COASTAL ZONE
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HT393, M6M56 1977
Coastal Zone Management Program.

MINNESOTA COASTAL ZONE MANAGEMENT PROGRAM

CZIC COLLECTION

first draft for public review August 31, 1977

COASTAL ZONE MANAGEMENT

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TO THE READER:

This document represents the first draft of the Coastal Zone Management Plan. It is a distillation of the various research studies, staff papers and PAC decisions made over the last three years. This is the first time that recommendations pertaining to the various elements of the CZM Program have been assembled under one cover. The relationship between the program elements can be more easily seen in this format. It is by no means the final plan and it will undergo an intensive review before being finalized.

1. This draft will reach you in early September. You will have until September 30th to review the document and submit written comments to CZM Staff.

2. Staff will compile all comments and the Policy Advisory Committee will meet during the first half of October to discuss them and make modifications to this draft.

3. Staff will assemble a new draft incorporating PAC's recommendations and distribute it around the end of October. Notices of public hearings on the North Shore will be placed in local newspapers at this time.

4. The hearings will be held during December to allow all interested parties an opportunity to comment on the plan.

5. Staff will compile the public hearing comments and PAC will meet in late December or early January to review them. PAC will determine what changes are to be made and approve a final CZM plan for submission to the Governor.

6. The Governor will review the plan and if he approves, sends it to the federal Office of Coastal Zone Management (OCZM) in Washington.

7. Federal agencies will review and comment on the plan. Comments will be reviewed by OCZM and PAC to determine if changes to the plan are necessary. Once OCZM approves a plan satisfactory to PAC, Minnesota will begin implementing the Plan recommendations and become eligible for federal implementation funds. These funds will be distributed among cities, counties, state agencies and others who have a role in implementing the plan.

8. The activities of all levels of government - local, state and federal - will be monitored to make sure they are consistent with the CZM Plan.

9. If there is a need to change the plan, a procedure has been developed for this to be done. Thus, the CZM plan can remain an up-to-date guide for all to follow.

Written comments on this draft should be sent to:

Roger W. Williams
State Planning Agency
550 Cedar Street
Room 100
St. Paul, MN 55101

Minnesota Coastal Zone Management Program

CZIC COLLECTION

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Introduction

COASTAL ZONE MANAGEMENT

INTRODUCTION

Minnesota's North Shore is a special place, deserving special attention. It is a high amenity area due to the abundance of natural resources ~~there~~. The combined effects of lush vegetation, free running streams, abundant wildlife, diverse topographic relief adjacent to the largest fresh water lake in the world proves to be a unique attraction to tourists and a desirable setting in which to live.

The North Shore is home for more than 112,000 residents. The density of people and development as well as the competition for land is greater within the narrow corridor adjacent to Lake Superior than in many other parts of the coastal counties. Trunk Highway 61 bisects this corridor for its entire length and serves as a major access for development. The highway is an international route that links the 19 coastal communities ranging in population from over 100,000 to less than 100. These communities, together with five organized townships and three county governments are all concerned with their individual vitality and ability to attract desirable residential, commercial and, in some cases, industrial development. In addition, several state and federal agencies carry out or regulate various activities which include both development and land and resource management. The questions of what kind of development is desired, how much, where or when this development should be accommodated are not always adequately addressed or addressed in an integrated manner by state, federal and local governments.

separate issue paragraph

Both tourists and residents have perceptions of what the North Shore should be like and both exert pressures on the area which can create conflicts or problems. Generally, North Shore issues and problems can be categorized into three major areas:

management of physical development,
management of natural resources, and
management of environmental quality.

If any one of these areas is not properly managed, the potential for degradation in the other two increases. Fortunately, the Coastal Zone Program has given residents and visitors to the North Shore the

opportunity to participate in developing a management program which will address each one of these areas. Given that the natural resources of the area have historically been the major attraction to the North Shore, and will undoubtedly remain so in the future, it is important that the area's resources are used to their potential without waste or needless destruction and that physical development be allowed to expand with minimum feasible alteration of the Shore's natural beauty. Harmonizing existing local, regional, state and federal programs for guiding land and water activities can greatly enhance the possibility that the North Shore will always remain a beautiful place to visit as well as a healthy place to live and work.

The Federal Coastal Zone Management Act

Man has always been attracted to water, sometimes out of necessity and sometimes out of design. However, after 200 years of seeking out such areas, the signs of neglect and abuse are evident. During the 1960's two major studies were undertaken on a federal level which focused on development problems along our nation's coast. These studies were the Commission on Marine Science, Engineering, and Resources' final report, Our Nation and the Sea, and the Department of Interior's, National Estuary Study. The Commission's mandate was to investigate and offer recommendations on a broad array of marine problems including problems unique to coastal areas. Three major findings were noted in their final report:

1. The coastal zone is the juncture of the land and sea where the greater part of this Nation's trade and industry take place. The waters off our shore are among the most biologically productive regions of the Nation;

2. Due to the complexities of governmental jurisdiction within coastal areas, an effective organizational structure to coordinate planning with these areas was needed; and

3. The state governments should establish coastal zone authorities to plan, regulate, acquire lands and develop public facilities.

Interior's report primarily noted that our nation's estuaries were in jeopardy and the jurisdictional-management problems involved. As a result of these two reports, legislative action was initiated in 1969 when the first bill outlining a coastal zone management program was introduced in Congress. After much deliberation of various alternative approaches to a management program, a bill was finally approved and signed into law in October, 1972.

Five major national policy declarations were contained in the Coastal Zone Management Act of 1972:

a. Preserve, protect, develop, and where possible, to restore or enhance, the resources of the nation's coastal zone for this and succeeding generations;

b. Encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and aesthetic values as well as to needs for economic development;

c. For all federal agencies engaged in programs affecting the coastal zone to cooperate and participate with state and local governments and regional agencies in effectuating the purposes of this act;

d. To encourage the participation of the public, of federal, state and local governments and regional agencies in the development of coastal zone management programs; and

e. To encourage cooperation among the various state and regional agencies, including establishment of interstate and regional agreements, cooperative procedures, and joint action particularly regarding environmental programs.

In participating in this program, Minnesota is obligated to carry out at a minimum those national policies applicable to the state. However, the severity and types of problems vary considerably from state to state. Consequently, state goals were developed which specifically address Minnesotan's concerns over its coastal zone.

a. To develop a coastal zone program that reflects both the needs and opinions of local residents and the value of the coastal zone to all Minnesotans.

b. To resolve conflicts between local, state, and federal agencies and provide a means through which they can better coordinate their activities.

c. To produce a development plan that provides for both growth and preservation and is agreeable to, and enforceable by, appropriate local, state, and federal governmental units.

needs further development

d. The primary needs of maintaining homes and jobs for North Shore residents should take precedence over outside interests.

These goals reflect three major problems voiced by the public along the North Shore:

1. The program should consider everyone's concern with the North Shore, not just those people who use the area as their seasonal "playground."
2. Due to the many governmental jurisdictions operating within Minnesota's coastal zone, coordination must be improved.
3. The program must try to maintain a balanced approach to managing the North Shore; all growth or all preservation will not do.

program objectives not problems

What the state and federal goals add up to is simply: conservation, coordination and consistency. Conservation means using the natural resources of the area to the fullest possible extent but without destroying resources needlessly or neglecting those that can be used. Coordination means that local units of government and state and federal agencies will be working with each other rather than in isolation to solve problems along the North Shore. And consistency means that all must adhere to the plan.

Use of this Document

This plan is a guide for the future growth and development of the North Shore. It is a plan that recognizes that the Shore serves two clientele - residents and tourists - and attempts to provide a quality environment for both. The plan also recognizes that the needs of these two interest groups are not mutually exclusive. Tourism is a significant business in the Coastal Zone, and if conditions on the shore become unattractive to tourists, repercussions will be felt throughout the local economy.

This plan contains recommendations for addressing a wide variety of North Shore problems and issues dealing with both resident and non-resident use. It outlines the steps to be taken by various levels and agencies of government both individually and collectively. Local

governments will amend or develop local controls that reflect the special nature and conditions of the Shore. Controls such as zoning, subdivision control, sanitation codes and building permits will continue to be administered by local governments. Some state agencies will amend their existing rules and regulations or initiate new management policies. Hopefully all agencies will more actively coordinate their activities in the future and regard the North Shore as one place as opposed to separate jurisdictions.

This last point has been strengthened by the manner in which the plan was prepared. Local elected officials representing North Shore residents and state department heads representing all Minnesotans have come together to discuss alternatives for the Shore. Federal agencies with jurisdiction in the coastal zone have contributed information and suggestions and have commented on plan elements as they evolved. Therefore, this plan represents many legitimate views and should not be considered as a local, state or federal plan. It is a combination of all three - a single plan for a single place - in recognition of the three levels of government that have jurisdiction in the coastal zone and the constituencies that they represent.

If the plan is to be meaningful, those who implement it must conduct their activities in a manner that is consistent with it. The federal CZM act establishes that all federal activities must be consistent with the plan and Congress rightfully expects that state and local activities will be too. Therefore, all people and public agencies with an interest in the shore have a unique opportunity to use the CZM plan to measure future government activity and decisions against the plan to determine if they are consistent. If they are not, the law provides for remedial action.

If conditions change or new information becomes available, there is a process for amending the CZM Plan. Thus, the plan can be a current document through time to provide up-to-date guidelines for decisions affecting the Shore, its residents or users.

The Policy Advisory Committee

Minnesota first became involved in the Coastal Zone Program in June of 1974 when the Governor designated the State Planning Agency as the lead agency to administer coastal zone funds. To facilitate program development, a coastal zone management work group was immediately established. This work group consisted of one representative appointed by the department heads of Highways, Natural Resources, Economic Development, Health, Pollution Control, and State Planning. Local representation came from the Arrowhead Regional Development Commission and Lake, Cook, and St. Louis Counties. The Lake and Cook County representatives were members of the County Board of Commissioners.

The first year and a half of program development primarily consisted of data collection and analysis and special studies. However, as the program moved into the second half of the three year planning phase, a more formal decision-making body was necessary to address the substantive aspects of the program such as boundaries, permissible uses, organization and authorities, and geographical areas of particular concern. Consequently, the coastal zone Policy Advisory Committee (PAC) was created, having its first meeting in May of 1976. The PAC was comprised of six state agency heads and six local elected representatives, one from each of the three coastal counties and one each to represent coastal municipalities, townships, and the Arrowhead Regional Development Commission. Since 1976, the PAC has been responsible for making the policy decisions affecting the coastal zone which are outlined in the Coastal Zone Plan.

Members of the CZM Policy Advisory Committee are:

Lloyd Houle	Lake County Board of Commissioners
Melvin Koepke	Municipal Representative
Chester Lindskog	Cook County Board of Commissioners
Lloyd Shannon	St. Louis County Board of Commissioners
Ron Sherer	Arrowhead Regional Development Commission
John Moe	Township Representative
Peter Vanderpoel	State Planning Agency
William Nye	Department of Natural Resources
John Millhone	Energy Agency
Sandra Gardebring	Pollution Control Agency
Warren Lawson	Health Department
James Harrington	Transportation Department

Plan Format

Each chapter of the Coastal Zone Plan is a corollary to the requirements that states must meet in designing their coastal zone management program.

Chapter I discusses the various boundary alternatives considered and the methodology used in formulating the finalized coastal zone boundary. Maps delineating the boundary are presented at the end of the Chapter.

Chapter II presents findings and conclusions used in determining the permissible uses, a description of the permissible use areas, and policies and guidelines for their management and development.

Chapter III discusses the rationale used in selecting the organizational structure, existing authorities for controlling land and water activities, and the federal consistency review procedure.

Chapter IV outlines the process used in nominating and selecting GAPCs for designation.

The CZM Act requires that the state must indicate that it "has notified and provided an opportunity for full participation in the development of its management program to all public and private agencies and organizations which are liable to be affected by, or may have a direct interest in the management program," and has "coordinated its program with local, areawide and interstate plans applicable to areas within the coastal zone existing on January 1 of the year in which the state's management program is submitted to the Secretary." The second draft CZM Plan will contain the history of federal, state, and local involvement in developing Minnesota's coastal zone program.

Supplemental Material to the First Draft

A number of studies and draft elements of the Plan have not as yet been approved by the PAC. This material will be mailed shortly as a Plan Supplement for review. It will be included in the final plan.

1. Special Studies
   a. North Shore Recreation Study Summary
   b. Duluth-Superior Harbor Study Summary
2. Energy Facility Siting
3. Erosion Control
4. A list of state and federal grants, permits and licenses for consistency monitoring
5. A proposed procedure for monitoring local government activities for consistency

CHAPTER 1 2 3 4

CHAPTER CHAPTER CHAPTER

Boundaries

COASTAL ZONE MANAGEMENT

CHAPTER 1:

BOUNDARIES OF THE MINNESOTA COASTAL ZONE

Background

A. Minnesota Shoreland Management Program and Coastal Zone Boundaries

The Coastal Zone Management Act includes a requirement that each state's Coastal Zone Management Program must show evidence that the state has in place at the time of approval the legal authorities necessary for the state, acting through state agencies, regional or interstate bodies, and/or local governments, to control land and water uses subject to the management program in accordance with the terms and policies of the program. (P.L. 92-583, Section 306(d)). change cit

