, location on island, type and size of craft and landing, permits, and mode of operation.

Concluding Note on Island Access Options

The 250' long, 16' high bridge from Rotary Park to Steere Island and the water taxi from Steere Island to Island No. 2 are the preferred access options proposed in this plan for a variety of reasons as previously discussed. Should changing conditions or further evaluation affect the feasibility of these access methods at the time of final design, other options discussed in the evolution of this plan may be reconsidered, subject to applicable review and approval by the Michigan Department of Environmental Quality and the U.S. Army Corps of Engineers.

Cost Estimates for Concept E - Final Site Master Plan

Cost estimates for Concept E appear on the following pages. These estimates are conceptual and will require refinement with the final designs. All estimates are based on 1995 dollar values. Inflationary factors will have to be considered at the time of design.

Cost Estimates for Concept E - Final Site Master Plan

	QTY.		COST		TOTAL
Rotary Park					
Parking Lot 2.5" Bituminous, 6" Gravel 28+/- Spaces with pavement markings	1,720	SY	$ 9.30	$	16,000
Remove and Replace Restrooms with single compost barrier free units	2	LSUM			22,000
Paved Path - Barrier Free 2.5" Bituminous, 6" Gravel, 10' Wide	550	SY	9.30		5,100
Benches - 6' Long Wood and Steel	8	EA	500.00		4,000
Restoration	1	LSUM			2,500
20' Bridge - Pre-fab Wood and Steel including abutments and grading	1	LSUM			7,000
Clearing	1	LSUM			1,000
Subtotal				$	57,600
10% Contingency					5,800
Rotary Park Total				**$**	**63,400**

NOTE: All figures are based on 1995 dollars. Design or construction observation is not included in cost estimate. Based upon work performed by licensed contractors. Access and mobilization costs have been included. Cost estimates based on Concept E - Site Plan.

Cost Estimates for Concept E - Final Site Master Plan

	QTY.	COST	TOTAL
Steere Island			
Limestone Path - Barrier free 6" crushed slag, 10' wide, compacted	2200 LF	$ 10.00	$ 22,000
Fishing Platform (10 x 20) - Barrier free	1 EA	5,000.00	5,000
Boat Dock (10 x 60) - Barrier free	1 EA	12,000.00	12,000
Picnic Tables - 6' Long Wood/Steel	3 EA	350.00	1,100
Trash Receptacles - 22 gal. with wood frame	3 EA	300.00	900
Benches - 6' Long Wood/Steel	12 EA	500.00	6,000
Interpretive Signage	4 EA	3,000.00	12,000
Access to Steere Island - 16' High Bridge Pre-fab Wood and Steel, 10' Wide with 100' Boardwalk and Railing including Concrete Pier and Abutments	300 LF		364,000
Fire Bowl - Clearing and Timber Seating	1 LSUM	5000	5000
Log Cabin Improvements - Architectural and site work including: windows, shutters, doors, roofing and 1st floor improvements for interpretive area.	1 LSUM	(Allowance)	$ 50,000
Subtotal			$ 478,000
10% Contingency			47,800
Steere Island Total			**$ 525,800**

NOTE: All figures are based on 1995 dollars. Design or construction observation is not included in cost estimate. Based upon work performed by licensed contractors. Access and mobilization costs have been included. Cost estimates based on Concept E - Site Plan.

Cost Estimates for Concept E - Final Site Master Plan

	QTY.	COST	TOTAL
Island No. 2			
Wood Chip Path - 6" deep, 10' wide	3,250 LF	$ 5.00	$ 16,300
Water Taxi/Boat Dock - 2 (30'x40'x12') barrier free; 1 (10 person customized pontoon boat) *Currently several variables are undetermined including but not limited to barrierfree access, location on island, type and size of boat, permits, and mode of operation.*	1 LSUM		75,000
Picnic Tables - 6' Long Wood and Steel	6 EA	350.00	2,100
Trash Receptacles - 22 Gallon with Wood Frame	6 EA	300.00	1,800
Restrooms - Single compost unit - barrier free	1 EA	12,000.00	12,000
Wood Observation Tower - 10'x10'x20' height	1 LSUM		50,000
Elevated Boardwalk - 10' Wide Wood and Steel with Abutments and Railing	680 LF	65.00	44,200
Benches - 6' Long Wood and Steel	12 EA	500.00	6,000
Interpretive Signage	4 EA	3,000.00	12,000
Subtotal			$ 219,400
10% Contingency			21,900
Island No. 2 Total			**$ 241,300**

NOTE: All figures are based on 1995 dollars. Design or construction observation is not included in cost estimate. Based upon work performed by licensed contractors. Access and mobilization costs have been included. Cost estimates based on Concept E - Site Plan.

Implementation

Phasing Plan

The development of the islands has been broken into two phases. Phase I includes the development of Rotary Island, the connection bridges to Steere Island and the development of Steere Island. Phase II includes the access from Steere Island to Island No. 2 and development of Island No. 2. A graphic of the Phasing Plan is included on the following page. Each of these phases may be broken into sub phases based on funding availability.

Issues to be Addressed for Phasing

Key issues to be addressed in each phase of development will be the need to acquire the needed permits from agencies such as the City of Sault Ste. Marie building permits, U.S. Army Corps of Engineers, Michigan Department of Environmental Quality, and the Michigan Department of Natural Resources. Additionally archaeological research may be required prior to construction of either island to the satisfaction of the Michigan Historical Center at the time of construction.

