

# GREY CLOUD

## ISLAND REGIONAL PARK

### MASTER PLAN

Washington County, Minnesota

**GREY CLOUD ISLAND REGIONAL  
PARK MASTER PLAN  
WASHINGTON COUNTY, MINNESOTA**

**Prepared for the  
Department of Public Works  
Parks Section**

**Prepared by Barton-Aschman Associates, Inc.  
in association with Resolution, Inc.**

**Recommended for adoption by the  
Washington County Park and Open  
Space Commission, August 25, 1994**



**ADOPTED: Washington County Board of Commissioners September 13, 1994**

## ACKNOWLEDGEMENT

### WASHINGTON COUNTY BOARD OF COMMISSIONERS

Mary Hauser, Chairperson  
Wally Abrahamson  
Dave Engstrom  
Dennis C. Hegberg  
Myra Peterson

### WASHINGTON COUNTY PARKS AND OPEN SPACE COMMISSION

LaVayne Dupslaff, Chair  
Rod Hale, Vice Chair  
Clyde E. McCaskey  
Philip Hinderaker  
John Hall  
Stephen Ingram  
James Button  
Susan Johnson  
Lloyd Bodlovick  
Rich Leistico

### CITIZENS ADVISORY COMMITTEE (CAC)

Stephen Ingram  
Rod Hale  
Lois Swanson  
Jeff Rageth  
Thomas N. Bell  
Jon E. Cheney  
Marlana K. Nierengarten  
Shirley J. Schwarz  
Franklin E. Star  
Douglas A. Wright  
Alternate: Eujeana Kulvich

### TECHNICAL ADVISORY COMMITTEE (TAC)

Gary Berg, City of Cottage Grove  
Rich Mullen, Grey Cloud Township  
Bob Bieraugle, Shiely Company  
Alan Robbins-Fenger, DNR Office of Planning  
Mike Madell, MNRRA  
Linda Wiley, US Army Eng. District - St. Paul  
Jim Hartman, President--Upper Mississippi Waterway  
John Schomaker, US Fish and Wildlife Service  
Jack Mauritz, Metropolitan Council  
John Perkovich, Washington County Public Works  
Jim Luger, Washington County Parks

## WASHINGTON COUNTY STAFF

Don Wisniewski, Director of Public Works/County Engineer  
John Perkovich, Deputy Director, Operations Division  
Jim Luger, Operations Coordinator, Parks Planner  
Mike Polehna, Parks Manager

## CONSULTANT TEAM

Barry Warner, Barton-Aschman Associates, Inc.  
Donn Wiski, Resolution, Inc.

Washington County would further like to acknowledge the help and comments received from the City of Cottage Grove and Grey Cloud Island Township and citizens who participated in the public meetings.

## TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION .....	1
A. Authority .....	1
B. Master Plan Purpose .....	1
C. Regional Recreation Open Space System .....	2
D. Mandate to Study Grey Cloud .....	4
E. Study Area Definition .....	4
II. NEED AND JUSTIFICATION .....	7
A. Introduction .....	7
B. Unique Natural Resource Qualities .....	7
C. Unique Cultural Resource Characteristics .....	8
D. Outdoor Recreation Usage Trends .....	9
E. Regional Parks System Usage Trends .....	10
F. Metropolitan Council Park Planning .....	12
G. Mississippi National River and Recreational Area (MNRRA) .....	12
H. Washington County Park Planning .....	13
I. Service Area and Nearby Facilities .....	13
III. STUDY AREA CHARACTERISTICS .....	16
A. Introduction .....	16
B. Topography and Land Form .....	16
C. Floodplain .....	16
D. Woodlands and Botanical Communities .....	19
E. Rare or Endangered Species .....	22
F. Community Comprehensive Planning .....	23
G. Property Ownership .....	23
H. Shiely Company Mining Activity .....	26
I. Roadway Systems and Regional Access .....	28
J. Archeological/Historical .....	28
K. Planning Parcels .....	31
IV. PLANNING VARIABLES, PLANNING OBJECTIVES, AND EVALUATION CRITERIA .....	34
A. Introduction .....	34
B. Planning Variables .....	34
C. Park and Open Space Planning Objectives .....	36
D. Surface Water Management Objectives .....	38
V. ALTERNATIVE USES, PARK OPTIONS, AND DEVELOPMENT CONCEPTS .....	41
A. Introduction .....	41
B. Potential Recreation Uses .....	41
C. Park and Open Space Development Concepts .....	43
D. Alternatives Evaluation and Ranking .....	46

VI.	PREFERRED DEVELOPMENT CONCEPT .....	50
A.	Concept Overview .....	50
B.	Functional Areas .....	50
C.	Park Architecture and Facilities .....	55
D.	Recreational Needs for Disabled Individuals and the Elderly .....	56
VII.	ISSUES AND PLANNING VARIABLES .....	58
A.	Background .....	58
B.	Local Government Concerns .....	58
C.	Acquisition and Development Costs .....	59
D.	Tax Base and Tax Revenues .....	59
E.	Service Costs .....	60
F.	County/Regional Parks and Expenditures .....	60
G.	Timing of Gravel and Limestone Mining/Processing Completion .....	60
H.	Availability of Acquisition Funding .....	61
I.	Mississippi River Usage and Conflicts .....	61
J.	River Carrying Capacity .....	62
K.	Governmental Cooperation, Governance and Transition .....	62
L.	Technical Natural Resource Studies and Evaluations .....	63
M.	Local Comprehensive Plan Compatibility .....	64
N.	Public Water and Sewer Systems .....	64
O.	Transportation and Roadways .....	64
P.	Law Enforcement .....	66
VIII.	OPERATION AND MANAGEMENT .....	67
A.	Management .....	67
B.	Interpretative Program Operation .....	69
C.	Regulations and Security .....	69
D.	Maintenance .....	70
E.	Staffing .....	70
F.	Land Stewardship .....	70
IX.	PUBLIC SERVICES/AGENCY INVOLVEMENT .....	72
A.	Washington County Public Works Department-Parks Section .....	72
B.	Washington County Public Works Department-Engineering Section .....	72
C.	Federal Agencies .....	72
D.	Minnesota Department of Natural Resources .....	73
E.	Local Units of Government .....	73
X.	CITIZEN PARTICIPATION .....	75
A.	Grey Cloud Island Regional Plan Involvement Beginnings .....	75
B.	Washington County Parks and Open Space System Planning .....	75
C.	Grey Cloud Island Master Plan Process Participation .....	75
XI.	PUBLIC AWARENESS .....	80
	APPENDIX A: Concept Alternatives	
	APPENDIX B: Suggested Guidelines for Acquisition and Disposition of Homes	
	APPENDIX C: Condemnation and Relocation Benefits	
	APPENDIX D: Bibliography	

## LIST OF FIGURES

	<u>Page</u>
I-1	Grey Cloud Study Area in Metropolitan Context . . . . . 5
I-2	Grey Cloud Study Area . . . . . 6
II-1	Twin Cities Population Trends . . . . . 10
II-2	Metropolitan System Park Usage . . . . . 11
II-3	Resource Based Outdoor Recreation Use . . . . . 11
II-4	Park Service Area . . . . . 15
III-1	Topography . . . . . 17
III-2	Floodplain . . . . . 18
III-3	Tree Massings . . . . . 20
III-4	Botanical/Plant Communities . . . . . 21
III-5	Community Comprehensive Plan Designated Land Use . . . . . 24
III-6	Property Ownership . . . . . 25
III-7	Mining Activity . . . . . 27
III-8	Roadways . . . . . 29
III-9	Archeological Sites . . . . . 30
III-10	Development Parcelization . . . . . 33
IV-1	Park and Open Space Planning Objectives . . . . . 37
IV-2	Surface Water Management Planning Objectives . . . . . 39
VI-1	Preferred Development Concept . . . . . 51

## APPENDIX

A-1	Alternative 1--Status Quo
A-2	Alternative 2--Edge Acquisition
A-3	Alternative 3--Public Ownership of the Lower Island
A-4	Alternative 4--Public Ownership of the Lower Island and a Portion of the Upper Island
A-5	Alternative 5--Public Ownership of the Upper and Lower Island
A-6	Alternative 6--Upper/Lower Island
A-7	Alternative 7--Lower Island Preservation
A-8	Alternative 8--Lower Island and Upper Island Quarry

## LIST OF TABLES

	<u>Page</u>
V-1 Activity Based Options By Park Use . . . . .	42
V-2 Concept Alternatives: Rank Pairing Exercise Scores . . . . .	47
V-3 Concept Alternatives: Percent of Time Alternative Was Selected . . . . .	48
IX-1 Potential Agency Roles and Responsibilities . . . . .	74

GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

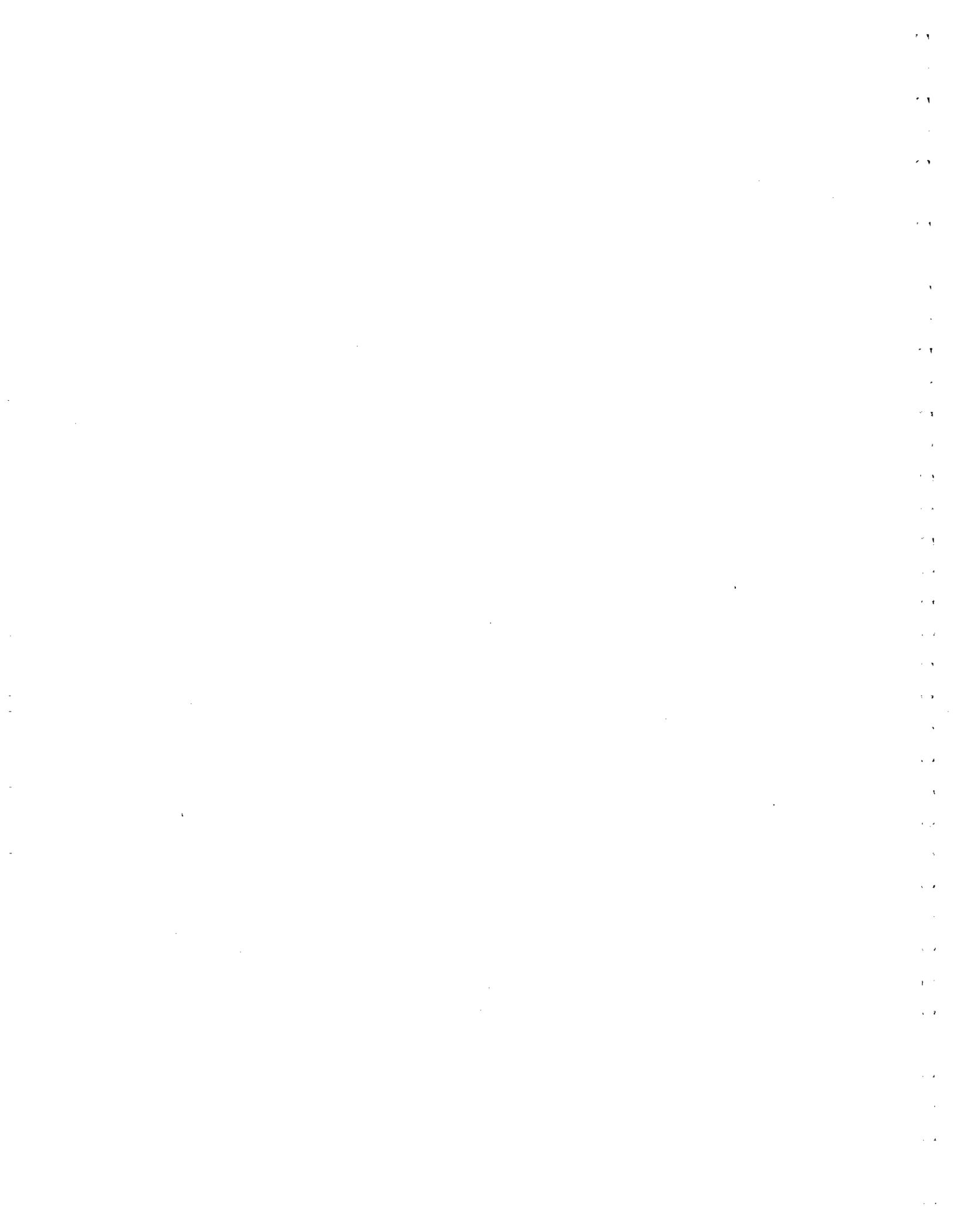
---



---

I. INTRODUCTION

by **BARTON-ASCHMAN ASSOCIATES, INC.** in association with Resolution, Inc.



## **I. INTRODUCTION**

### **A. Authority**

The Washington County Board of Commissioners contracted with Barton-Aschman Associates, Inc. on December 8, 1992, to prepare a master plan for the Grey Cloud Island Regional Park study area. Action taken by the Board directed preparation of a planning document to analyze the need, location, and composition of a park element within the Grey Cloud area.

### **B. Master Plan Purpose**

The master planning process for a regional park within the Grey Cloud area was undertaken to identify:

- The need for regional park facilities
- Appropriate elements to be included within the park
- Preliminary park boundaries
- The type of facility consistent with the park's objectives

Factors contributing to the park's definition include:

- The site's natural resource characteristics
- Land use patterns
- Government policy
- Private sector initiatives
- Community participation

Specific criteria contained within the "Recreation Open Space--Development Guide/Policy Plan," prepared by the Metropolitan Council, adopted March 28, 1991, establishes the requirements for master plan content and funding process. According to those guidelines, each of the following items must be contained within the master plan document:

1. Boundaries and acquisition costs
2. Stewardship plan
3. Demand forecast
4. Development concept
5. Identification of conflicts
6. Required public services
7. Operations
8. Public participation

9. Public awareness

10. Special needs

According to the Metropolitan Council document, each implementing agency is responsible for preparing a master plan for those parks within the regional system as identified by the Metropolitan Council. Implementing agencies are the counties, municipalities, and special park districts that operate regional parks. These include the Cities of Minneapolis and St. Paul, metropolitan counties, and Hennepin Parks. The implementing agency is to present the master plan to local units of government and address their concerns prior to submitting the plan to the Metropolitan Council. Included in the final document shall be a summary of comments received and an identification of issues raised.

This master plan's intention is to provide sufficient guidance for preliminary acquisition plans, concept development, and basic management strategies. The master plan, however, is not intended to provide engineering and design detail necessary for facility construction. These subsequent tasks should be completed based upon those decisions made during future planning by providing additional detail and supplementary information.

Unlike traditional metropolitan park system master plans, the Grey Cloud Regional Park Master Plan is focused on land use. This departure is necessary due to the anticipated long-range implementation, the numerous planning variables involved, and the significance of Grey Cloud mining activities. The plan adheres to Metropolitan Council master plan contents where possible, deviating only where existing information is not certain and future conditions are not known.

**C. *Regional Recreation Open Space System***

The 1974 Metropolitan Parks Act (Minnesota Statute Chapter 473.147, 1978) established a regional recreation open space system comprising regional parks, park reserves, and trail corridors (refer to Figure 1.1). According to the act, "The land and water areas determined by the Metropolitan Council to be of regional significance in providing for a balanced system of public outdoor recreation for the metropolitan area" should be acquired and developed through a partnership created by the Council (advised by the Metropolitan Parks and Open Space Commission) and a group of regional park implementing agencies including counties, special park districts, and municipalities.

According to the 1991 Recreation Open Space Plan, the Metropolitan Council recommends the acquisition and development of a regional recreation open space system comprised of 36 parks, 10 park reserves, 18 trails, and 1 free-standing special feature. Total area represented by these facilities with complete master plans is 50,100 acres with 44,900 acres acquired by regional implementing agencies as of mid-1990. Each of the

regional components has a specific role and characteristic within the regional recreation open space system. These include:

1. **Regional Parks**--Areas that contain a diversity of resources, either natural or man-made, often with access to water bodies suitable for recreation. Regional parks should be large enough to accommodate a wide variety of activities and normally will range in size from 200 to 500 acres of land.
2. **Park Reserves**--Park reserves are intended to provide for a diversity of outdoor recreation activities, however, these regional elements are also intended to provide and protect representative areas of the metropolitan original major landscape types. As a result, park reserves are substantially larger than parks with an optimum size exceeding 2,000 acres. At least 80 percent of each park reserve is intended to be managed as wild land, displaying the native landscape type with the remaining 20 percent to be developed for compatible recreation activities.
3. **Trails**--Recreation travel along linear pathways linking areas of scenic appeal are intended throughout the metropolitan area. Regional trails are selected to pass through or provide access to elements of the regional park and park reserve system.
4. **Special Recreation Features**--Features not normally found in regional parks or park reserves may be designated as special recreational features. An example is Como Park Zoo and Conservatory.

Roles and relationships in planning, developing, and maintaining the regional system have been defined by the Metropolitan Council. "The Council prepares a regional park system plan and obtains funding from the state. The implementing agencies prepare master plans for each regional park under their jurisdiction. Following master plan approval by the Council, the implementing agencies request that the Council grant funds to acquire and develop regional parks. Funds are granted under contracts for specific acquisition or development projects in accordance with the approved master plan. The agencies own and operate the parks using local funds. The partnership makes it clear that the Council relies on the counties, municipalities, and special park districts to own and operate both local and regional parks." According to the Council's mission statement, "The purpose of the regional recreation open space system is to provide public recreation and open space resources to meet the needs of the people of the Twin Cities metropolitan area. The system is to be carried out as a partnership with the implementing agencies, in a framework that recognizes that there are other park and open space providers."

Grey Cloud would augment the regional park and open space system as a regional park or a regional park reserve. Substantial river and water basin access and opportunities for active recreation suggest a regional park

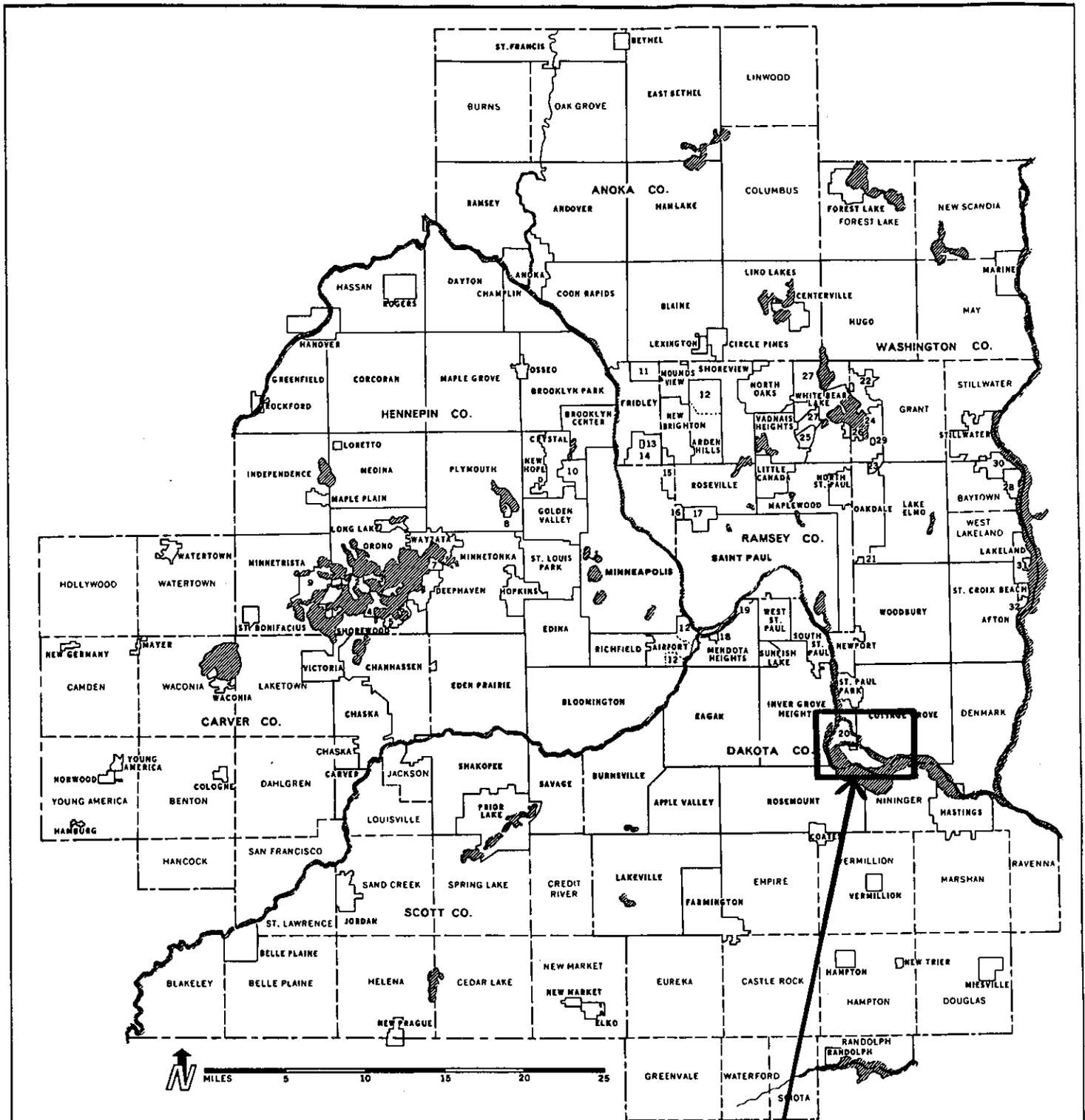
designation. Regional parks within the current system provide access to many quality lakes. However, only a limited number allow river access and none provide Mississippi River access in the southeast portion of the metropolitan area. Grey Cloud's consideration as a regional park reserve must also be considered. This designation implies, however, increased acreage and retainage of non-developed open space of 80 percent or greater.

***D. Mandate to Study Grey Cloud***

The Metropolitan Council's *1991 Recreation Open Space Development Guide/Policy Plan* acknowledged the need to thoroughly investigate the Grey Cloud area for potential inclusion into the regional recreation open space system. According to that Metropolitan Development Guide document, "Grey Cloud Regional Park Reserve should continue to be included as a recommended component of the regional system and to advise the (Metropolitan) Council on this matter by the time of the next major revision." The 1991 Development Guide also states "The facility was recommended for inclusion in the regional system, since the adoption of the first Recreation Open Space Development Guide/Policy Plan in 1974. The rationale for inclusion in 1974 was that the area contained a very high quality natural resource base and this rationale is still valid today."

***E. Study Area Definition***

This master plan examined Grey Cloud Island as its principal focus area with secondary areas including mainland parcels abutting those water bodies separating Grey Cloud Island from other mainland shoreland areas. Grey Cloud Island is actually two islands (upper and lower) along with some detached outer islands physically defined by the Mississippi River, Baldwin Lake, Mooer's Lake, and Grey Cloud Channel. The islands are located in Washington County and include portions of both Grey Cloud Island Township and the City of Cottage Grove. Upper island size is approximately 915 acres, the lower island is 1,440 acres, with the outer island area amounting to approximately 400 acres.



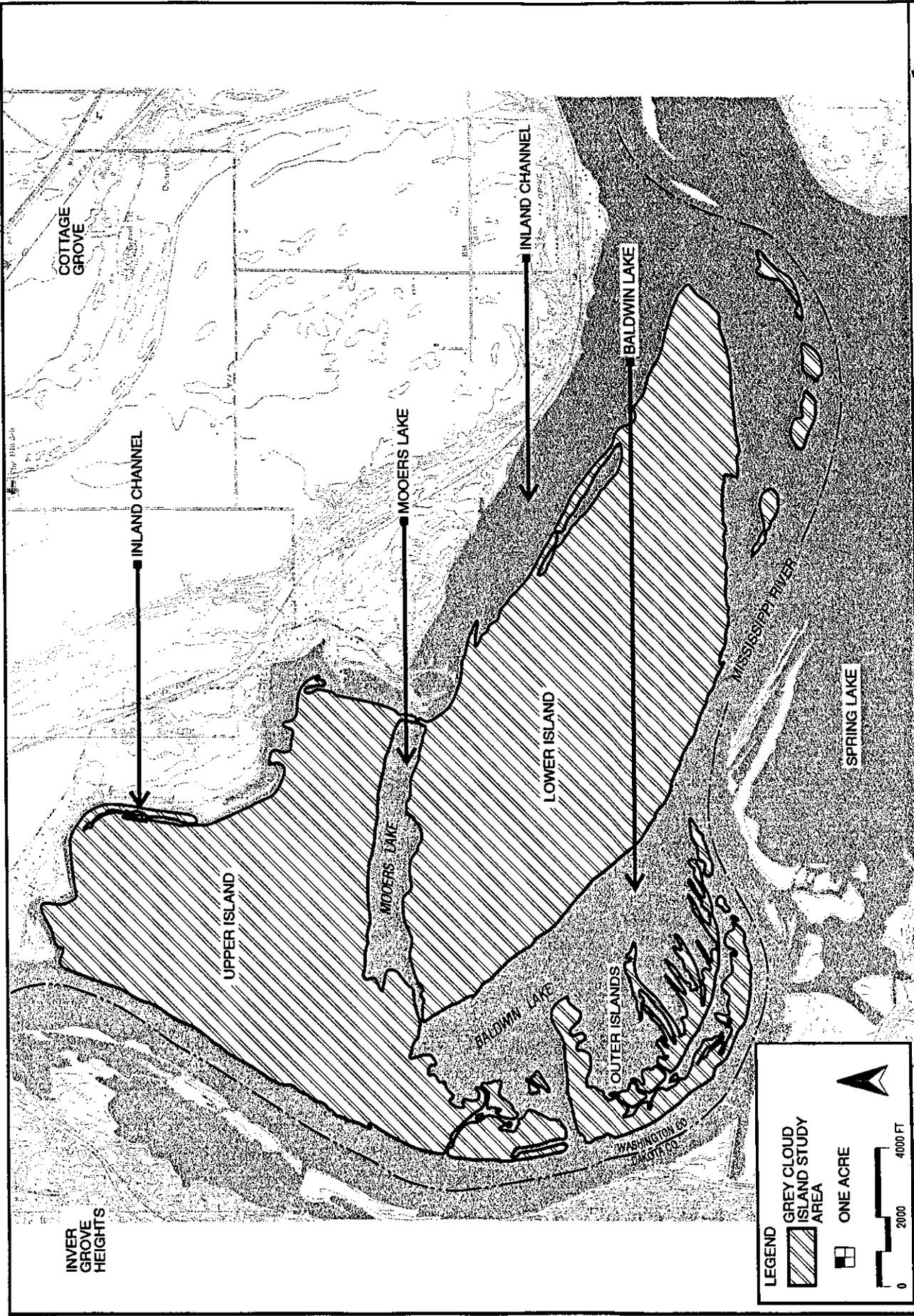
**STUDY AREA**

**FIGURE I-1**





FIGURE I-2  
GREY CLOUD STUDY AREA



GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

---



---

II. NEED AND JUSTIFICATION

by **BARTON-ASCHMAN ASSOCIATES, INC.** In association with Resolution, Inc.

## II. NEED AND JUSTIFICATION

### A. *Introduction*

The need for and justification of Grey Cloud Island as a regional recreation open space element has been assembled from a variety of different sources as highlighted in this chapter. The Island's natural, physical and cultural characteristics in direct relationship with the Mississippi River support its justification as a regional public use resource. The following items establish the justification for regional open space within Grey Cloud Island:

- Unique natural resource qualities
- Unique cultural resource qualities
- Outdoor recreation usage trends
- Park service area delineation
- Metropolitan Council regional recreation open space planning
- Mississippi National River and Recreation Area (MNRRA) planning
- Washington County Park System planning and use trends

A summary of this supporting information follows.

### B. *Unique Natural Resource Qualities*

According to the Metropolitan Council and independent studies, natural resource qualities found within the upper, lower, and outer islands of the Grey Cloud area are significant for preservation and/or conservation purposes. Many of these characteristics are unique or unusual and limited to river corridor environments. Their value to society is broad based and includes wildlife habitat, flood protection, aesthetics, and natural resource interpretation. Elements of principal concern are:

1. **One hundred year designated floodplain areas** are intrinsic to most portions of the Mississippi River corridor. Portions of both Upper and Lower Grey Cloud Island that occur adjacent the island's edges have been delineated and mapped as designated 100-year floodplain and are restricted from filling or future development at or below flood level. General floodplain areas include the outer river islands, the southwest corner of Upper Island, outer edges and the southeast tip of Lower Island, and portions of the lands adjacent to the inland channel. Floodplain areas should be preserved free of development for numerous reasons. These parcels represent flood volume storage in periods of high water. Valuable wildlife habitat occurs within floodplain areas, especially for waterfowl. The river corridor's aesthetic character is enhanced by the floodplain zones.
2. **Geologic characteristics** have contributed to Grey Cloud Island's current use and its importance for commerce. Limestone reserves and gravel availability are recognized mining resources and are currently being commercially excavated. However, it is stunning

geologic features such as Robinson's Rocks that contribute to Grey Cloud's visual character and its visual importance to the Mississippi River Valley. Island topography has minimal to moderate change with the exception of those areas where current mining exists. Once again, Robinson's Rocks provides a cliff character with substantial topographic change greater than 50 feet that merits preservation.