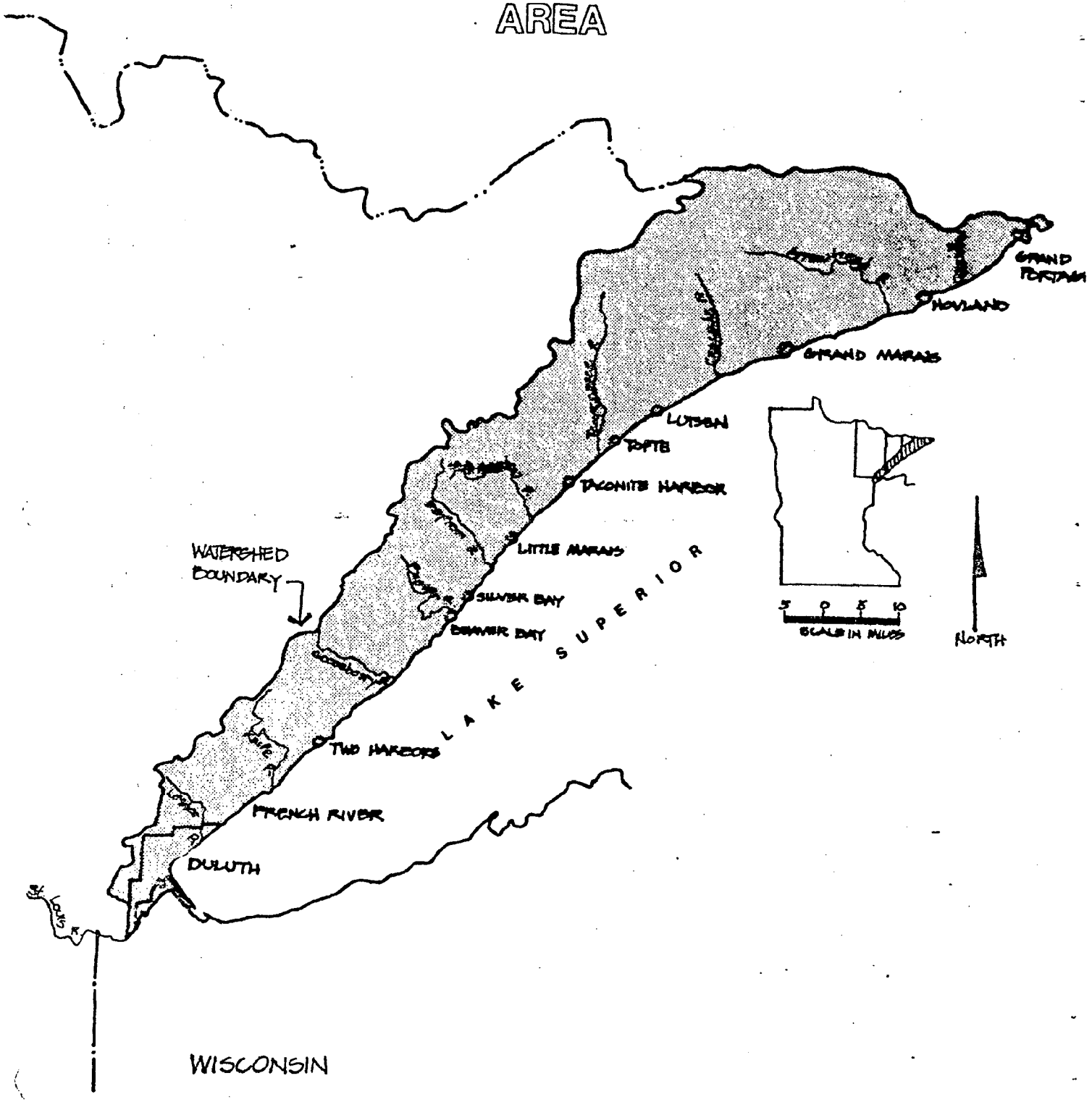
Early in the state's coastal zone program, the Lake Superior Sub-basin Watershed was established as the planning area for the coastal zone program (see map). It was thought at that time, that the watershed was the proper place to assure consideration of upstream water quality problems and developments, to promote cooperation with federal, state, local and "208" agencies involved in water-related programs and to collect pertinent land use data for impact analysis that would meet the requirements of the Act. The information contained in the documents that were developed on the boundary issue was subjected to extensive review by the PAC and the public.

In discussion at several meetings the members of the PAC indicated a desire to develop a Coastal Zone Program which could, to the maximum extent possible, be implemented within the legal framework provided by existing state legislation.

Between June 7, 1976 and May 11, 1977 the PAC received several papers and memoranda pertaining to program boundaries. The matters of major importance that were addressed by these materials were:

- Requirements of the Coastal Zone Management Act of 1972 (Public Law 92-583) and the related federal regulations pertaining to program boundaries as amended by P.L. 94-370
- Requirements of the Office of Coastal Zone Management (OCZM), U.S. Department of Commerce, and OCZM's suggested alternative methods for boundary identification
- Potential natural resource features and cultural features for use as boundary determinants including platted lands, designated public recreation areas, erodible shoreline, floodprone areas, wetlands, beaches, islands, natural and scientific areas, historic sites and municipal areas

MINNESOTA COASTAL ZONE PLANNING AREA



- Recommended methods for boundary identification including biophysical, biophysical/administration and the tiered approach

- Recommended boundaries for the Minnesota Coastal Zone that included the highway, bluffline, shoreland management area and sub-basin watershed lines.

On March 4, 1977, the PAC passed a motion to establish the Coastal Zone boundary for Minnesota in accordance with the Minnesota Shoreland Management Act of 1969, as amended in 1973. This legislation requires that counties and municipalities adopt shoreland conservation ordinances. Shoreland is defined as land within one thousand feet of the normal high water mark of a lake and within three hundred feet of a river or stream. The PAC's decision to use this piece of existing state legislation would have established the Minnesota Coastal Zone boundary approximately one thousand feet from Lake Superior.

On May 11, 1977, the PAC refined their earlier decision of March 4th and adopted an expanded boundary concept, going beyond the 1,000 foot line and approved a boundary forthe state's coastal zone in unincorporated areas and adopted minimum standards for establishing a boundary within incorporated municipalities.

The PAC selected a boundary that extends from the St. Louis River at the St. Louis-Carlton County line to the Pigeon River (international boundary between the United States and Canada). Lakeward the boundary extends to the jurisdictional limits of Wisconsin and Michigan, while inland the boundary approximates the 1,000 foot line from Lake Superior or Highway 61 whichever is most landward.

As stated earlier, an analysis of several boundary alternatives preceded PAC approval of the existing coastal zone boundaries. (All boundary-related documents which were reviewed by the PAC are listed in the technical appendix to this plan and can be found in the Coastal Zone Repositories which are located in the zoning department offices of St. Louis, Lake and Cook Counties and at the Arrowhead Regional Development Commission and the State Planning Agency.

B. Boundary in Unincorporated Areas

In March, 1977, the PAC approved a coastal zone boundary which was to be established one thousand feet from Lake Superior. Utilizing information contained in staff papers on the boundary issue, and drawing upon advice provided by

OCZM, the PAC determined that portions of U.S. Highway 61 which are outside the area affected by the statewide shoreline regulations should be in the state's coastal zone. Subsequently, at their May meeting, the PAC approved a motion to this effect.

In the same motion, the PAC included state parks that are within the Minnesota Coastal Zone Planning Area (Lake Superior Sub-basin) and waysides occurring along U.S. Highway 61 in the Coastal Zone.

C. Boundary Within Municipal Areas

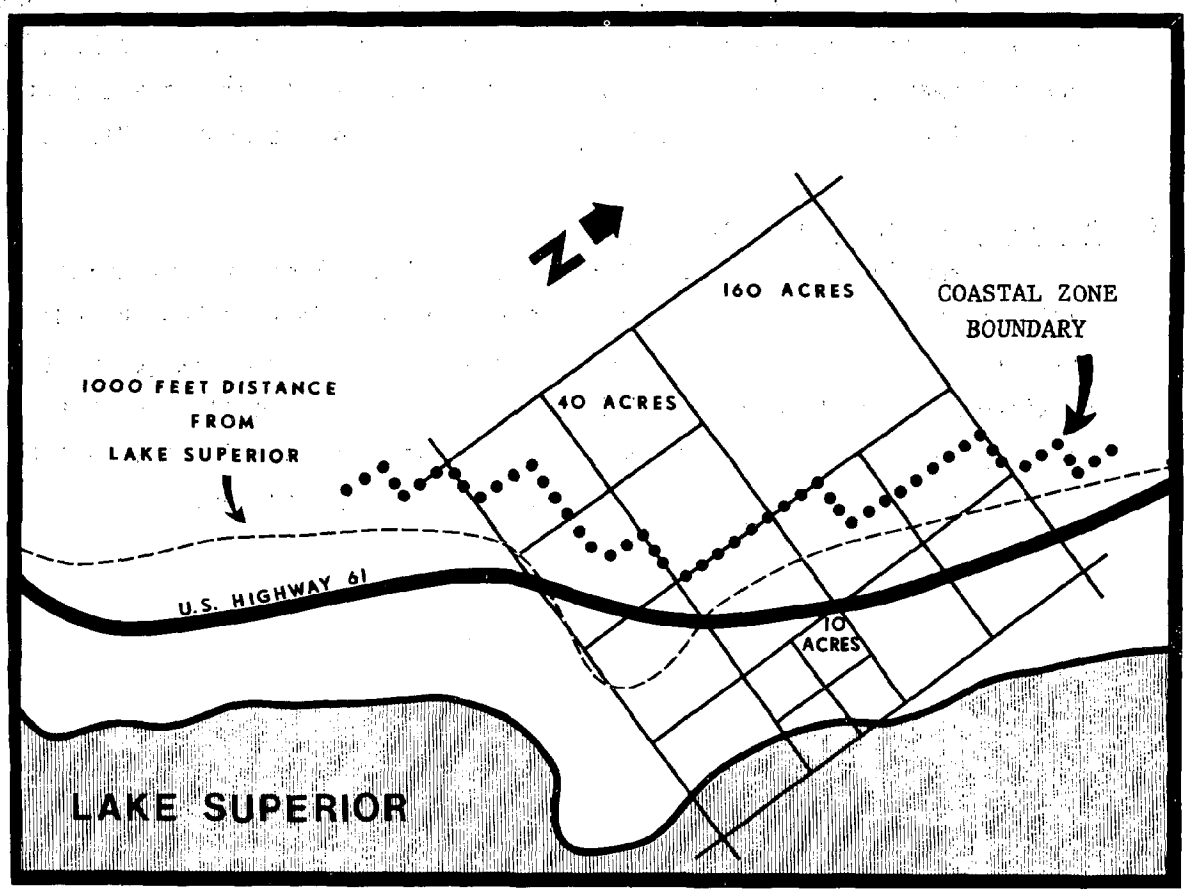
The action taken by the PAC on May 11th also addressed Coastal Zone boundaries for municipalities. The PAC determined that within municipalities, the boundary will be defined minimally at a point one thousand feet inland from Lake Superior (and also 1,000 feet inland from the St. Louis River in the City of Duluth). The PAC further stated that municipalities may, at their discretion, determine that additional lands should be included within the Coastal Zone boundary. If this occurs, the community is allowed to include such additional areas as a Geographical Area of Particular Concern.

D. An Administratively Feasible Boundary

A boundary which is authorized by statute or by any other legally enforceable code should be defineable in clear and unambiguous terms. A boundary located one thousand feet from the shoreline of Lake Superior would be difficult to locate, nearly impossible to define, and would require an excessive expenditure of time and labor to establish. A principal disadvantage in establishing a boundary of this nature is that such a boundary does not match property and jurisdictional lines.

The PAC became aware of the significant difficulties involved in establishing a coastal zone boundary on natural features in boundary discussions at several meetings during 1976. Therefore, on November 23, 1976 the PAC decided that the boundary would be defined by cultural or administrative features wherever possible. Zoning administrators from the three coastal counties who will be involved with administration of the Coastal Zone Management Plan endorsed the decision of the PAC.

The actual coastal zone boundary adopted on May 11, 1977 for unincorporated areas is defined along subdivisions of the rectangular coordinate system established in the U.S. Public Land Survey for the purposes of dividing government land for sale. The smallest areal unit that is used to define the Coastal Zone boundary in unincorporated areas is the ten acre parcel. In platted or subdivided areas outside municipalities, any lot which is less than ten acres in size, and is crossed by the ten acre line that defines the State's coastal zone will be considered to be within the Coastal Zone (see diagram).



In municipal areas, the PAC agreed that for administrative purposes, the boundary will be defined by the respective municipal zoning staff at the cultural feature (city block, lot, road, etc.) nearest to the one thousand foot distance which the zoning staff deems appropriate or most advantageous from an administrative view. The boundary in municipal areas will be established prior to submission of this plan to the Secretary of Commerce.

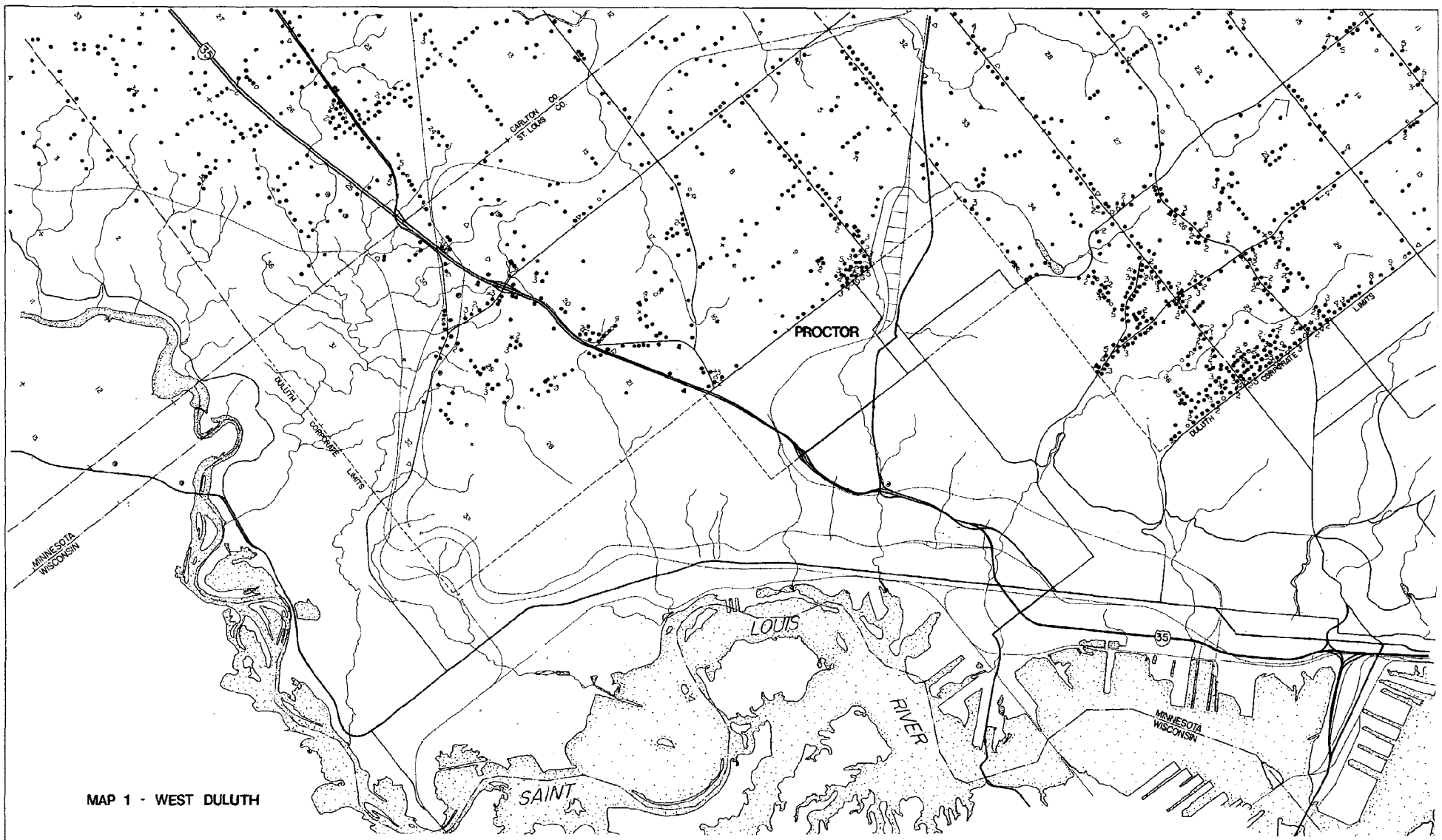
E. Relationship of the Minnesota Coastal Zone Boundary to Federal Lands

The Coastal Zone Management Act states "excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents."