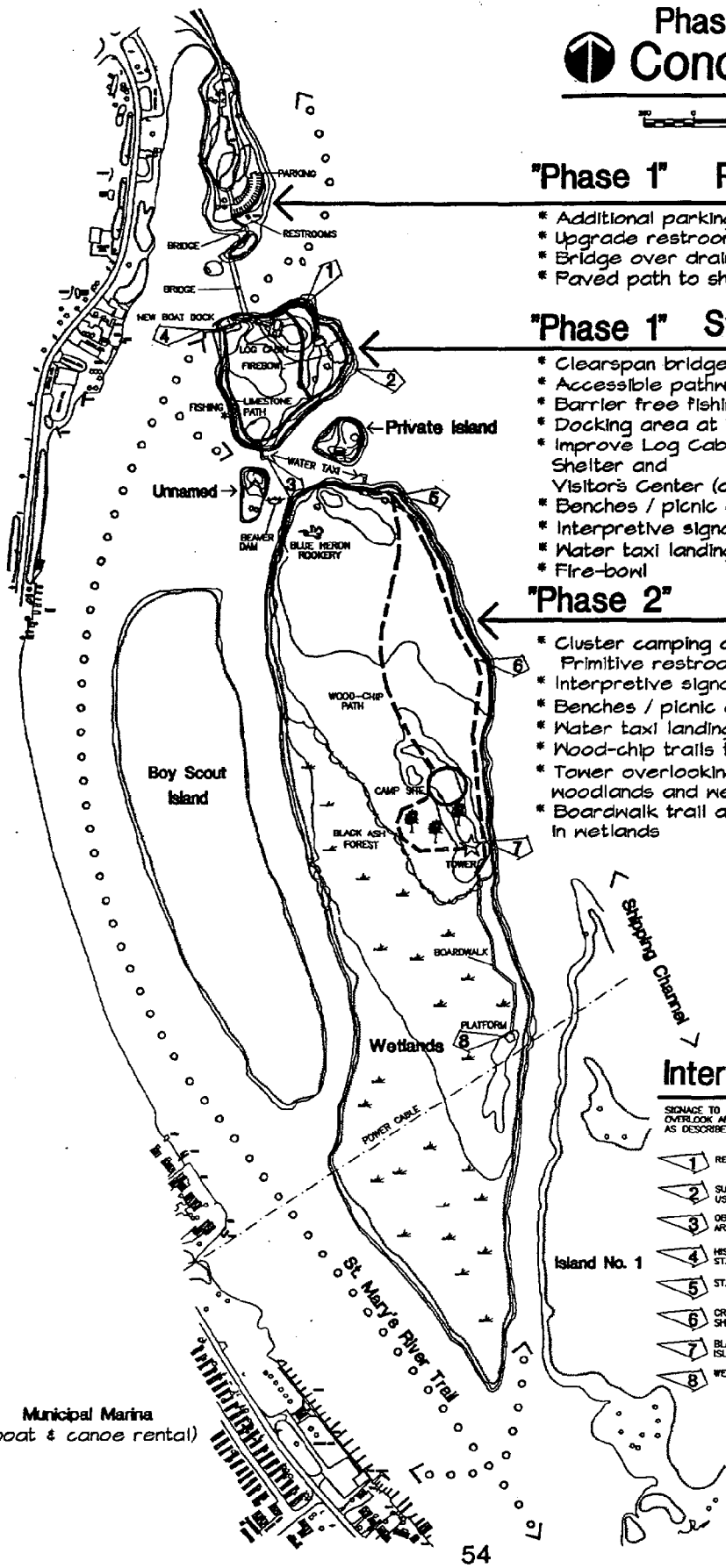
Planning for the Next Steps

The primary need in the implementation of the master plan will be securing the needed funding. Funding options are discussed below. The funding options will to some extent drive the direction and amount of construction completed within each project. If the total phase can be completed as one project, the cost summaries given below may be utilized as a guide to costs. However, it should be noted that if the projects are completed as numerous small projects these dollar values will most likely increase due to increased design time, mobilization of construction costs, and management of the construction supervision.

Summary of Costs for Concept E

Phase I- Rotary Park and Steere Island	
a. Archaeological assessment	$ 5,000
b. Final design and bidding specifications	47,200
c. Construction costs (based on cost estimates)	
Rotary Park	63,400
Steere Island	525,800
d. On-site construction supervision	23,600
Total for Phase I	$665,000

Phasing Plan
Concept "E"



"Phase 1" Rotary Park

* Additional parking/improve existing
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* Bridge over drainway
* Paved path to shoreline

"Phase 1" Steere Island

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* Benches / picnic areas along trail
* Interpretive signage / lookouts
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* Fire-bowl

"Phase 2" Island #2

* Cluster camping area (1-6 sites)
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5. ST. MARY'S RIVER TRAIL MARKER
6. CREATION OF SHIPPING CHANNEL, CURRENT USE SHIPPING TRADE AND LOCAL ECONOMY
7. BLACK ASH FOREST AND UPLAND HABITAT ISLAND FORMATION, REGIONAL GEOGRAPHY
8. WETLAND HABITAT AND ECOSYSTEMS

SHEET 1 of 1	PHASING SITE MASTER PLAN	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS	DATE	SCALE 1" = 200' PROJ. NO.: 95-147.01 DATE: JULY/95

Phase II- Island No. 2	
a. Archaeological assessment	$ 3,000
b. Final design and bidding specifications	20,000
c. Construction costs (based on cost estimates)	241,300
d. On-Site construction supervision	10,000
Total for Phase II	$274,300
Total for Phase I and Phase II:	$939,300

Funding Alternatives

Funding for the project will require a variety of funding sources. The phasing of the development will require larger amounts of funds to accomplish major elements such as the bridge access and log cabin restoration, but will also allow for most of the items of development to be completed individually as funds allow. It can be assumed that funding of the project will require aggressive grant writing, solicitation of community support and donations, as well as general fund dollars from the City of Sault Ste. Marie.

Possible grant sources could include the following:

Michigan Natural Resources Trust Fund
The Michigan Natural Resources Trust Fund is State of Michigan funds distributed by the Administrative Services Division of the Michigan Department of Natural Resources. The trust fund supports grants for projects relating to recreational use of the natural resources including water access, trail way development, and outdoor education. Eligible grants range from $15,000 to $375,000. Grant applications are accepted once a year on April 1. The submitting community must have a Five Year Community Recreation Plan on file with the Michigan Department of Natural Resources. The grants provide for up to 75% of the funds and require no less than 25% in matching funds.

Land & Water Conservation Fund
The Land and Water Conservation Fund grant program is federal grant monies administered by the Michigan Department of Natural Resources. The trust fund dollars are more limited than the Michigan Natural Resources Trust Fund but are available for outdoor recreation projects. Eligible grants range from $10,000 to $250,000. Grant applications are accepted once a year on April 1. The submitting community must have a Five Year Community Recreation Plan on file with the Michigan Department of Natural Resources. The grants provide for up to 50% of the funds with 50% of matching funds required from the community.

Inland Fisheries Resources Grants
The purpose of the Inland Fisheries Resources Grants, administered by the Michigan Department of Natural Resources is to provide funds to encourage and enhance inland fishing opportunities including bank stabilization, piers, erosion control and access

sites. The source of the grant funds is the State's Game and Fish Fund. Applications are due to the local district offices of the Michigan Department of Natural Resources Fisheries Division by February 1 of each year. Maximum grants to be awarded are $20,000. Total funds available for 1995 for all grants was $200,000.

Boating Facilities Grant

The Boating Facilities Grant is funded by the Michigan State Waterways Fund administered by the Michigan Department of Natural Resources Parks and Recreation Division. The purpose of the grant funds is to provide for the development of recreational boating facilities. Deadline for the submittal of applications is April 1 of each year. The grants require a minimum 50% in local matching funds for mooring and small grants projects. A 75% state grant is available for launching projects. The 1995 fiscal year appropriation was $2,517,000.

Coastal Zone Management

Coastal Zone Management grants are administered by the Michigan Department of Environmental Quality, Land and Water Management Division. This program was developed under the federal Coastal Zone Management Act in 1978. Eligible projects include studies, design, and construction for enhancement of public access, protection of resources, preservation and restoration of historic structures, redevelopment of urban waterfronts and ports within Michigan's Great Lakes coastal area. Grants are limited to a maximum of $50,000 with at least 50% of total projects cost as local match provided by the community. Applications are accepted no later than March 1.

Appendices

Appendix A - Background Information on Committee Members

Sault Ste. Marie Lower River Islands Study Steering Committee

April 1995
Ellen Brey, Sault Ste. Marie Community Services Board
James Moody, Sault Ste. Marie Planning and Development Commission
Elizabeth Demaray, Member from the General Public
Daniel Donarski, Member from the General Public
Warren Parker, Member from the General Public

November 1995
Ellen Brey, Sault Ste. Marie Community Services Board
Robert Shimmens, Sault Ste. Marie Planning and Development Commission
Elizabeth Demaray, Member from the General Public
Daniel Donarski, Member from the General Public
James Moody, Member from the General Public

Ellen Brey is serving her first full term on the Community Services Board. She is a legal assistant to a local attorney, and has also worked with local social services programs.

James Moody was completing his second full term on the Planning and Development Commission when a appointed to the Steering Committee. He is a Professor of History at Lake Superior State University and has served two full terms on the Sault Ste. Marie City Commission.

Elizabeth Demaray is a past president of the Sault Ste. Marie Rotary Club, which has been active in lower river park development. She is also a vice-president of the FMB Sault Bank.

Daniel Donarski is a past president of the Sault Area Sportsmen's Club and experienced fisherman. He is also Executive Director of the Sault Convention and Visitors Bureau.

Warren Parker is a local birding expert who has written a regular column on birding for the local newspaper. He is a retired business man and has long been active in community affairs. He resigned from full membership on the committee in August 1995 for health reasons.

When Mr. Parker resigned, Mr. Moody had also completed his term on the Planning and Development Commission. Mr. Moody was then designated as a member from the general public and Robert Shimmens was appointed to represent the Planning and Development Commission.

Robert Shimmens has served several years on the City Planning and Development Commission and also serves on the City Beatification Committee. He is a social worker for the Chippewa County Department of Social Services. .

Appendix B - Letter from the Michigan Historical Center

MICHIGAN DEPARTMENT OF STATE
Candice S. Miller, Secretary of State

Lansing, Michigan 48918-0001

STATE HISTORIC PRESERVATION OFFICE
Michigan Historical Center
717 West Allegan Street
Lansing, Michigan 48918-1800

August 22, 1995

RECEIVED
AUG 25 1995
Capital Consultants, Inc.