3. Grey Cloud Island is representative of the Mississippi River Valley type, one of the **regional landscape types** found within the metropolitan area. Characteristics include limestone bedrock uplands supporting the southern dry mesic forest and a sizeable complex of small islands located next to the main river channel. Areas mined for limestone or gravel have obviously been impacted and may no longer contribute to this landscape representation. However, substantial woody vegetation and tree cover exist within the study area. This characteristic contributes to the park-like qualities of the upper, lower, and outer islands.
4. Preliminary inventory work completed by the Minnesota Department of Natural Resources (DNR) Natural Heritage Data Base has indicated that **rare and endangered species** are likely to exist within the Grey Cloud Island study area. Although further field inventory work is needed for verification, the endangered species do create a need for preservation and sensitivity. Preservation of the affected areas is desirable to maintain the species and the habitat in which they survive. Management of these parcels consistent with the rare or endangered species needs should be strived for.
5. **Wildlife habitat** provides a valuable resource and contribution to the Mississippi River Valley wildfowl flyway. The outer islands, island edges, and inland areas that have not been interrupted provide opportunities to maintain and promote wildlife habitat management. Grey Cloud should be recognized for its regional as well as its local habitat significance. The islands represent an important component or link within the Mississippi River corridor network. Preservation of that resource is integral to the entire flyway's continuity.
6. **Sensitive water basins** occur within and adjacent to Grey Cloud Island. Mooer's Lake, the inland channel, Baldwin Lake, and fragile island edges are examples of such sensitive areas. The variety represented by these basins is one of the area's resource strengths. Riparian areas, inland basins, and channel areas possess diverse habitat and experience value to both wildlife and man.

### ***C. Unique Cultural Resource Characteristics***

Extensive investigation has been done to determine **archeological characteristics** for both the Upper and Lower Islands with evidence of occupation dating back to the early woodland period (1,000 B.C.). Dr. Eldon

Johnson of the University of Minnesota has stated this is "the best, excavated early woodland site in southeastern Minnesota, comparable only to the LaMoillen Rock Shelter site in eastern Winona County."

Actual archeological site locations are varied and largely relate to river edge encampments. Sites should be preserved intact due to their contents and value. However, the archeological resources possess tremendous interpretive and educational value now and for future generations.

*Interpretation* of other cultural resources represented within the Grey Cloud Island area offer potential benefit to the metropolitan area. Interpretation activities may include:

- Historical characteristics
- Mining history and current mineral excavation activities
- Commercial river use

These unique resources provide educational opportunities for schools, civic groups, families, and senior citizens. Creative facilities and exhibit space should be developed to capitalize upon the opportunities.

#### ***D. Outdoor Recreation Usage Trends***

Several factors were examined in terms of their influence, use, and enjoyment of outdoor recreational facilities and experiences. Some components of park and open space land are set aside for their intrinsic values--protection of habitat, natural resources, scenic quality, contribution to urban life, etc. In other cases, park and open space components are viewed in the context of need and usage. A number of factors were examined which looked at trends in:

- Behavior
- Recreation and leisure time
- Personal income
- Other similar factors driving the market for recreation and leisure facilities

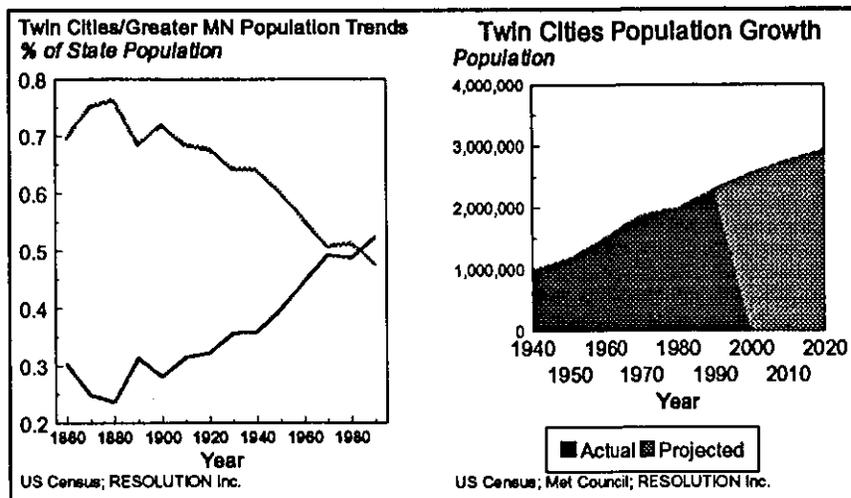
Three components of demand are summarized here which led to the documentation of need for a water based regional recreation facility:

- Population Growth
- Regional Parks System Usage Trends
- Outdoor Recreation Demand Survey

#### **Population Growth**

The Twin Cities metropolitan area grew 15 percent during the 1980s to gain a 12th place rank in growth among the nation's standard metropolitan areas. By 1990, the Twin Cities metropolitan area became home for 52

percent of the state population. In fact, non-metropolitan population declined with growth in the Twin Cities metropolitan area creating all of the state's population gain.



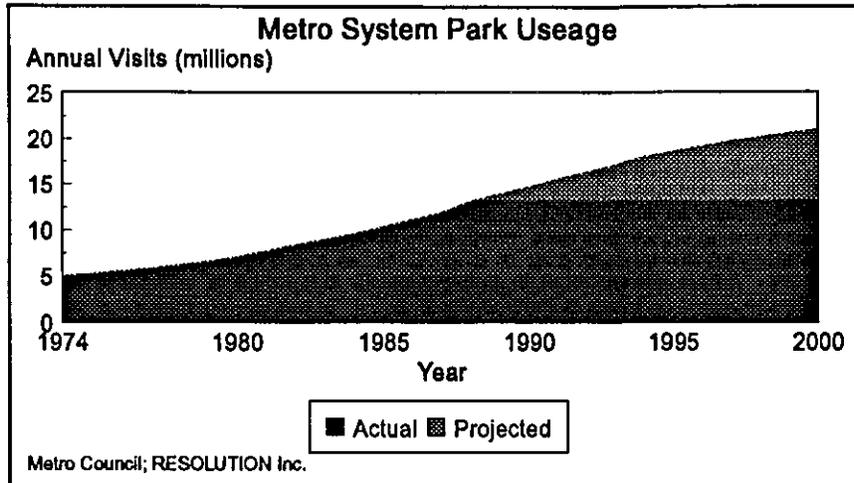
**FIGURE II-1: TWIN CITIES POPULATION TRENDS**

Not only is the majority of the population now living in the Twin Cities, that population is growing at a 15 percent rate climbing from 1.986 million in 1980 to 2.289 million in 1990 (refer to Figure II-1). Current assumptions project that another 700,000 people will live in the seven-county metropolitan area by 2020.

While metropolitan growth is significant, the pattern of that growth is equally significant. Grey Cloud Island centers a crescent of communities with growth exceeding 20 percent population increases during the last decade. Beginning on the north and sweeping south and west, those communities are Oakdale, Woodbury (currently the leading new residential unit builder for the past three years), Cottage Grove, Inver Grove Heights, Rosemount, Eagan, and Apple Valley. Significant population has and is projected to occur in the immediate area around Grey Cloud Island.

***E. Regional Parks System Usage Trends***

Use and enjoyment of metropolitan park units is increasing. Lake Elmo Park Reserve in Washington County is a good example. That park has seen visitor days quadruple in five years from 86,000 to 328,000.

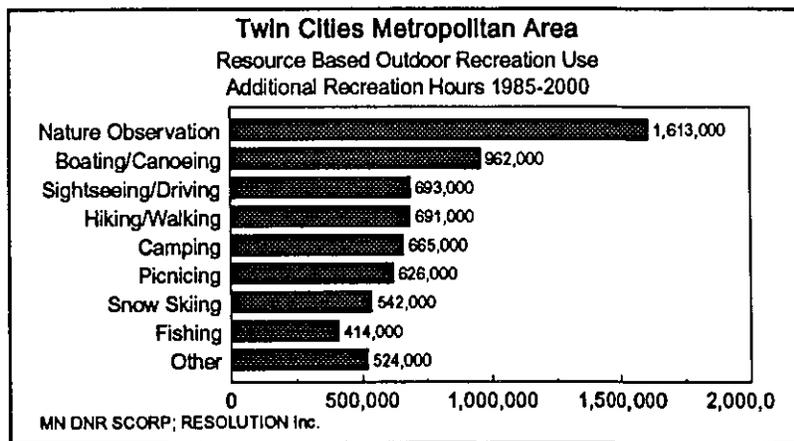


**FIGURE II-2: METROPOLITAN SYSTEM PARK USAGE**

As the above chart depicts, metropolitan park usage has been growing by about 800,000 annual visits a year. Part of the growth is due to new park system elements and part is due to new and attractive facilities and activities. Individual park unit usage growth has been evident as well. A number of critical factors face the metropolitan system including financial resources for acquisition, development, and operations and maintenance.

Outdoor Recreation Demand Survey

The final needs element is provided by the ongoing comprehensive survey conducted by the Minnesota Department of Natural Resources and compiled in the State Comprehensive Outdoor Recreation Plan. That plan looked not only at current use patterns, but also at future needs. Figure II-3 depicts the top nine outdoor recreation activities and their projected *growth* in number of *additional hours* of outdoor recreation demand anticipated between 1985 and 2000.



**FIGURE II-3: RESOURCE BASED OUTDOOR RECREATION USE**

**F. Metropolitan Council Park Planning**

In 1974, the Twin Cities Metropolitan Council prepared the first Recreation Open Space Development Guide/Policy Plan. Its content provides a framework for regional park, open space, and trail development for the Twin Cities metropolitan area. Grey Cloud Island was recognized in this initial plan as an opportunity to preserve one of eight regional landscape types, the Mississippi River Valley. Grey Cloud Island was recommended as one of ten park reserves for acquisition and development, with a composition of 20 percent active and 80 percent passive land area totaling approximately 2,000 acres.

Since completion of the 1974 plan, several revisions have been made in subsequent documents with the most recent plan adopted in 1991. Each of the plans have recognized Grey Cloud Island as a potential park reserve site for study and potential development. The 1991 Plan indicates that Grey Cloud Island Park should remain as a designated component of the regional park and open space system plan and that master planning be completed by Washington County to resolve its status.

The Metropolitan Council's planning document also acknowledges that development of Grey Cloud Island as a park would "further accentuate the strong push needed across the south part of the metropolitan area." In addition, the 1991 document states, "Because of the presence of high quality resources, for 16 years Grey Cloud has been proposed for inclusion in the regional system, but in all that time, no master plan has been presented to the Council. Consequently, the Commission was asked to reexamine the role and value of Grey Cloud as a regional park, and to discuss future options for each with appropriate decision-makers in Washington County and the host communities." This master planning process represents that initiative.

**G. Mississippi National River and Recreational Area (MNRRA)**

The National Park Service, as directed by the Mississippi National River and Recreation Area designated by Congress in 1988, has prepared the Comprehensive Management Plan--Environmental Impact Statement (June 1993). The 1988 Act established the Mississippi National River and Recreation Area (MNRRA) as a unit of the National Park System to be administered by the National Park Service (NPS). MNRRA includes 72 miles of Mississippi River and 4 miles of Minnesota River encompassing approximately 54,000 acres of public and private land and water. Policies and programs contained within the draft plan and EIS document have the following objectives:

1. The preservation and enhancement of the environmental values of the area.
2. Enhanced public outdoor recreation opportunities in the area.

3. The conservation and protection of scenic, historical, cultural, natural, and scientific values of the area.
4. The commercial use of the area and its natural resources consistent with the protection of the values for which the area was established.

Development of a regional park and open space element within Grey Cloud Island is consistent with these objectives.

#### ***H. Washington County Park Planning***

A Recreation/Open Space System Plan was adopted by Washington County in 1986. The plan recognized that Washington County, as a regional parks implementing agency, has a responsibility to plan for and operate the regional park system components located in the county and that local Washington County residents as well as metropolitan citizens will benefit from regional parks.

Three county parks were designated in southern Washington County including Grey Cloud/Baldwin Lake, Cottage Grove Ravine, and Point Douglas. Justification for inclusion of Grey Cloud/Baldwin Lake within the plan included demand for water-based activities, strong citizen support for preservation of recreation/open space, and the Grey Cloud area representation of a major landscape type. In addition, the Grey Cloud study area provides quality lakes, a variety of land forms, wetlands and woodlands.

The plan recommends a major emphasis in Grey Cloud toward land acquisition and providing access to the river and establishing a trail corridor along the river bluffs. Two alternatives were developed as part of the 1986 system plan with one focusing on river and water orientation and the other on a land-based concept engaging the river. A recommended development concept for Grey Cloud envisioned acquisition of 1,386 acres (+/-) with development including trail corridors, river access points, camping provisions for boaters, and creation and preservation of landing beaches.

#### ***I. Service Area and Nearby Facilities***

As illustrated in Figure II-4, the Grey Cloud Regional Park will serve a wide geographic area and be of regional significance. The primary service area will be the southern one-half of Washington County, Ramsey County, and portions of Dakota County. In 1990, this area had a population of approximately 635,800 residents. Its growth by the year 2000 is expected to reach 705,000 residents and increase to approximately 802,000 by the year 2020.

The secondary service area includes the remainder of Washington County, the southeast corner of Anoka County, the southeast corner of Hennepin County, and an increased portion of Dakota County. Total population of the primary and secondary service area in 1990 amounted to 1,131,626

residents. Population projections for this area in the year 2000 amount to 1,245,600 with year 2020 population expected to be 1,406,580 residents. Total metropolitan area population in the year 2020 is expected at 2,945,000 residents.

The need for additional active recreation facilities depends in part upon the distribution of similar facilities and the primary area serviced by the regional park. State and regional park elements exist within the primary service area. Regional elements include Como, Phalen-Keller, Lake Elmo, Mississippi Gorge, Hidden Falls-Crosby Farm, Lilydale-Harriet Island, Battle Creek, Cottage Grove Ravine, and Spring Lake. Each of these elements is in various levels of development. Afton State Park also exists within the primary service area.

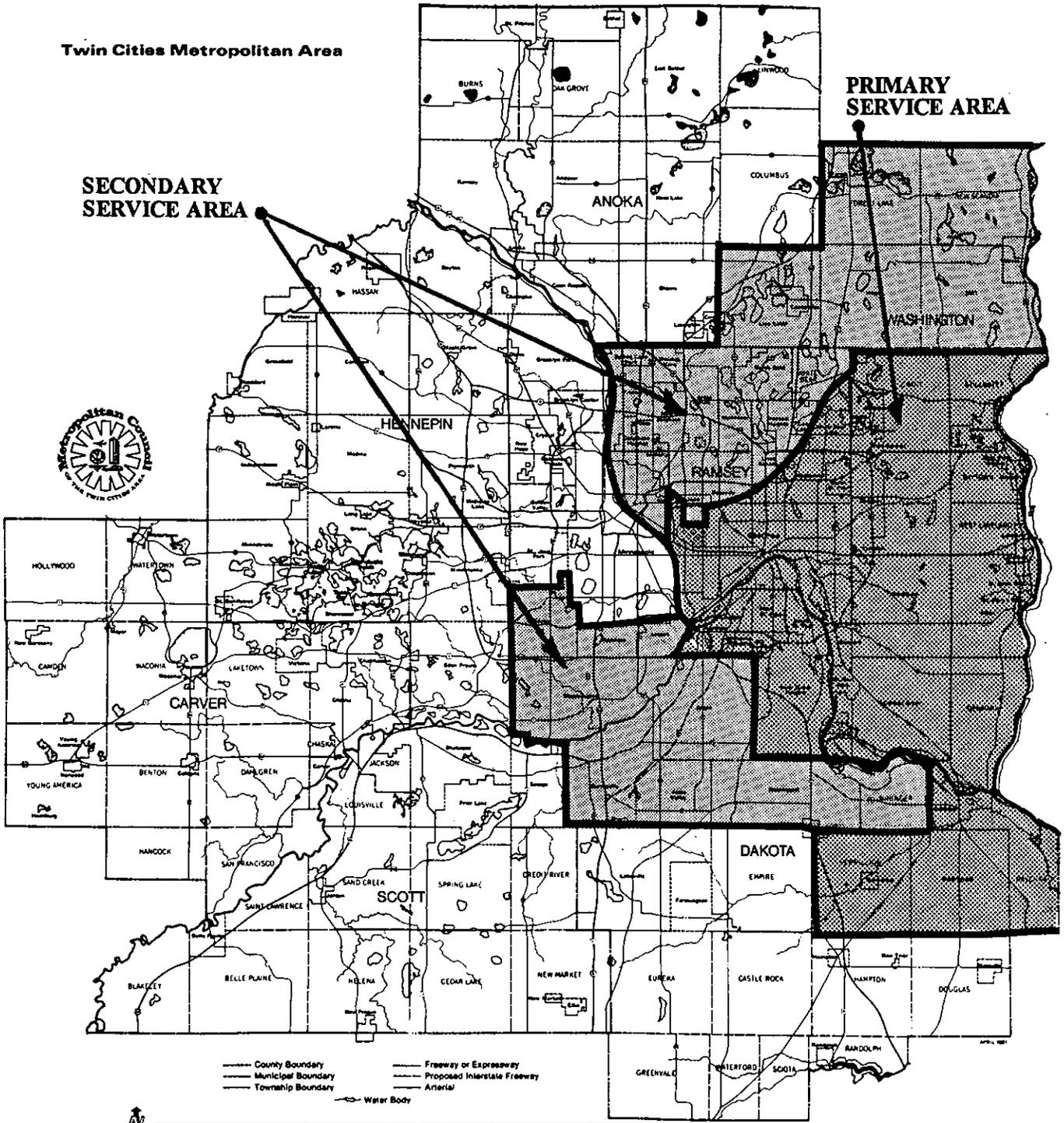
Based upon these facilities, the following comments are noted:

1. Southern Washington County and Ramsey County residents are offered a variety of open space managed and operated by diverse jurisdictions. However, these resource-based activities have little relationship to the Mississippi River and the resource base that it presents.
2. Water-based facilities within the primary service area regional elements are limited. Grey Cloud would provide a distinct contrast by advancing opportunities for water craft, swimming, and other water-based experiences.
3. Swimming opportunities are limited to a few locations. These facilities have substantial use by local metropolitan populations. Grey Cloud's inland basins can be configured for swimming purposes and respond to growing population needs.
4. Trail development for off-road bicycling, ski touring, and other off-road uses is minimal. Grey Cloud would provide an opportunity to interface with river environments from off-road trails.
5. Area boat launches provide access to a number of water bodies. However, access to this portion of the Mississippi River is limited. Mississippi corridor carrying capacity, a conceptual model that allows planning to satisfy social, environmental, and managerial needs, must be addressed to better understand its limitations and potential impacts of additional water craft.
6. Grey Cloud is located across the Mississippi River from Spring Lake Regional Park. The function and character of the two facilities would complement each other. Spring Lake Park river access is prohibited by the high river bluff and shallow stumpage river flats. Grey Cloud, in contrast, would encourage river access and interaction. Each area has physical strengths and limitations that contribute to the regional park system.

Twin Cities Metropolitan Area

SECONDARY SERVICE AREA

PRIMARY SERVICE AREA



- County Boundary
- - - Municipal Boundary
- - - Township Boundary
- Freeway or Expressway
- - - Proposed Interstate Freeway
- Arterial
- ~ Water Body

1 inch = 4 miles



GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

---



---

III. STUDY AREA CHARACTERISTICS

by **BARTON-ASCHMAN ASSOCIATES, INC.** In association with Resolution, Inc.

### **III. STUDY AREA CHARACTERISTICS**

#### **A. Introduction**

The Grey Cloud Island study area, including the upper, lower, and outer islands, possesses unusual physical and cultural characteristics. These characteristics present important implications for justifying the park facility, determining a reasonable project boundary, and creating a potential development concept. It is these characteristics that should guide the master plan and the development of facilities. A summary of the pertinent characteristics follows.

#### **B. Topography and Land Form**

Topography within the Grey Cloud Island study area has moderate relief ranging from normal shoreland elevation of 687 feet to a high point on the upper island of approximately 780, an elevation change of over 90 feet. Naturally occurring grades are most prominent on the upper island west shore where rock ledges, commonly known as Robinson's Rocks, display relief of 40 to 45 feet above the river surface. Other naturally occurring steep slopes are generally limited to the periphery of Grey Cloud Township along the Mississippi River, Grey Cloud Channel, and Mooer's Lake.

Washington County's soil survey identifies general soil types and structure for the area. Most of the upper island is a limestone plateau with the greatest natural exposure of the dolomitic limestone occurring at Robinson's Rocks on the northwestern shoreline of the upper island. Another rock outcropping is visible at the Shiely quarry facility (Larson Plant) adjacent to the western shoreline's southern terminus. Sinkholes and outcropped knobs abound along the northern and western peripheries of the upper island. Inland soil materials are rolling, glacier till deposits.

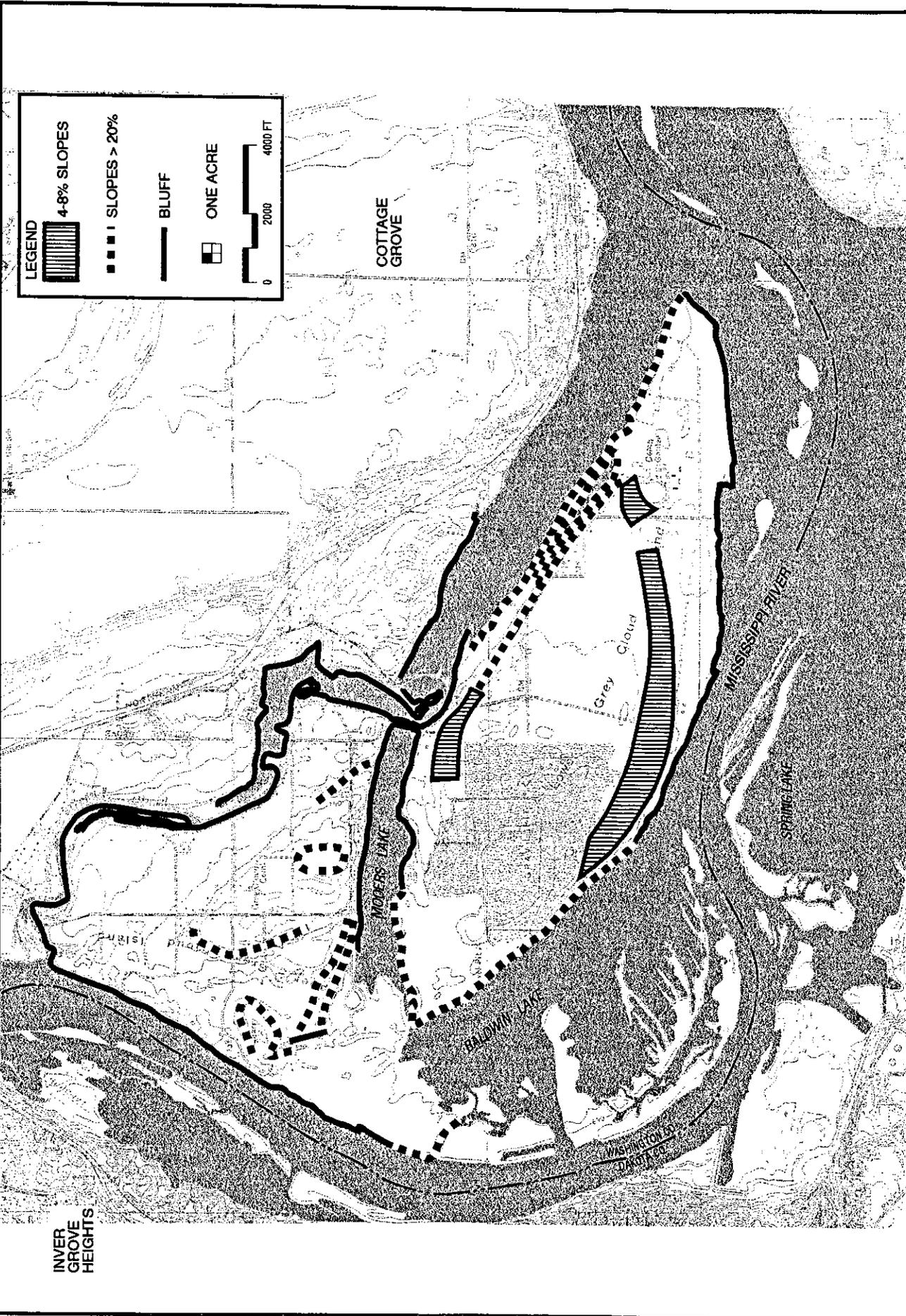
The lower island is generally an alluvial plain with soil types typically found within floodplain areas. Substantial gravel deposits in sandy soils dominate the lower island. The *Washington County Soils Atlas* provides more specific soil characteristic information.

Upper and Lower Grey Cloud Islands were once united. The water level of the Mississippi River rose with the construction of the Hastings Lock and Dam in 1931, flooding the existing island areas below the 685-foot contour, and separating the Upper and Lower islands by Mooer's Lake. Heightened water elevations also altered the edge definition of the outer islands.

#### **C. Floodplain**

Areas designated within the 100-year floodplain (refer to Figure III-2) exist within both the upper and lower island. Specific locations include:

- The southwest corner of the upper island west of Mooer's Lake



INVER GROVE HEIGHTS



FIGURE III-1  
TOPOGRAPHY

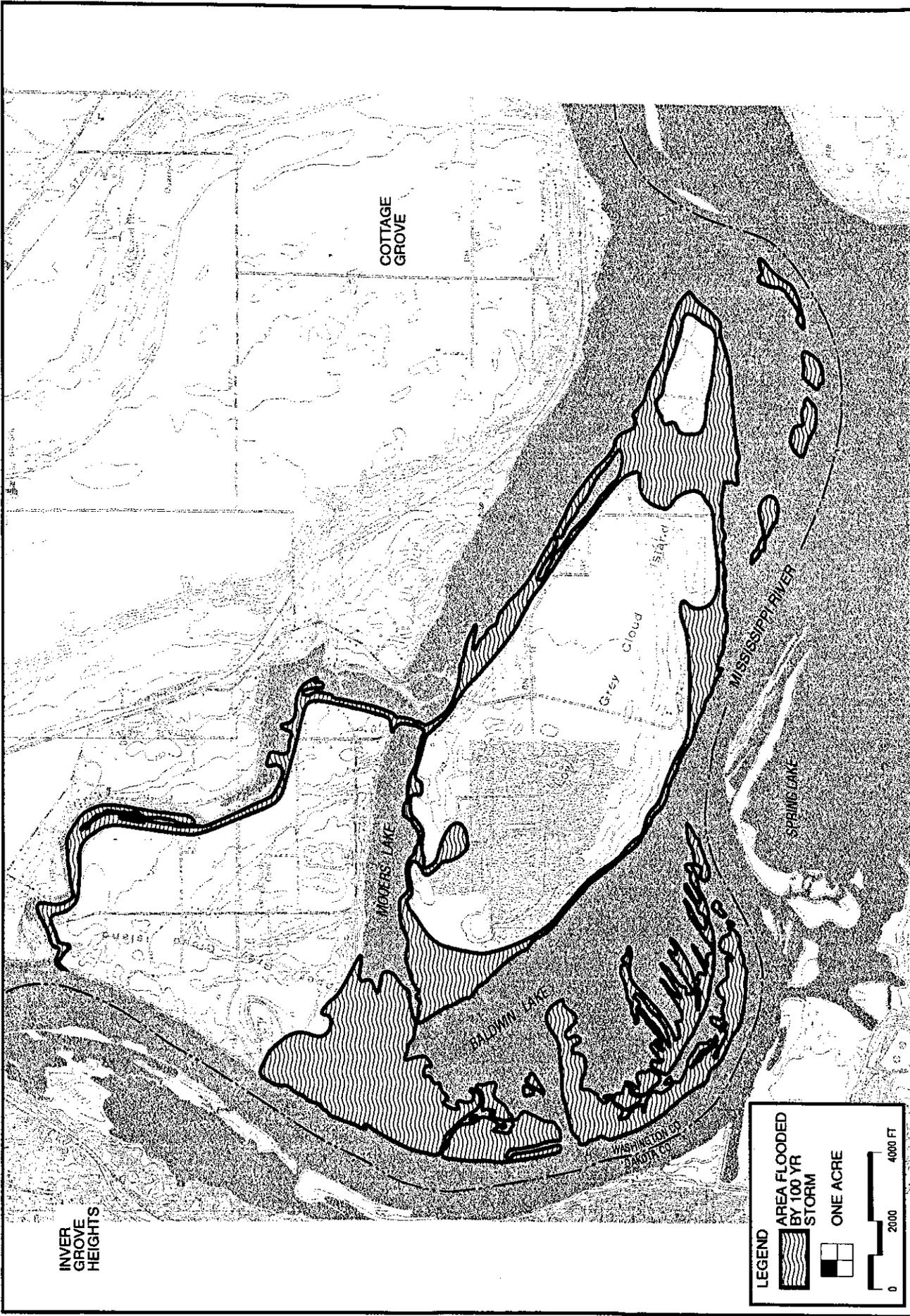


FIGURE III-2  
FLOODPLAIN

**GREY CLOUD ISLAND MASTER PLAN**  
BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.

- The inland channel shoreline edge separating the upper island from the mainland
- River edges of the lower island including a substantial portion of the southeast tip
- All of the outer islands

During high water conditions, roadway connections from the mainland to both the upper and lower islands can become endangered. During peak flood conditions within the past two decades, emergency measures have maintained operation of the roadway connection between the upper island and mainland. Restrictions are placed on the bridge's use connecting the lower island to the mainland during peak flood conditions. Frequently, the roadway connection between the upper and lower island is closed or restricted during seasonally high water.