The effect of this language in the Act on Minnesota coastal planning activities is addressed in the Organizations and Authorities section of this plan. The Minnesota Coastal Zone boundary extends through all ownerships consistent with the criteria for boundary establishment discussed elsewhere in this chapter that have been approved by the PAC. Although the boundary has been delineated through federally owned parcels, these parcels are officially excluded from the boundary based upon a decision by the Justice Department.

F. Minnesota Coastal Zone Boundary Maps

The remainder of this chapter consists of small scale maps which indicate the approximate location of the Minnesota Coastal Zone boundary. The information portrayed in the maps is also contained on larger more detailed maps which are at 1:24,000 scale. The exact location of the boundary in specific areas is portrayed on larger maps which are available for public use at the established Coastal Zone Repositories.



MAP 1 - WEST DULUTH

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

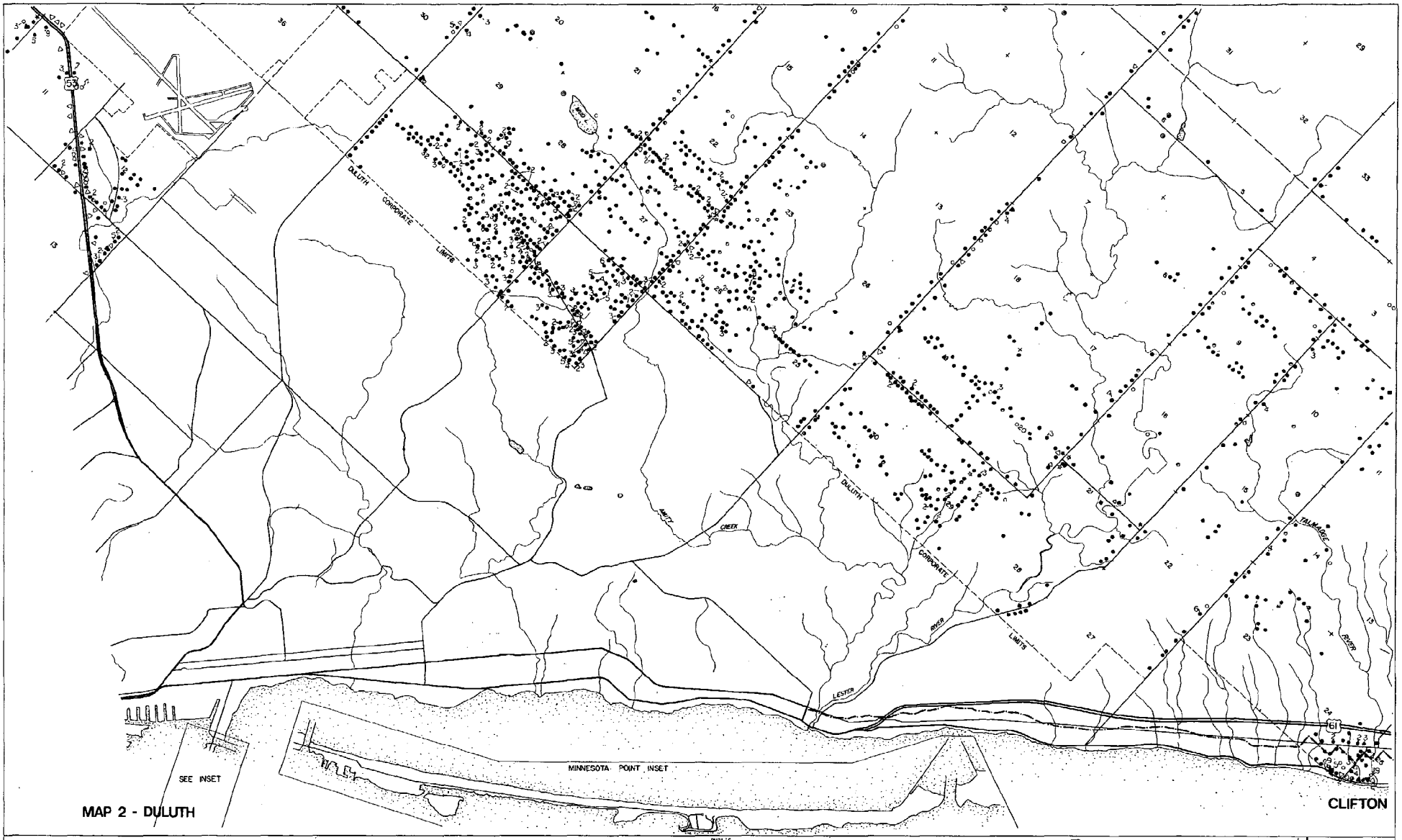
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▣ - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
⊕ - MINERAL EXTRACTION (active)
⊖ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊘ - Abandoned
3-● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Realty Department



COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

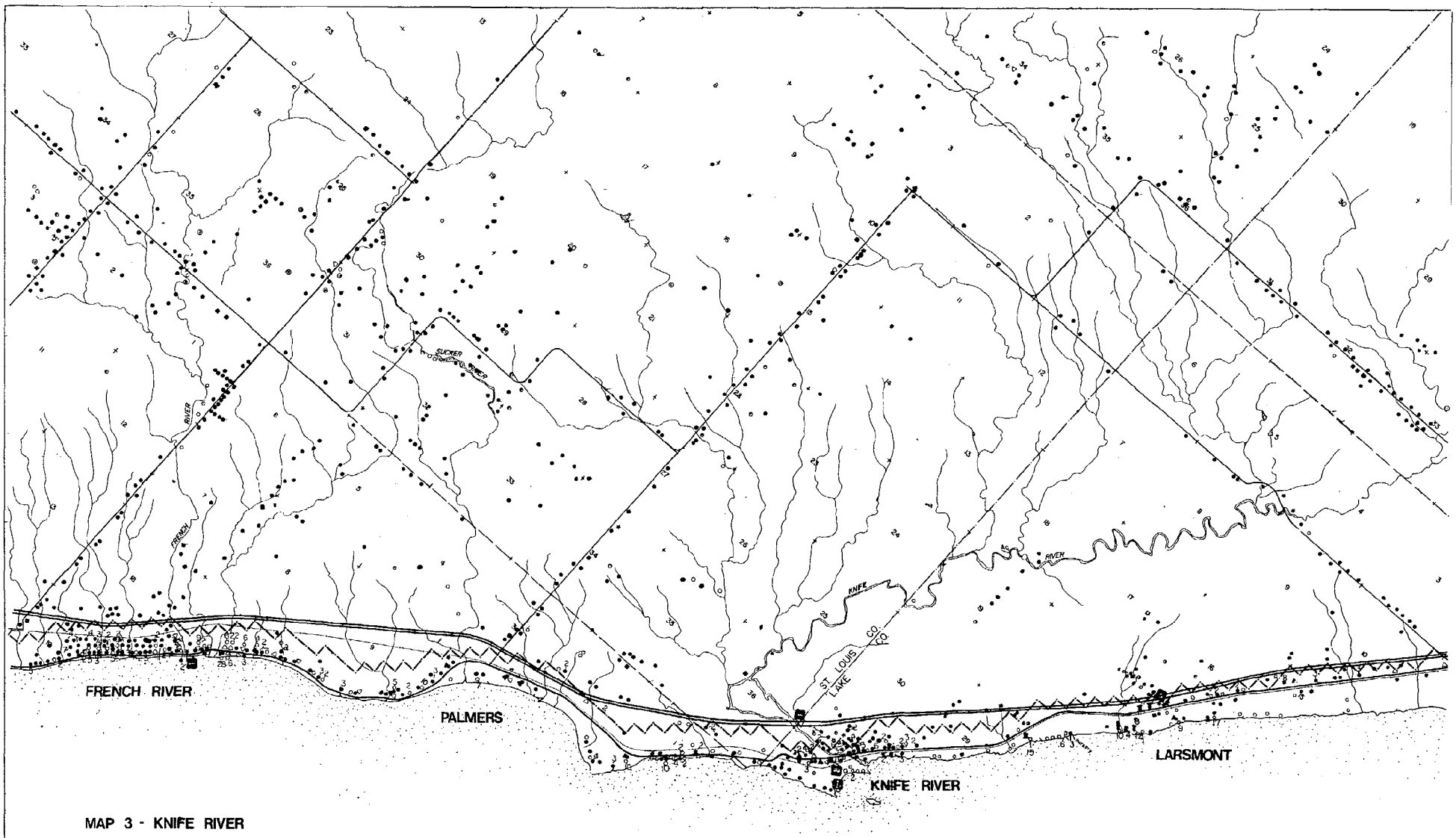
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
R - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
⊕ - MINERAL EXTRACTION (active)
⊕ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊗ - Abandoned
3—⊗ - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department



MAP 3 - KNIFE RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
- Public
- Semi-public

COMMERCIAL
- Retail Commercial
- Service Commercial
- Commercial with living quarters

A - AGRICULTURE

S - SILVICULTURE

- MINERAL EXTRACTION (active)
- " " (inactive)
- MANUFACTURING

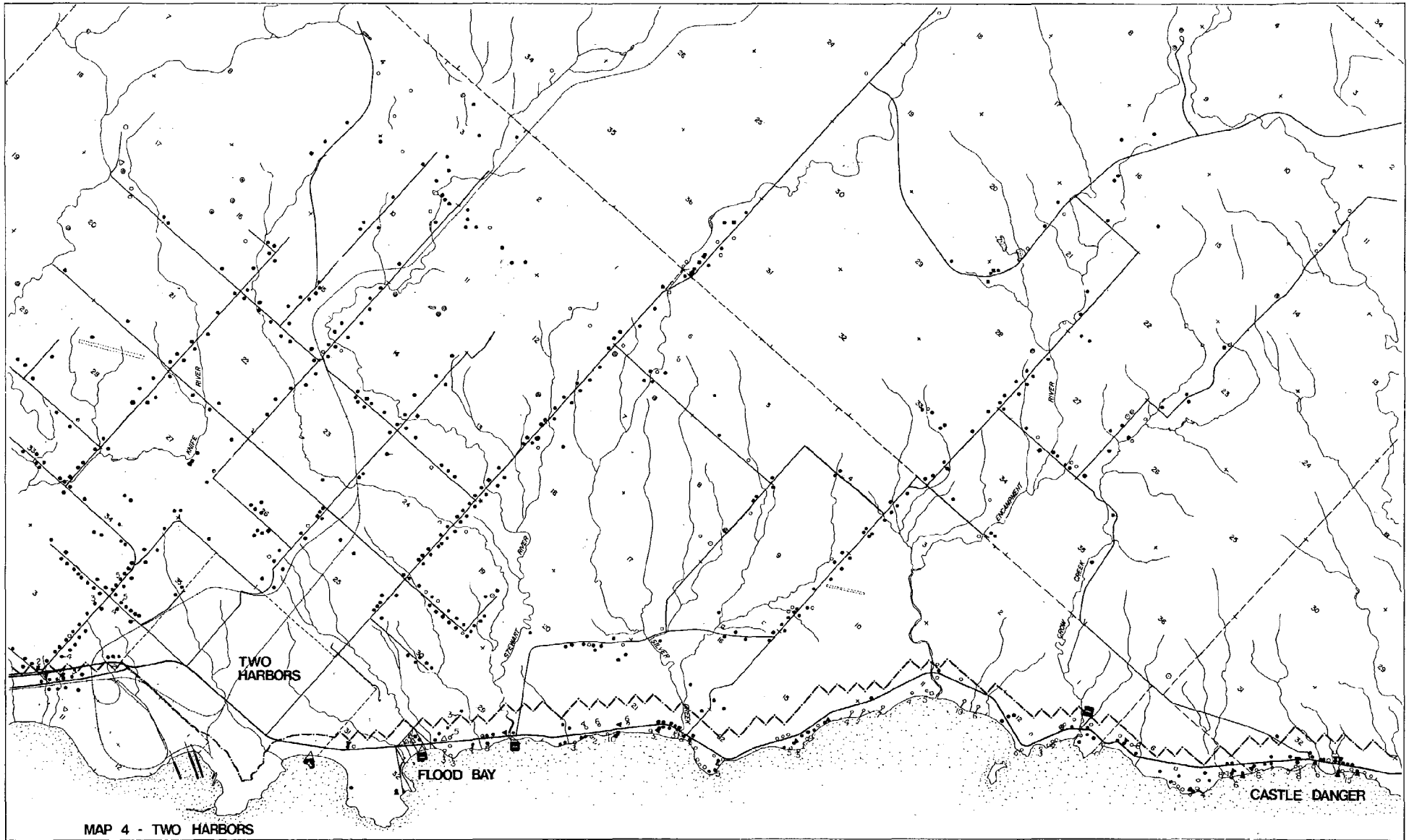
RESIDENTIAL

Single Family
- Conventional, year-round
- Conventional, seasonal
- Mobile, year-round
- Mobile, seasonal
- Abandoned
- Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

0 1/2 miles
0 1/2 kilometers



MAP 4 - TWO HARBORS

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
⌂ - Commercial with living quarters