PAMELA M BLOUGH LANDSCAPE ARCHITECT
CAPITAL CONSULTANTS
820 N WASHINGTON AVE
LANSING MI 48906

RE: ER-950557 Lower River Islands Feasibility Study, Sault Ste. Marie, Chippewa County (MDNR-CZM)

Dear Ms. Blough:

We have reviewed the information you recently sent us regarding the project referenced above. We have no historical information, and very little contextual information, with which to evaluate the properties mentioned in your letter. We suggest that the cultural history of the islands be documented as part of the planning effort. Such documentation should help you to avoid adversely impacting historically significant properties, and identify potential interpretive themes for part of the development. The log structure appears to be an interesting example of rustic camp architecture. We recommend that you investigate rehabilitating this structure as part of the development project.

According to records in the Office of the State Archaeologist, these islands have never been surveyed for archaeological sites. Given the long history of precontact Native American settlement in the Sault Ste. Marie area, along with historical period settlement by both Native peoples and Euroamericans, there is clearly potential for archaeological sites to be present on the islands. We recommend that an archaeological survey of the islands be conducted prior to development. It would probably be most efficient to do a complete survey of all three islands so that information on site locations could be used in planning development.

If you have any questions, please contact the Environmental Review Coordinator at (517) 335-2721. Thank you for this opportunity to review and comment.

Sincerely,

John R. Halsey for

Kathryn B. Eckert
State Historic Preservation Officer

KBE:DLA:EAM

cc: Maureen Hein, Michigan Department of Natural Resources, Land & Water Division

Appendix C- Advertisement for Public Workshop

NOTICE OF PUBLIC WORKSHOP

Published in Sault Ste. Marie
EVENING NEWS
September 15, 1995

PUBLIC NOTICE

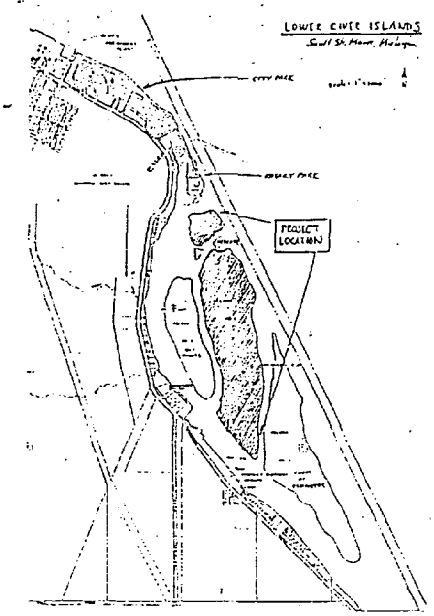
CITY OF SAULT STE. MARIE LOWER RIVER ISLANDS DEVELOPMENT PLAN WORKSHOP

A Public Workshop to discuss the recreational development of the City's three lower river islands will be held on Wednesday, September 20, 1995 at 7:00 p.m. in the City Commission Room, City Hall, 325 Court Street, Sault Ste. Marie, Michigan.

The City is in the process of completing a master development plan for access to and recreational use of the three lower river islands south of Rotary Park as shown on the map below. A conceptual plan has been developed by the firm of Capital Consultants, working with City staff and the Islands Study Steering Committee. The plan includes the placement of pedestrian bridges to provide access from Rotary Park to the islands. The public is invited to view and discuss the conceptual plan so that comments may be considered prior to completing the final plan.

All interested persons are encouraged to attend the workshop and comment on the conceptual plan. For further information, please contact the Department of Planning and Development, 1301 West Easterday Avenue, Sault Ste. Marie, Michigan, telephone 906-635-1521.

James F. Hendricks
Director of Planning and Development



Appendix D - Summary Comments from Public Workshop

SUMMARY OF COMMENTS MADE AT LOWER RIVER ISLANDS PUBLIC WORKSHOP SEPTEMBER 20, 1995

Several boaters from the Riverside Drive area were present. Overall, the reaction of those present was that the project is very worthwhile. There is enthusiasm for the islands' use and development. There were several constructive comments as summarized below:

-BRIDGE HEIGHT

Between Rotary Park and Steere Island

Bridge height is a concern between Rotary and Steere Island. It is a frequently used power boat route.

Ten feet in height over high water would not be enough because of antennae heights.

Consensus of those present was that sixteen feet above high water is needed at minimum with twenty feet being desirable. (A boater unable to be at the workshop called the Planning office after the meeting to state that bridge height is a concern and he agreed that the 16' minimum, 20' ideal figures discussed at the workshop were accurate.)

The existing bridge over the Black River above the dam near Cheboygan was cited as an example of a good bridge height.

It was noted that the channel between Rotary and Steere is deepest closest to Steere Island and that this is the route boats usually take.

It was noted that most of the power boats along Riverside Drive are probably 21-25' in length.

Other Locations

Bridge heights between the unnamed island and Steere and Island No. 2 were not considered a problem by those present as these are not boat traffic areas.

-HANDICAP ACCESS

It was noted that at the same time one looks at bridge height in terms of boats, one also has to consider handicap access to Steere Island.

-DOCKING LOCATIONS

Steere Island

One person present thought perhaps the dock location on northwest side of Steere was too close to the boat traffic lane, but another said it should be no problem and is similar in location to former dock.

Island No. 2

Consensus was that the dock location on northeast corner of Island No. 2 as shown is too close to channel currents. One person present called back a few days later and said he confirmed this in his boat. He also stated that just moving the dock westward between Island No. 2 and the private island might be all that is needed as there is a deep area with old pilings that appears to possibly have been a boat docking area before.

-FIRE BOWL/STARGAZING AREA LOCATION

It was suggested that this activity be moved eastward toward the river/Canada side away from the Sault, Michigan city lights which would lessen the effect.

-CAMPSITES ON ISLAND NO.2

There was consensus that for ease of maintenance and lessening of impact, the idea of campsites in one clustered location is a good one. One person questioned whether there would be a sufficient number of sites.

It was noted that there could be revenue generated from camping, that there might be a good demand for the sites. Mr. Hendricks noted that perhaps the operation could be tied in with the City's Aune Osborn campground operation.

-SIGNAGE FOR SAILBOATS OR OTHER OVERSIZED CRAFT

It was suggested that some type of directional signage be provided in the area around Island No. 2 to advise boaters of clearance limits in the area of Island No. 2 well before they enter the Steere/Rotary Channel so that sailboats or oversized power boats can avoid the route while they still have room to maneuver elsewhere. (One private Riverside Drive marina owner/resident told of unfamiliar boaters getting stuck due to low clearance of wires without area to turn around.)

-MAINTENANCE

More than one person mentioned the importance of proper maintenance and making ease of maintenance a consideration in designing facilities.

-CANADIAN GEESE NUISANCE

There was discussion how to keep geese from affecting the area. They are problem at Rotary park. People feeding them, of course, exacerbates the problem. Maureen Hein from MDNR noted that the geese favor cut lawn areas.

-WINTER USE - CROSS COUNTRY SKIING

One steering committee member present noted the potential for winter cross country ski trail use and also

incorporation of the islands into the City's Historic Walkway and/or bike trail system.

-HISTORIC RESOURCE PERSON

It was noted that an Admiral McKinney would be a good resource person for the history of Steere Island and that he could probably be contacted tthrough Mr. Ed Stack of the Sault.

-CANOE ACCESS

It was mentioned that informal canoe landing areas should be included in the plan.

-FISHING PIER LOCATIONS

It was noted that fishing piers should be located where there is actually good fishing.