#### ***D. Woodlands and Botanical Communities***

Woodland area patterns within the upper and lower islands relate to previous agricultural, mining, and development activities. Substantial woodland cover exists within the upper island. Areas void of vegetation include parcels where limestone mining has been conducted, agricultural or pasture areas, roadway and pipeline corridors, and clearings made to accommodate development. Substantial woodland cover exists adjacent the river, inland channel, and Mooer's Lake shoreline including floodplain areas.

Woodland cover within the lower island is limited to river shoreline or edge areas. Substantial portions of the lower island's former woodland areas have been disrupted by previous agricultural and gravel mining activities.

Identification of plant communities within the study area is made difficult by the wide variety of environments and the various activities that have impacted plant communities. Extensive biological surveys have been conducted by both governmental and private groups as a part of river planning studies or mining operations. According to the Minnesota County Biological Survey, conducted by the Minnesota DNR, a substantial portion of the islands were originally Baldwin Lake sand bars containing silver maple floodplain forest, lowland wetland forests of seasonally flooded river bottoms. River beach sand subtype is also documented as a narrow strip along the south shore of the lower Grey Cloud Island.

The upper island, in contrast, contains two oak forest communities with dry to mesic habitats. The Grey Cloud Township Comprehensive/Critical Area Plan states "Prior to the emergence of the dry-mesic forest predominant today, the island was covered by oak savannahs, oak barrens, and possibly some prairie. Heavy grazing eliminated much of the native ground layer flora, and elimination of fires resulted in the emergence of aspen, birch, red cedar, and young oak. Underbrush, primarily grey dogwood and prickly

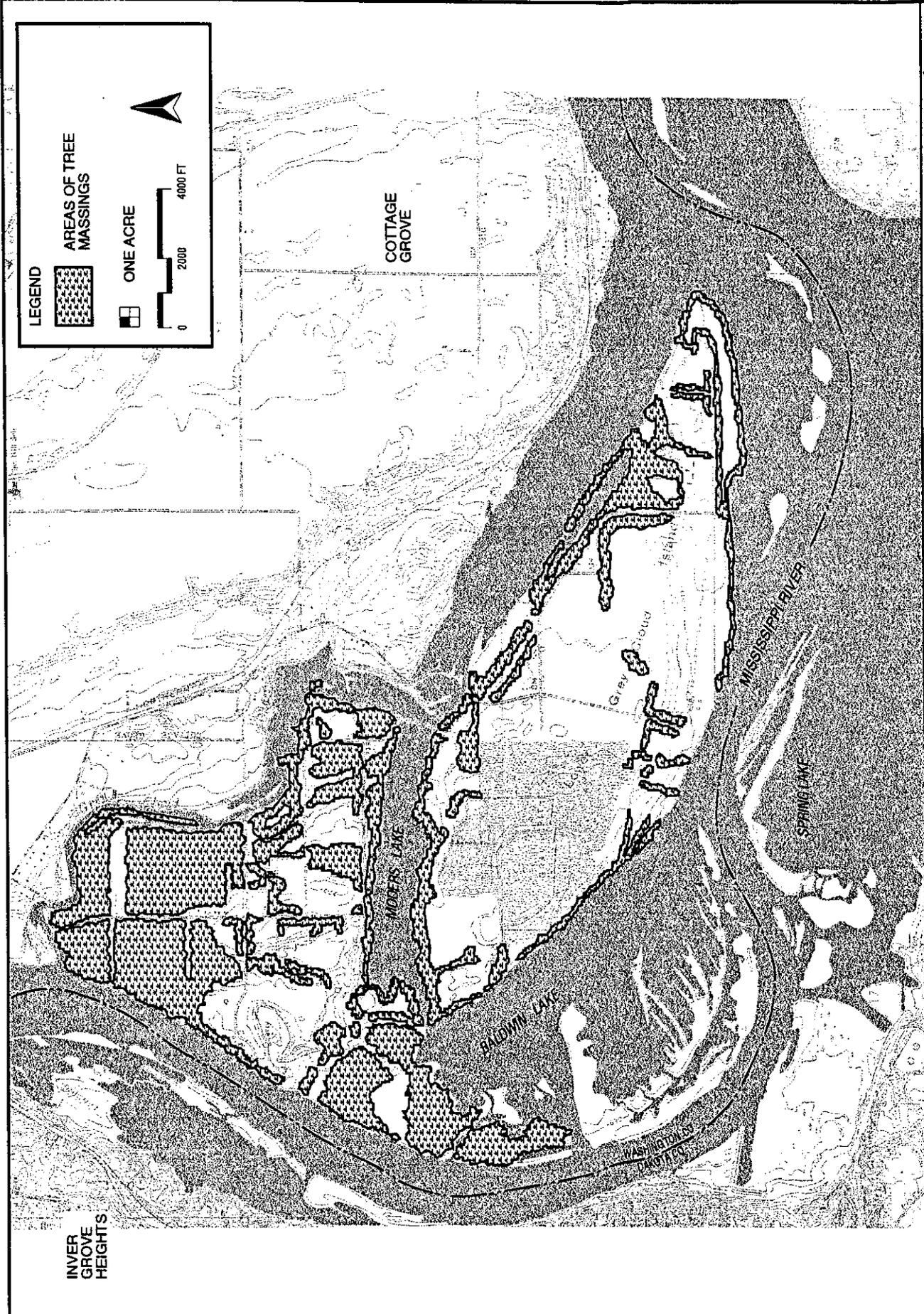


FIGURE III-3

TREE MASSINGS

GREY CLOUD ISLAND MASTER PLAN  
 BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.

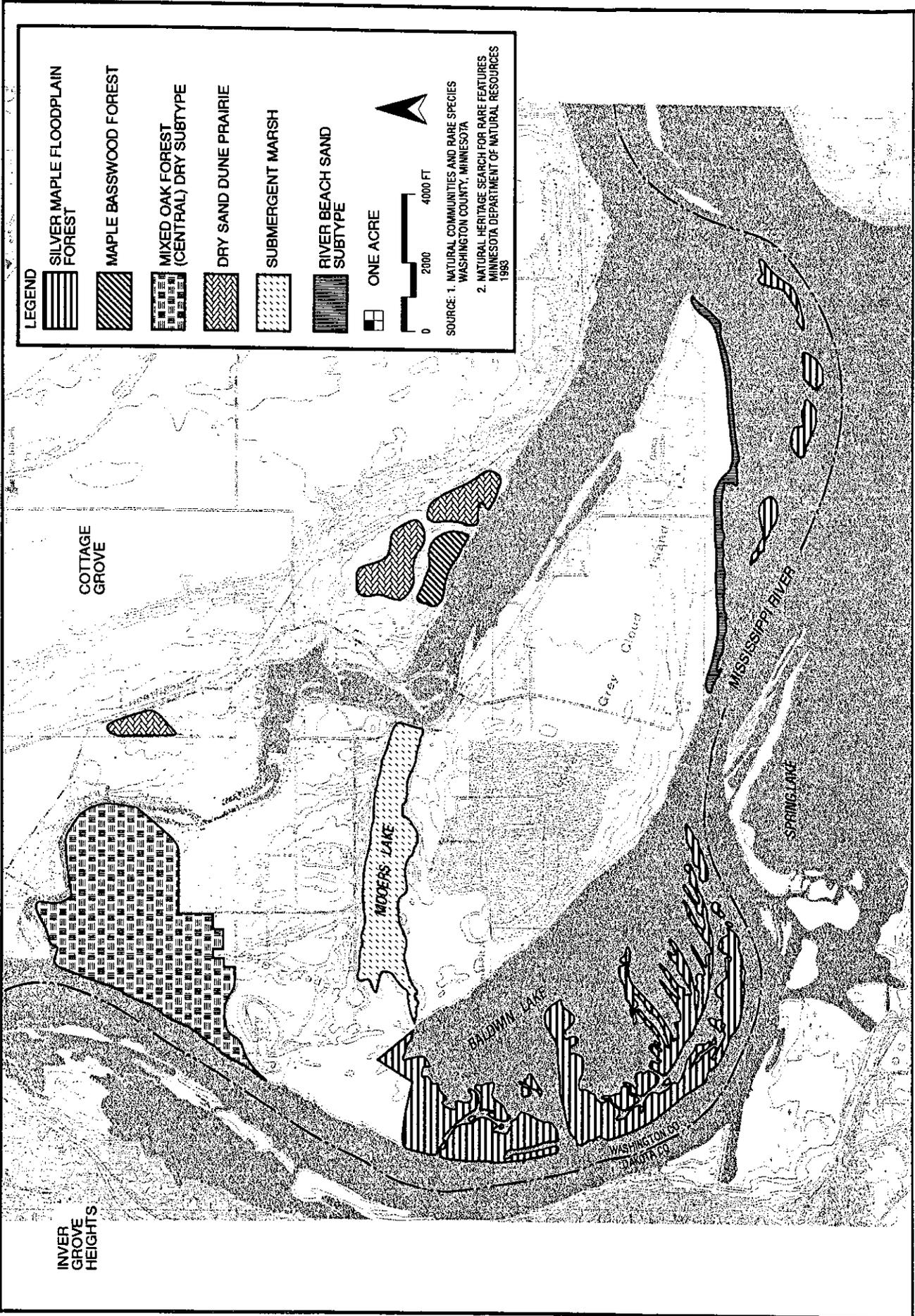


FIGURE III-4

BOTANICAL/PLANT COMMUNITIES

GREY CLOUD ISLAND MASTER PLAN

BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



ash, is substantial throughout the area. Older oak mortality is now occurring, and replacement by ironwoods, hickories, basswoods, and sugar maple indicate that the stand has become a mesic forest. The stand has no rare floristic components that make it unique. The Grey Cloud vegetative community appears to be typical of the old oak woodlands within the Twin Cities region, many of which stretch along the bluffs of the Mississippi, Minnesota, and St. Croix Rivers."

Cliff vegetation associations are documented for the upper island. At Robinson's Rocks, unique junipers, ferns, Canadian yew, bluebells, and lichens are noted. Cedars, locusts, moss, cottonwood, goldenrod, and sumac are noted at other types of cliffs depending upon the direction of exposure to the sun and amount of exposed rock.

Dry-mesic forests are the most widespread forests on the two islands and include basswood and oaks with limited stands of aspen, eastern red cedar, and birch. Left alone, this forest community will slowly become a mesic maple/basswood forest. Understory includes Virginia waterleaf, sedges, bluegrass, and poison ivy.

Southern wet forests are found within the bottomlands on each island and include black willow and cottonwood. Kentucky coffeetree is at the northern limit of its natural range. Understory includes wild rye and nettle. Both islands include plant communities of "urban complexes." Species include ornamentals, bluegrasses, and other European cultivars near roads and agricultural fields. Perennials, sumac, grey dogwood, cottonwood, and boxelder are invader species on parcels impacted by development, agricultural, or mining activities. Dandelion, thistle, yarrow, and mullein are herbaceous plants existing within these impacted areas.

Outer island species within the silver maple floodplain forest include silver maple, green ash, and black willow.

#### ***E. Rare or Endangered Species***

The Minnesota Natural Heritage Database for rare and endangered plant and animal species and other significant natural features was conducted by the Minnesota Department of Natural Resources (DNR). Information provided by the DNR lists rare features within the study area, features outside of the study area but within one mile of the area, and other sensitive natural areas identified during a countywide biological survey completed in 1987. Inventory and occurrence information verified various plant communities and species composition within the communities. Occurrence information also documented a number of plant species with endangered, threatened, or special concern status within the study area. In addition, the survey acknowledged bird species habitat including areas frequented by bald eagles.

More specific inventory and field work should be completed for verification and occurrences sighted within the study area. This work would provide a

better understanding of actual species contained, the size and extent of species, and their quality within individual sites. Analysis work should be initiated after park boundaries have been delineated and prior to further development studies.

#### ***F. Community Comprehensive Planning***

The jurisdictions of Grey Cloud Island Township and the City of Cottage Grove have completed approved comprehensive land use guide plans. The Grey Cloud Island Township plan designates the eastern portion of the upper island for single-family (R-1) residential uses. In general, the western portion of the upper island is guided for commercial excavation (CE). Small portions of the upper island are designated for public land consistent with the town hall location, cemetery, and open space parcel.

The City of Cottage Grove's comprehensive land use plan designates the dominant portion of the lower island for conservancy (C) uses. Limited portions of the eastern shoreland are designated as rural residential (R) or quasi-public (QP)--Camp Galilee area. The existing boat launch adjacent the inland channel is designated as public land (P).

Existing land use patterns generally conform to the comprehensive land use plans. Upper island land uses are low density residential east of Grey Cloud Island Drive (County Road 75). West of County Road 75, land use is predominantly used in conjunction with the Shiely Company limestone quarry. Exceptions occur with low density single-family uses adjacent Mooer's Lake and the northern river shoreland.

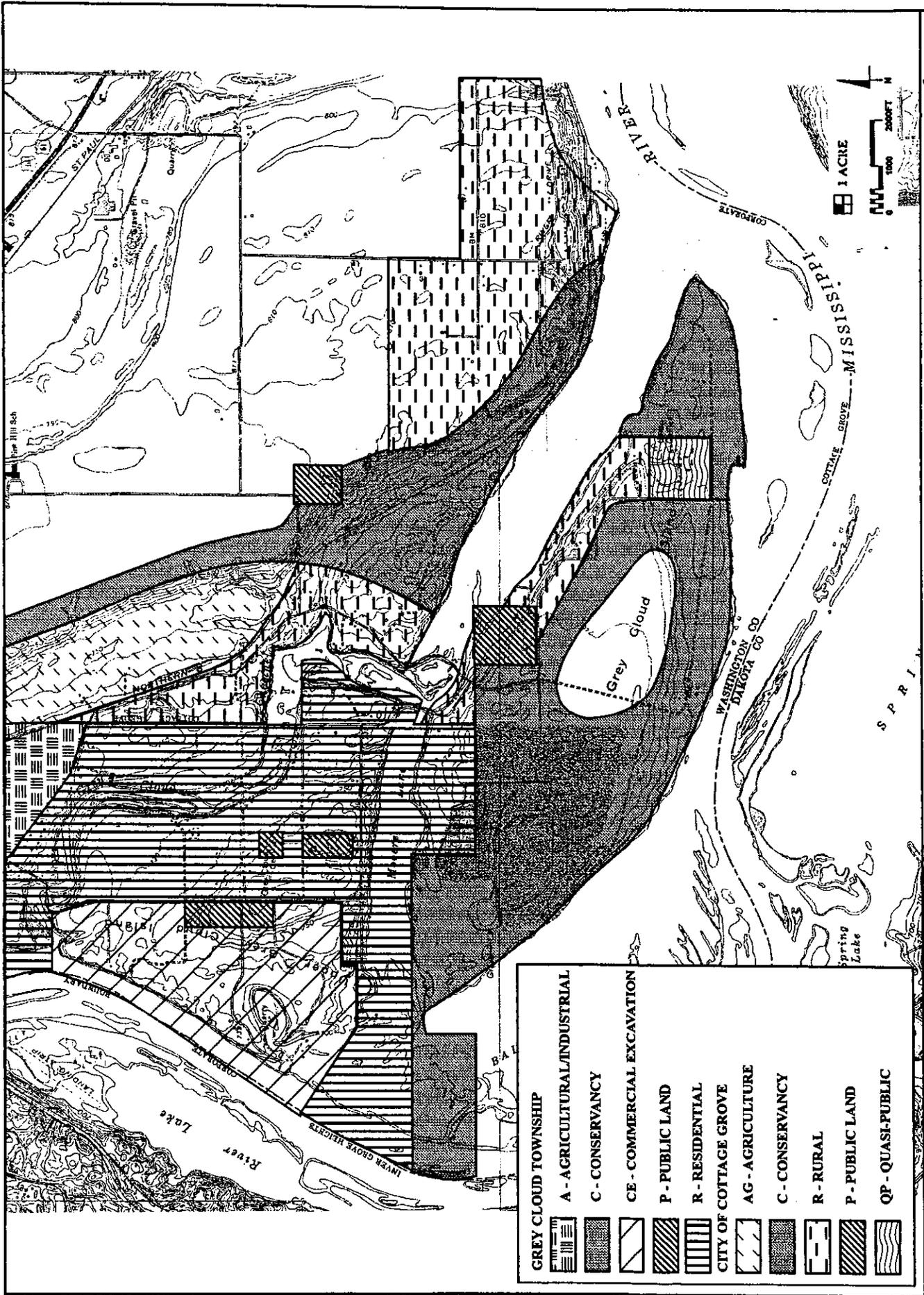
Shiely Company's lower island gravel mine dominates the lower island's land use. Exceptions include low density single-family residential adjacent the inland shoreland area, Camp Galilee, and small parcels used for agricultural purposes.

Outer island areas are void of development and represent natural, open space areas.

#### ***G. Property Ownership***

Property ownership within the upper island is dominated by two groups, the Shiely Company and several residential owners representing single-family areas. Shiely ownership includes the majority of parcels west of County Road 75 with the exception of single-family areas within the northwest portion of the island bordering the Mississippi River. Shiely ownership extends east of County Road 75 to those parcels abutting the roadway and extending northward to the Grey Cloud Channel. Multiple single-family ownership exists for parcels abutting Mooer's Lake and extending eastward toward Grey Cloud Channel.

Lower island ownership is dominated by the Schilling Land Trust. Exclusions include Shiely Company ownership adjacent to the lower island



GREY CLOUD TOWNSHIP	
	A - AGRICULTURAL/INDUSTRIAL
	C - CONSERVANCY
	CE - COMMERCIAL EXCAVATION
	P - PUBLIC LAND
	R - RESIDENTIAL
	CITY OF COTTAGE GROVE
	AG - AGRICULTURE
	C - CONSERVANCY
	R - RURAL
	P - PUBLIC LAND
	QP - QUASI-PUBLIC

FIGURE III-5  
 COMMUNITY COMPREHENSIVE PLAN  
 DESIGNATED LAND USE

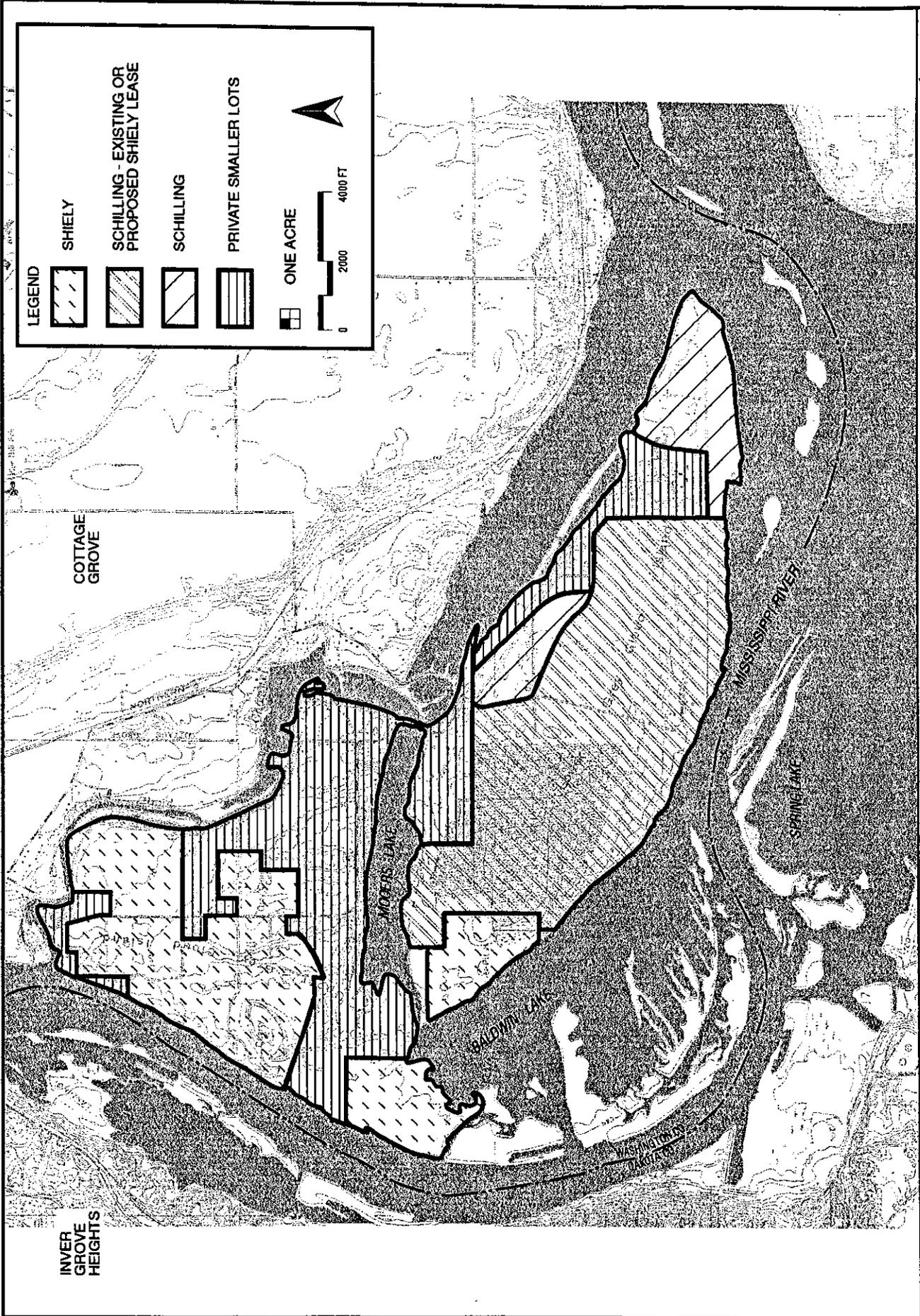


FIGURE III-6

PROPERTY OWNERSHIP

GREY CLOUD ISLAND MASTER PLAN  
 BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



gravel terminal, the Michaud family within the north central portion of the island, and several owners representing single-family or the Camp Galilee institutional area adjacent the island's southeast corner. This area also includes ownership by the Schilling family.

Private ownership occurs within the vast majority of the outer islands with the exception of small parcels purchased by public agencies. Outer island private ownership resulted from construction of the Hastings dam and flooding of parcels owned by private parties.

#### ***H. Shiely Company Mining Activity***

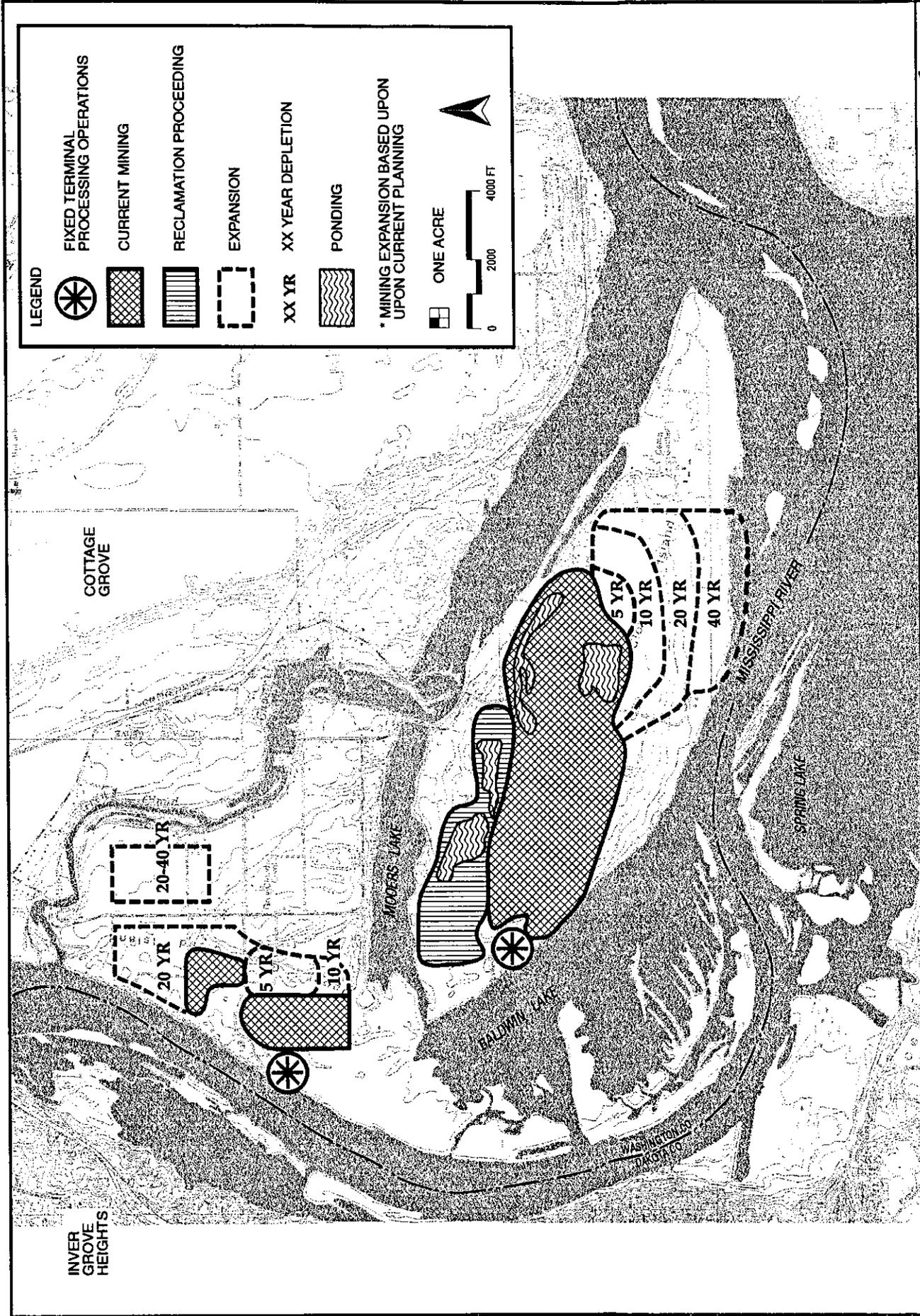
Active quarry and mining activity exists within the Grey Cloud Island study area. An active limestone quarry operated by the Shiely Company exists within the upper island. Shiely maintains a barge terminal adjacent the Mississippi River Channel serving as a focal point for its quarry operations. Limestone material is regularly blasted within the quarry, processed by crushing, trucked to the terminal, and the vast majority of the limestone is then shipped by barge upriver to the metropolitan area.

Long-term planning by the Shiely Company has identified available limestone material for another 40 years of quarrying on the upper island. The existing quarry location will be expanded eastward during the next five to ten years. Additional mining will continue in a northeasterly direction of the existing quarry near County Road 75. Planning and agency permitting for quarry mining through these phases has been completed. Additional mining activities could occur east of County Road 75 for another 20 years beyond the approved phases, or approximately 40 years beyond 1994. These latest phases are contained within the company's plan, however, additional government approvals and permits would be required prior to initiation.

Reclamation plans completed by Shiely anticipate single-family residential uses once mining activities have been completed. Plans completed by Shiely to date suggest low density single-family residential uses focusing on water basins formed in part by the gravel mining and reclamation process.

A gravel mining operation, also run by the Shiely Company, exists on the lower island. The barge terminal located on Baldwin Lake serves as the heart of the operation. Mined gravel material is transported via conveyor belts from mining operations in the central portion of the island westward to the terminal. After initial processing, the vast majority of this material is shipped by barge upriver to the metropolitan area. Loaded barges must navigate through Baldwin Lake and around the outer islands prior to entering the main channel. Shiely Company has maintained a barge channel between the outer islands, however, only empty barges can currently use the channel due to shallow water depths.

Long-range planning completed by the Shiely Company for the lower island anticipates gravel mining approximately 40 years beyond 1994. On-land mining activity should continue for another 20 years, and another 20 years



**LEGEND**

- FIXED TERMINAL PROCESSING OPERATIONS
- CURRENT MINING
- RECLAMATION PROCEEDING
- EXPANSION
- XX YR
- PONDING

\* MINING EXPANSION BASED UPON UPON CURRENT PLANNING

ONE ACRE  
0 2000 4000 FT

FIGURE III-7

MINING ACTIVITY

GREY CLOUD ISLAND MASTER PLAN

BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



of material excavation could occur beyond the island's shoreline extending south into the Mississippi River. Material would be excavated by floating dredge and conveyed onto the island for processing and transportation. These later phases are contained within the company's mining plan, however, additional government approvals and permits would be required prior to initiation.