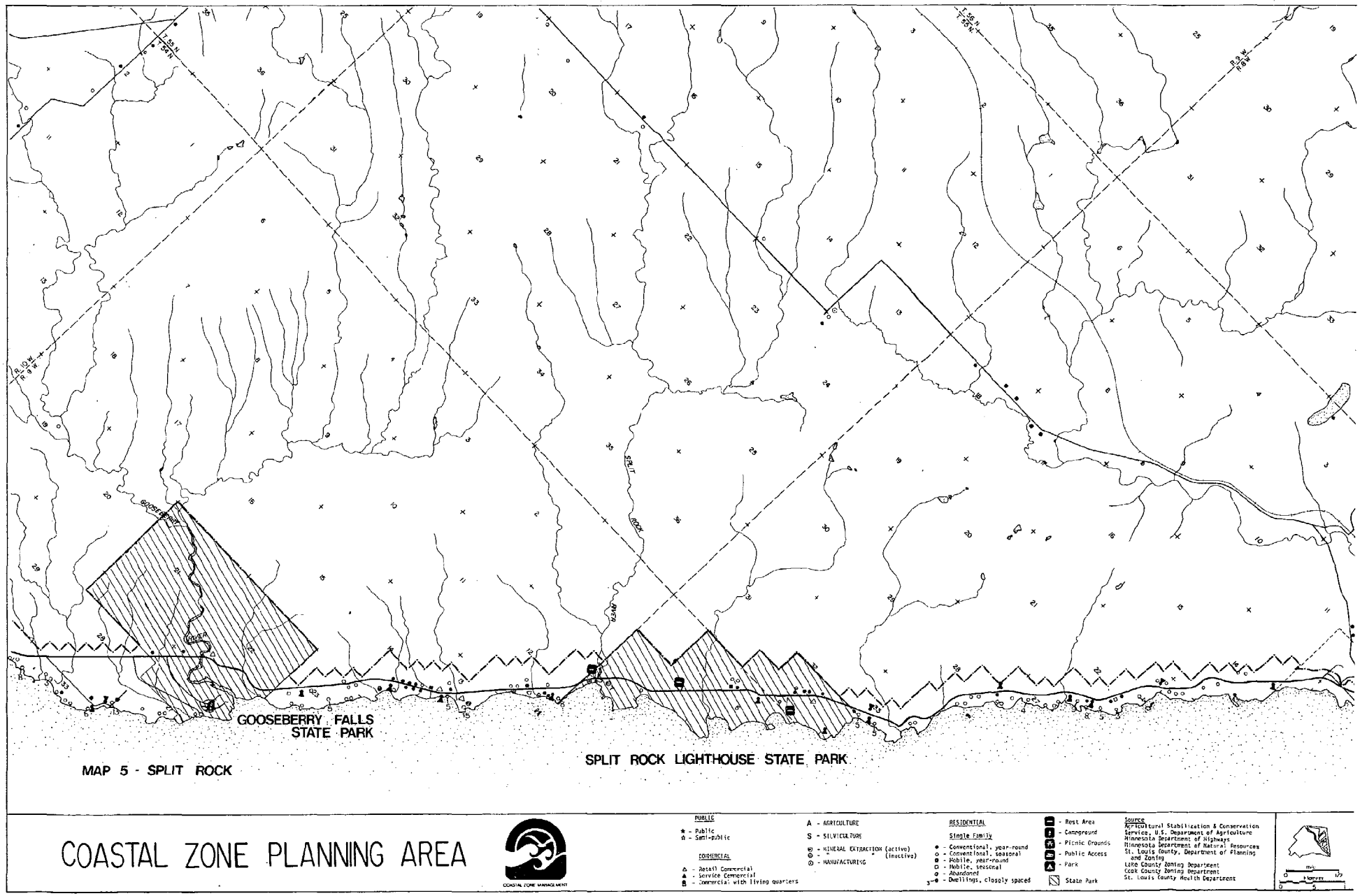
A - AGRICULTURE
S - SILVICULTURE
⊕ - MINERAL EXTRACTION (active)
⊖ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
○ - Abandoned
3—● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

0 1/2 kilometers
0 5 1



MAP 5 - SPLIT ROCK

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-Public

COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
🏠 - Commercial with living quarters

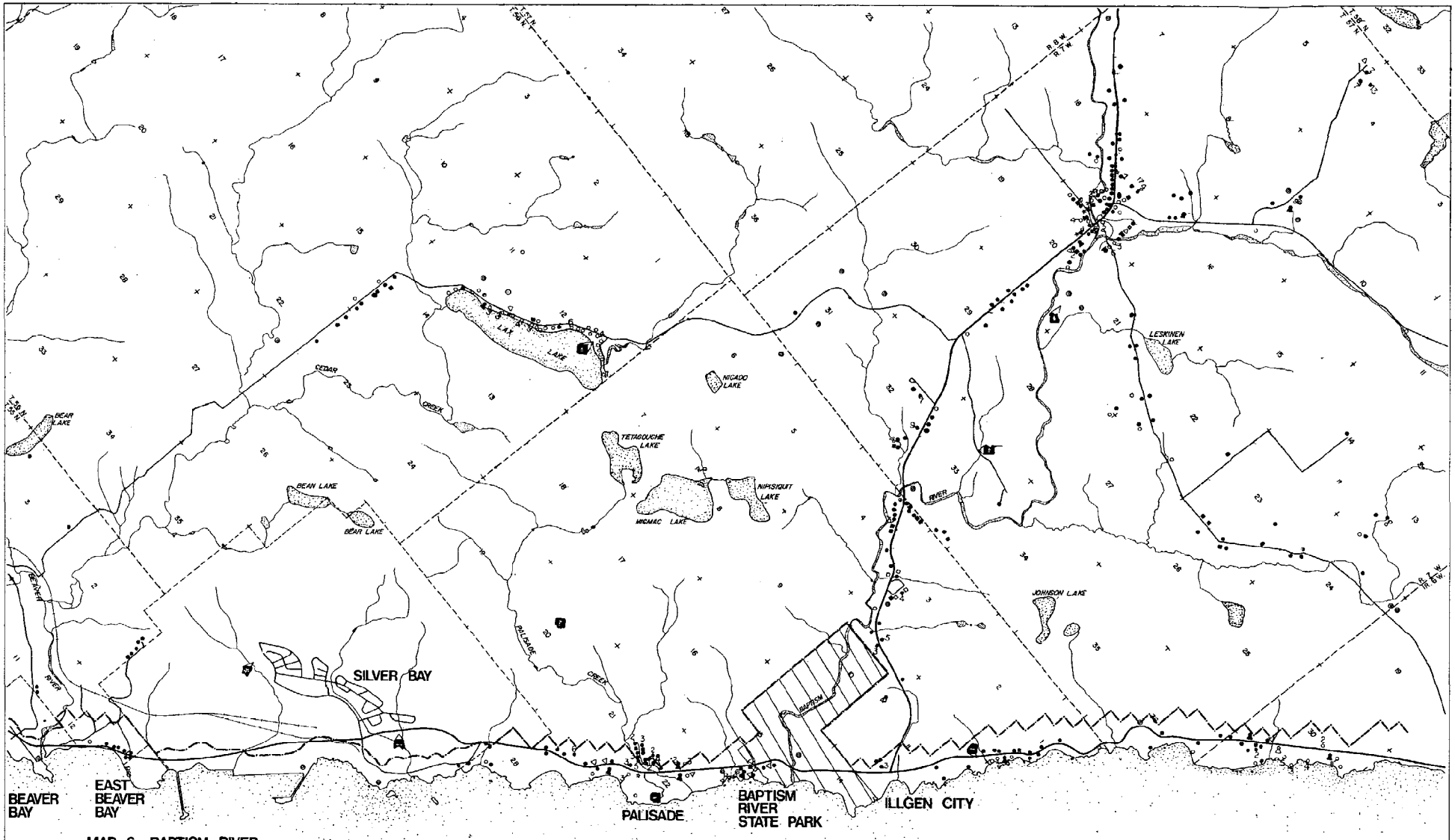
A - AGRICULTURE
S - SILVICULTURE
⊛ - MINERAL EXTRACTION (active)
⊛ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
ø - Abandoned
3-⊕ - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

Miles
0 5 10



MAP 6 - BAPTISM RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▩ - Commercial with living quarters

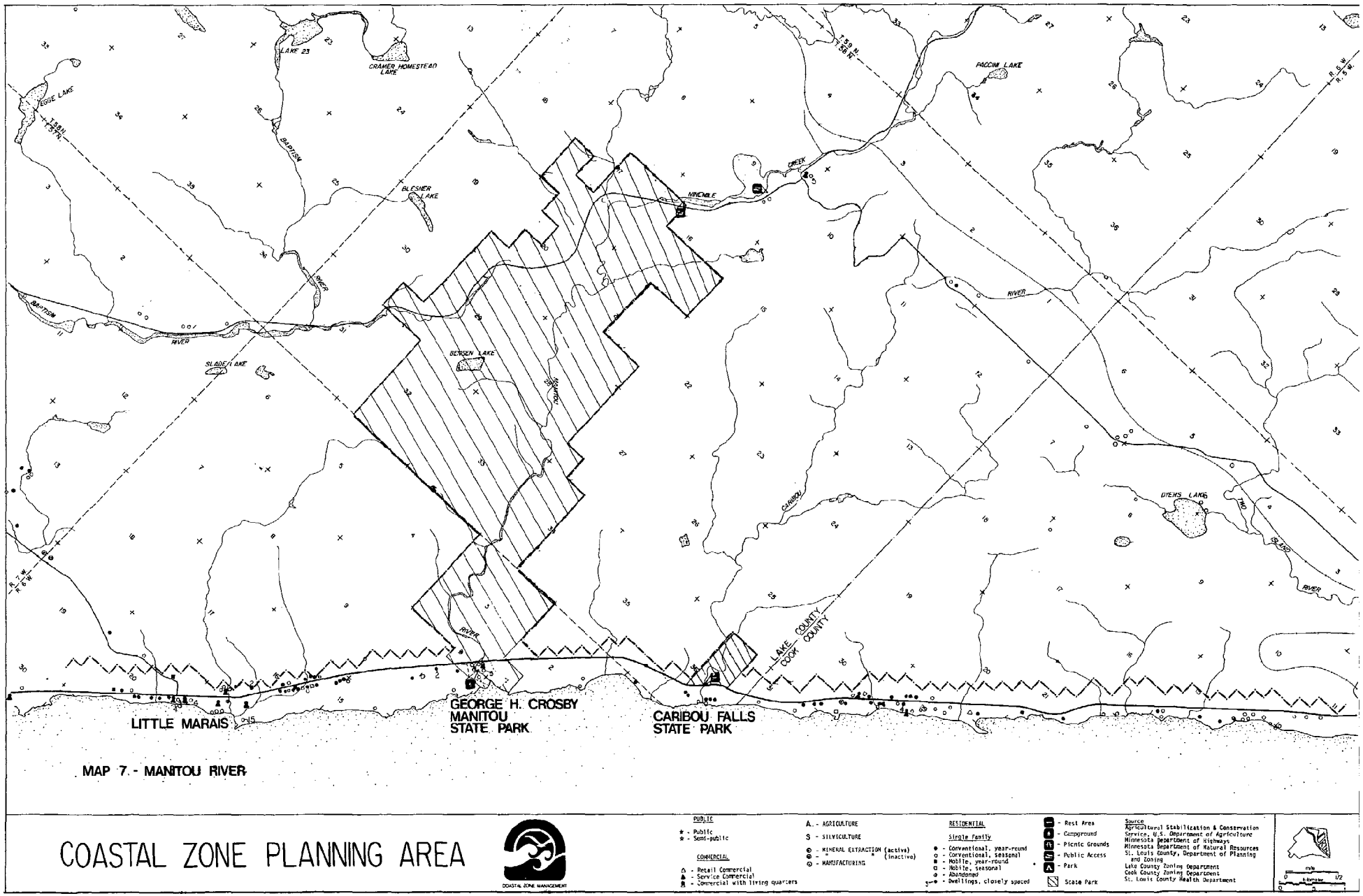
A - AGRICULTURE
S - SILVICULTURE
⊕ - MINERAL EXTRACTION (active)
⊕ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊗ - Abandoned
3→● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

0 1/2 Miles
0 1 Kilometer



MAP 7. - MANITOU RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
★ - Semi-public

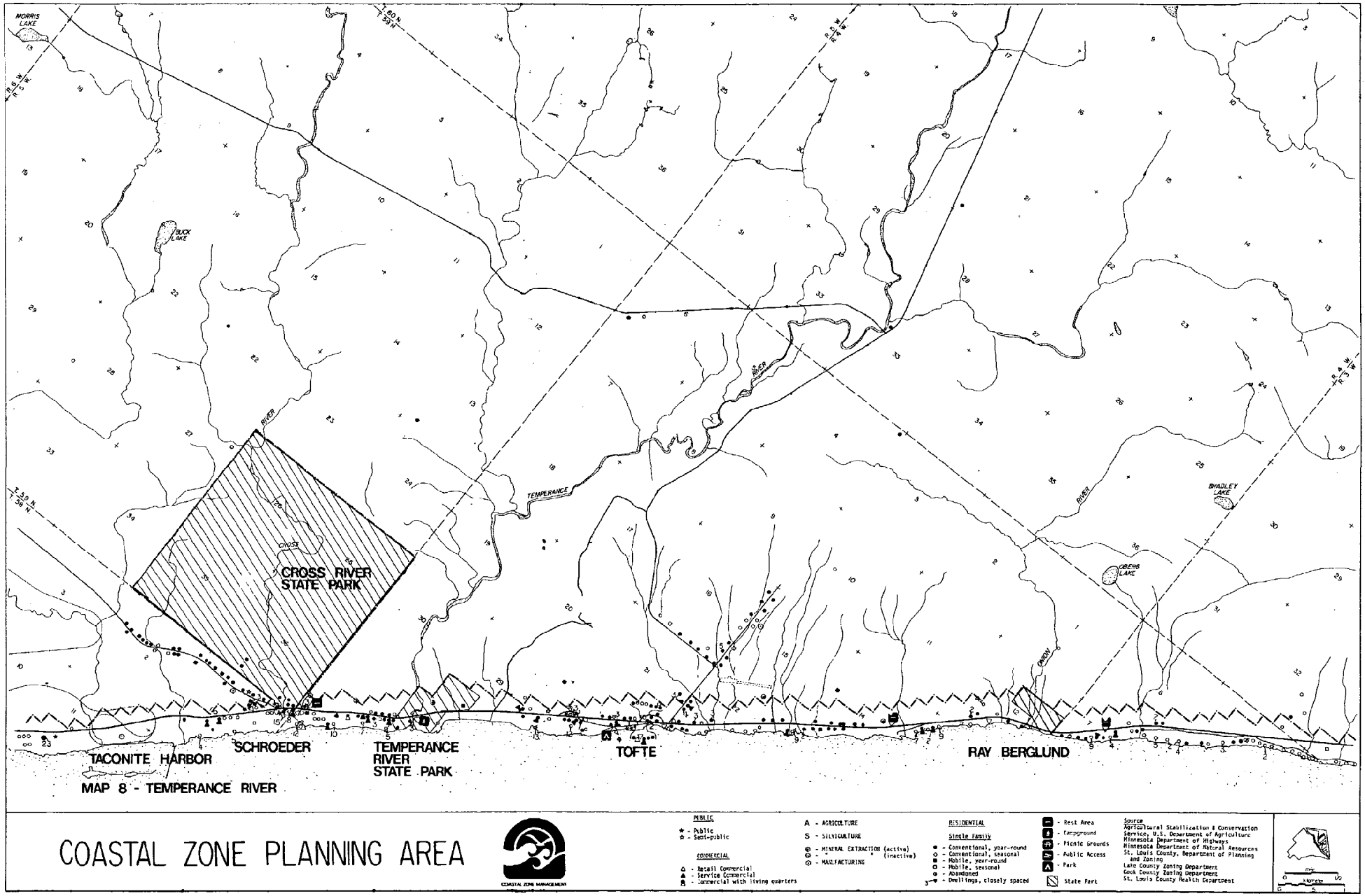
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▲ - Commercial with living quarters