Summary prepared by Sault Ste. Marie Department of Planning and Development

Appendix E - Letter from the Coastal Zone Management Division

NATURAL RESOURCES
COMMISSION
JERRY C. BARTNIK
KEITH J. CHARTERS
LARRY DEVUYST
PAUL EISELE
JAMES P. HILL
DAVID HOLLI
JOEY M. SPANO

STATE OF MICHIGAN

JOHN ENGLER, Governor
DEPARTMENT OF NATURAL RESOURCES
STEVENS T MASON BUILDING, PO BOX 30028, LANSING MI 48909-7528
ROLAND HARMES, Director

REPLY TO:
LAND & WATER MANAGEMENT DIVISION
PO BOX 30458
LANSING MI 48909-7958

September 29, 1995

Ms. Barbara Lisiecki
Planning and Development Department
City of Sault Ste. Marie
1301 West Easterday Avenue
Sault Ste. Marie, MI 49783

Dear Barb:

This letter is a follow-up to our meeting in Sault Ste. Marie last week. Listed below is a summary of the issues we discussed concerning the concept drawings for the lower river islands project. I have focused on Concept D, which was indicated by the city as the preferred option.

1. The heron rookery and osprey nest will need to be located and indicated on the site plan. Every effort should be made to avoid disturbance of these nest sites, including development of trails or any other kind of construction. Increasing public access and activity near the nest sites would also be considered disturbance.

2. The concept should not indicate any fill material being placed in the river, as is currently shown in Concept D as "extend shoreline for new bridge." This would not likely be permitted by state or federal agencies, and is not consistent with the goals and objectives of the Coastal Management Program. As we discussed, construction of several bridges between the islands may prove to be cost prohibitive, with or without fill material. An alternate plan, such as use of row boats to access Island #2, should be considered.

3. Placement of parking lots, restroom facilities and any other construction should be kept away from the shoreline, as possible. These areas will likely contribute sediment and other runoff to the river, and a plan for stormwater management will eventually need to be completed. As we discussed, these issues would be addressed in final engineering for the facilities.

I enjoyed meeting with you last week, and especially appreciated being able to attend the public meeting for the project. The project deadline has been extended to December 31, 1995. I look forward to seeing the final plan. If you have any questions, or wish to discuss the project, please do not hesitate to contact me at 517-373-1950.

Sincerely,

Maureen

Maureen Hein
Coastal Programs Unit
Land and Water Management Division

Appendix F- Concept Plans A, B, C, D, and E

Included in Appendix F are the five concept plans that were developed in the planning process. Concept E is the final plan which is described in greater detail within the body of this report.

Concept A

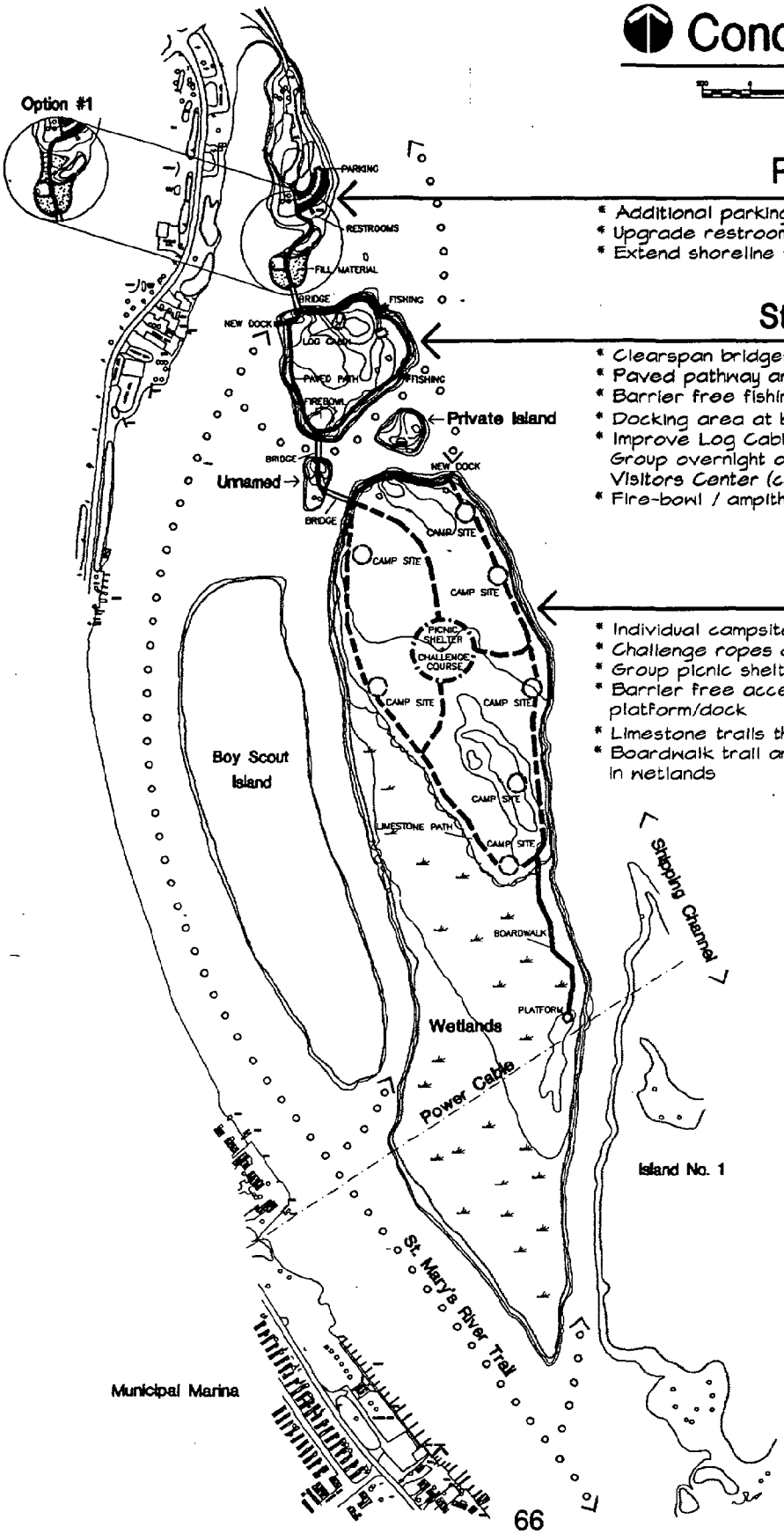
Concept A appears on the following page.

Concept A includes the development of bridge access to all three islands. The bridges will be clear span truss structures spanning from island to island. The bridges will be primarily for pedestrian use, and will be designed to not only accommodate barrier free use, but also a maintenance vehicle. An extension of Rotary Park shoreline provides a stable base and shorter length for the bridge to Steere Island. Watercraft will have access to the island at a new dock located near the previous boathouse.

On Steere Island, the cottage culture of the island will be highlighted by improvements to the existing log cabin structure including a visitors center and lodging for overnight group outings. An amphitheater for group events, fire-bowls, star-gazing, and story telling is also located on this island. A pathway will be located along the shoreline connecting the interpretive cottages. The pathway will be of a pavement surface to allow for more intensive use and barrier free access around the island.

Bridges will connect to Island No. 2 via the Unnamed Island. Barrier free pathways connect areas on Steere Island to a fishing/boating dock at the northeast point of Island No. 2. Un-paved pathways on Island No. 2 link various individual campsites throughout the upland areas. A boardwalk and overlook provide access into the wetland habitat at the southern end of the island as well as continuous views along the shipping channel and shoreline. A picnic shelter and challenge course are included for group achievement activities.