Reclamation planning completed by the Shiely Company has identified single-family residential uses on the lower island. Excavated depressions would be regraded into housing sites or inland water basins.

### ***I. Roadway Systems and Regional Access***

Access to the Grey Cloud Island study area must be anticipated in terms of regional and local access. Regional metropolitan access currently exists via Minnesota Trunk Highway 10/61, a four-lane highway extending south from the metropolitan area with interchanges at I-94 and I-494. Three separate interchanges along TH 10/61 provide alternative local access to the Grey Cloud area. The northernmost access is the interchange with St. Paul Park Road in St. Paul Park. Traffic could utilize local streets including Broadway Avenue, Third Street/Grey Cloud Island Drive South, and Grey Cloud Trail South to gain study area access.

A second alternative is the 80th Street interchange with TH 10/61. Local streets including Hadley Avenue and 103rd Street connect to Grey Cloud Island.

The third and southernmost alternative is the Jamaica Avenue interchange with TH 10/61. One Hundredth Street and 103rd Street provide local routes connecting the interchange and the study area.

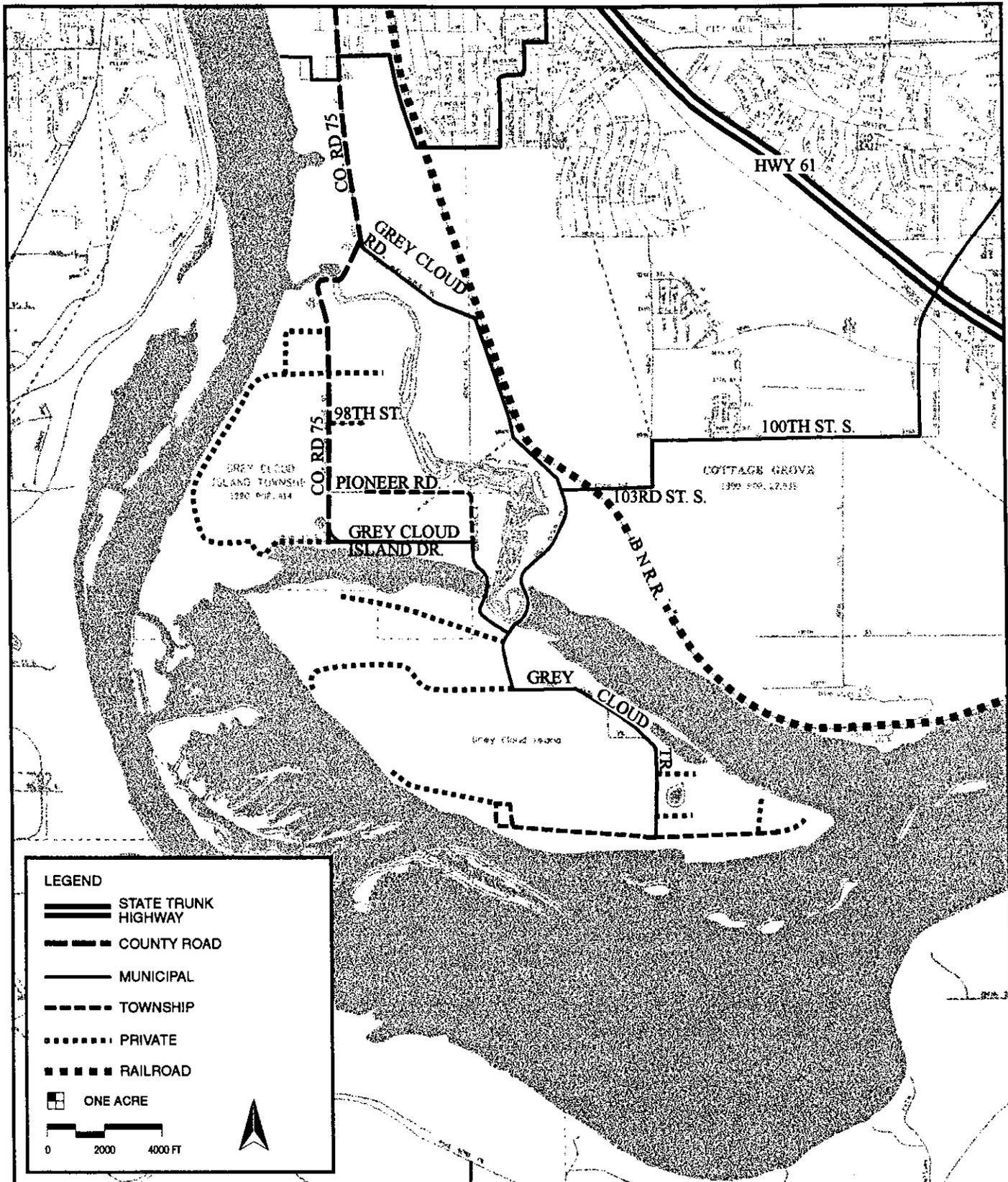
Access to the island is limited. Grey Cloud Island Drive (County Road 75) connects the upper island to the mainland via a culvert causeway crossing. Grey Cloud Trail connects the lower island via bridge to the mainland. Upper and lower island areas are connected by Grey Cloud Island Drive, a multiculvert roadway crossing of the Mooer's Lake outlet.

Local streets within the Grey Cloud area are limited to facilitate residential access or mining activities. The streets are generally two-lane, hard surfaced rural roadways without shoulders.

### ***J. Archeological/Historical***

Several studies have been conducted for the Grey Cloud area regarding archeological and historical resources within the upper and lower islands. These studies have been authored by individuals from the Minnesota Historical Society and commissions within the City of Cottage Grove.

Native Americans were living in and utilized the natural resources of the Grey Cloud Island area at the time of its "discovery" by Europeans more



**GREY CLOUD ISLAND MASTER PLAN**

BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.

**FIGURE III-8  
ROADWAYS**



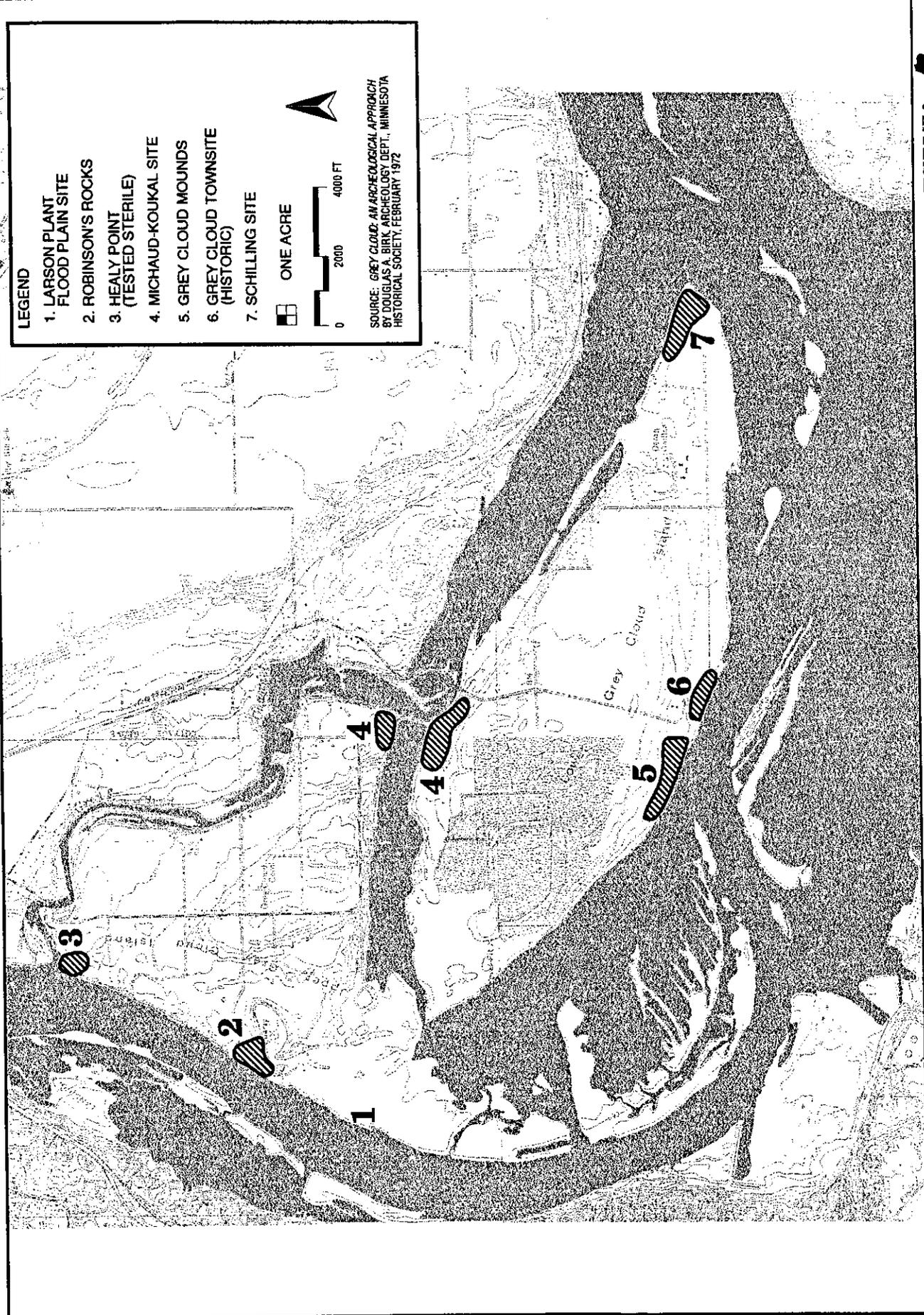


FIGURE III-9

ARCHEOLOGICAL SITES

GREY CLOUD ISLAND MASTER PLAN

BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



than three centuries ago. Early traders settled on Grey Cloud in the early 1800s. The island was named after Hazen Mooer's wife, a mixed-blood whose Siouian name was "Grey Cloud II". Her mother, Grey Cloud I, was Chief Wabasha's sister. In 1856, Joseph Renshaw Brown tried to plat a homesite, the City of "Grey Cloud". Initial expectations were large, with visions of over 400 lots suitable for homes, stores, mills, and warehouses. Speculators abounded at this time with money to contribute, however, the boom went bust in the financial panic of 1857 and the town was practically abandoned.

A 1971 archeological survey of Grey Cloud Island identified numerous archeological sites based upon artifact samples found. Approximately six sites exist, the majority of which are located adjacent the river shoreline coinciding with early encampments. According to the study, all prehistoric sites plus the historic Grey Cloud Town site have significant archeological potential to justify preservation. One of the sites, the Schilling site, has been described as "the best, excavated early Woodland site in southeastern Minnesota." The Schilling site was discovered in 1887 and has been surveyed several times in the last 100 years. It was placed on the National Register of Historic Places in 1978. However, the site has been affected by erosion of the Mississippi's river banks, damaging the remnants and site quality.

#### ***K. Planning Parcels***

The Grey Cloud Island study area, including both upper and lower islands, collectively represents a substantial planning area, both in scale and acreage. There is no magic formula for deriving how much land should constitute a public park or how much land would be suitable for open space. Consequently, subareas were delineated on the basis of similar physical and cultural characteristics and should be considered as management or planning units for evaluating future use, preservation, ownership, management practices, development, and implementation. As portrayed in Figure III-10, seven distinct geographic areas result:

1. **Upper Island main body**, amounting to approximately 600 acres, representing the principal residential and undeveloped area.
2. **Upper Island limestone quarry**, relates to existing and permitted quarry areas and amounts to approximately 235 acres.
3. **Robinson's Rocks area**, approximately 80 acres, includes the cliff shoreline and small residential area adjacent to the inland channel mouth.
4. **Lower Island gravel mine**, encompasses mined and areas planned for mining not including island edges. This area is approximately 760 acres.

5. **The Lower Island edge**, approximately 680 acres, assumes a perimeter around the entire Lower Island including parcels abutting the south edge of Moorer's Lake, the south edge of the inland channel, the Lower Island southeast point, and the sensitive river setback edge adjacent to the main channel and Baldwin Lake.
6. **Outer islands**, amounting to approximately 400 acres, including those island areas between the main channel and Baldwin Lake. In addition, a small portion of the Upper Island's southwest edge has been included due to its floodplain characteristics.
7. **The mainland edge**, approximately 365 acres, abuts the inland channel and is pertinent due to its visual and land use characteristics.

Definition of these planning uses provides a more effective means of understanding the study area's characteristics and its size.

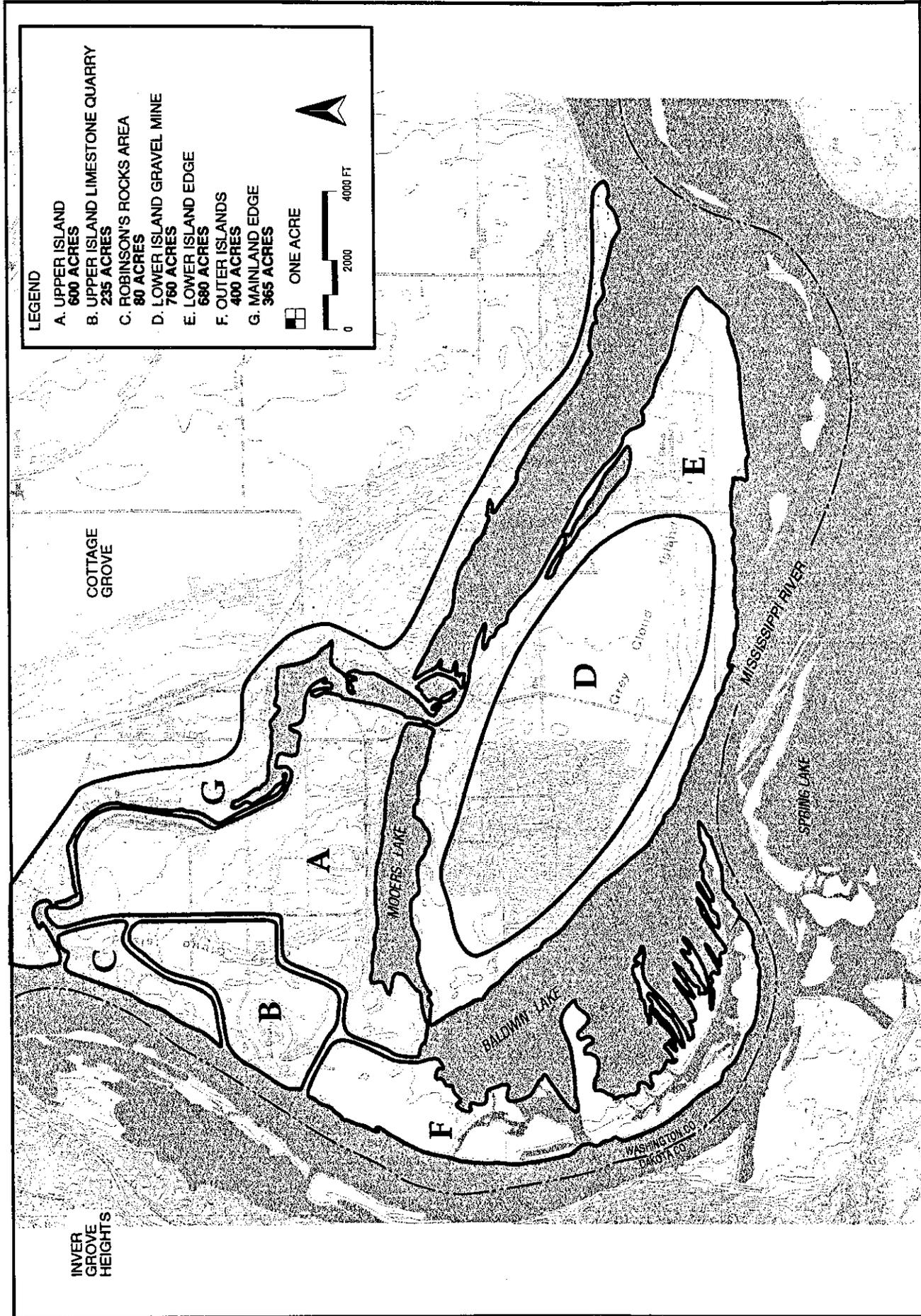


FIGURE III-10

DEVELOPMENT PARCELIZATION

GREY CLOUD ISLAND MASTER PLAN

BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



**LEGEND**

- A. UPPER ISLAND  
600 ACRES
- B. UPPER ISLAND LIMESTONE QUARRY  
235 ACRES
- C. ROBINSON'S ROCKS AREA  
80 ACRES
- D. LOWER ISLAND GRAVEL MINE  
760 ACRES
- E. LOWER ISLAND EDGE  
680 ACRES
- F. OUTER ISLANDS  
400 ACRES
- G. MAINLAND EDGE  
365 ACRES

ONE ACRE

0 2000 4000 FT

▲

INVER GROVE HEIGHTS

COTTAGE GROVE

WASHINGTON CO  
DAROTA CO

MOOPERS LAKE

BALDWIN LAKE

SPRING LAKE

MISSISSIPPI RIVER

Grey Cloud Island

GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

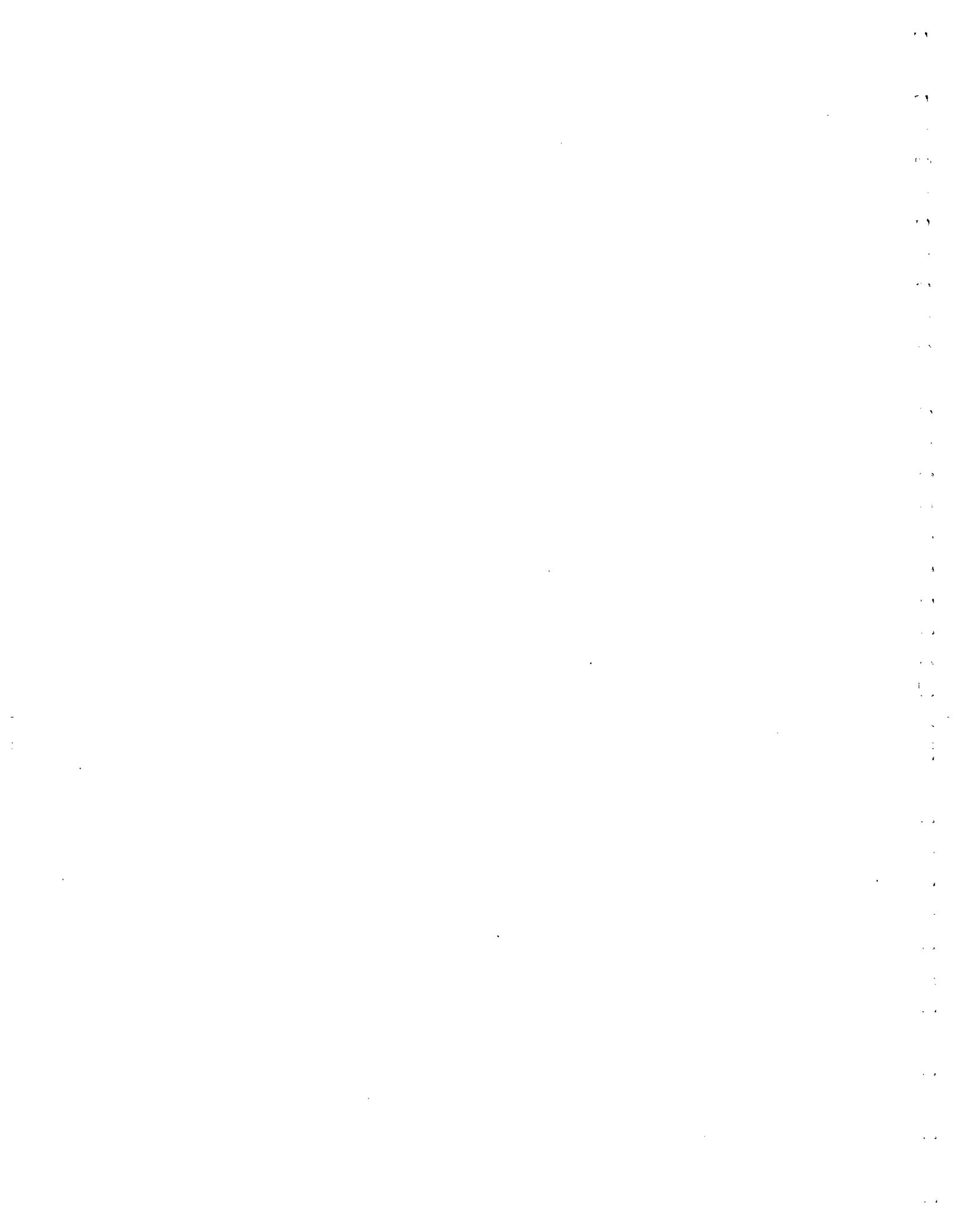
---



---

IV. PLANNING VARIABLES, PLANNING  
OBJECTIVES, AND EVALUATION  
CRITERIA

by **BARTON-ASCHMAN ASSOCIATES, INC.** in association with Resolution, Inc.



#### IV. PLANNING VARIABLES, PLANNING OBJECTIVES, AND EVALUATION CRITERIA

##### A. *Introduction*

Review and analysis of Grey Cloud's physical and cultural characteristics provided a framework for the remaining planning process. The task established:

1. Planning variables that will affect potential park boundaries and development configuration.
2. Park and open space planning objectives to guide facility development and resource management.
3. Evaluation criteria to screen concept alternatives and aid in the development of a preferred alternative.

A description of these elements follows.

##### B. *Planning Variables*

A number of variables exist that influence park planning for Grey Cloud Island. These considerations may be subject to the priorities and resources of other decision-makers including regulatory agencies, the Minnesota Legislature, local governmental units, private enterprise, and the general public. It is appropriate and indeed necessary, however, to identify these variables for their contribution and importance to the planning process. Variables include:

1. The extent and timing of the **limestone and gravel mining** on both the Upper and Lower Islands will play a substantial role in determining the potential for and desirability of a regional park within Grey Cloud Island.

Shiely Mining and Gravel has prepared a plan to continue both limestone mining on the Upper Island and gravel excavation on the Lower Island into the next 40 years. The timing of these activities must be taken into consideration when topics of acquisition, funding, development, and ownership are considered. Mining activities also have implications for the physical and cultural resources of the study area. Changes in the island's physical characteristics will alter the natural character of the mined areas and of those adjacent parcels overlooking the mined areas. However, the mined areas may also be considered as opportunities for park development with active uses. For example, reclamation of mined areas could be designed and constructed to include swimming and water activity basins.

2. **Residential areas** currently exist within both the Upper and Lower Grey Cloud Islands. The extent to which these areas are retained

factor into ownership options that may be considered for Grey Cloud Island. In addition, the impact to those property owners and residents must be taken into consideration along with the timing of any potential acquisition.

3. Existing and potential **nonresidential private ownership and investment** factors into Grey Cloud Island's future land use and development. Ownership patterns contribute to park character and potential development. In addition, land development location, land use, and development density are variables that must be carefully weighed.
4. The **degree of public intervention** is a substantial variable that must respond to project justification, agency involvement, public recognition, and funding prioritization. A number of specific factors contribute to this variable:
  - **Project implementation** within the Mississippi River corridor involves numerous agencies when it comes to issues, concerns, and responsibility. The creation of a national park element (MNRRA) brings all levels of government into play. In addition, the unique mainland, island and river relationships increase the number of agencies with responsibilities for the area and the complexity of management. Grey Cloud implementation will likely involve a mixture of governmental jurisdictions.
  - Existing **environmental regulations** occur at the federal, state and local levels which either restrict development or provide measures for preservation of unique natural and cultural characteristics. While these measures may complement regional park development, they should not be considered as a substitution for park facilities and activities.
  - The extent of **public ownership** within Grey Cloud Island is fundamental to establishing a workable park and open space solution. Ownership through acquisition must take into consideration specific agency involvement, availability of public monies, and relationship to abutting private property uses.
  - **Capital investment** for development of recreation facilities or required infrastructure is related to the degree of public ownership and the prescribed active or passive recreation uses.
  - **Ultimate management and operation** of any publicly held land or facilities must be anticipated given the capital requirements and commitment to public facilities.

These considerations suggest that multiple agencies will likely contribute to Grey Cloud's future, when the park facility is developed.

**C. *Park and Open Space Planning Objectives***

Grey Cloud park and open space planning should be conducted with a number of objectives in mind. It is important to clearly identify study area planning needs and the resulting planning objectives. These statements help establish preliminary evaluation criteria to formulate and review concept alternatives and ultimately become the common controlling assumptions upon which planning alternatives are based.