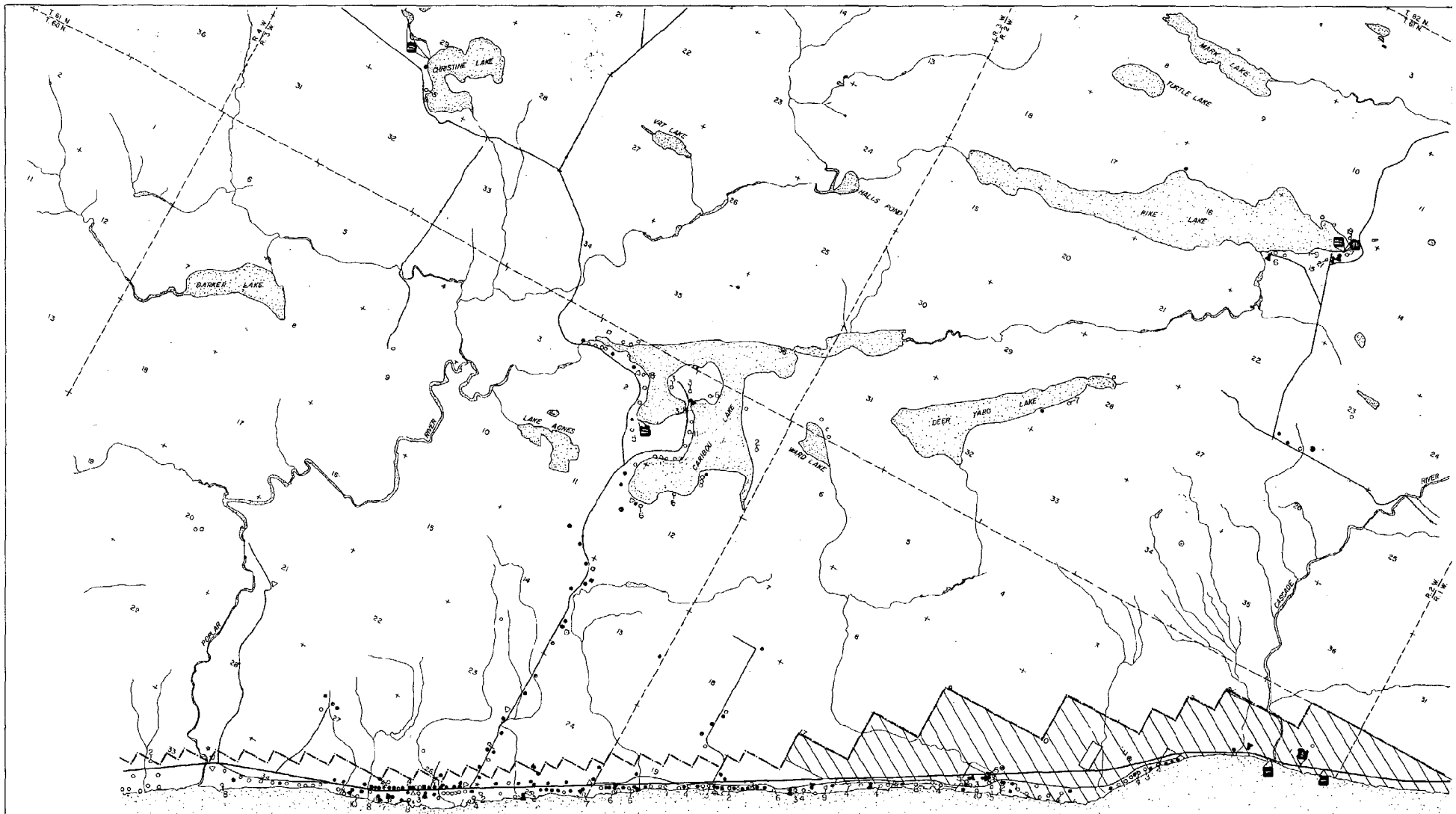
A. - AGRICULTURE
S - SILVICULTURE
◎ - MINERAL EXTRACTION (active)
◎ - " " (inactive)
◎ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊘ - Abandoned
●-● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department


MORRIS LAKE
BUCK LAKE
BRADLEY LAKE
OBERG LAKE
CROSS RIVER STATE PARK
TEMPERANCE RIVER
CROSS RIVER
TACONITE HARBOR
SCHROEDER
TEMPERANCE RIVER STATE PARK
TOFTE
RAY BERGLUND
MAP 8 - TEMPERANCE RIVER
COASTAL ZONE PLANNING AREA
COASTAL ZONE MANAGEMENT
PUBLIC
★ - Public
⊕ - Semi-public
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
🏠 - Commercial with living quarters
A - AGRICULTURE
S - SILVICULTURE
⊛ - MINERAL EXTRACTION (active)
⊜ - " " (inactive)
⊙ - MANUFACTURING
RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊗ - Abandoned
3 - Dwellings, closely spaced
- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
State Park
Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department



MAP 9 - CARIBOU CREEK LUTSEN CASCADE RIVER STATE PARK

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

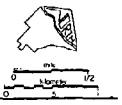
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▲ - Commercial with living quarters

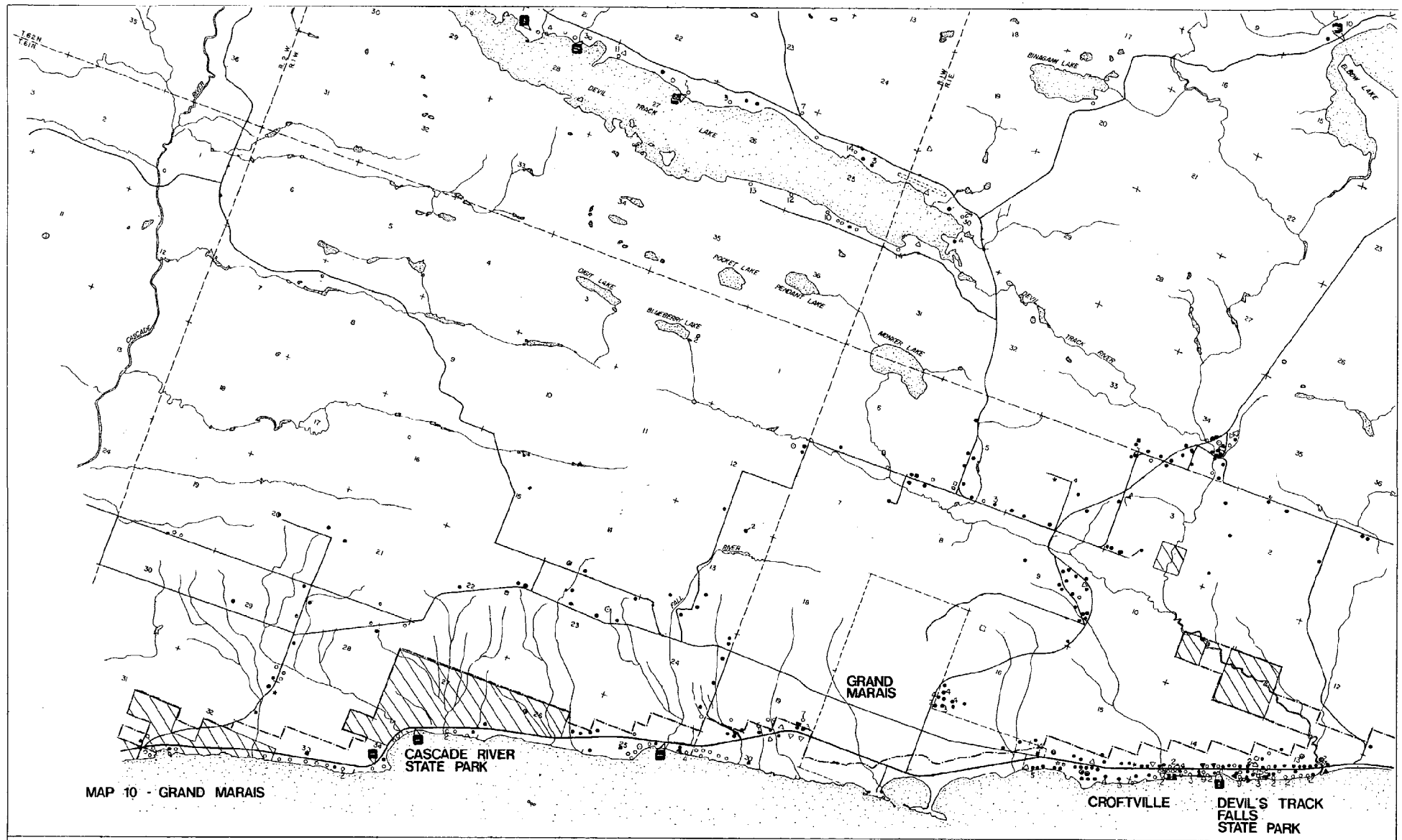
A - AGRICULTURE
S - SILVICULTURE
⊛ - MINERAL EXTRACTION (active)
⊛ - " (inactive)
Ⓜ - MANUFACTURING

RESIDENTIAL
Single family
● - Conventional, year-round
○ - Conventional, seasonal
▣ - Mobile, year-round
▢ - Mobile, seasonal
⊘ - Abandoned
5-● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department





COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

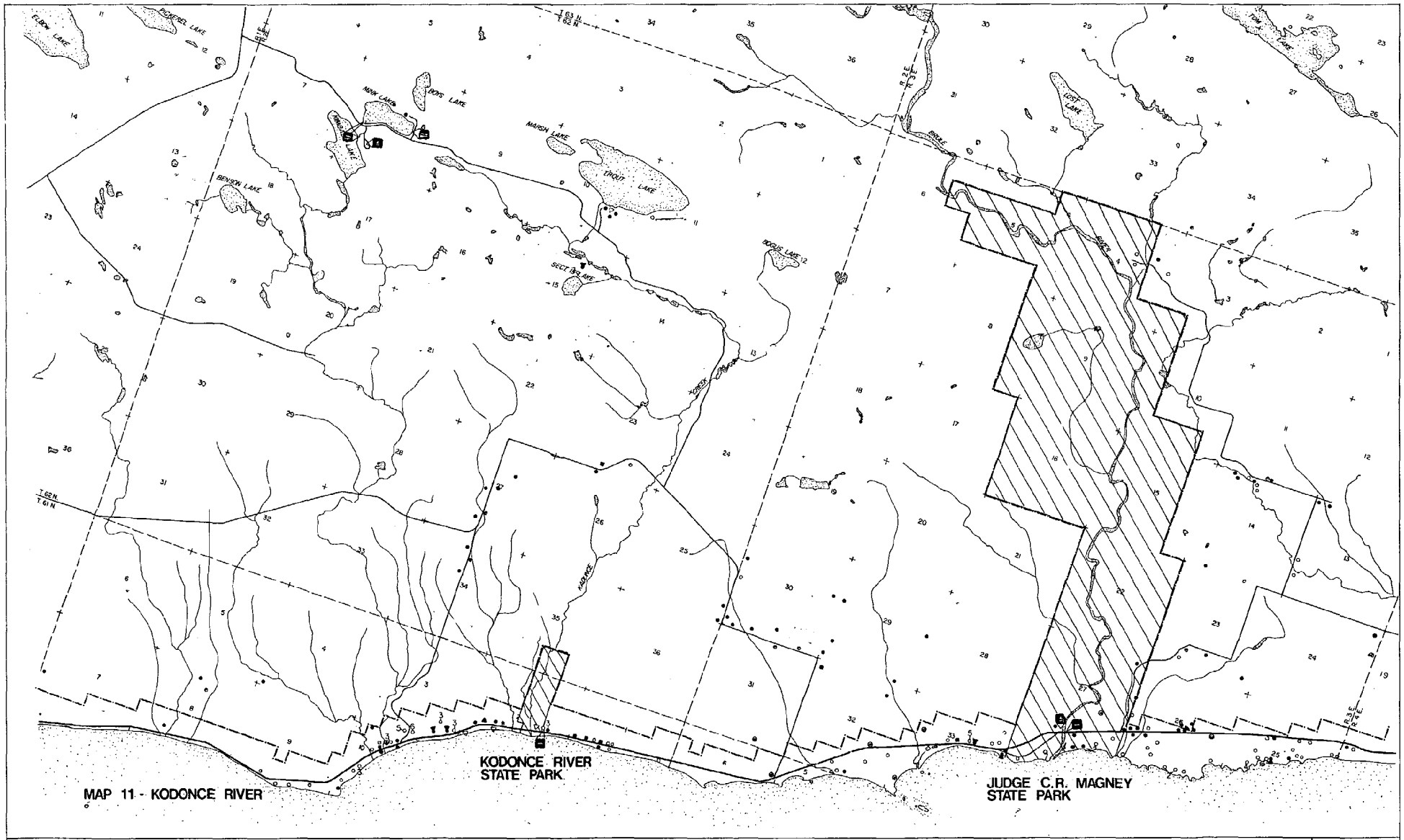
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
🏠 - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
⊛ - MINERAL EXTRACTION (active)
⊛ - (inactive)
O - MANUFACTURING

RESIDENTIAL
Single family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
○ - Abandoned
●●● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department



MAP 11 - KODONCE RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
- ★ - Public
- ★ - Semi-public

COMMERCIAL
- △ - Retail Commercial
- ▲ - Service Commercial
- ▲ - Commercial with living quarters