Concept "A"



Rotary Park

* Additional parking/improve existing
* Upgrade restrooms
* Extend shoreline for new bridge

Steere Island

* Clearspan bridges via unnamed isle
* Paved pathway around perimeter
* Barrier free fishing platforms
* Docking area at boathouse remnants
* Improve Log Cabin for:
  Group overnight outings
  Visitors Center (cottage culture, etc)
* Fire-bowl / amphitheater / star-gazing

Island #2

* Individual campsites (no fires)
* Challenge ropes course
* Group picnic shelter
* Barrier free access to fishing platform/dock
* Limestone trails through woodlands
* Boardwalk trail and platform in wetlands

SHEET 1 of 1	PRELIMINARY SITE PLAN	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS	DATE	SCALE: 1" = 200'

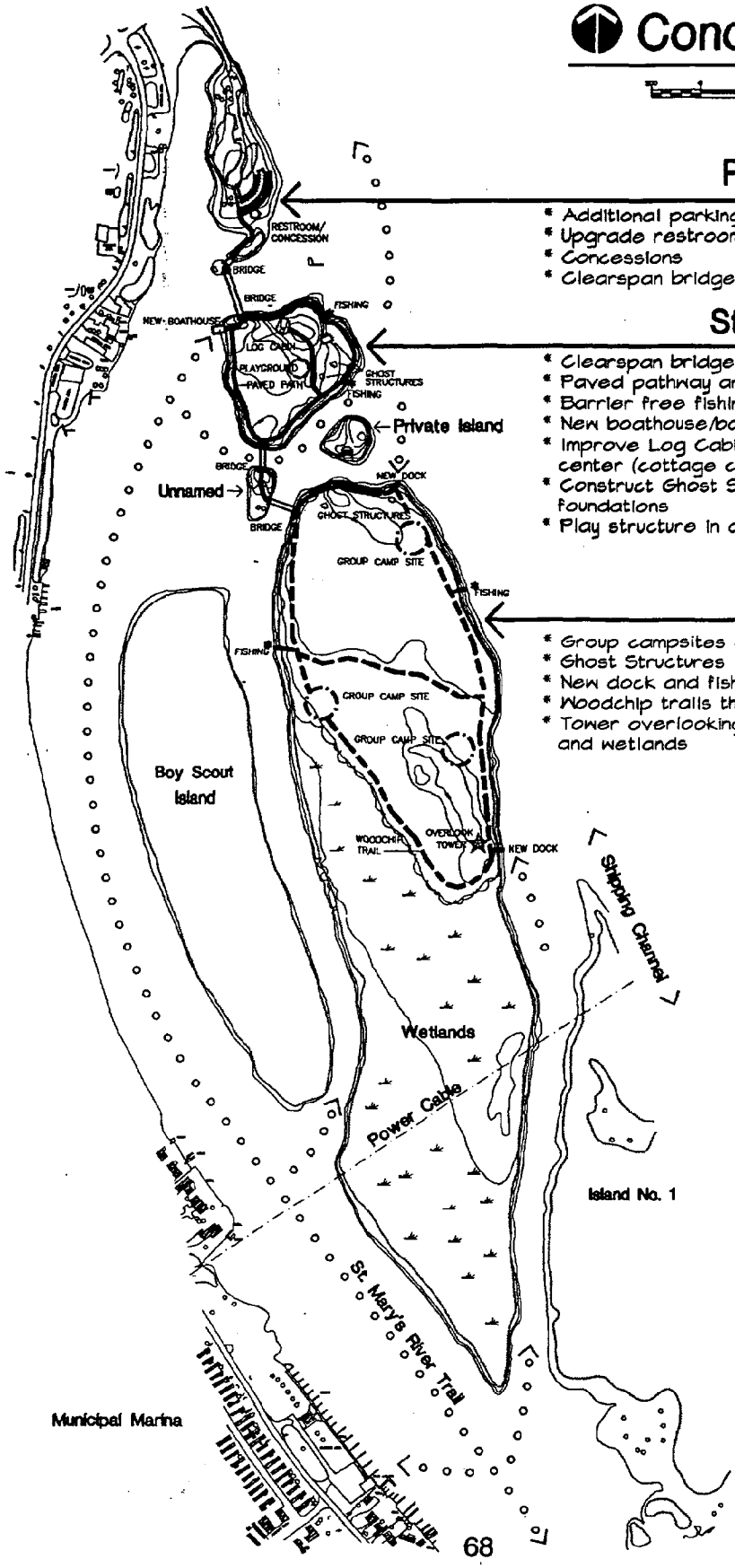
Concept B

A drawing of Concept B is located on the page immediately following.

Concept B provides access to pedestrians and service vehicles utilizing bridges to Steere and No. 2 Island. Without extending the shoreline of Rotary Park, additional bridging will be required to span the longer channel widths. A new boathouse and dock area will be recreated near the old boathouse site. The log cabin structure will be improved for a visitors center, which will be utilized to interpret the previous cottage structures throughout the island. A playground built in character with the cottage styles, located in the center of Steere Island, will provide an active spot for families with children, barrier free pathways connect the various activities on Steere Island as well as provide access to barrier free fishing docks and overlooks along the shoreline.

Island No. 2 has a more rustic development with a select amount of group camping areas connected by unpaved pathways throughout the wooded uplands. A tower structure at the far end of the island would provide a destination for viewing the wetland area and shipping channel from a raised perspective. Various fishing and boat docks are also located along the pathways.

Concept "B"



Rotary Park

* Additional parking/improve existing
* Upgrade restrooms/accessible
* Concessions
* Clearspan bridges to Steere Island

Steere Island

* Clearspan bridges via unnamed isle
* Paved pathway around perimeter
* Barrier free fishing platforms
* New boathouse/boat rentals
* Improve Log Cabin for a visitors center (cottage culture, maps, etc.)
* Construct Ghost Structures at old foundations
* Play structure in center of island

Island #2

* Group campsites (no fires)
* Ghost Structures
* New dock and fishing platforms
* Woodchip trails through woodlands
* Tower overlooking shipping chanel and wetlands

SHEET 1 of 1	PRELIMINARY SITE PLAN	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS	DATE	SCALE: 1" = 100'
						PROJ. NO.: 85-187.01
						DATE:

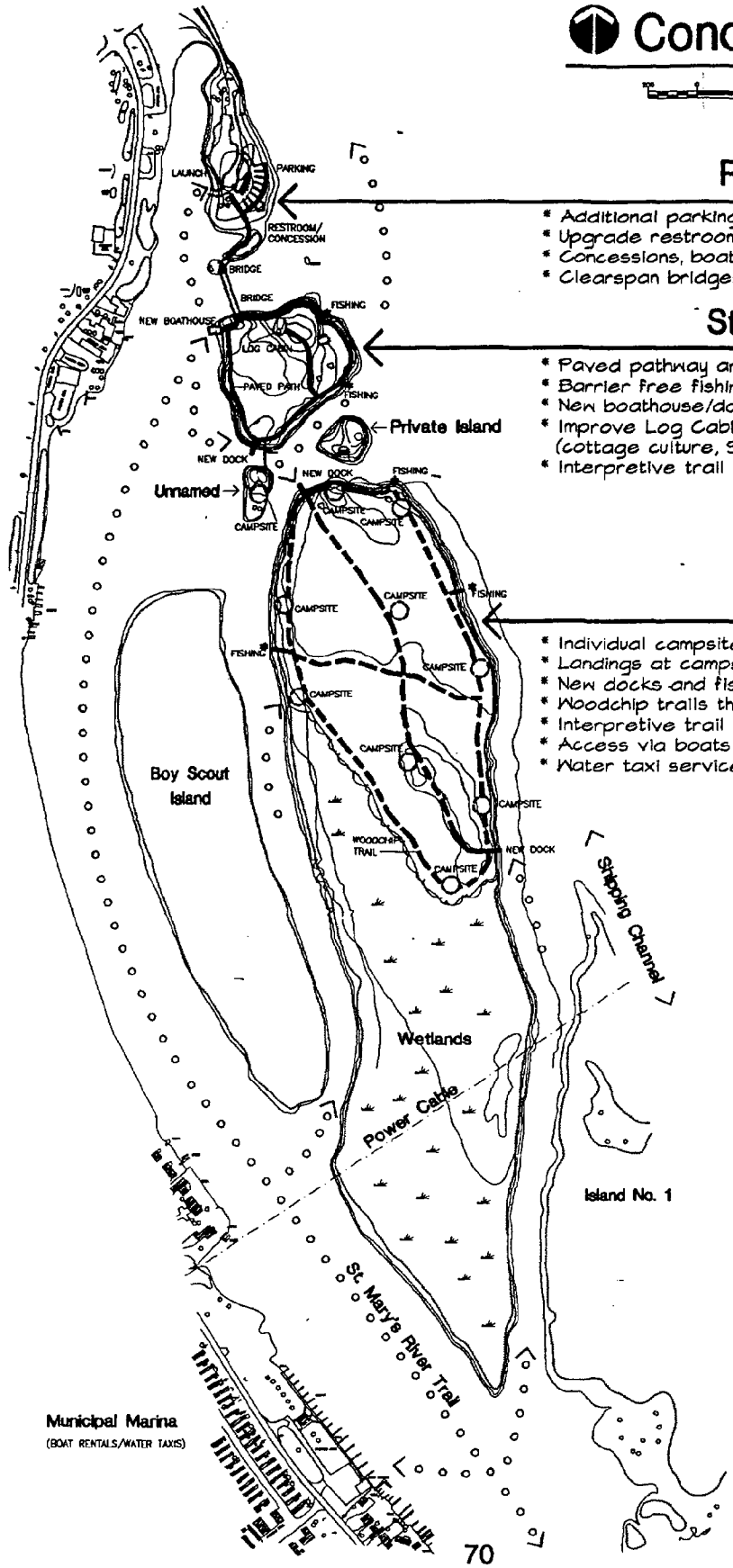
Concept C

A drawing of Concept C is found on the page immediately following.

This third option concentrates on lower impact uses of the islands and limit access to Island No. 2 via watercraft at dock locations. A longer bridge span links Rotary Park to Steere Island; similar to Concept B, as well as a new boathouse. The suggestion of a boat ramp at Rotary Park would provide facilities near a parking area for watercraft using the islands and St. Mary's River Trail. Destinations on Steere Island include a museum within the log cabin structure, interpretive trails and various barrier free fishing platforms and overlooks along the paved shoreline path. The museum and interpretive signage would provide information on the previous cottage culture of the islands as well as the regional Sault history and shipping industry.

Rustic campsites are located on Island No. 2, most along the shoreline for boating access. Unpaved pathways connect the various sites within the uplands of the island as well as the boat docks. Interpretive signage would focus on the natural features of the area. A water taxi service would provide day-time access to the island from the nearby municipal marina, Rotary Park and Steere Island.

Concept "C"



Rotary Park

* Additional parking/Boat launch
* Upgrade restrooms/accessible
* Concessions, boat rental
* Clearspan bridges to Steere Island

Steere Island

* Paved pathway around perimeter
* Barrier free fishing platforms
* New boathouse/docking
* Improve Log Cabin for a museum (cottage culture, Sault. history, etc)
* Interpretive trail

Island #2

* Individual campsites (no fires)
* Landings at campsites where possible
* New docks and fishing platforms
* Woodchip trails through woodlands
* Interpretive trail
* Access via boats
* Water taxi service from marina

SHEET	PRELIMINARY SITE PLAN	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS / DATE	SCALE: 1" = 200'
1 of 1					PROJ. NO.: 95-167.01
					DATE: JULY/96

Concept D

A drawing of Concept D appears on the page immediately following.

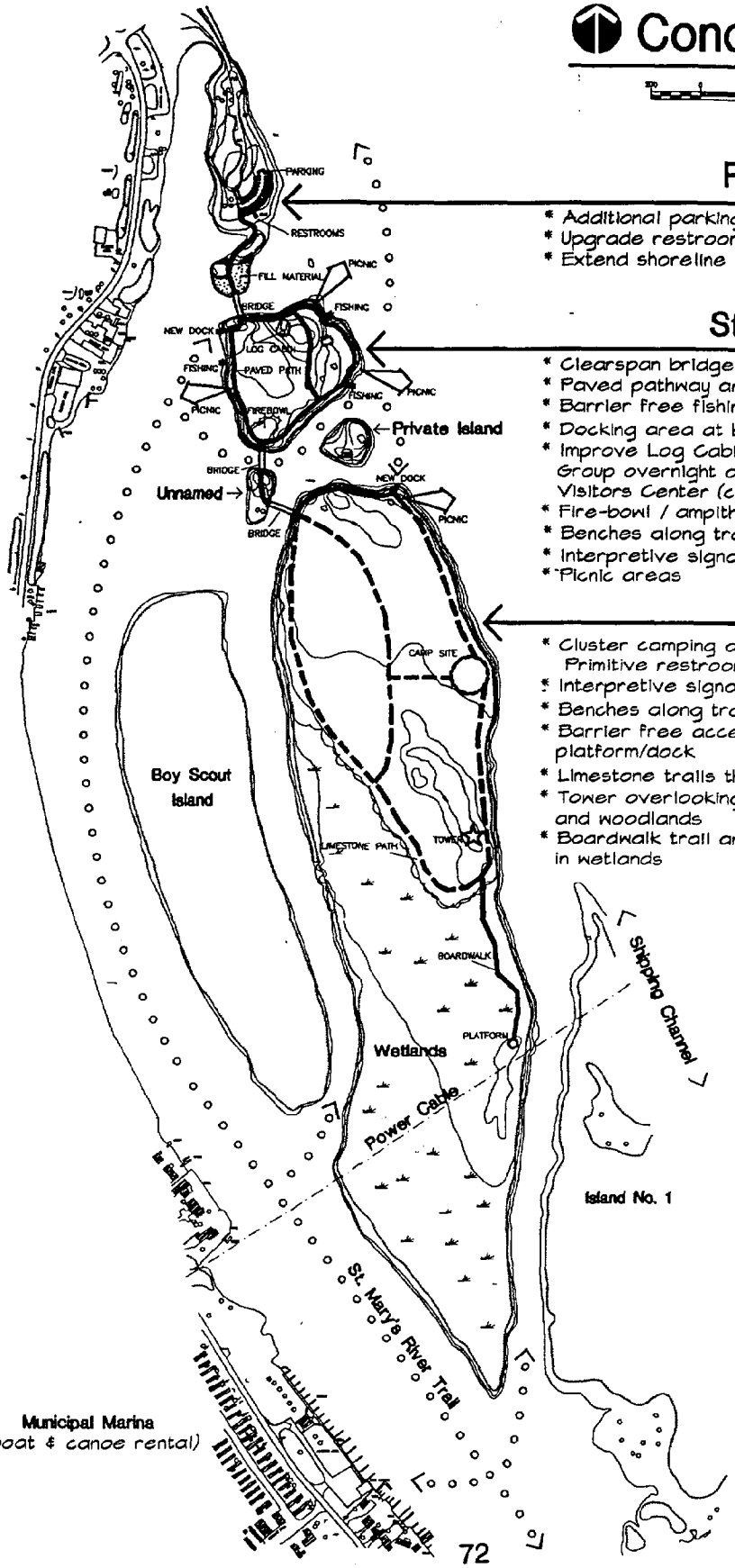
The development of Concept D was completed after the initial three concepts and was based on input received from the Study Committee and City staff.

This revised concept most closely resembles that of Concept A with minor revisions. The committee favored the strong connection with Rotary Park and Island No. 2 using bridges and the shoreline extension. Due to the man-made nature of some of the islands as a result of dredging the shipping canal and good relationships with the Corps of Engineers, the Study Committee felt positive about the prospect of extending Rotary Park shoreline for the connection to Steere Island.

The Committee also favored the more active uses on Steere Island, such as the overnight group lodging and visitors center in the log cabin structure and the new dock at the old boathouse site. These elements highlight the previous culture and lifestyle of the islands by providing a destination and access to the islands as well as an educational resource. The fire-bowl/amphitheater will compliment the overnight and group activities on the island as well. Barrier free fishing platforms/overlooks, seating and picnic areas and interpretive signage will be located along the paved paths throughout Steere Island.