**Upper Grey Cloud Island Objectives**

1. **Preserve and interpret Robinson's Rocks/cliff areas.**
2. **Examine the potential of the limestone quarry remains for future active recreation.**
3. **Manage future expansion of the limestone quarry to balance economic benefits, environmental impact, impact on residents, and reuse potential.**
4. **Maintain the Upper Island barge terminal operation through the completion of the mining activities.**
5. **Provide for continuity of internal north/south roadways throughout the active mining areas.**
6. **Manage Mooer's Lake to balance active recreation needs with resource quality.**

**Lower Grey Cloud Island Objectives**

1. **Manage future expansion of gravel mining to balance economic benefits, environmental impact and its reuse potential.**
2. **Pursue active revegetation of mined areas with woody species as a complement to future reuse.**
3. **Cooperate in developing mining operations and reclamation plans consistent with future reuse potential and park development.**
4. **Preserve the aesthetic and physical integrity of the Lower Island shoreline intact without physical interruption.**
5. **Maintain the Lower Island barge terminal operation through completion of mining activities.**

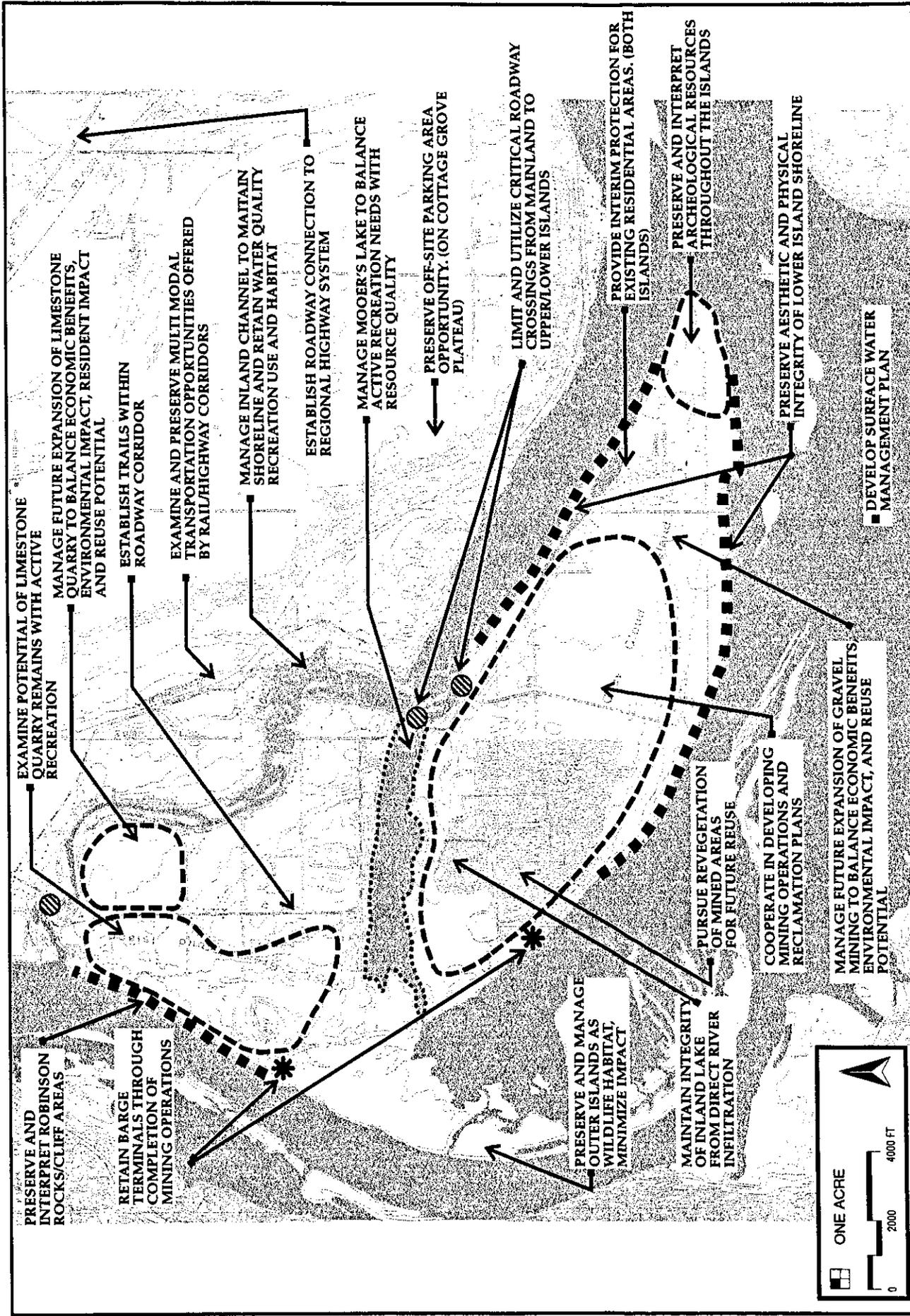


FIGURE IV-1

PARK AND OPEN SPACE PLANNING OBJECTIVES

GREY CLOUD ISLAND MASTER PLAN  
BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



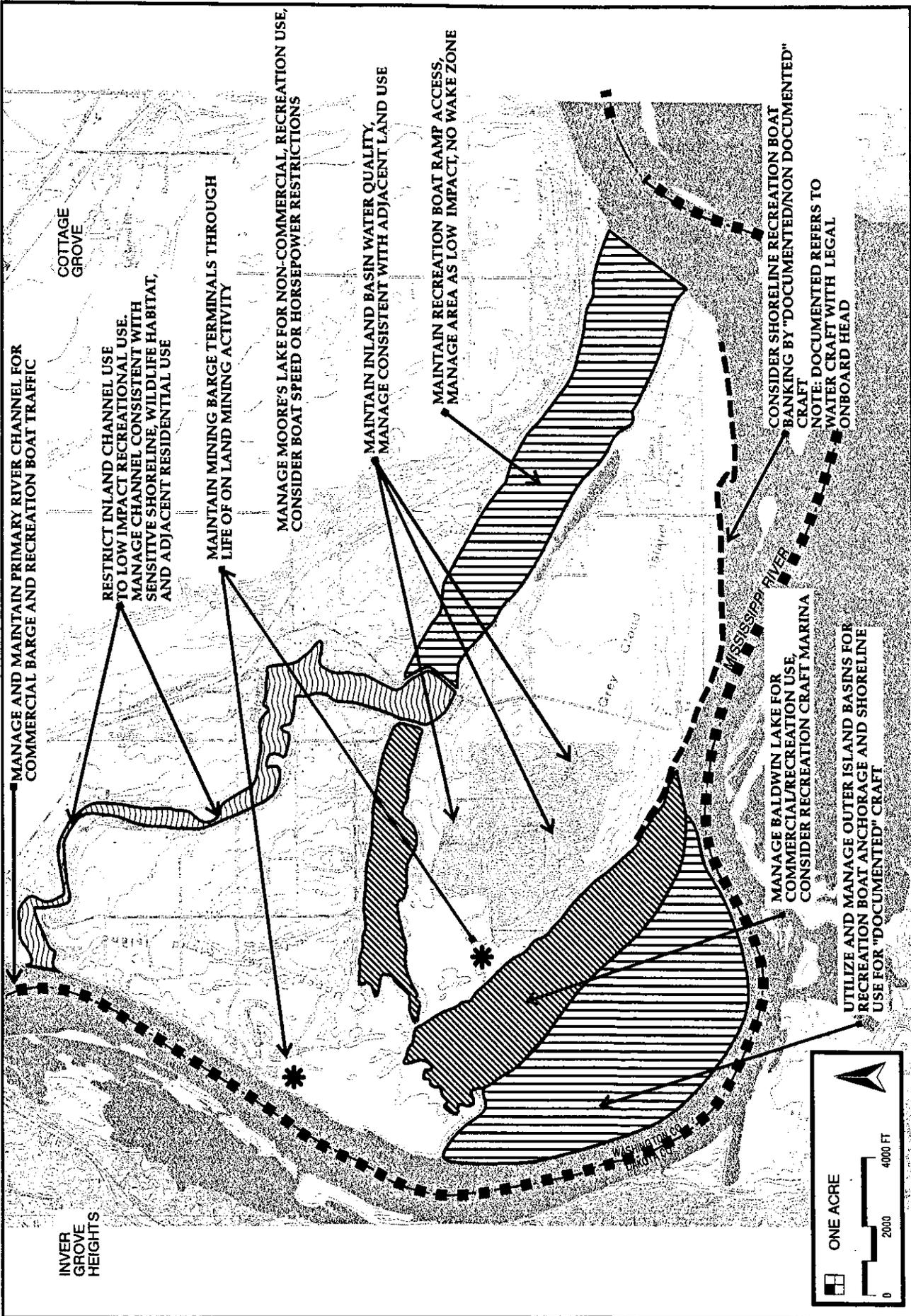
6. Preserve and interpret archeological resources throughout the Lower and Upper Islands.
7. Maintain the integrity of inland lakes to prevent potential contamination from direct river infiltration.
8. Provide interim protection for existing residential areas (both Lower and Upper Islands).
9. Limit and utilize critical roadway crossings from the mainland and connections between the Upper and Lower Islands.

#### Peripheral Areas

1. Preserve and manage outer islands as wildlife habitat and minimize impact on their physical and natural environments.
2. Develop a recreation/commercial boat routing plan as a part of a surface water management plan. This plan should consider the river's main channel area, Baldwin Lake, Mooer's Lake, and the inland channel. Planning should involve county, state, and federal agencies.
3. Preserve opportunities for off-site parking areas on the abutting Cottage Grove mainland plateau.
4. Establish logical roadway connections to the regional highway system (TH 61) and the regional park.
5. Manage the inland channel to maintain shoreline integrity, water quality, recreation use, and wildlife habitat.
6. Examine and preserve multimodal transportation opportunities offered by the mainland rail/highway corridors.

#### ***D. Surface Water Management Objectives***

Many of Grey Cloud Island's resources pertain to water bodies. Planning and management of these areas is intrinsic to the future land use and development within the islands. Figure IV-2 establishes general water management use objectives consistent with a variety of recreation and commercial uses. Flexibility in the surface water management objectives must exist given the wide variability among the potential land use alternatives. For example, more restrictive surface water management would likely exist if public ownership occurs throughout the islands. In contrast, a less restrictive water management plan may exist if minimal public ownership occurs.



**FIGURE IV-2**  
**SURFACE WATER MANAGEMENT**  
**PLANNING OBJECTIVES**



The surface water management objectives attempt to remain consistent with both the river's commercial and recreation uses. Varying restrictions would occur in the Baldwin and Mooer's Lake area as well as the inland channel due to varying degrees of commercial use, limitations on active boat traffic, and shoreline impact.

1. Manage and maintain primary river channel for commercial barge and recreation boat traffic.
2. Restrict inland channel use to low impact recreation use. Manage channel consistent with the sensitive shoreline, wildlife habitat, and adjacent residential use.
3. Maintain mining barge terminals through the life of on-land mining activity.
4. Manage Mooer's Lake for non-commercial recreation use; consider boat speed or horsepower restrictions.
5. Maintain inland basin water quality. Manage consistent with adjacent land use.
6. Maintain recreation boat ramp access. Manage area as low-impact, no-wake zone.
7. Consider recreation boat shoreline banking by "documented/non-documented" craft. Note: "documented" refers to water craft with legal onboard head (toilet).
8. Manage Baldwin lake for commercial/recreation use. Consider recreation craft marina.
9. Utilize and manage outer islands for recreation boat anchorage and shoreline use for "documented" craft.



GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

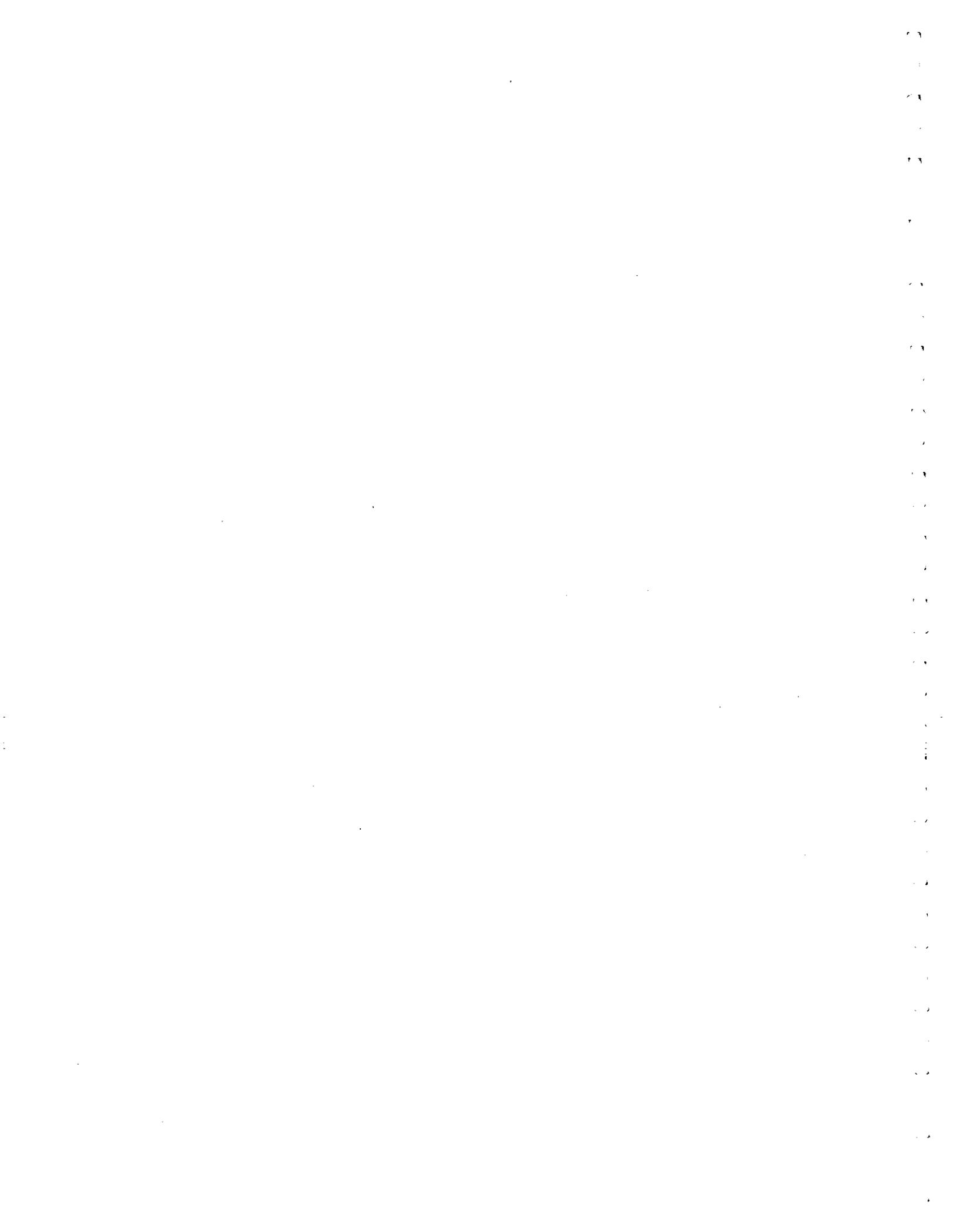
---



---

V. ALTERNATIVE USES, PARK OPTIONS,  
AND DEVELOPMENT CONCEPTS

by **BARTON-ASCHMAN ASSOCIATES, INC.** In association with Resolution, Inc.



## V. ALTERNATIVE USES, PARK OPTIONS, AND DEVELOPMENT CONCEPTS

### A. *Introduction*

Planning for Grey Cloud Island's future land use and potential park and open space development must represent a careful balance of the area's physical and cultural characteristics. In addition, variables that are subject to change and implications of other agencies' planning studies must be taken into consideration. The need and justification for park and open space development in conjunction with the planning study's objectives provide parameters and direction for Grey Cloud's future uses, park options, and development concepts.

Two principal questions must be focused upon in examining future use options. They are: 1) What activity or land uses are best matched with the study area's physical and cultural characteristics? and; 2) What amount of land should be public versus private in the future?

To examine these questions, a development concept matrix was employed that portrays a continuum of choices that contrast public and private land ownership in conjunction with active and passive uses. If passive land uses are desired, then a substantial public sector investment is likely. In contrast, if active land uses are desirable, private investment and ownership is more certain. The challenge defined by this matrix is to define the appropriate mixture of public and private ownership based upon the desired level of active and passive uses and development. As a result, discussion of potential recreation uses for Grey Cloud becomes an important consideration in determining ownership and resulting development concepts.

### B. *Potential Recreation Uses*

Potential park, open space and recreation uses for the Grey Cloud area are diverse and respond to the area's various physical and cultural characteristics. In addition, other area park facilities must be taken into consideration as previously summarized in the Needs and Justification section. As an outgrowth of the planning process, potential recreation uses were generated from citizen and technical advisory committees.

Four land use and development activity options were discussed early in the planning process as a means of understanding the study area's activity potential and its implications for facility development. The recreation activity concepts, as illustrated in Table V-1, provide for a diversity of passive versus active recreation and public versus private investment. These concepts include:

1. ***Water Based***--An active recreation concept that would capitalize upon Grey Cloud's diverse water features including the Mississippi River, lake basins, mining-induced basins, and the inland channel.

TABLE V-1  
ACTIVITY BASED OPTIONS BY PARK USE

*Use Concept Group (Use/Activity)*

**Water Based Option**

- Boat launching
- Canoe launching
- Fishing, internal lakes
- Fishing, river bank
- Fishing, troller
- Lakes, internal
- Marina
- River banking/watching
- Rowing
- Sediment trap
- Swimming beach, internal lakes
- Swimming beach, river
- Water, boat access
- Water, foot access
- Skating
- Competitive rowing facility  
(international level)

**Interpretive Based Option**

- Archeological
- Interpretive Center, archaeologic
- Interpretive Center, floating facility
- Interpretive Center, geologic
- Interpretive Center, historical river use
- Interpretive Center, mining operations
- Interpretive Center, Native American
- River history, barging

**Preservation Based Option**

- Arboretum
- Bird watching
- Camping, group
- Camping, Individual
- Camping, Primitive
- Exercise
- Hunting
- Natural, native vegetation
- Passive open space
- Picnic, flexible
- Picnic, group
- Play areas, apparatus
- Play areas, field
- Reclamation Test/Demonstration
- Trails
- Trails, biking
- Trails, hiking
- Trails, horseback riding
- Trails, interpretive
- Trails, nature
- Trails, skiing
- Trails, snowmobiles
- Wildlife habitat

**Development Based Option**

- ATV/OHV
- Conference Center
- Golf Course
- Hotel
- Learning Center
- Residential, permanent
- Residential, transient
- Water theme park

Source: Summary of exercise with the Technical and Citizens Advisory Committees. Exercise intent was to identify potential park facility uses by major activity grouping.

2. ***Preservation Based***--A passive activity concept intended to provide a wide variety of outdoor activities related to the area's physical and cultural characteristics.
3. ***Interpretive Based***--An educational activity concept intended to inform the public of the area's important resources.
4. ***Development Based***--A private or public/private investment concept intended to interface development with the area's physical, social, and cultural resources.

These land use options provide the opportunity for decision-makers and the public to weigh and contrast alternative approaches to providing land use and park planning guidelines for the Grey Cloud Island area. Given the long-term implementation of the project, the alternatives must take into consideration:

- Timing of potential acquisition
- Related development and investments
- Interim measures necessary prior to full development

The basis for land use options evolves from several common denominators. For example, the following considerations could provide direction for development schemes:

- Extent of mining and its future timing.
- The degree of public intervention based upon ownership, regulation and operation.
- The desire for preservation of existing resources.
- The amount of public versus private investment.
- The mix and composition of land uses within the study area.

Future land use alternatives must be based upon a common set of previously described underlying objectives and the overriding need for preservation of the resource base.

### ***C. Park and Open Space Development Concepts***

Concept alternatives were generated for review and consideration by decision-makers based upon identified planning objectives, those variables subject to change and potential park activities. Five concepts, 1 through 5, were initially produced for review and comment by both the citizens and technical advisory committees. Input received from the citizens advisory committee suggested the composition reflected in Concept 6. Subsequent discussion and input from the Washington County Board produced Concepts 7 and 8. A description of each concept follows. Concept graphics are found in the appendix.

1. **Local Parks Status Quo**--Public regulation is in effect to a limited extent within the Grey Cloud Island area. This option, Figure A-1 (Appendix), assumes that additional public ownership and regulation affixed to the park's master plan will not be included. Existing public ownership or parcels designated for public ownership by the Grey Cloud Township Comprehensive Plan include the Upper Island's town hall, a cemetery and a small public parcel. Cottage Grove's Comprehensive Plan for the Lower Island inland designates the channel boat access and the gravel operation for public use, the latter being a recognition of the regional plan. Assuming only local park use, the boat launch area becomes the plan element. In addition, shoreland setbacks and mining setbacks are also in place. Other regulations such as wetland and floodplain laws are in effect as a part of environmental permitting. This option assumes that no other public intervention for park and open space purposes would exist. Therefore, private ownership and development would continue to occur within both the Upper and Lower Islands. Mining within both the Upper and Lower Islands would expand consistent with public permitting. Reclamation would occur for private uses; either residential or residential-related private recreation, such as a golf course.

2. **Edge Acquisition**--A substantial component of Grey Cloud Island resources are concentrated on shoreline areas. Acquisition or regulation of the shoreline provides an opportunity to preserve the sensitive edges from both the land and water perspective, their vegetation, related wildlife habitat and many of the island's archeological/historical resources. In addition, edge acquisition would allow a trail system which loops or connects back on itself within both the Upper and Lower Islands. Interpretive facilities and trailheads could exist.

Alternative 2, Figure A-2, assumes that Lower Island edges would be acquired for public use, including a substantial portion of the island's southeast tip. Upper Island edges for acquisition would be limited to river shoreline and a parcel west of Mooer's Lake. Inland channel areas including those parcels abutting the north edge of Mooer's Park would be omitted from public ownership and use. However, a trail corridor easement allowing for a system which loops back on itself would be sought, threading through the Upper Island's residential area. Two activity nodes would exist. Opportunity for an interpretive center or trailhead could exist within the Lower Island's southeast edge. A similar facility could occur west of Mooer's Lake. Outer islands would not be acquired, but would be regulated to guide their private development consistent with habitat preservation and recreation uses.

3. **Public Ownership of the Lower Island**--This option, Figure A-3, assumes public acquisition of the entire Lower Island, the north edges of Mooer's Lake, the outer islands, and river edges of the

Upper Island. An easement for trail purposes would be sought out within the Upper Island to establish a looping trail. Public ownership of the Lower Island assumes preservation of the Island's edges and reuse of the gravel area for recreation functions compatible with the former mining area's physical characteristics. These may provide either passive or active recreation functions.

This alternative enables preservation of the study area's sensitive parcels including many of its waterfront features. The Upper Island quarry and dominant residential areas would remain intact without acquisition.

4. ***Public Ownership of the Lower Island and a Portion of the Upper Island***--Total public ownership of the Lower Island and outer islands would occur, Figure A-4. In addition, the quarry area, Mooer's Lake's northern edge, and the northern tip of the Upper Island would be acquired. Dominant residential areas of the Upper Island would be omitted and retained as private parcels.

This option assumes substantial park development for both active and passive uses. Reuse of the Lower Island gravel area would occur consistent with recreation purposes. Similarly, the Upper Island quarry's ultimate use would be for recreation purposes.

5. ***Public Ownership of Upper and Lower Grey Cloud Island***--Total public ownership of the Upper and Lower Islands as well as the outer islands would occur in this alternative. This approach, Figure A-5, enables comprehensive control and preservation of the area's resources consistent with park and open space function(s). Mining activities would occur to an extent allowed by current permits. Residential areas would be acquired on an incremental basis consistent with current owner occupancy. Uses could range from active to passive.

6. ***Upper/Lower Island Park (Preserve Upper Residential and Develop Lower Island Residential)***--Parcel acquisition within this concept, Figure A-6, would capitalize upon the upper, lower, and outer islands' resources, however, concentrated areas of existing residential development in the upper island would be preserved intact. The central portion of the lower island would be allocated for private residential development oriented toward an inland water basin produced as a by-product of gravel mining activities. This concept suggests the importance of public and private investments in preserving the resource base while allocating land for residential development. Public park and open space facilities would include a looping trail system, park activity centers, and water access. Private development could include creative residential areas.

This concept was produced based upon input obtained from the citizens advisory committee.

7. ***Lower Island Preservation***--Purchase and preservation of the lower island for park and open space purposes is suggested by this concept, Figure A-7. The upper island would remain status quo with the exception of provisions of an on-road bike trail adjacent County Road 75, a trail from County Road 75 to an overlook at Robinson's Rocks, preservation of Robinson's Rocks by local units of government and other agencies, and restricted park access between the upper and lower islands.

Park facilities would occur within the lower island. The existing gravel area would be reclaimed for public recreation use, recontouring the land and constructing water basins consistent with active recreation. Quarry expansion would be limited to inland areas without endangering shoreline setbacks. Lower island facilities would include a multiuse trail encircling the island with an interpretive center/trailhead located within the southeast island area. Outer island use would be publicly regulated and managed for wildlife habitat.

This alternative emerged from input obtained from the Washington County Board.

8. ***Lower Island and Upper Island Quarry***--The upper island's quarry area west of County Road 75 and adjacent Mooer's Lake, in addition to the lower island, would be designated for park and open space use (Figure A-8). The upper island quarry area would be reused or reclaimed for public recreation employing the resulting water basin. A park activity center/trailhead could occur adjacent Mooer's Lake and the quarry area.

The lower island would be used entirely for park and open space purposes. A looping trail, reuse of the gravel mining parcels and a natural/cultural resource center would be developed. Outer island use would be restricted and managed as wildlife habitat.

This concept emerged from input provided by the Washington County Board.

#### ***D. Alternatives Evaluation and Ranking***

Work sessions held with the Technical Advisory Committee (TAC) and Citizen's Advisory Committee (CAC) were instrumental in evaluating, ranking, and screening the concept alternatives. Committee members were provided with information on each concept explaining a gradation in land acquisition from status quo to including both upper and lower island. This approach assisted in understanding each alternative's strengths and weaknesses.

Within that context, the Committees discussed criteria for rating each alternative. The CAC, in fact, added a plan alternative which acquired the existing mining operations on both islands, the outer islands, and selected shoreline, while leaving the interiors of both islands for private use.

A rank pairing exercise was used as an objective method for assisting Committee members in rating each alternative. As a result of the comparison pairing, both committees favored a public role in acquiring and managing portions of the Grey Cloud property. Rankings were totaled and then indexed to a 1,000-point scale to normalize the number of participants in each group (refer to Table V-2). Only one alternative for each group-- Alternative 1 for the TAC and Alternative 2 for the CAC--was not the preference of any Committee member. All other alternatives were the preferred choice for one or more raters with some distribution among the alternatives. Another way of looking at preference is the number of selections that each alternative received as a percentage of total selection opportunities (refer to Table V-3). In effect, this table represents the degree of consensus on each preference or the percentage of times selected out of the total opportunities.

The results indicate a positive response to public acquisition and use of the islands. The sentiment for continuing existing housing, particularly on the upper island, was significant. Conversely, total public acquisition received notable support as well.

**TABLE V-2**  
**CONCEPT ALTERNATIVES: RANK PAIRING EXERCISE SCORES**  
 (Ranked According to CAC Scoring)

Alternative	Committee Selections	
	TAC	CAC
4. Lower/Outer/Quarry Acq.	243	239
6. Lower Perimeter/Outer/Quarry Acq.	not rated	211
3. Lower/Outer/Upper Perimeter Acq.	314	206
5. Total Regional Reserve	200	150
2. Edge Acq./Easement/Regulation	200	133
1. Local Parks, Regulations	43	61

**TABLE V-3  
CONCEPT ALTERNATIVES: PERCENT OF TIME ALTERNATIVE WAS  
SELECTED**

Alternative	Percent of Time Selected	
	TAC	CAC
1. Local Parks, Regulations	10.7%	18.3%
2. Edge Acq./Easement/Regulation	50.0%	40.0%
3. Lower/Outer/Upper Perimeter Acq.	78.6%	61.7%
4. Lower/Outer/Quarry Acq.	60.7%	71.7%
5. Total Regional Reserve	50.0%	45.0%
6. Lower Perimeter/Outer/Quarry Acq.	(not ranked)	63.3%

Presentations were made in the fall of 1993 to Grey Cloud Island Township, the City of Cottage Grove, and the Washington County Board of Commissioners. Presentations included project intent, need and justification, study area characteristics, and alternatives studied by the CAC and TAC. These meetings also provided an opportunity for local citizens and elected officials to comment on project planning.

After the Grey Cloud Township presentation, the Town Board passed a resolution in opposition to the park's development on upper and lower island. From the Town Board's perspective, the park is not affordable, it would damage the Township's integrity and it cannot be justified based upon other available parks.

Two presentations were made to City of Cottage Grove officials. In November 1993, a general presentation was made to the City Council. In February 1994, a second presentation was made to the City Council responding to concerns raised at the initial meeting. At the meeting, the Council passed a motion "to oppose Alternative 7 and any development of Lower Grey Cloud Island as a regional park." General Council concerns included:

1. Loss of tax base.
2. Impact on community service demands
3. Infrastructure needs.
4. Expenditure of public funds given competing demands.

Two workshops were held with the Washington County Board of Commissioners. In October 1993, the Board was presented project background and concept Alternatives 1 through 6. The majority of commissioners concurred with the two advisory committees' preferences. Input from the commissioners was used to formulate Alternatives 7 and 8. In February 1994, a second workshop was held to focus on concept

Alternatives 7 and 8. At that meeting, Alternative 7 emerged as the preferred concept. The Board's general reasoning included:

1. Grey Cloud Township's issues would be minimized.
2. Mississippi River and natural resource access would be retained and maximized.
3. The lower island acquisition would affect a reduced number of residents.
4. Principal lower island land owners are willing sellers pending resolution of mining operations.
5. Planning objectives for the lower island could be adhered to.
6. Outer islands would be preserved.
7. Access would be retained to Robinson's Rocks.



GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

---



---

VI. PREFERRED DEVELOPMENT  
CONCEPT

by **BARTON-ASCHMAN ASSOCIATES, INC.** In association with Resolution, Inc.



## VI. PREFERRED DEVELOPMENT CONCEPT

Park development within Grey Cloud is unlikely to occur prior to completion of mining activities. Therefore, actual park development may not occur until 2020 or beyond. This chapter provides a vision and suggests some direction as to what facilities could be located within the park area and their general location. It is likely, however, that changes in specific functions and/or location will occur prior to implementation. Certainly the regional park development concept is dependent upon additional site-specific engineering and planning prior to implementation.

### A. *Concept Overview*

Park development within Grey Cloud is likely to be limited to the lower island unless issues pertaining to upper island development can be resolved. Therefore, park development is likely to occur as a regional park with orientation toward natural resource-based active recreation.

The preferred park concept, an outgrowth of Alternative 7 (shown in greater detail on Figure VI-1) would acquire the lower island in its entirety as defined by existing shoreline edges established by the Mississippi River, the inland channel and Mooer's Lake. This area represents approximately 1,440 acres. Acquisition of this area would have limited residential displacement while maximizing public access to and interconnection with the area's water-based resources. Shiely Company's gravel mining operation is the principal physical variable within the lower island. Gravel mining activities, to be discussed later, will provide substantial direction to the park's ultimate development and the configuration of its functional areas.