A - AGRICULTURE

S - SILVICULTURE

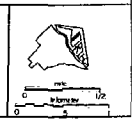
- ⊕ - MINERAL EXTRACTION (active)
- ⊕ - " " (inactive)
- ⊙ - MANUFACTURING

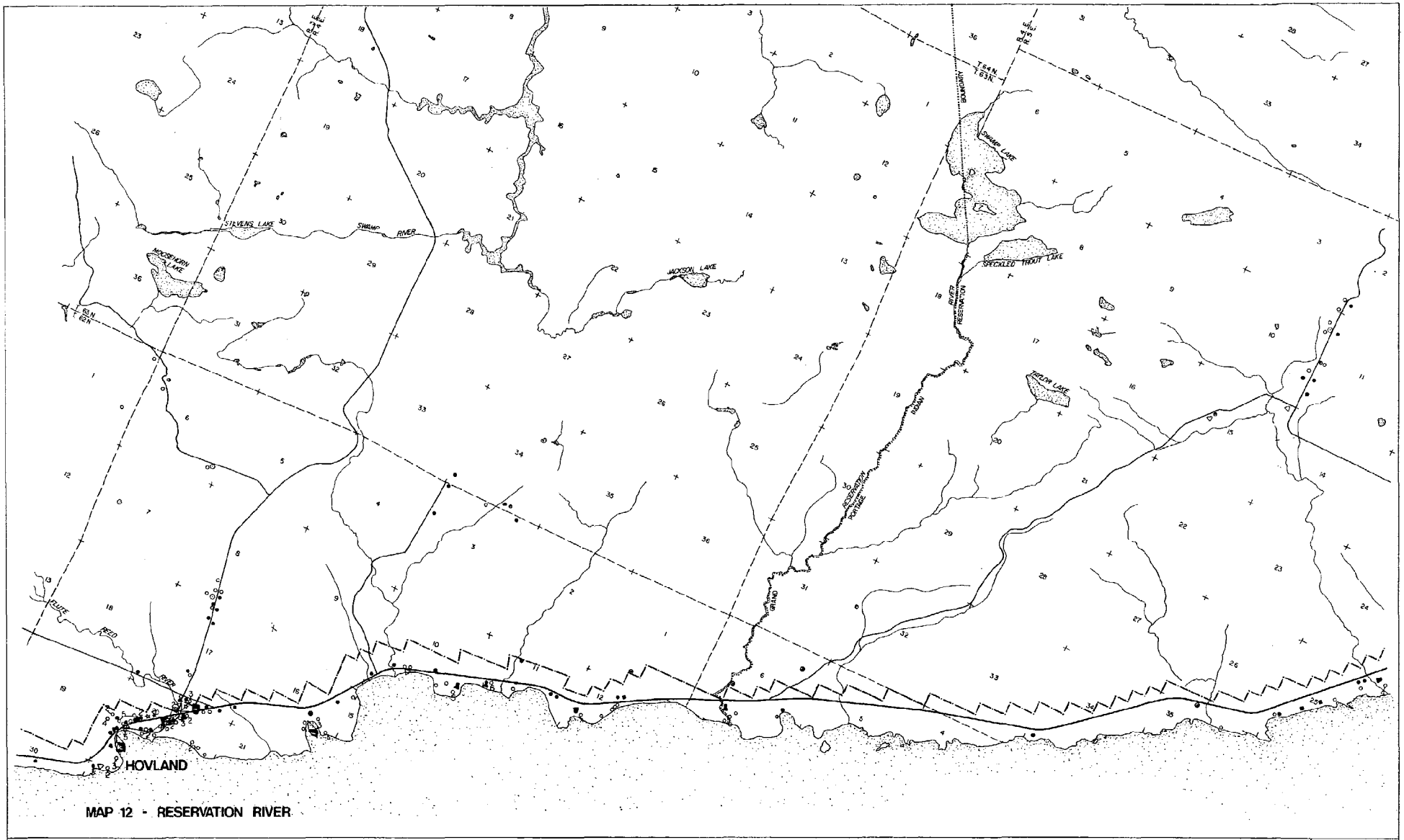
RESIDENTIAL

Single family
- ● - Conventional, year-round
- ○ - Conventional, seasonal
- ■ - Mobile, year-round
- □ - Mobile, seasonal
- ○ - Abandoned
- 3 - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department





MAP 12 - RESERVATION RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

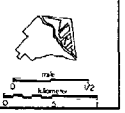
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
■ - Commercial with living quarters

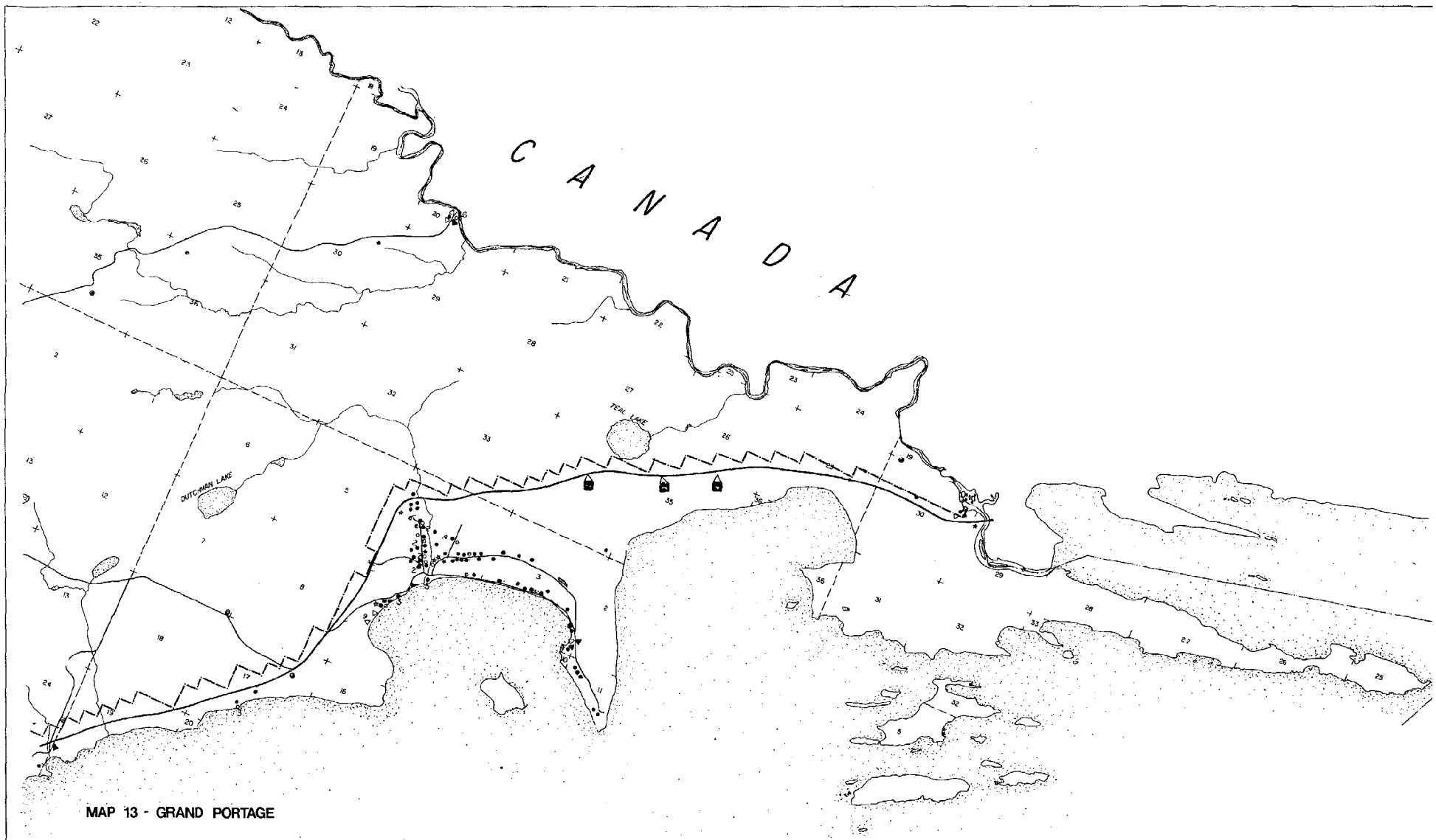
A - AGRICULTURE
S - SILVICULTURE
⊕ - MINERAL EXTRACTION (active)
⊖ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
◇ - Abandoned
3—● - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department





MAP 13 - GRAND PORTAGE

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▲ - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
⊛ - MINERAL EXTRACTION (active)
⊛ - " " (inactive)
Ⓜ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊘ - Abandoned
3 - Dwellings, closely spaced

- Rest Area
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

CHAPTER 1
CHAPTER 2
CHAPTER 3
CHAPTER 4

Permissible Uses

COASTAL ZONE MANAGEMENT

CHAPTER 2:

LAND AND WATER USES SUBJECT TO THE MANAGEMENT PROGRAM

Introduction

Minnesota's Coastal Zone is an area unique to the state and to the country. It is here that the Lake Superior Highlands, remnants of an ancient mountain range with the most varied topographic relief in the state, meet Lake Superior, the largest body of fresh water in the world. Bedrock cliffs, gravel beaches, cascading streams, dense boreal forest together with the awesome size and power of bone-chilling Lake Superior are a few of the factors that endear most Minnesotans to their "North Shore."

The North Shore that most people identify with is a relatively narrow corridor between the Lake and the Highlands. This corridor extends from Duluth to the Canadian border and is bisected for its entire length by U.S. Highway 61. Highway 61 serves as a local road which provides access to communities, private homes and businesses, a major recreation thoroughfare for tourists and a commercial route for truck traffic.

Many of the uses that are served by Highway 61 are visible from it. Today, the Highway corridor has a natural, largely undeveloped character. It is this character that lures tourists to the area and it is tourists that support the recreation-oriented businesses that make up a substantial portion of the local economy. Maintenance of the area's high aesthetic quality is, therefore, an important consideration for both visitors and residents alike and became an important component of the Coastal Zone Management Program. Consequently, a number of land and water uses that might not be considered significant in less scenic parts of the state were judged to have potentially significant beneficial or detrimental impacts within the Coastal Zone. These impacts can be on coastal waters,

land and other resources within the coastal zone or on the people who seek to use and enjoy the area.

The Minnesota program considers the full range of public and private uses and deals with them in a manner that assures that local, statewide and national interests are provided for. Major development actions will be dealt with through a variety of existing mechanisms including state permits, licenses or impact statements. Fortunately, major actions are expected to be few in number and their impacts on the Shore are not likely to be overwhelming, given adequate controls and consideration of visual impacts in addition to other environmental concerns.

Development of new residential and commercial uses will be more widespread than major developments in the coastal zone and could potentially be a problem of greater significance. Studies of population projections and land use suggest that while the area is likely to continue to retain its low population density, the popularity of the Lake could result in significant stretches of permanent and seasonal residential construction as well as new commercial development. While CZM Program participants believe that future development will and should occur, the Program seeks to assure that it will develop in a manner that is in harmony with the natural surroundings and supportive of the economy. The Permissible Use element seeks to minimize adverse impacts by allocating uses to specific locations along the Shore and by establishing performance guidelines for physical development and resource management for local enforcement. This permissible use approach balances the need for protection and development in the Coastal Zone and retains the traditional responsibilities of various levels of government.

SECTION 1:

FINDINGS AND CONCLUSIONS USED IN DETERMINING PERMISSIBLE USES

SECTION 1: FINDINGS AND CONCLUSIONS USED IN DETERMINING PERMISSIBLE USES

The structure and content of the Permissible Use Section has been influenced by findings and conclusions drawn from the three year planning process. These findings and conclusions are the result of a number of surveys dealing with North Shore soil and geologic conditions, land use, water quality, highway volumes, septic tank and water well conditions and public opinion. There were numerous meetings on the shore with residents, special interest groups and elected officials to discuss issues and problems in the coastal zone and possible solutions thereto. In addition, the findings and conclusions are based on an analysis of existing county zoning ordinances (although some are in the process of being amended), current and future plans of various state and federal agencies having responsibility in the coastal zone and state laws which deal with impacts or activities which cause them.

A. EXISTING CONDITIONS

1. Economics

--The economy of the coastal zone planning area (Lake Superior sub-basin watershed) is becoming somewhat more diversified than in the past. However, it is still resource-oriented and is expected to remain so for the next twenty years.

--The natural resources of the coastal zone sustain an extensive tourist-recreation industry. The relative importance of tourism to the economy increases as one proceeds east from Duluth.

--Population, employment and many land-use activities in Lake County are closely linked to Reserve Mining. For example, construction of Reserve's on-land disposal site at Mile Post 7 will create large, but short-term, demands for residential development and commercial and public services and will increase the flow of money in the local economy.

2. Land-Use Patterns

--Within a one to five mile corridor extending the length of the North Shore, recreational, residential and agricultural land uses cover, respectively, 4%, 3%, and 2% of the land, while 90% of the land is used for forestry or other non-intensive uses.

--The existing low development density appears to be one of the major attractions of the area.

--Commercial recreation use is extremely scattered and is intermixed with a substantial amount of seasonal dwelling development.

--County zoning ordinances, in certain instances, do not address development patterns which are often difficult and expensive to service with county and community facilities.

--Many coastal communities contain vacant land and have the potential for future urban growth. The Areawide Comprehensive Sewer and Water Plan completed for the Arrowhead Region provides a framework for extending public sewer and water services within coastal communities. The plan also recommends that future urban development be phased in accordance with sewer and water extensions.

3. Water Use Patterns

*Major uses of Lake Superior are shipping, sailing and boating, sport and commercial fishing, water for industrial purposes as well as for drinking, and depository for municipal, industrial, and residential wastes.

*The Duluth-Superior Harbor is among the world's largest inland ports and consistently ranks among the top ten ports of the United States in total tonnage with more than 40 million tons of international and domestic cargoes shipped during an average Great Lakes navigation season (early April through mid-December). Peak year for the Duluth-Superior Harbor was 1953 with 77,243,545 short tons of shipments, while 1973 shipment was 43,741,912. Forecasts on commercial cargos indicate an upswing but vary on that upswing's magnitude.

*Other harbors also dot the north shore. Two Harbors, Silver Bay, and Taconite Harbor accommodate shipping of taconite, while Knife River, King's Landing (west of Beaver Bay), Grand Marais, and Grand Portage accommodate small recreation craft. By September 1977, the U.S. Army Corps of Engineers will have substantially completed plans for construction of two small-boat harbors-of-refuge at Silver Bay and Schroeder.