Island No. 2 contains elements that concentrate on the natural features of the island. The larger acreage and greater distance from a parking lot should reduce the density of use on the island and create a more remote environment for visitors. The island is connected by bridges as well as another boat dock/fishing platform near the shipping canal. A barrier free pathway connects this dock to the bridge providing barrier free access. A single group camping area is sized for approximately six sites which are linked by unpaved paths. The tower structure and boardwalk both provide unique views of the wetlands and shoreline. Interpretive signage and seating along the pathways provide interesting trails throughout the island that educate visitors about the habitats and natural areas.

Concept "D"



Rotary Park

* Additional parking/improve existing
* Upgrade restrooms
* Extend shoreline for new bridge

Steere Island

* Clearspan bridges via unnamed isle
* Paved pathway around perimeter
* Barrier free fishing platforms
* Docking area at boathouse remnants
* Improve Log Cabin for:
  Group overnight outings
  Visitors Center (cottage culture, etc)
* Fire-bowl / amphitheater / star-gazing
* Benches along trail
* Interpretive signage
* Picnic areas

Island #2

* Cluster camping area (1-6 sites)
  Primitive restrooms
* Interpretive signage
* Benches along trail
* Barrier free access to fishing platform/dock
* Limestone trails through woodlands
* Tower overlooking shipping channel and woodlands
* Boardwalk trail and platform in wetlands

SHEET				
1 of 1	REVISED SITE PLAN	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS / DATE / SCALE: 1" = 200' / PROJ. NO.: 90-167-01 / DATE: JULY/96

Cost Estimates for Concept D -

	QTY.		COST		TOTAL
Rotary Park					
Parking Lot 2.5" Bituminous, 6" Gravel 28+/- Spaces with pavement markings	1,720	SY	$ 9.30	$	16,000
Remove and Replace Restrooms with single compost barrier free units	2	LSUM			22,000
Paved Path - Barrier Free 2.5" Bituminous, 6" Gravel, 10' Wide	700	SY	9.30		6,500
Benches - 6' Long Wood and Steel	8	EA	500.00		4,000
Restoration	1	LSUM			2,500
20' Bridge - Pre-fab Wood and Steel including abutments and grading	1	LSUM			7,000
Shoreline Extension	4035	CYD (C.I.P.)	6.00		24,210
Clearing	1	LSUM			1,000
Subtotal				$	83,210
10% Contingency					8,290
Phase A - Rotary Park Total				**$**	**91,500**

NOTE: All figures are based on 1995 dollars. Design or construction observation is not included in cost estimate. Based upon work performed by licensed contractors. Access and mobilization costs have been included. Cost estimates based on Concept D - Site Plan.

Cost Estimates for Concept D -

	QTY.	COST	TOTAL
Steere Island			
Limestone Path - Barrier free 6" crushed slag, 10' wide, compacted	2200 LF	$ 10.00	$ 22,000
Fishing Platform (10 x 20) - Barrier free	1 EA	5,000.00	5,000
Boat Dock (10 x 60) - Barrier free	1 EA	12,000.00	12,000
Picnic Tables - 6' Long Wood/Steel	3 EA	350.00	1,100
Trash Receptacles - 22 gal. with wood frame	3 EA	300.00	900
Benches - 6' Long Wood/Steel	12 EA	500.00	6,000
Interpretive Signage	4 EA	3,000.00	12,000
Access to Steere Island - 10' High Bridge Pre-fab Wood and Steel, 10' Wide with Railing including Concrete Abutments Concrete Pier and Abutments	100 LF	800	80,000
Fire Bowl - Clearing and Timber Seating	1 LSUM		5,000
Log Cabin Improvements - Architectural and site work including: windows, shutters, doors, roofing and 1st floor improvements for interpretive area.	1 LSUM	(Allowance)	50,000
Subtotal			$ 194,000
10% Contingency			19,400
Phase B - Steere Island Total			**$ 213,400**

NOTE: All figures are based on 1995 dollars. Design or construction observation is not included in cost estimate. Based upon work performed by licensed contractors. Access and mobilization costs have been included. Cost estimates based on Concept D - Site Plan.

Cost Estimates for Concept D -

	QTY.	COST	TOTAL
Island No. 2			
Limestone Path - Barrier free, 6" crushed slag, 10' wide, compacted	475 LF	$ 10	$ 4,750
Wood Chip Path - 6" deep, 10' wide	3,250 LF	5.00	16,300
Access to Island #2 - 4' high bridge pre-fab wood and steel, 10' wide with railing and concrete abutments	(2) 100 LF	80,000.00	160,000
Boat Dock (10' x 60') with single compost barrier free units	1 EA	12,000.00	12,000
Picnic Tables - 6' Long Wood and Steel	6 EA	350.00	2,100
Trash Receptacles - 22 Gallon with Wood Frame	6 EA	300.00	1,800
Restrooms - Single componst unit - barrier free	1 EA	12,000.00	12,000
Wood Observation Tower - 10'x10'x20' height	1 LSUM		50,000
Elevated Boardwalk - 10' Wide Wood and Steel with Abutments and Railing	680 LF	65.00	44,200
Benches - 6' Long Wood and Steel	12 EA	500.00	6,000
Interpretive Signage	4 EA	3,000.00	12,000
Subtotal			$ 316,400
10% Contingency			31,600
Phase C - Island No. 2 Total			**$ 348,000**

NOTE: All figures are based on 1995 dollars. Design or construction observation is not included in cost estimate. Based upon work performed by licensed contractors. Access and mobilization costs have been included. Cost estimates based on Concept D - Site Plan.

Concept E

Concept E is a final site plan as a result of comments from the Committee, various regulatory agencies and the findings of the Natural Resource Assessment completed by Resource Management Group. A site plan is included on the following page.

Upon further consideration by the Committee, increased vertical clearance for boats was to be provided for the channel between Rotary Park and Steere Island. A clearance of 16' was agreed to be the minimum distance required. In order to achieve this height and maintain barrier free access to the islands, a longer bridge span was used to cross the channel. Due to design limitations regarding length of such pedestrian bridges, two bridge units were required. A concrete pier with protective rip rap is proposed to support the two bridge units.

Additional ramps are also proposed at each end of the bridge to achieve clearance height. Elevated boardwalk is shown on Steere Island which will involve less earthwork, reducing the use of construction equipment and increasing sensitivity to existing site conditions. In addition, a 20' long bridge will span the drainage way at Rotary Park. This provision maintains existing water flow as well as vehicular access consistent with the other bridge.

Crushed limestone paths throughout Steere Island are proposed as a method of accessibility which also allows flexibility in construction. The pathways provide a perimeter trail and connections to the boat dock, log cabin visitor/interpretive center, and various overlooks and picnic/seating areas.

Locations for picnic/seating areas are indicated on the site plan which provide unique views. Topics for interpretive signage and information are suggested in relation to the location of these seating areas. Such topics include, but are not limited to, regional Sault history, Sugar Island settlement, shipping channel development, St. Mary's River Trail, and surrounding natural habitats and wildlife. The log cabin will serve as the center for such information as well as interpretation of the cottage culture of the islands. A fire bowl is also proposed which will provide for group gatherings and star gazing.

The Natural Resource Assessment identified a preferred location for a fishing dock which is shown on the southwest shoreline of Steere Island. The dock is near the observation area designated to view the nearby Great Blue Heron rookery. This location overlooks a beaver dam as well as the feeding grounds and nesting area of the herons along the shoreline of Island No. 2. Isolation of the rookery is encouraged to avoid disturbance of their habitat.