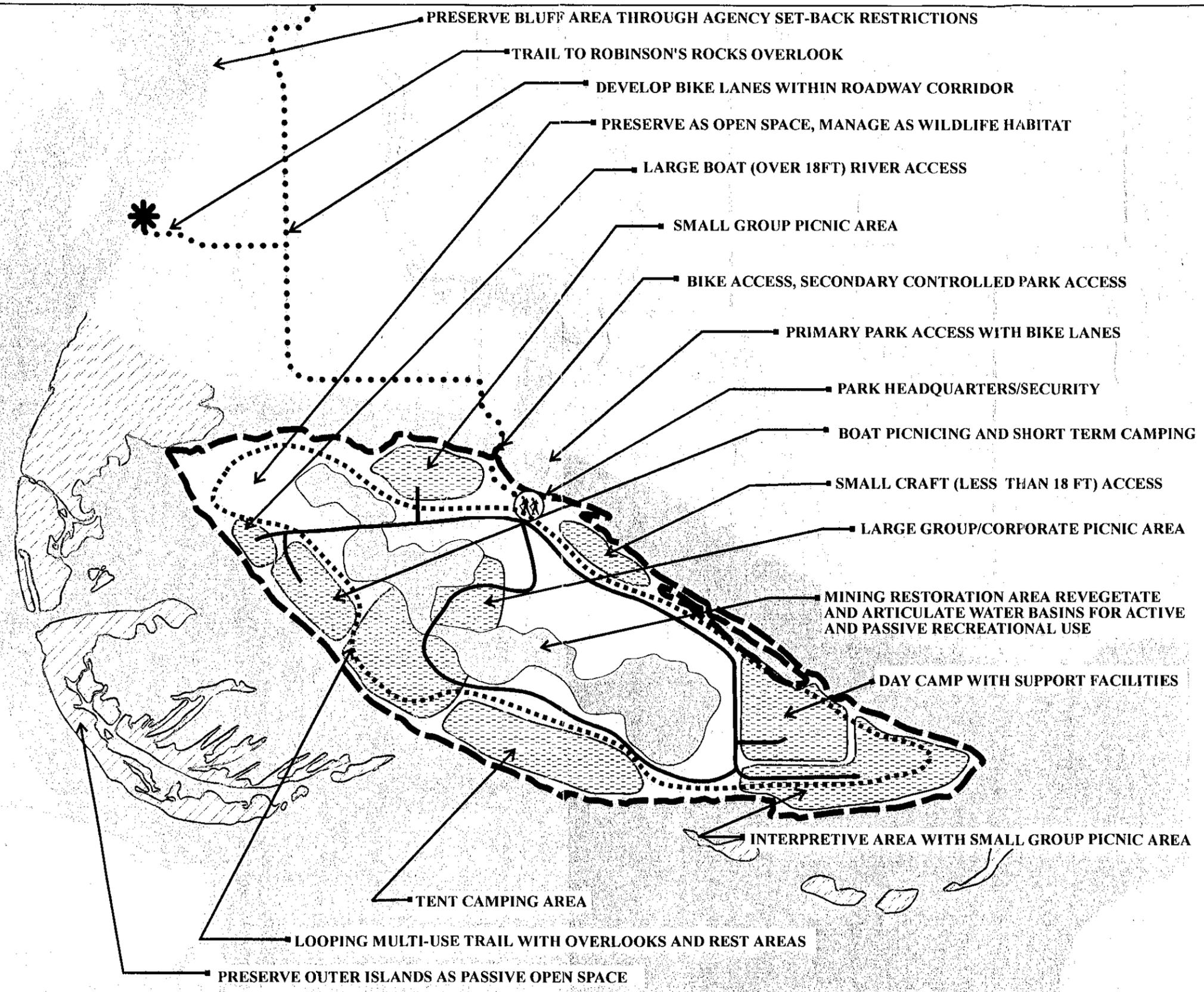
### B. *Functional Areas*

Development of the lower island for park purposes is best described by examining specific geographic and functional areas that collectively contribute to the concept's strength and ability to serve future users. A summary of each follows.

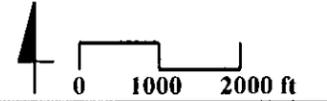
1. **Regional Access**--Vehicle access to the lower island is best obtained from State Trunk Highway 61 with local access via the Jamaica Avenue interchange. Local Cottage Grove city streets, including 100th Street and 103rd Street, lead to the lower island's bridge access via Grey Cloud Trail. This bridge crossing would serve as the principal vehicle access point to the regional park. A secondary access could occur from the upper island via Grey Cloud Island Drive. This secondary access would allow for bicycle trail connections and limited vehicle use.

Traffic congestion currently exists in the vicinity of the Jamaica Avenue interchange. Existing roadway width and street patterns pose problems during peak traffic hours. Residential development is





Detail design, programic changes and required environmental permits may alter facility locations or their layout prior to implementation.



likely to occur in the area prior to 2020 and will pose additional traffic conflicts unless street improvements are implemented. The City of Cottage Grove and Washington County will complete transportation planning and traffic engineering to accommodate residential traffic increases. Interchange modifications, street widening, and traffic control will likely be employed. Potential increased traffic volume related to the regional park should be anticipated and accommodated during neighborhood transportation planning tasks. All entrance and security activities should be located near the Grey Cloud Drive bridge crossing. Functions such as the contact station, park headquarters, information and other initial patron services should be conducted here.

2. ***Bicycle Access***--Access to the regional park by bicycle could be provided by a number of corridors. These include:
  - Upper island access via Grey Cloud Island Drive. Bicycle use from the mainland could use the County Road 75 corridor as an additional loop for recreational biking.
  - Future trails could be completed within the Burlington Northern Railroad corridor, a corridor that runs generally north-south between the Grey Cloud area and the metropolitan area.
  - Future bicycle lanes adjacent the park's proposed principal access including 100th Street and 103rd Avenue.
3. ***Day Use Functions***--A wide variety of day use activities could occur within the regional park. These include small group and large group picnicking, bicycling, river-based and lake-based water activities, interpretive areas and nature-based activities.

Small group and large group picnicking should be segregated but capitalize upon water frontages. For example, small group picnicking could interface with the south shore of Mooer's Lake and in close proximity to the park's central entrance. Large group and corporate picnicking, on the other hand, could utilize the Mississippi River shoreline or future water basins constructed as a by-product of gravel mining activities and located in the lower island's central area.

Bicycle trails should loop the lower island independent of vehicle routes. These trails will likely parallel the lower island's shoreline and include regular access to the water. Overlooks, rest areas and other support facilities should occur on a regular basis. The trail may deviate inland where conflicts with other shoreline activity areas, such as boat access and camping locations, exist.

4. **Interpretive Areas**--Natural and cultural characteristics of the lower island should be interpreted for the park patron's use and enjoyment. Topics such as the island's history, archaeology, natural resource base, mining activities, river barge traffic, and river management provide abundant topics for an interpretive center. The lower island's southeast tip would serve as an exceptional location for an interpretive center. This area has excellent views of the Mississippi River corridor, possesses mature woodland cover and may also include an opportunity for on-site archaeology. Existing roadways would likely complement future road construction in providing access to the interpretive center.

Interpretive exhibits should be of benefit to the general public as well as local school districts. Interactive site-based exhibits could capitalize upon the island's physical setting and provide an exciting educational experience.

Other remote locations in the area could complement the interpretive center. For example, field trips to the outer islands, the upper island limestone quarry and the lime kilns could easily be incorporated into interpretive plans.

5. **Boat Access**--It is likely that the regional park would provide increased boat access for small- to medium-sized river craft. Increased river access for boating must be carefully studied prior to implementation so as not to overburden the river corridor's ability to accommodate additional use. Two potential areas for craft access exist:
  - a. The existing City of Cottage Grove access to the inland channel could be retained for small boat (less than 18 feet) access. This area is a convenient location for fishing boats and similar sized vessels compatible with the inland channel's stumpages and seasonal low water.
  - b. Larger water craft, 18 feet and over, could utilize the area of the existing Shiely lower island barge terminal as an improved water access location. These boats are likely to be larger recreational craft requiring deeper water and desiring a more open water basin. This access would not provide long-term marina spaces, but rather boat drop-off and day use activities.
  - c. A canoe launch should be constructed at a location where there is easy access for users to enjoy the inland channel. In addition, portages should be constructed to allow for travel of the entire upper and lower islands.
6. **Camping**--Grey Cloud Regional Park could provide a unique experience for many forms of camping. Primitive sites, walk-in sites,

RV/vehicle camping and boat camping could be accommodated and cater to a variety of user groups.

The camping experience should capitalize upon the river shoreline and segregate the various user groups to minimize conflicts and maximize desired experiences. For example, primitive or walk-in tent-type camping could occur in the south central shoreline. This area's topography and woodland cover establish an attractive setting with an intimate river bank experience.

Vehicle camping should occur on an alternate river bank such as the west island shore. This area may also serve short-term boat camping.

7. **Central Island Area**--Shiely gravel mining activities will likely continue well into the next decade and involve the excavation of existing gravel deposits. Restoration of the site after mining could provide opportunities for substantial inland basins allowing swimming, the use of non-motorized water craft and other passive water-based activities. The exact configuration of these basins should be studied once the park's development timing and demand for these activities become more apparent. It is critical, however, for Washington County and other implementing agencies to work closely with the Shiely Company in developing standards and guidelines for gravel mining restoration. These guidelines should include:
  - a. Water basin size and shape including bottom contours, basin shape, water quality management and edge treatment.
  - b. Turf establishment including opportunities for prairie restoration, maintained turf for active areas and future turf management.
  - c. Reforestation.
  - d. Ground recontouring consistent with desired land activities.

The content and extent of the restoration activities will play a vital part in the park's success. Cooperation of the public and private sector is integral to successful restoration and future activities.

8. **Outer Islands**--While not included as a part of the area proposed to be acquired by Washington County, the outer islands are an important complement to the regional park scheme. The outer islands provide a visual context and setting for both river experiences and views from the lower island. More importantly, the outer islands provide habitat for waterfowl and other river animals. The islands should be managed to maximize their habitat potential.

Preservation and management of the islands is important and should be the responsibility of an agency other than Washington County. This need and charge may ultimately require purchase of the outer

islands. Agencies such as the Minnesota Department of Natural Resources or the United States Fish and Wildlife Service are potential candidates for involvement.

The outer islands should be managed for limited access and use. However, boat tie-ups and short-term water craft use may be compatible pending further study of animal and habitat impacts. Specific management and operation guidelines for the outer islands should be developed after further study by involved agencies and property owners.

9. **Day Camp**--Existing buildings within Camp Galilee provide a tremendous opportunity for day camp activities. The day camp may be an agency or a private vendor-managed enterprise catering to youth within the subregion and regional area. Enrolled youth would be exposed to the lower island's cultural and physical character and water-based activities. The feasibility and desirability of the day camp concept should be studied further.

#### C. **Park Architecture and Facilities**

Park building facilities must be developed to accommodate both active and passive recreational use within the regional park. Buildings, in addition to site development and related infrastructure, are needed to accommodate visitors and minimize environmental impact. A summary of the principal facilities follows:

1. **Entrance/Visitor Contact Station**--The visitor contact station's functions are to control visitor entrance, issue permits and communication with the public.
2. **Headquarters Building**--Key administrative functions and Park Manager headquarters are integrated into this building. The headquarters could occur in association with other buildings such as the entrance/visitor contact station or interpretive center.
3. **Interpretive Center/Trailhead**--Interpretive and trailhead functions may be considered as the regional park's hub area. The structure should introduce the visitor to the park reserve and provide environmental education facilities for users and school children. Trails and other natural resource-based activities should emanate from this location.
4. **Riverfront Facilities**--Small boat and medium to large boat access, swimming beaches and bathhouse/comfort station will likely be needed as a part of the riverfront activities.
5. **Picnic Facilities**--Small group and large group picnic facilities will anchor the regional park's day use activity. Picnic shelters should be located adjacent to the lake or river shoreline with convenient access to parking and rest rooms.

6. **Camping**--Camping should be developed to accommodate a wide variety of users including modern, primitive, group and boat-accessible facilities. Comfort/toilet buildings, parking and other maintenance facilities must be located in close proximity.
7. **Maintenance/Storage**--Maintenance space and equipment storage to meet operations needs should occur within a parks maintenance building. This space should accommodate equipment, bulk materials, weather-sensitive items, and maintenance-related staff.
8. **Roadways and Circulation**--Internal circulation roads should link the contact station to principal facilities with emphasis on park character. Roadway alignment should optimize the regional park's attractive natural features and discourage high traffic speeds. A circular roadway system is preferred, providing adequate access to the wide variety of activities planned for the regional park.
9. **Trails**--A hierarchy of multiple-use trails will provide for bicycle, pedestrian, interpretive, cross-country ski and other modes of travel. A looping trail system taking advantage of the lower island's multiple shoreline is desirable. Trails of varying width should be employed consistent with planned use, the physical environment in which they pass and activity functions.
10. **Robinson's Rocks Overlook**--The limestone bluff areas represented by Robinson's Rocks are an unusual geologic formation, unique within the Mississippi River corridor. Views from the elevated shelf allow visitors a scenic panorama up and down the corridor. An access from County Road 75 west to the Robinson's Rocks area, within the upper island, should occur to accommodate interested parties. Facilities should include an access road, possibly the existing Shiely Quarry drive, parking, and a safe overlook site. Interpretive signing should be provided.
11. **Park Amenities**--Support and amenity items will be necessary to accommodate regional park activities. These may include uniform signing, trail amenities, observation towers, scenic overlooks, observation decks and facilities to accommodate waterfront activities.

**D. Recreational Needs for Disabled Individuals and the Elderly**

The Metropolitan Council completed a report in 1987 entitled "The Provision of Regional Recreation Open Space Services to Disadvantaged Populations." This document analyzes the needs and significance of providing facilities for disadvantaged groups including disabled persons, racial and ethnic minorities, elderly persons, single-parent families and low income persons. The report concluded that the two groups that have the highest percentage of disadvantaged persons are; 1) those that are low income persons (essentially 100 percent are disadvantaged) and; 2) disabled persons (the greatest majority are disadvantaged due to physical and/or mental impairments).

The report made preliminary recommendations for participatory barriers and disadvantaged groups. Recommendations pertain to barriers such as economical transportation, awareness communication, programmatic facilities, safety, and architectural features. The report concluded that additional information and analysis must be conducted to understand the full needs of these disadvantaged populations and the ability to meet their needs. Since 1987, funds have been made available to regional implementing agencies to assist in meeting these needs.

Opportunity will exist within the Grey Cloud Regional Park to respond to these needs. Washington County must concentrate its efforts upon providing physical accessibility and usable program in areas that have the most potential for utilization by persons with disabilities. Keeping in mind the potential for providing the full range of recreational opportunities to all individuals, a systematic approach within the selected units will be followed in order to encourage use by disabled persons and eliminate physical barriers to this user group.

Accessibility consistent with the Americans With Disabilities Act will be provided in and between the picnic areas, campground areas and other major facilities of a specific area such as fishing, sanitation buildings and interpretive centers. Accessibility will be provided to as many unique features as possible. It is recommended that at least one accessible nature trail (approximately one mile in length) be considered a special feature, where practical and within limitations of the resources available.

All architectural features will be designed to accommodate persons with physical disabilities, such as the contact station, beach building, interpretive center, comfort stations, shelters, etc.; an objective which is consistent with other Washington County facilities. In addition, special recreation and natural resource interpretive facilities will be provided in response to disadvantaged population needs. Such features shall be a special interpretive facility for the blind and water front features that can be enjoyed by mentally impaired citizens.

Answering the recreational needs for disabled and disadvantaged individuals will be a goal for the Grey Cloud Regional Park. Detailed development plans will define features that will attract these user groups and enhance the usage of the park by these individuals.

GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

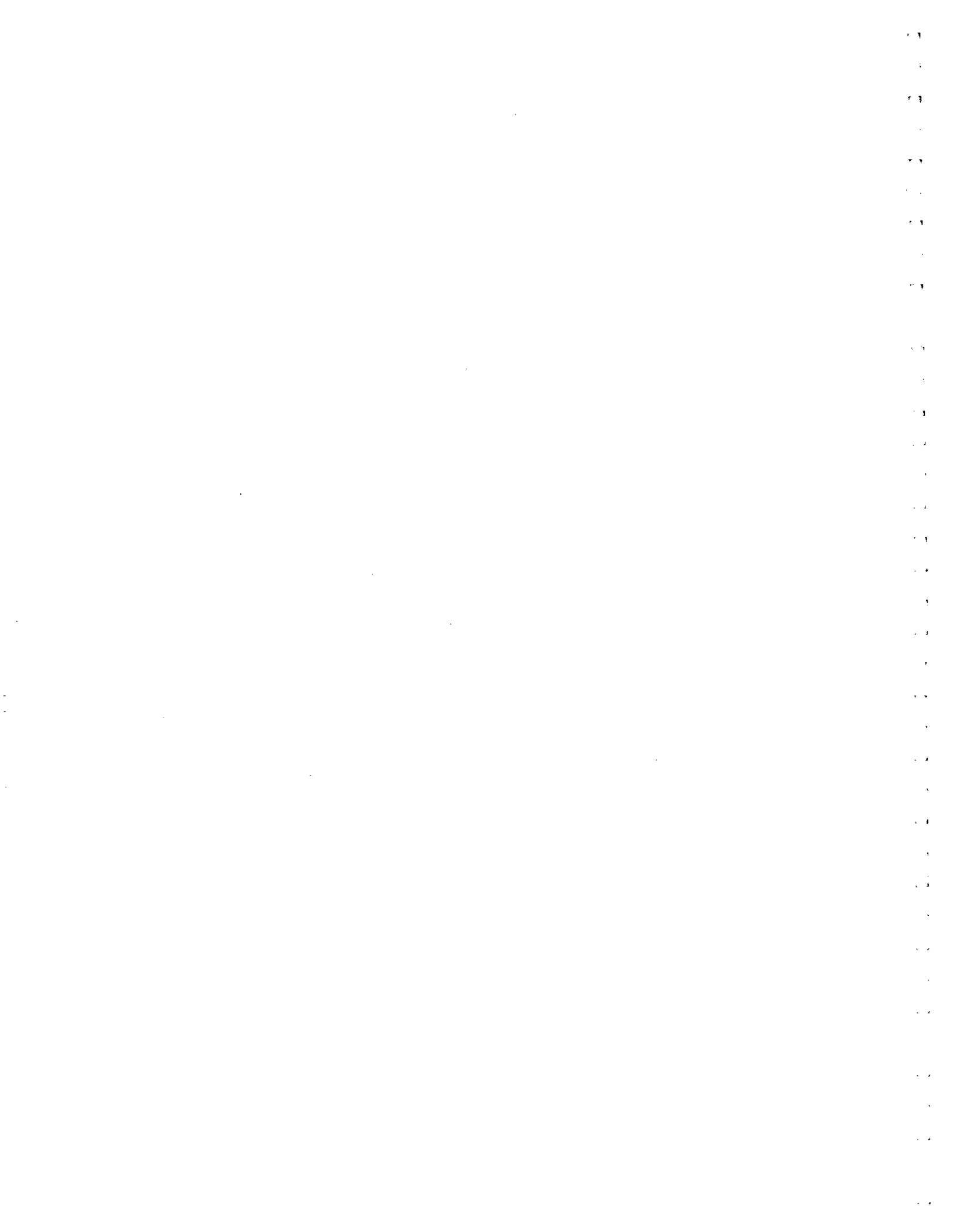
---



---

VII. ISSUES AND PLANNING  
VARIABLES

by **BARTON-ASCHMAN ASSOCIATES, INC.** in association with Resolution, Inc.



## **VII. ISSUES AND PLANNING VARIABLES**

### **A. Background**

Recommendations for the establishment of a regional park or park reserve have emanated from the objective to protect and manage the natural resource base. Public ownership and management has been the preferred alternative by the committees and the County. The park area favored by the advisory committees included the non-residential portions of the upper island, the residential shoreline on the main channel along Robinson's Rocks, the north shoreline of Mooers Lake, and all of the lower and outer islands. Within that area, attention would be given to examining joint public/private partnerships. The park area has been reduced further to include the lower and outer islands with a trail corridor in the upper island and a connection to Robinson Rocks.

There were legitimate differences on how much land, if any, should be devoted to public use, who should regulate development and protect the natural resources, and how improvements would affect tax base and municipal operating and capital budgets. Those main issues and conflicts along with a number of others were considered during the planning process. Many were resolved by the action of the Washington County Board of Commissioners to recommend that a regional park be established. A number of others will require evaluation and refinement as more information is known, time schedules are defined and responsibilities are defined. Background on these issues is also contained in Chapter III, Study Area Characteristics, IV, Planning Variables, V, Alternatives Evaluation, and IX, Public Services/Agency Involvement.

### **B. Local Government Concerns**

The primary areas of contention for not establishing a regional park included:

- The local government units were capable of protecting the natural resources.
- Displacement of people is not acceptable and, in the case of Grey Cloud Island Township, could substantially reduce its population base.
- The cost of acquisition and development would stretch resources in a time of limited fiscal resources.
- There could be a significant cost of services and facilities required to be provided by the adjoining municipalities.

The preferred plan, while opting for regional ownership and protection of the natural resources, did substantially scale back earlier recommendations to accommodate local concerns.

### **C. Acquisition and Development Costs**

Acquisition and development costs will be directly affected by the timing of the property purchase. The value of the property is in part related to current, planned and permitted land uses. A second factor is the value of mineral reserves. Their value is not known at this time, and the ability of the County to acquire those rights requires further evaluation. It is conceivable that a cooperative planning, reclamation and reuse approach with the mining company and the private landowners could substantially reduce acquisition costs at the cessation of mining activities. Once the park is established, those discussions should occur immediately.

Washington County Assessor's estimated market value for the property within the park planning boundaries, excluding mineral valuation, is about \$4,800,000. There are nine residences on the lower island in Cottage Grove and one in Grey Cloud Island Township. Again, the estimated value of riparian and mineral rights will need further exploration. If the plan assumption to continue mining until permissible levels of extraction are completed, then the value of the minerals becomes a moot point. Property acquisitions are preceded by appraisals to determine fair market value. Park construction costs are difficult to accurately project at this time due to unknown project phasing and an undefined development program. Construction costs will likely range between \$4 and \$8 million in 1994 dollars.

Appendix B, Suggested Guidelines For Acquisition, identifies an equitable procedure under which properties would be acquired during the park development process contingent upon availability of funding.

### **D. Tax Base and Tax Revenues**

The \$4.7 million dollar existing tax base represented by the land included in the preferred alternative is .67% of Cottage Grove's existing tax base. The 80 acres in Grey Cloud Island Township represent less than 2% of its market value. There are two primary tax revenue sources - gravel taxes and property taxes. Gravel taxes are related to the amount of material trucked from the plant. Over the last three years, 1990 to 1992, for which data was available, Cottage Grove averaged payments of \$10,000 annually. Total annual existing property taxes paid amount to \$185,000 with \$37,000 going to the municipalities.

If the park were not established and the Cottage Grove comprehensive plan governed the development of the lower island, approximately twenty new homes could be built. Cottage Grove 1990 median home value was \$87,100 and Grey Cloud Island Township \$101,000. Twenty new homes at \$150,000 would add \$3 million to the market value if all of the other properties stayed the same.

State Statute provides for the Metropolitan Council to pay 100% of the property taxes due for the tax year the property is acquired. This amount is prorated with the owner at the time of purchase. An additional payment equal to 180% of the property taxes due local government is paid to the local unit to allow for a transition period while other development and taxes are generated.

### ***E. Service Costs***

Property development provides increased property tax revenue, but it also requires additional property tax-based services. One way of comparing the cost of property tax-based services against tax revenues from property development is using an average cost method. This allows planners and others to determine costs for tax-supported services and to project future tax revenues based on current revenue and cost data, census information, school district projections and population growth projections.

Based on concerns raised over the loss of tax revenue if the park were approved, estimates of new home property tax revenues and tax-based service costs were used in the Grey Cloud Island Regional Park planning process. The data developed is also based upon current zoning and comprehensive plan information for the Grey Cloud Township and the City of Cottage Grove. The results of this process indicate that building new homes on land proposed for the Grey Cloud Island Regional Park would result in an annual \$15,000 property tax deficit for property tax-based services.

### ***F. County/Regional Parks and Expenditures***

Washington County has 3,652 acres in county and regional parks or 1% of its land area. Grey Cloud Island with the preferred alternative would add 1,440 more acres. State parks within the county total 2,961 acres. Regional and state parks and reserves focus on unique natural resource qualities. These qualities cannot be transported from one area to another or evenly distributed. Washington County spends approximately \$2.50 per capita on county managed parks. One-percent of the county property tax budget is devoted to parks making up 56% of the park expenditures. The remainder comes from fees and grants.

### ***G. Timing of Gravel and Limestone Mining/Processing Completion***

Mining activities, it was assumed, would continue in some regulated form for the next forty plus years. This assumption has been driven by existing resources, projected methods of mining, ongoing demand for the products, a limited supply of reasonable proximity alternative sources, existing land ownership and land lease arrangements, and projected plans. Any one of these assumptions could change with new information and evidence. For example, the extent and value of current mineral rights is unknown, but assumed to be substantial. If those rights are significantly less, then acquisition schedule assumptions would be altered.

One of the biggest variables in implementing this Master Plan is the availability of land at a reasonable expenditure. The most significant factor affecting the cost is the amount and value of the minerals located on Grey Cloud Island. The mining of those minerals with proper shoreland protection and reclamation activities could minimize any impact on the regional park or reserve potential.

The gravel and limestone mineral reserve is estimated at forty years. Given the cost of acquisition and marginal additional impact (properly managed) to future public enjoyment, mining cessation would not occur until 2030 or 2040. Therefore, the stewardship challenges will include:

- Interim uses.
- Shoreland and river protection.
- Transition for existing residences and non-mining property holdings.
- Monitoring and evaluating changing public use options for the future.

As noted previously, appropriate negotiations with mineral rights holders in conjunction with reclamation investment plans should be undertaken to establish some reasonable title transfer based on operations, reclamation responsibilities and future reuse.

#### ***H. Availability of Acquisition Funding***

Funding is impacted by the timing involved in the land acquisition, the attitude taken toward mining activities and the interests of the land owners on whose property the mining activities operate. Some interim strategies for hardship acquisitions or for properties that are proposed to be subdivided are needed. For example, the property could be acquired now and leased back to the occupants, users and mining interests. Those predetermined lease arrangements could be the basis under which a revenue bond could be sold to finance the acquisitions. The importance of entering into discussions with the regulating municipalities and the land owners is again emphasized. Those discussions would focus on determining how the land will be phased out from mining, when it might be available for park uses and to what extent technical assistance, packaging, and reclamation activities could offset future or present acquisition costs.

The primary source of funding for acquisition and development of the regional park system has been the Metropolitan Council through state legislative appropriation which has been continuously diminishing. A draft Metropolitan Council legislative package proposes utilization of metropolitan bonding authority to capture sufficient funds to move the regional park system ahead. In addition to funding acquisition payments, the Metropolitan Council reimburses the municipality in which the land is acquired for taxes lost in full the first year diminishing by 20% a year until the fifth year.

#### ***I. Mississippi River Usage and Conflicts***

An on-going concern exists regarding how much boat traffic the River can support and how that use can be regulated to minimize impacts to the environment, property owners and other river interests. The concern stems from providing "another" regional water access point at Grey Cloud Island.

The Master Plan recognizes the current complexity of river regulation jurisdictions and policing. Agency responsibilities are spelled out in that chapter. There are such numerous access points within the existing system

of rivers that it is virtually impossible to conclude that another entry node in this system at Grey Cloud, no matter how substantial, will be able to materially affect overall travel and river use. The Corps of Engineers has been engaged in discussion with the Department of Natural Resources about the location and amount of dredging spoils to be deposited. Barge fleeting areas continue to be a pressing need to support river tow activity. The MNRRA plan is being put in place with an emphasis on multiple use management of the corridor.

The matter of ultimate river use cannot be resolved on a site by site basis. A broader total river corridor assessment of that concern is required. The Master Plan does establish a water use management plan objectives that recognize the multiple water surface uses.

#### ***J. River Carrying Capacity***

Any proposal for development or protection of natural resources raises the question of how much use can be supported. This is frequently called carrying capacity and has different connotations to different people. First, the concept does not represent a fixed or calculable number that can be determined. It is a conceptual model that allows planning responses to satisfy desired social, environmental and managerial needs.

Carrying capacity determination requires an on-going process to monitor social, environmental, managerial and experiential conditions to ascertain whether or not the stated goals and objectives are being met. In the 1960's and early 1970's, managers and researchers did try to use the carrying capacity model to arrive at numbers of visitors allowed in an area to mitigate environmental damage. It produced mixed results. Since then, the focus has changed to determining the acceptable levels of change in conditions that will be allowed. A basic assumption of this model is that any increments of use causes environmental change.

Research also shows that there is an inverse relationship between amount of use and environmental damage. The majority of environmental damage occurs with the first increments of use and decreases in significance as use increases. The rule of thumb is that the first 20% of visitors cause 80% of the environmental damage and as visitors increase, the increments of damage decrease.

#### ***K. Governmental Cooperation, Governance and Transition***

Responsibility for implementation requires a unique cooperative venture. Clearly the scale and significance of the Mississippi River corridor along with a 1,440 acre Grey Cloud Island public park suggests national, state and regional significance. The added significance of the island in the habitat and refuge system for wildlife automatically engages US Fish and Wildlife and Minnesota Department of Natural Resources. Conceivably Grey Cloud could be a local, county, regional, state, or a national park. It seems appropriate that habitat management and resource management are the cornerstones for agency and jurisdictional cooperation.

A number of functional management plans (waterfowl, fisheries, barge fleeting) exist for the Mississippi River, but the Mississippi National River and Recreation Area management plan represents the first comprehensive overview. The core of the MNRRA plan is balanced use and locally based implementation. Grey Cloud Island will be locally planned and managed during at least the next several years. Cooperative arrangements are important for that transitional period.