*Fifty-nine streams, descending as much as 1300 feet from their source 15 to 25 miles back, dissect Minnesota's portion of Lake Superior's coastline. The last 400 feet of descent occurs in a series of highfallls and steep cascades within one to three miles of the lake. These streams are home for rainbow, brook, and brown trout.

*Fish stock in Lake Superior has been limited since about 1950. Following the invasion of the parasitic sea lamprey, all commercial trout fishing was halted on the Great Lakes. In Minnesota the success of the stocking efforts has been monitored by allowing fishing under special permit since 1963. According to fisheries managers, the populations are increasing and there is a potential for a limited commercial lake trout fishery in the future. Angler trips for recreational fishing on the Minnesota coast have quadrupled from 1970 to 1975 and in that same period the actual time spent at the sport increased six-fold. Indications are that North Shore fishing attracts more out-of-state fishermen and fishing tourists every year.

*Duluth, Two Harbors, Grand Marais, Silver Bay, and Beaver Bay use Lake Superior as their source of municipal water. Duluth has the largest single municipal water system and uses about 18 million gallons per day. The Reserve Mining Company at Silver Bay is the largest single industrial user of Lake Superior water, using 90% of the estimated 560 million gallons per day withdrawn from the lake for industrial purposes.

*Lake Superior receives effluent from five municipal wastewater treatment plants, three industrial plants outside the Duluth metropolitan area, and numerous industrial plants within the metropolitan area.

4. Ownership

--Within the watershed, the federal government owns 617,160 acres (44.2%); the state owns 208,400 acres (14.9%); the counties own 182,880 acres (13.1%); and private ownership accounts for 388,608 (27.8%).

--Within the CZM boundary selected at the May 11th PAC meeting, ownership is as follows:

Federal - 6,953 acres (16.9%); State - 8,521 acres (20.7%); County - 803 acres (2.0%); and Private - 24,869 acres (60.4%).

These totals include 5,693 acres of Federal and 1,211 acres of privately held land within the Grand Portage Reservation.

The total area within the boundary is 41,145 acres.

--Most of the private lands in Lake and Cook County are found along the shore of Lake Superior or along highways leading to the interior portions of the counties. Ownership patterns and roadways are the major determinants in current land-use patterns.

5. Zoning Ordinances

In 1976 studies were undertaken to determine the number of residential dwellings and population that would result if county lands developed in accordance with existing zoning ordinances.

--Current zoning ordinances in Cook, Lake and St. Louis Counties provide more than ample residential land for new people to be accommodated outside of municipalities.

6. Soils

Through the CZM Program, the U.S. Soil Conservation Service prepared a detailed soil survey. The survey was prepared for the Cook, Lake and South St. Louis Soil and Water Conservation Districts and provides the first comprehensive look at detailed soil conditions along the North Shore.

For the most part, the survey confirms what many people knew through their own experience, namely, that problem soils are widespread along the shore. Heavy clays and shallow, stony soils with steep slopes predominate along the shore. Many of these soils have certain characteristics which create severe limitations for development

activity if corrective measures are not employed. Failure to use these corrective measures can result in erosion and sedimentation, septic tank failure, structural deterioration, ground and surface water pollution and excessive maintenance costs.

More specifically, the CZM soil survey revealed that:

--virtually all soils in the coastal zone impose one or more restrictions to common development activities. While most soils do not preclude development, special construction techniques will often be necessary to achieve satisfactory results. Local governments should consider soil properties in developing ordinances and in approving building permits and subdivision plats.

--conventional septic tank-drain field combinations do not appear suited to most coastal zone soils. PCA should conduct additional research on alternative sewage treatment systems.

--a limited amount of land in the coastal zone has soil, geological and/or slope characteristics that either impose severe limitations on development or would, if developed, result in erosion and sedimentation of public waters or other damages to the public interest.

B. PROJECTED POPULATION GROWTH AND DEMAND FOR LAND

1. Residential

--The State Demographer projects that the permanent population in coastal counties (entire county) will increase by the following amounts between 1975 and the year 2000:

Cook County	+200 people
Lake County	+700 people

In the City of Duluth and in Duluth and Lakewood Township, aggregate population is projected to remain stable throughout the year 2000.

--In 1973, 77% of Cook County's permanent population lived within ½ mile of Lake Superior. These residents were equally divided between Grand Marais and the rest of the shore.

--In 1973, 88% of Lake County's permanent population lived within 5 miles of Lake Superior. About 70% of these residents lived in the municipalities of Two Harbors, Silver Bay and Beaver Bay.

--Forty-eight percent of St. Louis County's permanent population lived in Duluth or the two urban townships adjacent to Lake Superior.

--In St. Louis County permanent housing units outnumber seasonal housing units within a half mile of the shore. The reverse is true for Lake and Cook Counties, where seasonal units outnumber permanent units.

--Although the majority of residents now reside within the corporate boundaries of North Shore communities, there is scattered residential development in a narrow band immediately adjacent to the shore and Highway 61. Development of additional access points to Highway 61 will further reduce the carrying capacity and safety of the roadway. In addition, this development pattern is prohibitively expensive to serve with public sewer and water because of distances involved and the rocky substratum in the area. In Lake County, the R-3 zoning district is based on the possible provision of municipal services and encourages development far beyond municipal boundaries even though it is doubtful that these services could be provided economically.

2. Commercial

--Commercial development in the Coastal Zone Planning Area is confined mainly to the Highway 61 corridor. Most commercial development that is located in the rural area is highway-oriented service-commercial that caters to the travelling public and resort industry. More conventional types of commercial activity are found in the major urban communities, particularly Duluth and to a lesser degree Two Harbors, Silver Bay, and Grand Marais. Such uses include department stores, food outlets and offices.

--Future commercial uses in rural areas should be located with care so as to provide a suitable level of goods and services, safe access, retain the natural beauty of the area and be adequately served with sewer, water and other necessary services.

3. Industrial

"Coastal-dependent industrial use" is defined as any industrial use that cannot exist if it is not located on the immediate shore of Lake Superior or cannot directly use Lake Superior water.

Current coastal-dependent industrial uses are located at Duluth, Two Harbors, Silver Bay and Taconite Harbor. Future coastal-dependent industrial uses could also locate in these places because public services such as roads, sewer, water, police and fire protection are either available or can be provided for at lower cost. (Taconite Harbor does not have municipal sewer.) In addition, service commercial facilities such as gas stations, grocery stores, drug stores and the like are available in Duluth, Two Harbors and Silver Bay, as are medical services and housing. If new or expanded industry requires additional housing, it is better to expand existing housing where sewer, water and other services are available and the existing economy can be strengthened.

Existing industrial and manufacturing uses which are not coastal-dependent occur primarily in the Duluth-Superior Metropolitan Area and in Two Harbors. Minor industrial activities occur in scattered locations throughout the North Shore and include sawmills and logging operations, junkyards, gravel pits, and equipment storage areas.

Future industrial expansion is most likely to occur in the Duluth-Superior Metropolitan Area and Two Harbors because these areas are closest to state and national markets and are best served by a variety of transportation facilities. The new industrial park in Two Harbors is expected to accommodate most new industrial expansion in that community.

4. Transportation

On U.S. 61, there has been an increase in heavy truck traffic over the years and high levels of vehicular use are experienced during summer months. The Minnesota Department of Transportation (DOT) has constructed a number of passing lanes to help alleviate traffic congestion, but other measures are needed if Highway 61 is to continue to provide satisfactory service for the years to come. Additional passing lanes should be constructed by the Minnesota Department of Transportation at appropriate intervals and some of the more dangerous curves should be straightened. The natural values and aesthetic qualities of the Coastal Zone should be considered by DOT in making these modifications.

Counties should give attention to the traffic hazards created by future roadside commercial use and subdivision patterns that permit a driveway for every 200 foot lot. Coastal counties should develop and adopt subdivision regulations which minimize the number of access points to U.S. 61 and still provide proper access to property. Counties should also control the location of and access to highway-oriented commercial establishments to prevent hazardous situations from occurring in the future.

/Air, water and rail transportation needs will be considered by the Minnesota Department of Transportation in their Statewide Transportation Plan.

5. Energy Production and Transmission

(See Energy Section of the Supplement to this Plan)

6. Mineral Development

Various earth materials of present or potential value are scattered throughout the Coastal Zone. The only important surficial deposits of current economic significance are the abundant and locally extensive sand and gravel resources. The largest of these are the result of deltaic deposition by streams which entered ancestral stages of Lake Superior when it was at higher levels, particularly at 1,150 feet. Smaller pits have also been excavated in areas of glacial outwash, abandoned beach zones and local accomulations in morainic areas.

Occurrences of anorthosite are irregularly scattered throughout the area, particularly in areas surrounding Beaver Bay and Silver Bay. They occur as small to very large inclusions in gabbro and diabase. Potential uses for this calcic feldspar rock, besides rip-rap, are in abrasives, roofing, cement surfacing and refactories and other ceramics. The U.S. Bureau of Mines is investigating its potential as an ore of aluminum. Although no present use is made of it, the anorthosite is considered of potential economic importance because of the relative purity of the feldspar; quartz is absent and other minerals occur in only small percentages.

Because earth resources of economic value are restricted in occurrence and cannot be moved, it is generally considered unwise to commit land bearing such resources to permanent uses which might prevent their exploitation at some future time. Unless or until concentrated deposits of copper are found in the volcanic rocks of the Coastal Zone, the only areas which should be considered at present for such resource-reserve areas would be the large sand and gravel deposits and the largest anorthosite bodies.

7. Production of Food and Fiber

a. Agricultural Resources

Unlike most of the Midwest, agriculture has never been an important factor in the economy in the Coastal Zone outside of Duluth. Although farming operations followed the clearing of virgin forests, they have always been small scale and relatively unimportant because of the generally poor soil conditions, limited growing season, distance to markets and an ownership pattern fragmented by large scale public, mineral and forest holdings. Only 215 acres or about one-half of one percent of the total land in the Coastal Zone are used for agriculture.

b. Forest Resources

While there are large amounts of commercial forest land in northeastern Minnesota and in the Coastal Zone Planning Area, commercial forestry is, and probably will remain, a relatively unimportant use within the Coastal Zone boundary. Although the Coastal Zone contains very little commercial forest land, much of the character of the North Shore stems from the vegetative communities which exist there. The forests along the Shore provide recreational, aesthetic and economic benefits to both residents and visitors and these values are worth protecting. However, other less familiar benefits of forests are also worthy of protection and include the following:

--Forests play an important role in moderating surface runoff, thereby allowing more precipitation to soak into the soil and minimizing surface erosion.

--Forests provide habitat for a wide variety of birds and animals.

--Forests have the ability to purify the air to a degree by removing some gases and particulate matter.

--All forms of vegetation have the ability to absorb, attenuate and even eliminate sound. The proper use of plantings and the siting of structures in relation to existing vegetation can substantially reduce perceived noise levels.

--Vegetation acts as a visual barrier between uses or activities which may conflice with one another. For example, retention of a relatively narrow strip of vegetation along roadways can visually separate residences from highway traffic. This provides privacy to the homeowner while providing a more scenic drive for the motorist.

C. COUNTY PLANS AND ORDINANCES

The Coastal Zone Management Program by no means represents the first planning effort along the North Shore. Between 1964 and 1968, Lake, St. Louis and Cook Counties hired consultants to assist their planning commissions and staffs in preparing comprehensive plans. The consultants prepared general county guide plans, background studies on natural resources, population characteristics, economics, land use, transportation, public facilities, outdoor recreation and historical resources, and county map atlases (unpublished) which contain overlays of existing and proposed land uses, traffic volumes and accidents, housing conditions, topography, land ownership, and vacant land classifications.

Since current coastal zone planning efforts deal with portions of the three counties, the county plans were reviewed by CZM staff. The plans were not adopted by the Counties, so they were considered as reference documents as opposed to official county positions. The plans were useful in that they provided a base for measuring change and some solutions to problems that existed at the time of their preparation.

Since the inception of the CZM Program all three counties have undertaken major amendments and additions to their implementation ordinances. Cook County has spent considerable time in the preparation of a major amendment

to their zoning ordinance which will address many pertinent issues and be dovetailed with the CZM Plan. On another front, Cook County has begun work on a new sanitary ordinance. Lake County adopted a countywide zoning ordinance, has initiated efforts on a subdivision control ordinance and has developed new goals for land use planning county-wide. St. Louis County has completely overhauled their zoning ordinance, held public hearings and is being considered for adoption by the County Board.

D. EXISTING STATE LEGISLATION

The body of Minnesota law which existed prior to the development of the State's Coastal Zone Management Program provided guidance as to the uses and impacts to be considered. Like most states, Minnesota has enacted a number of laws providing for the regulation of major environmental impacts or of the actual uses which could result in those impacts. Examples are:

1. Minnesota Statutes §115, providing for the State to administer a comprehensive water pollution abatement program including planning, data collection, standard setting, monitoring and enforcement.
2. Minnesota Statutes §116, providing for the state to administer a comprehensive air quality program.
3. Minnesota Statutes §105, providing for the state to regulate changes in the course, current or cross-section of public waters, appropriation and use of underground and surface waters, utility crossings of public waters and underground storage of gas and liquids.
4. Minnesota Statutes §116C, providing for the state to select sites for large electric power generating plants and high voltage transmission lines.

Through enactment of these and other laws of a similar nature, the Minnesota Legislature pre-determined that certain impacts and impact-causing

activities could have significant negative effects in the Coastal Zone if not properly regulated.

The Legislature also indicated its concern with the impact of unregulated shoreland use and development when it passed the Shoreland Management Act. Minnesota Statutes 1967, Chapter 105, provided that "In furtherance of the policies declared in Minnesota Statutes, Section 105.38, and Chapter 116, it is in the interest of the public health, safety, and welfare, to provide guidance for the wise development of shorelands of public waters and thus preserve and enhance the quality of surface waters, preserve the economic and natural environmental values of shorelands, and provide for the wise utilization of water and related land resources of the state."

The Act defines "shorelands" as land within 1,000 feet from the normal high watermark of a lake and within 300 feet of a river or stream. The Commissioner of the Department of Natural Resources is ordered to promulgate model standards and criteria for the subdivision, use and development of shoreland for adoption and enforcement by counties. While the Act specifically provides for these standards and criteria to include "designation of types of land uses," the current DNR rules only provide very general goals, objectives and criteria for county interpretation. Consequently, the permissible use element of the CZM Program will provide a basis for strengthening the land use aspects of shoreland ordinances. The Shoreland Management Program provides a key tool in implementing the CZM Program as outlined in Chapter 3 Organization and Authorities.