Pedestrian access to Island No. 2 is not proposed at this time. The prime location for a bridge structure is within close proximity to the heron rookery. A water taxi service will ferry visitors from landings at the south end of Steere Island and the north end of Island

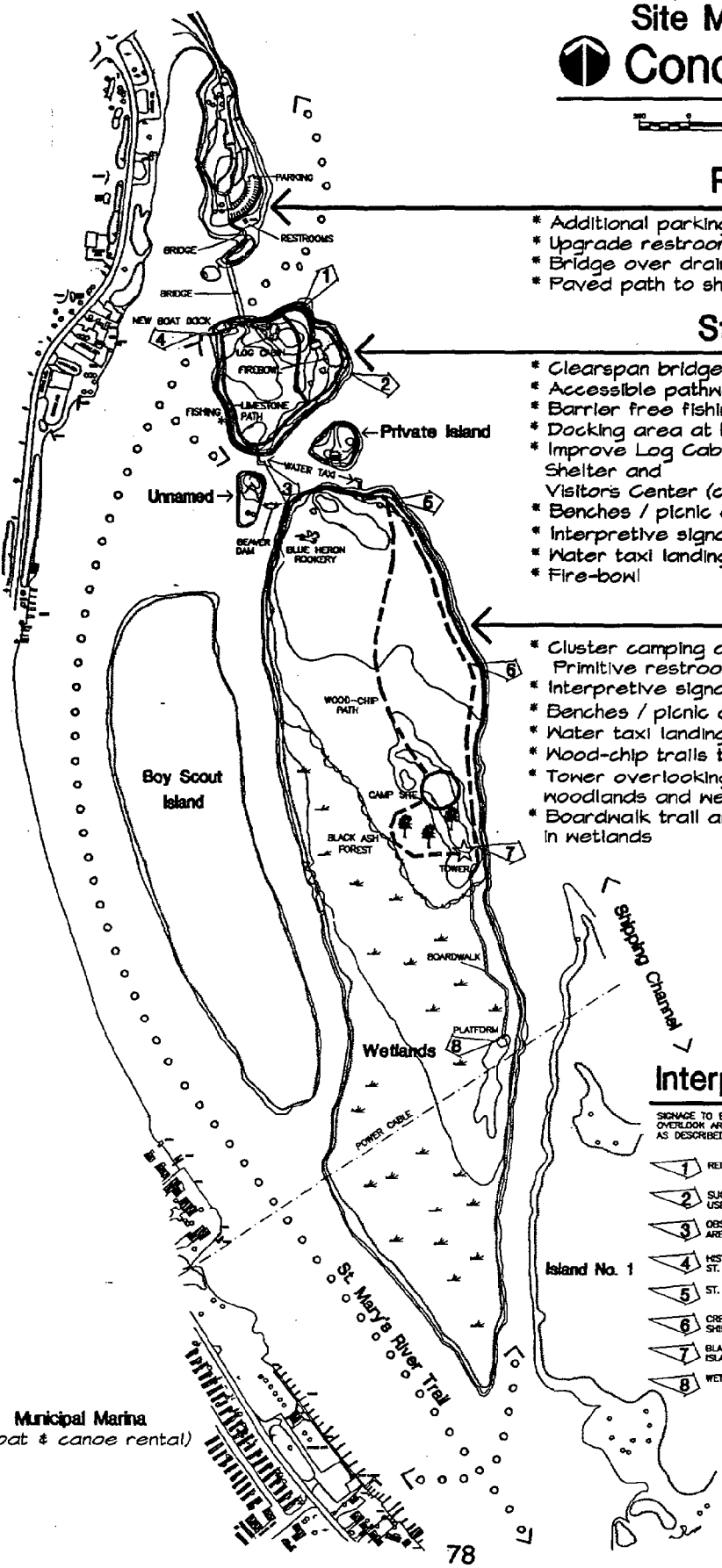
No. 2. Private boat access will be encouraged by the location of a boat dock within the protected channel at the northeast tip of Island No. 2. Woodchip trails throughout the upland area will connect the boat dock with a group camping area and other overlooks. This trail will blend with the more rustic uses on the island and provide more challenging step down access.

A perimeter trail along the shoreline will provide views of the shipping canal, while an inland trail will traverse various woodland and wetland ecosystems. Location of the trails are beyond the nesting area of the heron rookery and provide a buffer space for expansion of the rookery. The camping area will provide restrooms for day users and up to six sites for rustic camping. Individuals using the St. Mary's River Trail will be able to access this camping area which will provide an excellent destination along the shoreline route.

The campsites area located next to a unique stand of black ash which is also able to be viewed from a 20' wooden tower proposed at the edge of the upland area. This tower also provides a perspective of the lowlands and nearby shipping channel. Boardwalk continues from the tower and extends to an observation platform within the lowland habitat.

Concept E provides pedestrian and watercraft access to the islands while suggesting a variety of activities. The step down uses of the islands is enhanced by the selective use of bridges, and sensitive treatment of the unique natural resources of the islands. Interaction with the St. Mary's River Trail and shipping channel is addressed with the inclusion of boat docks, overlooks and signage. The education and awareness of the history and culture of the islands is a continual element as interpreted by signage and the adaptive re-use of the log cabin.

Site Master Plan
Concept "E"



Rotary Park

* Additional parking/improve existing
* Upgrade restrooms
* Bridge over drainway
* Paved path to shoreline

Steere Island

* Clearspan bridges for boat clearance
* Accessible pathway around perimeter
* Barrier free fishing platform
* Docking area at boathouse remnants
* Improve Log Cabin for:
  Shelter and
  Visitors Center (cottage culture, etc)
* Benches / picnic areas along trail
* Interpretive signage / lookouts
* Water taxi landing
* Fire-bowl

Island #2

* Cluster camping area (1-6 sites)
  Primitive restrooms
* Interpretive signage / overlooks
* Benches / picnic areas along trail
* Water taxi landing / boat dock
* Wood-chip trails through woodlands
* Tower overlooking shipping channel, woodlands and wetland habitat
* Boardwalk trail and platform in wetlands

Interpretive Key:

SIGNAGE TO BE LOCATED AT PICNIC/SEATING OVERLOOK AREAS WITH INTERPRETIVE INFORMATION AS DESCRIBED BELOW:

1. REGIONAL SAULT CULTURE AND HISTORY
2. SUGAR ISLAND SETTLEMENT AND CURRENT USES
3. OBSERVATION OF HERON ROOKERY AND FEEDING AREA, BEAVER DAM AND FISHING HOLE
4. HISTORY AND CURRENT DEVELOPMENT OF THE ST. MARY'S RIVER TRAIL
5. ST. MARY'S RIVER TRAIL MARKER
6. CREATION OF SHIPPING CHANNEL, CURRENT USE SHIPPING TRADE AND LOCAL ECONOMY
7. BLACK ASH FOREST AND UPLAND HABITAT ISLAND FORMATION, REGIONAL GEOGRAPHY
8. WETLAND HABITAT AND ECOSYSTEMS

SHEET	SITE MASTER PLAN	Feasibility Study Lower River Islands City of Sault Ste. Marie	CAPITAL CONSULTANTS ENGINEERS	REVISIONS / DATE	SCALE: 1" = 200'
1 of 1					PROJ. NO.: 95-167.01
					DATE: 4/97/95

Appendix G - Sault Ste. Marie City Commission Resolution of Adoption

RESOLUTION TO ADOPT *LOWER RIVER ISLANDS FEASIBILITY STUDY FOR THE CITY OF SAULT STE. MARIE* PREPARED BY CAPITAL CONSULTANTS, JANUARY 1996

WHEREAS, a feasibility study to analyze what options are available for access to the City-owned Lower River Islands and how best to develop the islands for public recreation purposes was determined necessary; and

WHEREAS, financial assistance was provided by the Coastal Zone Management Act, Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration, administered through the Michigan Coastal Zone Management Program, Department of Environmental Quality, Land and Water Management Division; and

WHEREAS, a special Islands Study Steering Committee made up of representatives from the Community Services Board, the Planning and Development Commission, and the general public was appointed by the City to help oversee the completion of the study; and

WHEREAS, Capital Consultants was selected by the City to undertake the study; and

WHEREAS, the study has now been completed and submitted to the City for approval;

THEREFORE BE IT RESOLVED, that the *Lower River Islands Feasibility Study for the City of Sault Ste. Marie* prepared by Capital Consultants be adopted.

I hereby certify that the foregoing resolution was adopted at a Regular Meeting of the City Commission of the City of Sault Ste. Marie, Michigan on Monday, February 5, 1996.

Lori J. Clarke

Lori J. Clarke, City Clerk
City of Sault Ste. Marie, Michigan

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