Multi-jurisdictional public agencies will likely play an increased role in Grey Cloud Island. However, which agency or combination of agencies will ultimately be responsible is currently unclear. A specific plan for transition and ultimate responsibility needs to be formulated after adoption of the Master Plan. Governmental agencies will be responsible for:

- Public land acquisition.
- The development of any public facilities including both recreation and related infrastructure.
- Shoreland protection and management.
- Interim stewardship of acquired properties.
- Water use activity regulation and management.
- Operations and maintenance of both land and recreation facilities.
- Mining and reclamation regulation.
- Re-establishment of vegetation.
- Habitat management.
- Provision of access and transportation facilities.
- Historic and cultural resource preservation.

What jurisdiction or combination of jurisdictions is put in place will impact transitional arrangements and the ultimate approach to be taken for funding, implementation, land acquisition, development and management. These relationships are discussed more fully in the chapter IX Public Services/Agency Involvement.

#### ***L. Technical Natural Resource Studies and Evaluations***

Obviously, the master planning process does not establish the level of detail necessary in all areas to produce effective development and management plans. A series of technical natural resource studies remain as areas for additional research. Current background studies provide a fundamental view of the resources available, their context and their impact on planning. However, during the planning process many technical issues arose that may warrant additional detailed study. They include:

- Aquatic life and plant life.
- Waterfowl and other birds.
- Endangered species.
- Vegetation.
- Identification, protection, and interpretation of archeological features.

### ***M. Local Comprehensive Plan Compatibility***

The comprehensive plans were discussed and illustrated on page 24 in the Study Area Characteristics chapter. The Grey Cloud Island Township plan would need to be revised to indicate a public park designation on the north edge of the lower island. The Cottage Grove comprehensive plan depicts conservancy and residential uses for the lower island. The proposed regional park is consistent with the conservancy designation, but the residential uses will need to be revised to encompass the proposed park boundaries when they are established.

Working with the municipalities will be important. As stated previously, the short-term mining and reclamation plans and river edge protection regulations will have a significant impact on long-range plans. In part, the issue is: what means should be used to achieve mutual objectives? A framework for interim regulation would seem consistent with the positions of the participants.

### ***N. Public Water and Sewer Systems***

Grey Cloud Island is outside of the presently defined municipal urban services boundary. Both Grey Cloud Island Township and the City of Cottage Grove do not plan to extend public water and sewer to the island. Residential lot sizes follow rural development guidelines for ten acre lots.

### ***O. Transportation and Roadways***

The roadway systems were described in Chapter III. A description of regional access was provided in Chapter VI in a summary of the regional access to the island.

Regional accessibility is critical to a successful regional park. US Highway 61 is the regional arterial located three miles to the east. It operates as a four-lane divided highway with mixed interchanges and at grade traffic controlled intersections. Development activities have been delayed by capacity and operating condition problems with the facility. The City of Newport has completed a planning effort that provides a number of improvements to re-establish the mobility of the regional arterial. An implementation schedule has not been established.

Traffic to the Grey Cloud Island area will seek access through the US 61 interchanges at 80th Street and Jamaica Street. Arterial roadway connections from those interchanges to the proposed park are part of the Cottage Grove comprehensive plan. The primary entrance will be through 103rd Street and Grey Cloud Trail. The upper and lower islands are also connected to each other and to St. Paul Park through Grey Cloud Island Drive.

Cottage Grove presently has needs for upgrading the connection to Jamaica Street and 80th Street interchanges on US 61. In addition, the east-west access to the Grey Cloud Island area mentioned above presently has a constrained railroad trestle. The people of St. Paul Park are also concerned

that all traffic will be routed along residential streets and through their community into the park.

Current average daily traffic volumes on area roads are as follows:

<u>Roadway</u>	<u>Average Annual Daily Traffic</u>	<u>Average Annual Weekend Traffic</u>
US Highway 61	25,000	19,230
Hastings Avenue	4,490	700
Hadley Avenue	4,160	3,200
Grey Cloud Drive	910	3,450

Traffic counts on US 61 and Grey Cloud Drive are Average Annual Daily Traffic (AADT) based on the average of 24-hour counts collected daily for a one-year period. Average Annual Weekend Traffic was obtained by applying factors developed in a previous study relating weekend traffic volumes to AADT.

Projections of usage and resulting traffic volumes are, as yet, speculative due to the timing of the proposed park development. However, it might be useful to examine Lake Elmo Park Reserve, a surrogate benchmark given its regional park reserve status and location in Washington County. That facility in 1992 attracted 310,000 visitors with the peak hour traffic addition tabulated at 35 vehicles and average daily traffic numbering about 350 vehicles. The City of Cottage Grove's Comprehensive Plan indicates development in the area adjacent to Grey Cloud. That development will create substantially more traffic than the park. The County's traffic staff indicates that the additional traffic generated from the proposed park would be small. Even if the park were to attract 1 million visitors, the additional traffic loads would be only a small proportion of travel projected on city roads.

Therefore, the question of roadway improvements focuses on timing and cost participation. The regional park needs quality regional access including improved direct connections to the island. Particular attention needs to be paid to removing existing limitations for access -- Highway 61 upgrade, interchange improvements, 100th/103rd street improvements, railroad trestle reconstruction, and direct island access.

The Metropolitan Council must recognize and support state/regional funding of local roads that are significantly impacted by visitor use of a regional park. Adoption of this master plan must be a commitment by the Council to provide the financial support to upgrade local roads used to accommodate regional uses and needs. Washington County will assist the City of Cottage Grove, through Metropolitan Council grants, in financing the costs of upgrading the Jamaica Avenue interchange at State Trunk Highway 61, 100th Street, and 103rd Street, to include the BN railroad viaduct. Financial assistance shall be based upon studies that demonstrate the demand for increased carrying capacity driven by park development and future user demands. Further, the County will provide assistance in road maintenance to include pavement preservation, stripping, etc., where park visitors place a higher than normal wear on the road surfaces. There is also

the possibility of designation for this series of roads as a County road at which time the County would accept responsibility for upgrading the road.

***P. Law Enforcement***

Concerns have been raised by local communities on the level and quality of enforcement that will exist within the park. Also, a concern over the need and use of local police departments.

The responsibility for law enforcement will be through the Washington County Sheriff's Department. The level of park staffing and limited access to the park and water surrounding over 98 percent of the park will all greatly reduce incidents and dependence on enforcement.

Also, if enforcement was to become a problem, the Sheriff's Department should consider development of a park patrol that places a strong emphasis on presence, service, and communication.

Major incidents, whether in the park or in adjacent communities, must be dealt with on a cooperative basis.

Entrance fees levied by Washington County for park use provide for land acquisition and rehabilitation. These fees are reviewed annually by the County Board and provide for both daily and annual charges. Additional fees and charges may be levied for concessions and camping.

***D. Maintenance***

Facility maintenance will be the responsibility of the Washington County Parks Section. All site and building maintenance will be conducted by employees of the park section or under private contract. While park maintenance costs increase, Washington County and the Metropolitan Council must commit to maintaining the park's facilities, to protect its natural resources and maintain a high quality recreation experience.

***E. Staffing***

Full-time and part-time staff will be necessary to administer park programs and maintain facilities. The park's core staff should include a permanent, full-time park manager, clerk, naturalist, and two grounds/building maintenance staff.

In addition, seasonal part-time staff would include eight lifeguards, three grounds/maintenance staff, three park/gate attendants, and two park rangers.

***F. Land Stewardship***

Land stewardship essentially covers that time period between acquisition and actual development of the resource. Since that time interval involves overlap and impacts activities and funding eligibility, the definition and identification of stewardship activities, in the broad policy sense, are appropriate. Costs associated with stewardship are grant eligible while ongoing operational and maintenance costs are not.

Implementation of the regional park will occur over an extended period of time. Implementation and operation of active or passive recreational uses during that acquisition period will be focused on stewardship activities, e.g., fencing, stabilizing, and rehabilitation of natural resources, preventive deterioration of existing structures, road removal or maintenance, etc.

The park will not be developed until a sufficient cross-section of land is assembled to provide the combined active-passive experience desired. In other words, no attempt would be made to develop camping or boat launch facilities until such time that sufficient area would be assembled to support those activities and passive/interpretive experiences. It is, therefore, possible that contract private recreation services may be allowed on an interim basis with revenues devoted to operating and maintenance activities.

The strategy of staged acquisition emphasizes limitation or elimination of new development, both as a cost strategy and as a stewardship strategy. Halting the disturbance in the area becomes a positive implementation

objective. This strategy also means that many existing developed properties will continue to be in place until park development activities are initiated. Owners may opt to have their property acquired at the outset. In such case, depending upon the County's willingness to become a landlord, structure maintenance would become the County's responsibility and costs would be considered stewardship. Where purchased property is rented on an interim basis, the lease payments will be placed into a separate account and used only for capital (stewardship/acquisition/development) costs. Major expenditures will be coordinated with the Metropolitan Council and financial reports will be prepared to record all revenues and expenditures and submitted to the Council for review.

GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

---



---

IX. PUBLIC SERVICES/AGENCY  
INVOLVEMENT

by **BARTON-ASCHMAN ASSOCIATES, INC.** In association with Resolution, Inc.

## **IX. PUBLIC SERVICES/AGENCY INVOLVEMENT**

The participation and cooperation of other public agencies is important to Grey Cloud Regional Park's future development, operation, and maintenance. This section presents a concise overview of those agencies that should be a part of the park's future implementation. Figure IX-1 assists in depicting potential roles for a wide variety of local, county, state, and federal agencies.

### ***A. Washington County Public Works Department-Parks Section***

The lead implementing role for land acquisition, development, operations, and maintenance will likely be filled by the Washington County Public Works Department-Parks Section. These primary tasks would be fulfilled by Parks staff in accordance with this planning document. However, the park's size, location and complexity will most certainly involve and require commitment of other governmental agencies.

### ***B. Washington County Public Works Department-Engineering Section***

As discussed previously in this document, roadways connecting the regional park to regional highways will likely require improvement to handle park traffic. Exact improvements cannot be prescribed at this time due to the uncertain timing for park implementation and the implications of developing land use within the City of Cottage Grove. It is assumed that traffic volumes generated by private sector development within Cottage Grove will require roadway improvements prior to the park's opening. Therefore, the Engineering Section in cooperation with the Minnesota Department of Transportation and the City of Cottage Grove should monitor and plan the improvements consistent with both the community's and the regional park's future traffic needs. Roadway improvements will likely include traffic control, geometrics, roadway widening, bike lanes, viaduct widening and, potentially, bridge replacement. The significance and magnitude of these improvements will become more apparent with time.

### ***C. Federal Agencies***

Roles exist for the National Park Service, United States Fish and Wildlife Service and the Corps of Engineers regarding Grey Cloud. It is assumed that the Corps of Engineers will play an environmental regulatory role and contribute to interpretive facilities within Grey Cloud. The Fish and Wildlife Service will also contribute environmental regulation and resource interpretation. In addition, the agency could acquire outer island parcels and contribute to land stewardship. Roles and responsibilities for the National Park Service will become more apparent through river corridor planning that the Service is currently conducting. Opportunities for their involvement include funds for land acquisition, facility development, operations, facility maintenance and interpretive areas.

***D. Minnesota Department of Natural Resources***

The Metropolitan Region of the Department of Natural Resources should play a continuing role in the regional park's development and operating success. Involvement of its wildlife, waters, trails, forestry, and natural heritage divisions should occur. This relationship will:

1. Improve regional management of wildlife and the related habitat.
2. Monitor endangered plant species and endangered wildlife habitat.
3. Provide coordination of access via public waters.
4. Allow for regional coordination of trail facilities.
5. Provide additional management capabilities for reforestation and revegetation efforts.
6. Assist in the regulation and operations of boats and watercraft.
7. Actively pursue preservation and potential purchase of outer island parcels.

The DNR has maintained consistent interest in and support of the Grey Cloud Regional Park project. Interagency communication will be of mutual benefit.

***E. Local Units of Government***

Grey Cloud Island Township and the City of Cottage Grove will have supporting roles related to Grey Cloud Regional Park. Each party will likely contribute to environmental, mining, and land use regulations. In addition, the Township's assistance will be required in development of the Robinson's Rocks overlook. The City of Cottage Grove will assist through planning and development of regional access and roadway requirements. Emergency services from the City may be called upon as a part of the park's operation.

**Table IX-1  
Potential Agency Roles and Responsibilities**

Agency	Environmental Regulation	Mining Regulation	Land Regulation	Land Acquisition	Land Stewardship	Facility Development	Operations	Maintenance	Facility Interpretation
Grey Cloud Island Township	•	•	•		•				
City of Cottage Grove	•	•	•	•		•	•		
Washington County	•	•	•	•	•	•	•	•	•
Metropolitan Council	•		•	○		○			
Minnesota DNR	•			•	•	•	•	•	•
National Park Service				○		•	•	•	•
US Fish & Wildlife	•			•	•				•
Corps of Engineers	•								•

Key

- Potential Administrative Role
- Potential Funding Role
- Potential Administrative & Funding

GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

---



---

X. CITIZEN PARTICIPATION

by **BARTON-ASCHMAN ASSOCIATES, INC.** in association with Resolution, Inc.

## **X. CITIZEN PARTICIPATION**

### **A. *Grey Cloud Island Regional Plan Involvement Beginnings***

Community and citizen participation and involvement has been a major cornerstone of the Grey Cloud Island Regional Park/Reserve evaluation from the outset. The history of Grey Cloud Island as a designated component to the regional park system began in 1976 when it was included in the Metropolitan Parks and Open Space system plan. Local comprehensive plans, property owner plans, numerous historical and natural resource studies, Metropolitan Council review and Washington County park system plans all brought continuing public attention and community participation to Grey Cloud Island development plans over the years.

### **B. *Washington County Parks and Open Space System Planning***

Another component of the ongoing community involvement process has been provided by the citizen based Washington County Parks and Open Space Advisory Commission. That Commission is charged with the responsibility for evaluating park needs and regularly recommending policy and operating guidance to the Washington County Public Works Department and County Board. The Park and Open Space Advisory Commission prepared and adopted a County Recreation/Open Space System Plan based on significant community, agency and citizen input. The system plan identified options for a regional park reserve in the Grey Cloud Island area.

### **C. *Grey Cloud Island Master Plan Process Participation***

#### **1. Washington County Comprehensive Planning**

Washington County is in the process of preparing a county-wide, comprehensive land use plan. The planning process established an independent citizen/community based participation and involvement process. That ongoing process involves a number of community meetings, direct contact with political jurisdictions, and a committee framework by topical area for participants. Liaison between the efforts is provided by Washington County parks staff and citizen participants.

#### **2. Relationship to Other Planning Efforts**

This current investigation into the appropriateness, boundaries, and potential uses for a regional park or park reserve was initiated in 1993. At the same time, a number of other related and parallel efforts were also engaging residents, river users, and property owners. The most significant is the Mississippi National River and Recreation Area (MNRRA) comprehensive planning effort which includes the Grey Cloud Island area as well as other stretches of bordering land running 72 miles along the Mississippi River through the Twin Cities area. The draft plan has received wide-spread distribution and discussion. Those efforts were carefully blended into the Grey Cloud planning process and monitored during the process.

**6. Major Organization Participation**

Two major groups were active during the process. First, the Minnesota Park and Trail Council examined and commented on the desirability and feasibility of establishing a regional park/park reserve. This group also convened a number of agencies to discuss land acquisition, agency approaches with respect to property valuation and potential methods of acquisition of the property presently being offered for sale and located on the north end of the lower island. Also active in the process was the Minnesota Rowing Association which prepared and laid out a case for the need for an olympic competition level basin of water of sufficient length and surrounded by public lands for competitive rowing, training and competition.

**7. Newsletter and Other Communication Exchanges**

Information was collected, exchanged and distributed in a number of ways. Consultants and staff interviewed and collected information from agencies as well as engaged agency representatives in the committee process. Minutes and summary data were prepared and presented to both committees. Periodic news releases offered a general view of activities being undertaken. The county also initiated, prepared, and distributed four issues of a newsletter dedicated to the park planning process to a list of interested parties and to residents of the island.

**8. Local Governing Body Involvement**

Multiple presentations and discussions were conducted with the governing bodies of Cottage Grove and Grey Cloud Island Township as well as offers of direct discussion to St. Paul Park and Newport. As noted previously, the Park and Open Space Commission and County Board were periodically involved and offered comment and direction. The meetings with the Grey Cloud Island Township Board of Supervisors and the Cottage Grove City Council resulted in resolutions in opposition to the plan. The concerns of these two municipalities were itemized in Chapter V as part of the evaluation of alternatives.

**9. Selected Agency Comments**

Several agency comments were also received. The Department of Natural Resources noted that "This is a significant resource that will only increase in significance as the surrounding lands and river corridor develop, provided that the islands' open spaces and riparian areas are protected."

In another communication, the DNR noted, "There is no greater natural corridor on this continent than the Mississippi River valley and its associated tributary rivers. In the metro area we currently have an opportunity to bring a number of "missing pieces" along this

corridor under public ownership in order to protect, restore and re-connect the remnant natural communities and habitat fragments remaining in the Twin Cities Metro area. One of these "missing links" is the lands of Upper and Lower Grey Cloud Islands and the outer chain of islands that form the perimeter of Baldwin Lake."

The US Department of Interior-Fish and Wildlife Service offered the following introduction to their comments, "I am writing in support of the proposal to provide permanent protection to the Grey Cloud Island area. The Island and adjoining areas are significant for a number of reasons and merit permanent protection."

Mr. Samuel Morgan, first chairman of the Metropolitan Park Reserve Board noted the need to act in "the general public's long-term best interests."

#### **10. Public Hearing and Comment**

The process was culminated with a Washington County Board of Commissioners public meeting, public comment, action and recommendation to the Metropolitan Council.

## **XI. PUBLIC AWARENESS**

Consistent with other Washington County Regional Parks, the County will promote public awareness of the Grey Cloud Regional Park through various forms of media information and materials. Park services and programs will be advertised and promoted in brochures, flyers, newsletters, news releases, and radio announcements.

In addition, the County will provide park services and program information directly to local park and recreation agencies and school districts. Special exhibits and demonstrations promoting park use will be held at the Washington County Fair and other major events. Washington County will distribute park information to local Chambers of Commerce and other organizations that could benefit from park facilities use.

Region-wide awareness of Washington County Regional Parks will be coordinated with the Metropolitan Council. Information on Grey Cloud Regional Park would become part of the Council's Regional Parks map and other Council publications. Tours for the Council, Metropolitan Parks, and Open Space Commission and staff will be conducted on a timely basis to observe progress and create awareness of the regional park.

GREY CLOUD  
ISLAND PARK  
MASTER PLAN  
Washington County, Minnesota

---



---

APPENDIX

by **BARTON-ASCHMAN ASSOCIATES, INC.** In association with Resolution, Inc.

ISLAND PRESERVATION CONSISTENT ENVIRONMENTAL REGULATIONS IN PLACE

- \* SHORELINE
- \* FLOODPLAIN
- \* WETLANDS
- \* MINING BY PERMIT
- \* LAND USE ZONING



ONE ACRE



INVER GROVE HEIGHTS

TOWN HALL  
CEMETERY

PUBLIC OPEN SPACE

MOBBER'S LAKE

BALDWIN LAKE

PUBLIC BOAT ACCESS

COTTAGE GROVE

MISSISSIPPI RIVER

SPRING LAKE

WASHINGTON CO  
DAKOTA CO

FIGURE A-1

ALTERNATIVE 1 - STATUS QUO



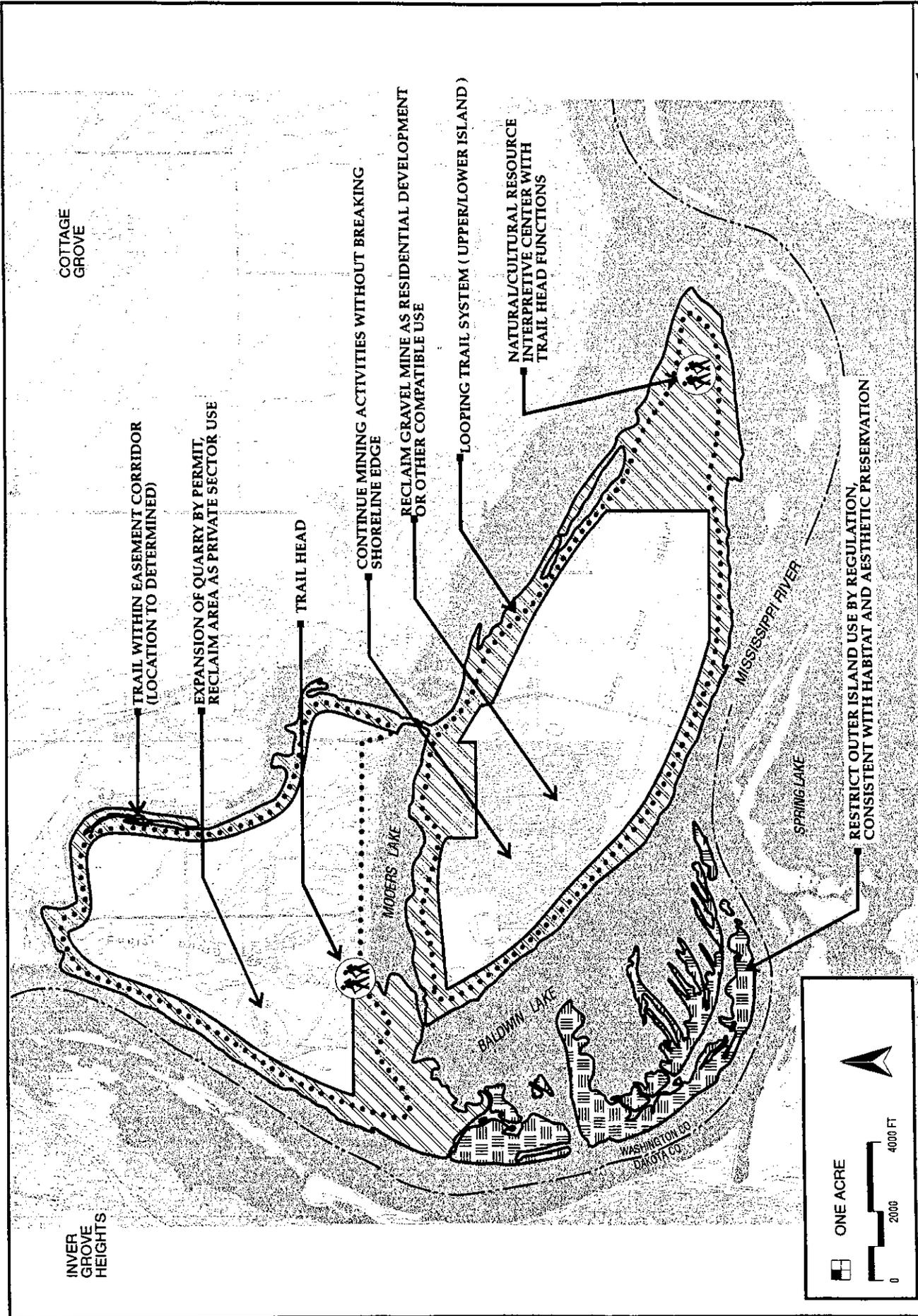


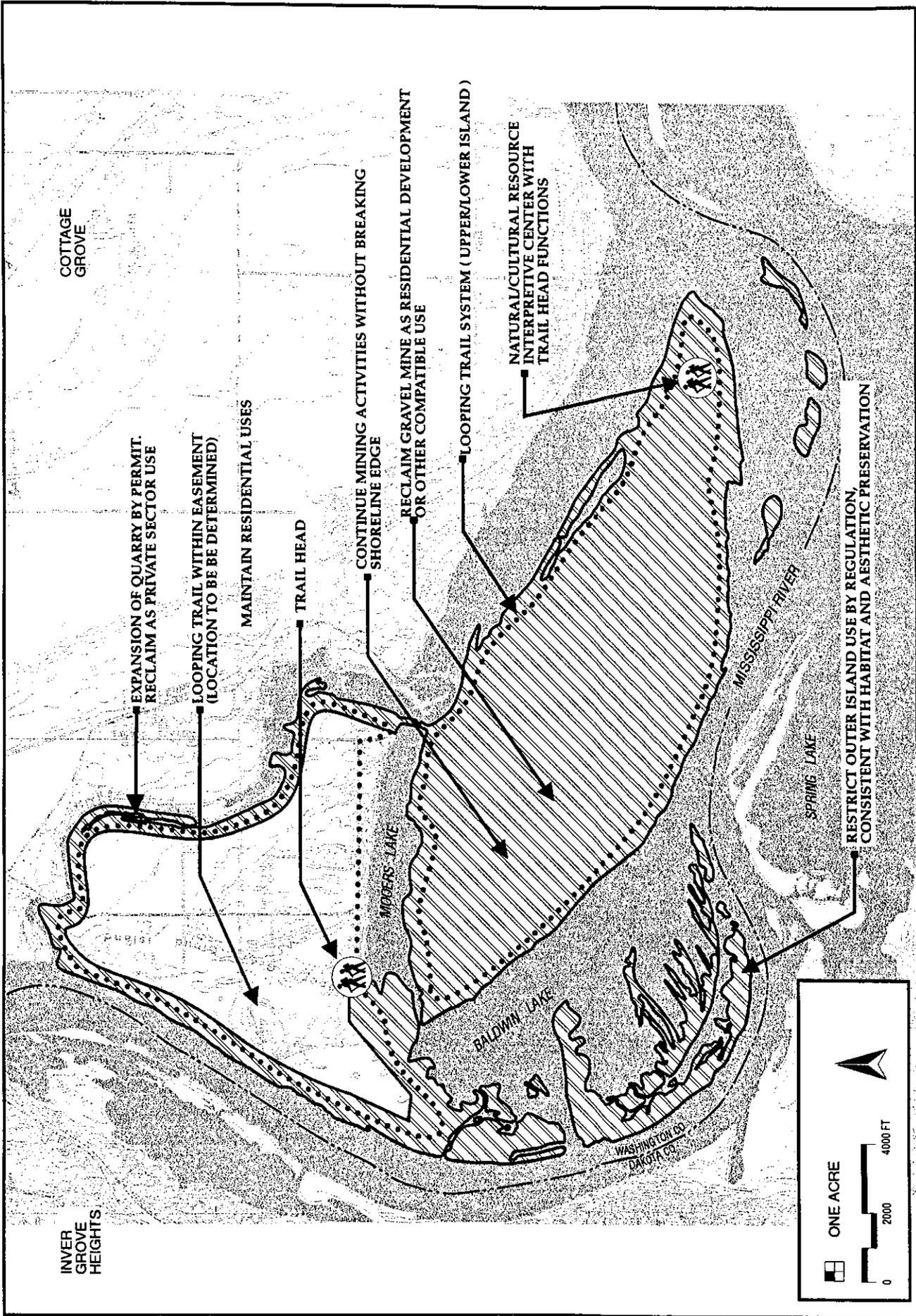
FIGURE A-2

ALTERNATIVE 2 - EDGE ACQUISITION

GREY CLOUD ISLAND MASTER PLAN

BAP/PAUL A. CRUICKSHANK ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.





COTTAGE GROVE

INVER GROVE HEIGHTS

EXPANSION OF QUARRY BY PERMIT.  
RECLAIM AS PRIVATE SECTOR USE

LOOPING TRAIL WITHIN EASEMENT  
(LOCATION TO BE DETERMINED)

MAINTAIN RESIDENTIAL USES

TRAIL HEAD

CONTINUE MINING ACTIVITIES WITHOUT BREAKING  
SHORELINE EDGE

RECLAIM GRAVEL MINE AS RESIDENTIAL DEVELOPMENT  
OR OTHER COMPATIBLE USE

LOOPING TRAIL SYSTEM (UPPER/LOWER ISLAND)

NATURAL/CULTURAL RESOURCE  
INTERPRETIVE CENTER WITH  
TRAIL HEAD FUNCTIONS

MIDDERS LAKE

BALDWIN LAKE

MISSISSIPPI RIVER

SPRING LAKE

RESTRICT OUTER ISLAND USE BY REGULATION,  
CONSISTENT WITH HABITAT AND AESTHETIC PRESERVATION

ONE ACRE

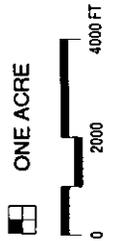


FIGURE A-3

ALTERNATIVE 3 - PUBLIC OWNERSHIP  
OF THE LOWER ISLAND

GREY CLOUD ISLAND MASTER PLAN  
BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



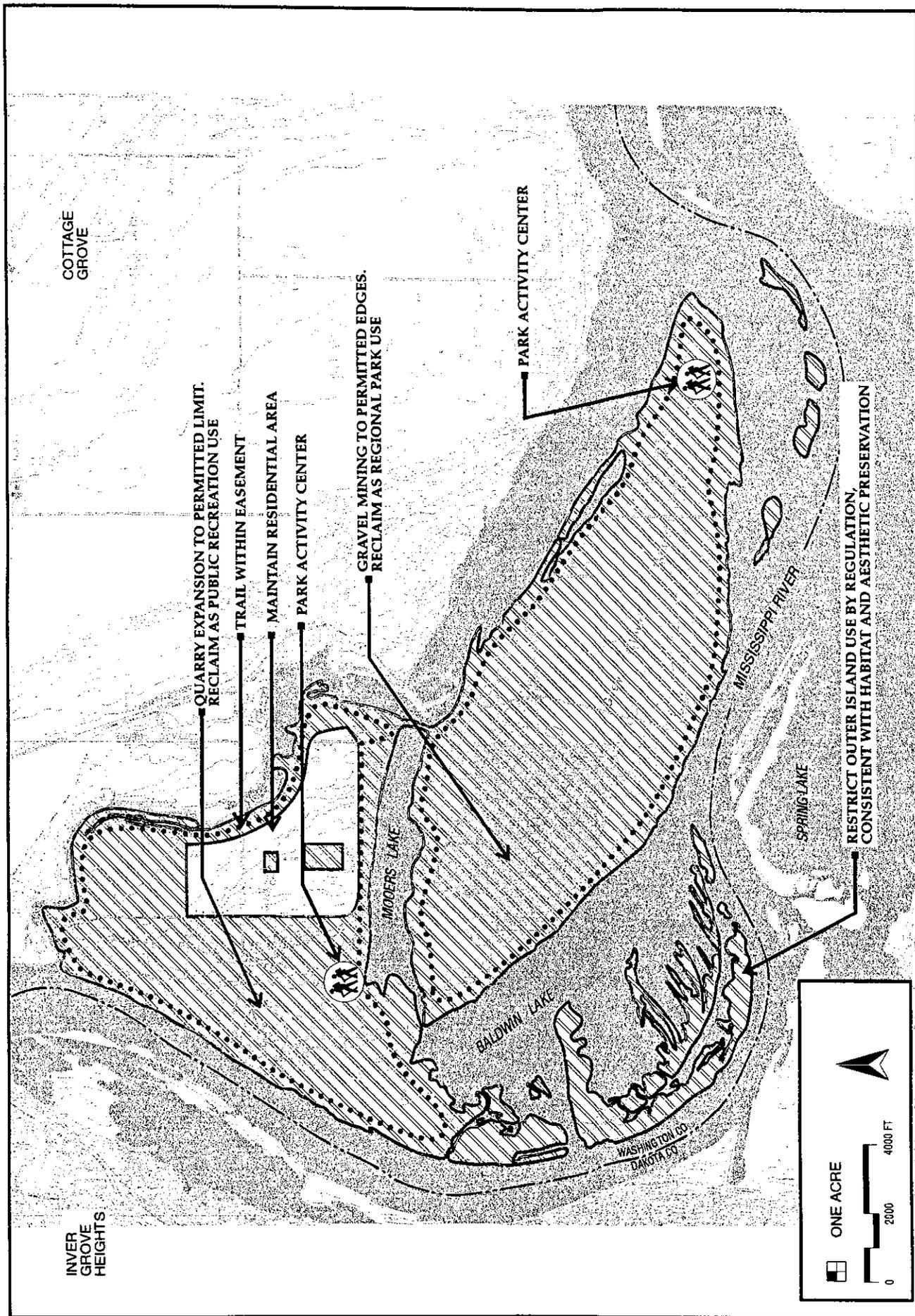


FIGURE A-4

ALTERNATIVE 4 - PUBLIC OWNERSHIP  
OF THE LOWER ISLAND AND A PORTION  
OF THE UPPER ISLAND

**GREY CLOUD ISLAND MASTER PLAN**  
BARTON-BISHOPMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.



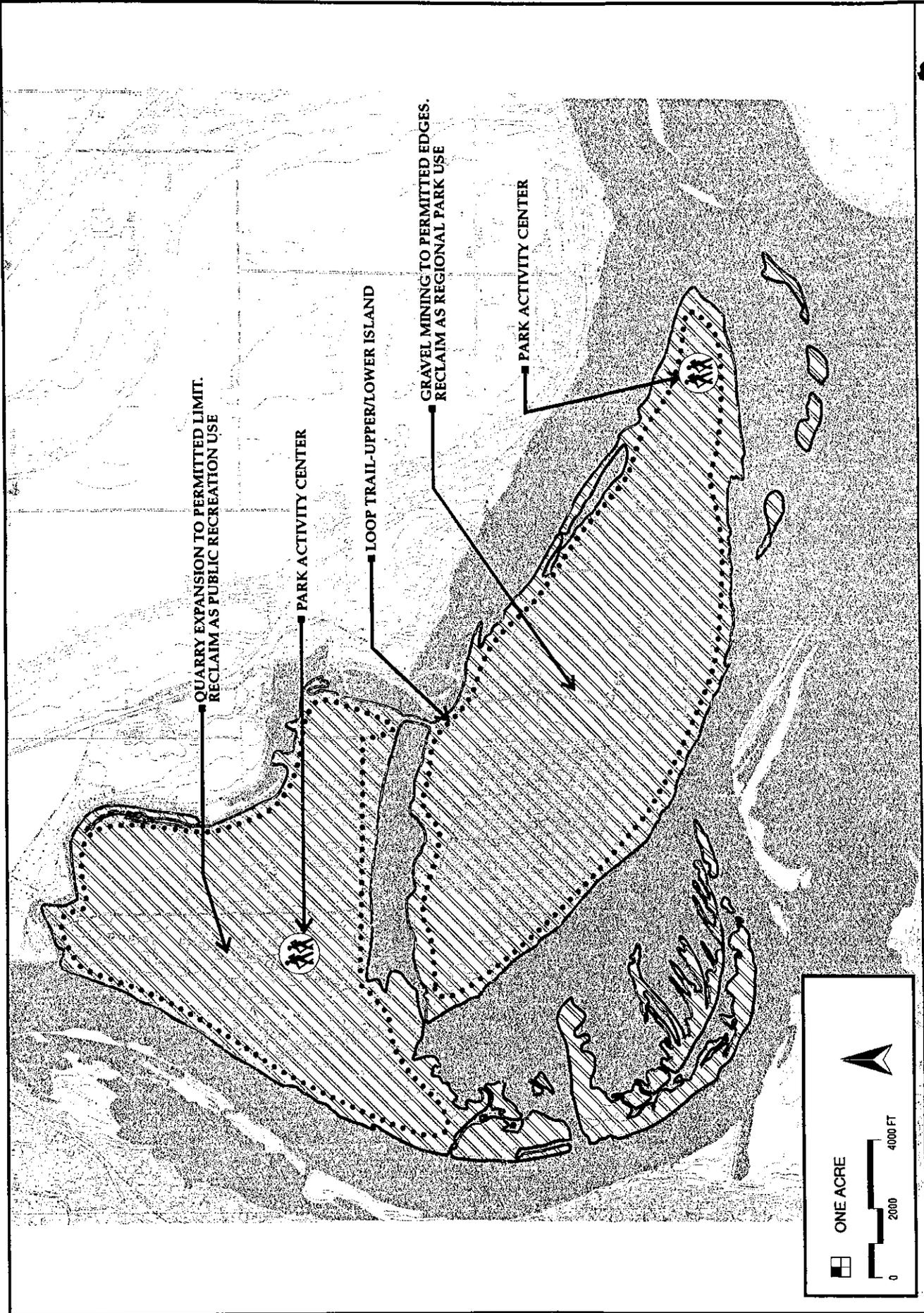
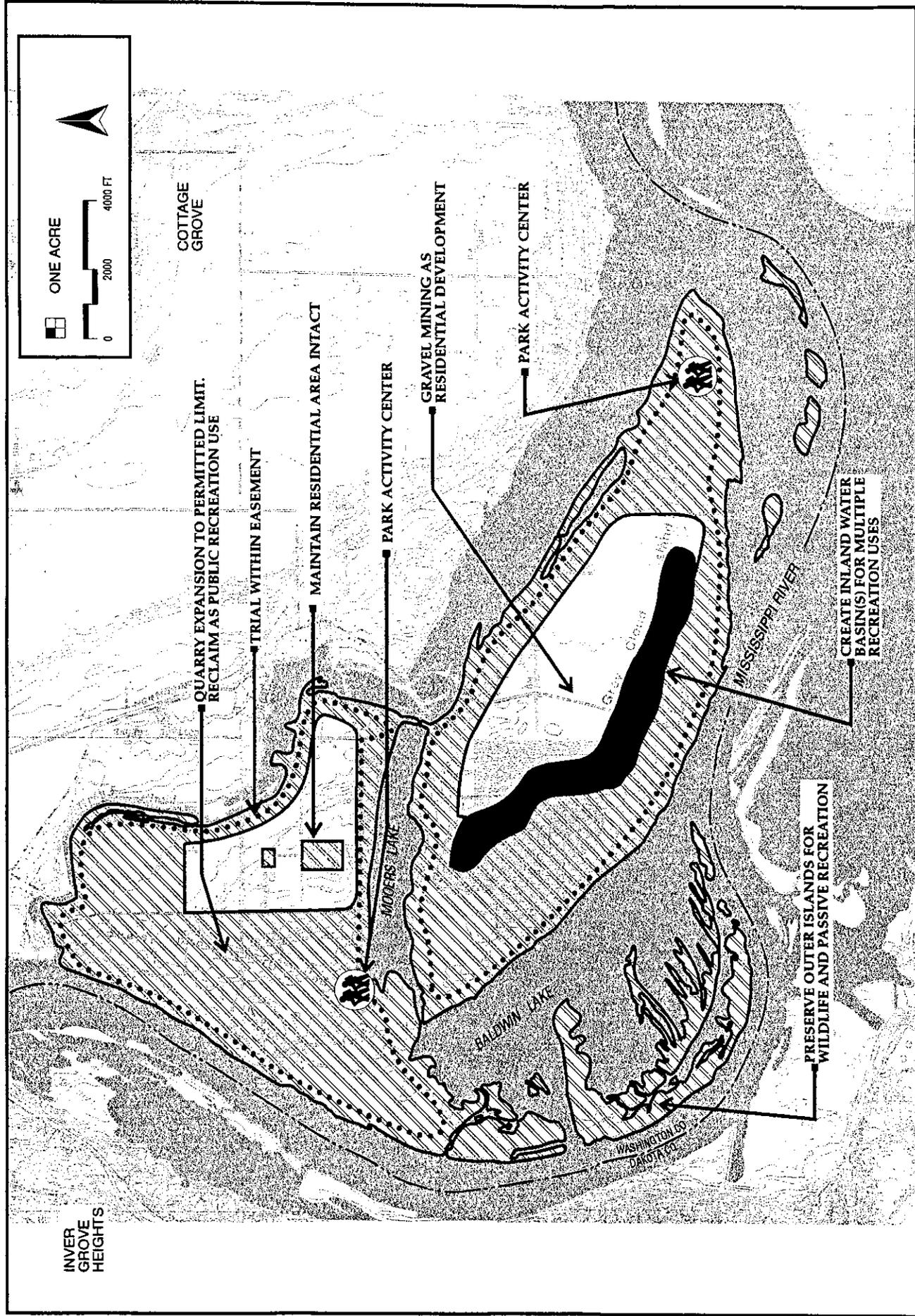


FIGURE A-5

ALTERNATIVE 5 PUBLIC OWNERSHIP  
 OF THE UPPER AND LOWER ISLAND

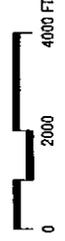
GREY CLOUD ISLAND MASTER PLAN  
 BARTON-ASCHMAN ASSOCIATES, INC. IN ASSOCIATION WITH RESOLUTION, INC.





INVER GROVE HEIGHTS

ONE ACRE



COTTAGE GROVE

QUARRY EXPANSION TO PERMITTED LIMIT. RECLAIM AS PUBLIC RECREATION USE

TRIAL WITHIN EASEMENT

MAINTAIN RESIDENTIAL AREA INTACT

PARK ACTIVITY CENTER

GRAVEL MINING AS RESIDENTIAL DEVELOPMENT

PARK ACTIVITY CENTER

PRESERVE OUTER ISLANDS FOR WILDLIFE AND PASSIVE RECREATION

CREATE INLAND WATER BASIN(S) FOR MULTIPLE RECREATION USES

MODERS LAKE

BALDWIN LAKE

MISSISSIPPI RIVER

WASHINGTON CO  
DAKOTA SD

FIGURE A-6

ALTERNATIVE 6 - UPPER/LOWER ISLAND



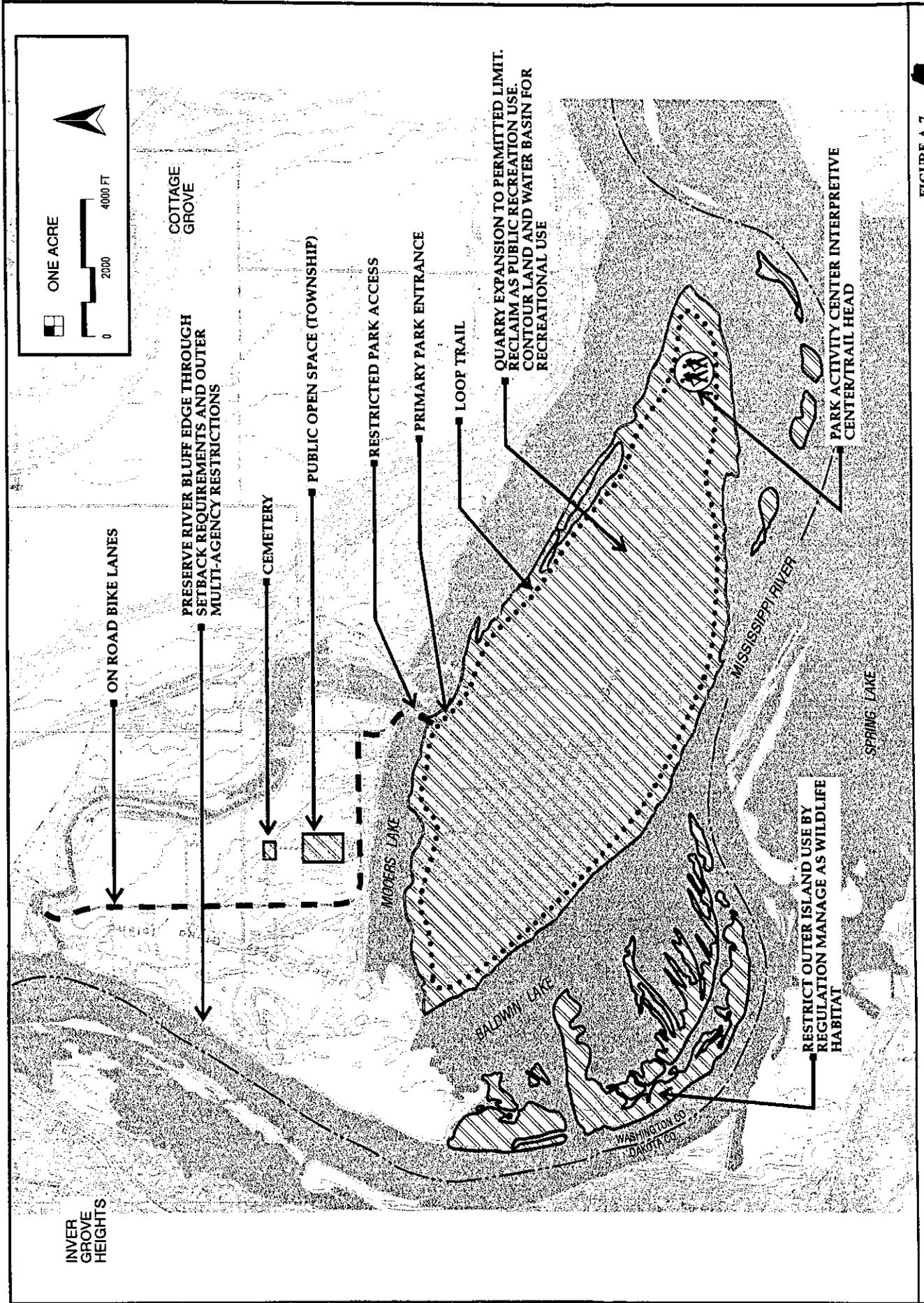
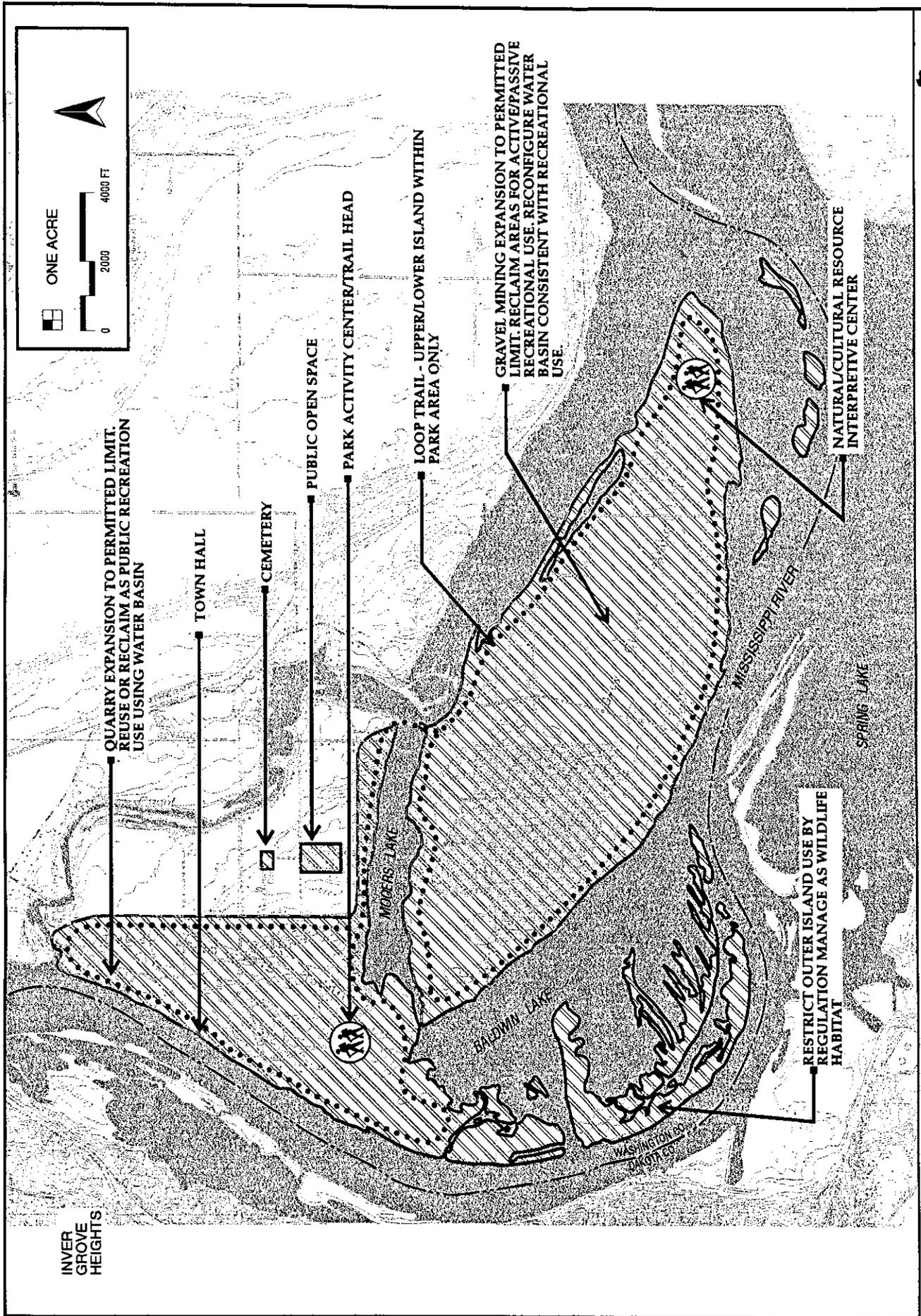


FIGURE A-7

ALTERNATIVE 7 - LOWER ISLAND PRESERVATION





ONE ACRE



INVER GROVE HEIGHTS

QUARRY EXPANSION TO PERMITTED LIMIT. REUSE OR RECLAIM AS PUBLIC RECREATION USE USING WATER BASIN

TOWN HALL

CEMETERY

PUBLIC OPEN SPACE

PARK ACTIVITY CENTER/TRAIL HEAD

LOOP TRAIL - UPPER/LOWER ISLAND WITHIN PARK AREA ONLY

GRAVEL MINING EXPANSION TO PERMITTED LIMIT. RECLAIM AREAS FOR ACTIVE/PASSIVE RECREATIONAL USE. RECONFIGURE WATER BASIN CONSISTENT WITH RECREATIONAL USE.

NATURAL/CULTURAL RESOURCE INTERPRETIVE CENTER

MISSISSIPPI RIVER

SPRING LAKE

RESTRICT OUTER ISLAND USE BY REGULATION. MANAGE AS WILDLIFE HABITAT

RODGERS LAKE

BALDWIN LAKE

WASHINGTON BOAT LANDING

FIGURE A-8

ALTERNATIVE 8 - LOWER ISLAND AND UPPER ISLAND QUARRY



## **APPENDIX B SUGGESTED GUIDELINES**

### **(Taken from Big Marine Park Reserve Guidelines) ACQUISITION**

The extent to which the guidelines can be followed is dependent upon availability of funding. The guidelines will help to equitably select properties for purchase on a priority basis. The selection process has been organized into three phases. Properties falling into Phase I would receive the highest priority and would be followed by Phase II and then Phase III.

#### **Phase I**

Purchase property from willing sellers if the need to sell exists due to:

1. Settle a probate estate.
2. Unemployed and must relocate to find employment.
3. No longer financially able to maintain or hold the property.
4. Mortgage on the property is being foreclosed.
5. Required to relocate due to a job transfer.
6. Advanced age, or debilitating illness, injury, or other long-term handicap.

#### **Phase II**

Purchase properties from willing sellers if:

1. Development/redevelopment of property is evident.
2. Sale by the property owner is eminent.
3. Subdivision of the property is planned.
4. Seller has a replacement property available to purchase.
5. Park activities cause a negative situation to the land owner.

#### **Phase III**

Purchase property if the need exists to:

1. Complete logical management unit.
2. Initiate needed protection or preservation activities.
3. Enable activation of public use and enjoyment.
4. Minimize development detrimental to the park:
  - A. Land development threshold:
    1. Approval of subdivision of land (plat approval) has been obtained; OR
    2. Investment in subdivision infrastructure is approved.
  - B. New home development threshold: No new home construction.
  - C. Existing homestead improvement threshold: If planned improvements adds value beyond the reasonable use, needs, and enjoyment of the property owner.
  - D. Accessory buildings improvements threshold: Reviewed and approved on a "case by case" basis, but in most cases, accessory buildings would be allowed if meeting zoning requirements.
5. Minimize future cost increases.
  - Same as 4 above, A through D.

**OTHERS FACTORS TO BE CONSIDERED: (Willing Sellers)**

Vacant property over homestead property.  
Large contiguous parcels over small parcels.

**SUGGESTED GUIDELINES  
DISPOSITION OF HOMES**

**TERMS OF UNDERSTANDING: (GUIDELINES)**

Homes shall be purchased to meet the objectives of Grey Cloud Island Regional Park and shall be rented on an interim basis only.

**FACTORS TO CONSIDER PRIOR TO RENTING A HOME:**

1. To immediately remove the home serves no useful purpose.
2. No present need or advantage to restore the land to natural conditions.
3. The home negatively impacts park usage.
4. The home delays development.
5. A rented home provides a presence of security.
6. Rental income would benefit acquisition development and steward activities (but shall not delay implementation of the master plan).
7. The home shall not require any major capital expenditures.

**FACTORS TO CONSIDER FOR REMOVING AN EXISTING RENTAL HOME:**

1. The home negatively impacts park development.
2. The home negatively impacts park usage.
3. Land restoration is scheduled.
4. Represents a visual "eye-sore".
5. Continued maintenance and repair costs.
6. Major improvements required or anticipated that extend long-term life of house (roof, furnace, well, septic system, windows).
7. Excessive use of energy for heating, etc.
8. A target of continued vandalism.

## **APPENDIX C CONDEMNATION AND RELOCATION BENEFITS**

### **Condemnation**

Condemnation is the process by which a government body acquires, through the court system, private property for public purposes. This process is achieved by a progression of steps:

1. The governmental body (in this case, Washington County) passes a resolution authorizing the condemnation. A petition is filed with District Court naming the County as petitioner, and those having an interest in the property as respondents. Normally, the County does not acquire possession until paragraph 7 has been completed. In those situations where title and possession is needed quickly, the County can serve notice along with the petition that title and possession will be acquired at the expiration of 90 days upon payment of the amount of the County's appraisal of value to the landowners. This procedure is known as "quick take" and it does not deprive the owner of his ability to appeal the legality of the taking or the amount of damages.
2. A court hearing is held to determine whether the condemnation is in the public interest.
3. Once that determination is made, the court appoints three people, referred to as commissioners, knowledgeable in real estate, to determine compensation (damages) to the land owners.
4. These three individuals (commissioners) hold a hearing at which both petitioner and respondents have the opportunity to present evidence as to damages. Both sides may be represented by attorneys at this hearing, and during any other stage in the condemnation process. Real estate appraisers usually offer testimony as to the amount of damages.
5. After the commissioners determine damages, they file their damage award with the District Court.
6. Both petitioner and respondent may appeal the commissioners award. If appealed, the question of damages is determined through a trial.
7. Once a final determination of damages has been made through either the commissioner's hearing or at the conclusion of a trial, the petitioner is obligated to pay the amount awarded as damages to the respondent. Unless the "quick take" procedure mentioned in paragraph 1 above is utilized, title and possession of the property pass to the petitioner.

Each side is responsible for its own expenses, including attorney's fees, except that the petitioner may be required to pay a portion of respondent's witness fees.

There are circumstances in which the County and the property owner agree upon the amount of damages, but in order to obtain tax benefits, the owner must go through condemnation proceedings. Friendly condemnation is the process whereby the County acquires the property at a previously agreed-upon price to give the property owner favorable tax treatment. Forced condemnation is when there is no such prior agreement between the County and the property owner as to the amount of damages. In most condemnation cases, the owner may postpone paying federal capital gains taxes if he/she reinvests the proceeds in a similar property within a certain time period.

### Relocation Benefits

When the acquired property constitutes an individual's residence, farm, or business, the petitioner is required to offer certain relocation benefits, usually separate from the condemnation award. These same benefits are available to "willing sellers".

In the case of a displaced homeowner, he/she can receive either a moving expense allowance for actual moving or related expenses, or a fixed payment to cover moving expenses. The homeowner may also be eligible for replacement housing payments, a rental assistance payment or down payment assistance. An owner cannot be forced to move unless the petitioner has provided opportunities to move to comparable replacement housing that is decent, safe, sanitary, and affordable.

Information about suitable replacement housing will be provided by the petitioner, and all housing will be inspected to ensure that it meets established standards. Displaced homeowners are also entitled to assistance for preparing claim forms for relocation payments.

Displaced renters will receive the same kind of moving expense payment as homeowners. They may also be eligible to receive a payment to assist them with renting or buying replacement housing, and referrals to comparable replacement housing. Other help to minimize the impact of moving includes the inspection of replacement housing, and assistance with claim form preparation for relocation payments.

In the cases where the acquired property constitutes a farm or a business, the owner is eligible for actual moving expenses, or a fixed payment for moving expenses. The owner may receive information about the availability of suitable replacement locations for the farm or business, as well as assistance to re-establish location and minimize the impact of the move.

### Relocation Payments

A claim for reimbursement must be filed for affected individuals. The petitioner is required to pay promptly after an acceptable claim is filed. An individual has the right to appeal the petitioner's action:

- If he/she believes that opportunities for relocation to suitable replacement housing have not been provided.
- If he/she disagrees with the amount of the relocation payment, or the decision to pay a relocation payment.

**APPENDIX D  
GREY CLOUD PARK RESERVE MASTER PLAN BIBLIOGRAPHY**

List of existing references and key contacts:

**REFERENCES\***

<u>Upper Grey Cloud Island Biological Survey</u>	Saunders 1982
<u>Upper Grey Cloud Island Replanting Plan</u>	Saunders 1983
<u>Lower Grey Cloud Island Biological Survey</u>	Saunders 1981
<u>Lower Grey Cloud Island Replanting Plan</u>	Saunders 1983
<u>Grey Cloud Island Reclamation Report</u>	1975
<u>Examination of the Upper Grey Cloud Island Wooded Areas</u>	Kaufert 1973 (Experience, Inc.)
<u>Grey Cloud, An Archaeological Approach</u>	MN Historical Society 1972
<u>Larson Plant Planning Study</u> reclamation plan for the upper island	Setter, Leach, Lindstrom 1972
<u>Industrial Minerals in Minnesota</u> status report on sand, gravel	DNR 1979

**NEWSLETTERS**

First Issue, June 1993  
Second Issue, September 1993  
Third Issue, December 1993  
Fourth Issue, February 1994

**SLIDES**

Slides were taken fall 1992, both on the ground and from the air and are on file.

**VIDEO**

To be done spring and summer 1995.

\*Additional or more recent studies may exist.