E. APPLICATION OF FINDINGS AND CONCLUSIONS

The findings and conclusions listed above have identified a number of considerations to be addressed by the Coastal Zone Management Program. While some of these considerations are the legal responsibility of state

or federal agencies, the majority are within the jurisdiction of local government.

The findings and conclusions support the development of a two-level approach which appears to be well suited for local implementation of the CZM Plan. The first level of this approach consists of defining and delineating permissible use areas within the Coastal Zone. The purpose of these areas is to identify those portions of the Coastal Zone which are similar in terms of existing development, physical constraints and development opportunities and to outline the categories of uses which would be allowed in each area. Within each area, the application of development controls is left to the units of local government. The six Permissible Use Areas developed for Minnesota's Coastal Zone are described in Section 2.

The second level of this approach is a logical result of the first step. Given the unique nature of the Coastal Zone, the findings and conclusions suggest that additional guidelines be developed which will protect local, state and federal interests. Therefore, Guidelines for Development and Management have been prepared first to provide more specific guidance to the local units of government in their administration of zoning ordinances, subdivision controls, and health codes and secondly, to guide state and federal agencies in managing public land and resources under their jurisdiction. Guidelines for Development and Management are presented in Section 3.

SECTION 2:

DESCRIPTION OF PERMISSIBLE USE AREAS

SECTION 2: DESCRIPTION OF PERMISSIBLE USE AREAS

A. INTRODUCTION

To most effectively apply the Permissible Use element of the Coastal Zone Management Program, Minnesota has developed six "Permissible Use Areas." Each of the six Areas has been applied to geographic locations on the North Shore where similar conditions occur or where similar types of development are desirable in the future.

Each of the six Permissible Use Areas was designed with a specific development or management strategy in mind. Each Area contains a mix of uses that are compatible with each other and the characteristics of the North Shore. All areas have a list of permitted uses. Some also include a list of conditional uses or uses of lowest priority. Conditional uses are those that are not appropriate throughout the Area but are appropriate in some locations, provided that special conditions are met. These conditions are included in the CZM Plan.

Collectively, the Permissible Use Areas are designed to distribute uses in a manner that balances protection and development interests in the Coastal Zone. When implemented, the Permissible Use Areas will help insure that:

a. uses needed by local residents and tourists are provided at accessible locations and provide the proper range of goods and services
b. property values are protected by minimizing the encroachment of imcompatible land uses
c. scenic and recreational qualities of the North Shore are maintained and made available for public use
d. the cost of public services will be minimized and made more predictable
e. a variety of living styles will be provided for.

The Permissible Use Areas serve the same purpose of land use districts in a comprehensive plan. As such, they are not zoning districts but serve as the basis for zoning. While each Area provides for a variety of uses, local governments will determine the location of these uses, as well as lot sizes, densities, sewage requirements and other factors they think are most appropriate.

B. PERMISSIBLE USE AREAS

1. OPEN SPACE AREA

Purpose

To identify publicly-owned land (state, federal and local) in the Coastal Zone which has high public value for recreation and to ensure that the management and use of those lands is consistent with the CZM Program.

Location

a. dedicated federal and state owned land and the Congdon property extending from the Lester River to Stoney Point, and

b. publicly-owned islands in Lake Superior, St. Louis Bay and the St. Louis River.

Permitted Uses

a. soil and water conservation programs
b. forest management programs
c. fish and wildlife management programs
d. public recreation
e. interpretation of natural and historic resources
f. wild crop harvesting
g. highway rest areas
h. accessory structures in parks and other dedicated public open space.

2. MUNICIPAL AREA

Purpose

To recognize existing incorporated municipalities and to encourage the development of land uses and facilities within these areas which provide for a complete range of goods and services to meet the needs of both local residents and tourists.

Location

The Municipal Area shall apply to those portions of Duluth, Two Harbors, Beaver Bay, Silver Bay and Grand Marais within the Coastal Zone boundary. Municipal Area permissible use boundaries may extend for a reasonable distance beyond actual municipal boundaries when deemed necessary by counties to solve a particular problem.

Permitted Uses

a. residential
b. commercial
c. public and semi-public use of lands
d. industrial
e. future coastal-dependent industrial uses in Duluth, Two Harbors and Silver Bay.

"Coastal-dependent industrial use" is defined as any industrial use that cannot exist if it is not located on the immediate shore of Lake Superior or cannot directly use Lake Superior water.

3. UNINCORPORATED SETTLEMENT AREA

Purpose

To recognize concentrations of existing development and categorize those concentrations as either secondary service areas or other settlements.

Uses in secondary service areas provide for a range of goods and services similar to those permitted in municipal areas, excluding heavy industrial uses. It is intended that secondary service areas would develop at a density that would make some type of central sewer system economically feasible if needed in the future.

Other settlements primarily provide for permanent and seasonal residential development at lesser densities than the secondary service areas, but greater densities than in the rural area. New commercial uses would be allowed under certain conditions in other settlements.

Location

a. Secondary Service Areas shall apply to Knife River, Castle Danger, Little Marais, Schroeder/Taconite Harbor complex, Tofte, Lutsen and Hovland.

b. Other Settlements shall apply to the Clifton/Greenwood Beach/French River complex, East Beaver Bay, Palisade Creek and Croftville.

Permissible Uses

a. Secondary Service Area

Permitted Uses

1) residential
2) commercial
3) public and semi-public land uses
4) future coastal dependent industrial uses in Taconite Harbor

Conditional Uses

1) sand and gravel extraction
2) light industrial

b. Other Settlements

Permitted Uses

1) residential (seasonal and year-around)

Conditional Uses

1) sand and gravel extraction
2) home occupations
3) retail and service commercial (year-around)
4) tourist related commercial (seasonal)

4. RURAL AREA

Purpose

To maintain areas of the North Shore for relatively low density, high amenity seasonal and year-around housing and resort use. Rural area designation implies that centralized municipal services, such as sewer and water, are not available now nor are likely to be available in the future. In rural areas, these facilities are better provided either on-site or through group hookups.

Location

The Rural Area shall apply to all land in the Coastal Zone that does not fall within permissible use areas 1 through 3 above.

Permitted Uses

a. seasonal and year-around residential
b. existing resorts, restaurants and commercial uses

Conditional Uses

a. tourist-related commercial (seasonal)
b. new resorts, campgrounds and restaurants
c. home occupations
d. sand and gravel extraction
e. public and semi-public land use

Locational Standards:

Counties shall use the following standards in revising their zoning ordinances for the Rural Area:

a. Standards applying to all uses.

1) development on slopes of greater than 18% shall be discouraged. Development shall be allowed on slopes greater than 18% only if all guidelines for management and development are met.

2) Soil types, sewage treatment measures and the availability of water supply shall be considered in determining density of uses.
3) development shall be encouraged to occur where existing public roads can provide necessary access.
4) development anticipating or requiring municipally operated sewer or water services shall not be permitted in the Rural Area until the cost and practicality of extending municipal services is determined to be feasible. This does not preclude group sewer and water hookups in Rural Areas.

b. Standards applying only to residential uses.

In addition to Standards a.(1-4) above, residential uses should be encouraged to locate in areas where the number of access points to U.S. 61 can be minimized through the use of private internal collector roads.

c. Standards applying only to commercial resort uses.

In addition to Standards a.(1-4) above, new commercial resort development shall not be located in areas which would likely result in conflicts with existing or planned residential use.

5. GEOGRAPHIC AREAS OF PARTICULAR CONCERN (GAPC)

Purpose

To identify unique land or water areas within the Coastal Zone which are not or cannot be managed adequately through existing controls or the permissible use section of the Coastal Zone Program and require special planning attention.

Location

GAPCs can be designated in any of the other permissible use areas. The location of GAPCs will be determined by the CZM Policy Advisory Committee for incorporation into the October, 1977 draft of the CZM Plan.

Permissible Uses

Uses will be determined through the planning program for each GAPC.

6. LAKE SUPERIOR AREA

Purpose

To recognize the unique character of the Lake itself and the many problems associated with its use. Designation as a separate use area is intended to focus the attention of the numerous groups and agencies involved with using or regulating the use of Lake Superior on alleviating problems within the framework of the Coastal Zone Management Program.

Location

All Lake Superior waters within the State boundary.

Permissible Uses

a. recreation
b. commercial shipping
c. attendant aids to navigation
d. water appropriations
e. fishery management
f. commercial fishing
g. other uses that comply with state or federal standards or international treaty provisions

Uses of lowest priority include all uses which have the potential for accidentally resulting in significant environmental degredation such as shipping of hazardous substances, uses dependent on radioactive materials and lakebed mining.

Maps of the Permissible Use Areas will be included in the final report. Staff prepared recommended maps as a part of the 5-20-77 draft of Permissible Uses. As yet, the counties have not developed alternatives to the staff recommendations.

SECTION 3:

GUIDELINES FOR MANAGEMENT AND DEVELOPMENT

SECTION 3: GUIDELINES FOR MANAGEMENT AND DEVELOPMENT

Note: All statements in Sections 3 and 4 referred to as Goals or Policies have been adopted by the CZM Policy Advisory Committee

Policy:

Counties and townships should obtain CZM planning dollars to re-evaluate existing plans and zoning ordinances and update these documents to ensure that future development occurs in a manner that can be easily serviced and located in areas where the resource base is capable of sustaining development pressures.

With the exception of Tables 2-1, 2 and 3, which are advisory only, the guidelines contained in this Section are to be implemented primarily by the three coastal counties. Within the portion of the Coastal Zone subject to the provisions of the Shoreland Management Act, compliance is mandatory. The Department of Natural Resources will amend its Shoreland rules and regulations to incorporate CZM guidelines. Counties will have a specified period of time to adopt ordinances which are consistent with these guidelines. Lands subject to the Shoreland Management Act lie between the Lake Superior shore and the first ¼,¼,¼ Section line (quarter forty) inland from a line 1,000 feet inland and parallel to the shore.

In areas of the Coastal Zone where the CZM boundary extends inland beyond the Shoreland Management boundary, the land lying between the two boundaries will be subject to voluntary local control. Counties have agreed to evaluate their enforcement mechanisms, such as zoning ordinances, against the provisions of the CZM Plan and either amend existing mechanisms or develop new ones, if needed, to comply with the Plan.

CZM funds will be made available to the counties to cover the costs of amending or developing consistent enforcement mechanisms. When completed, counties will submit these documents to the lead agency for review. After the lead agency certifies that the documents comply with the CZM Plan, Section 306 funds will be made available to the counties to cover the costs of implementation. If counties do not voluntarily develop mechanisms which are consistent with the CZM plan, eligilibility for CZM funding of any type will be forfeited for the entire area of the county within the CZM boundary.

State and federal agencies are also expected to conform with these guidelines. Agency operating procedures for the Coastal Zone will be made to reflect these guidelines and rules and regulations should be amended if necessary to assure consistency. State and federal actions will be monitored under the consistency provisions of the Act to assure that compliance is achieved. State agencies are eligible for 306 funds to offset the costs of CZM requirements.

A. SOIL RESOURCE MANAGEMENT GUIDELINES

1. Summary of Coastal Zone Soil Conditions

The first definitive survey of North Shore soils was conducted through the CZM Program. The survey revealed that soils pose one or more problems to construction. This summary is provided as a service to units of local government, private individuals and others who own or may own property and plan construction activities. This information wil serve to highlight potential problems so that they can be anticipated and addressed prior to construction.

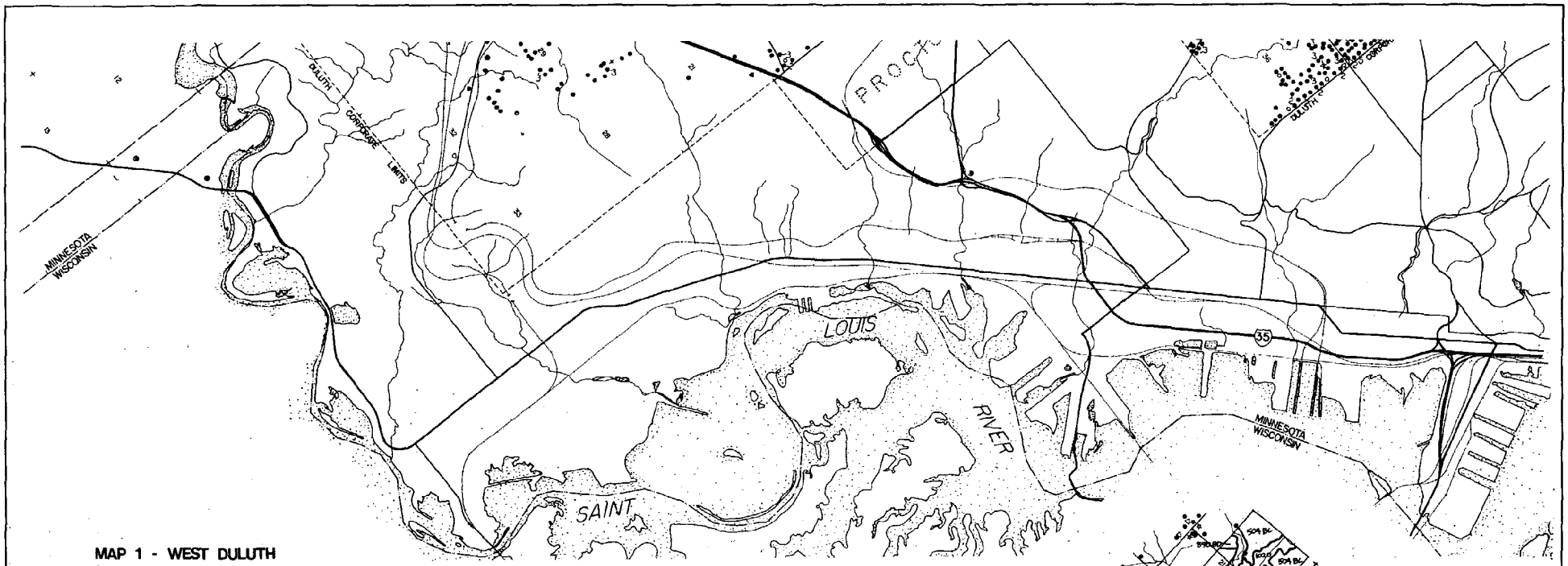
Documents in this Section include:

a. Map 2-1,Map of Coastal Zone Soils. Note that the soil survey area extends further inland than the actual coastal zone boundary.

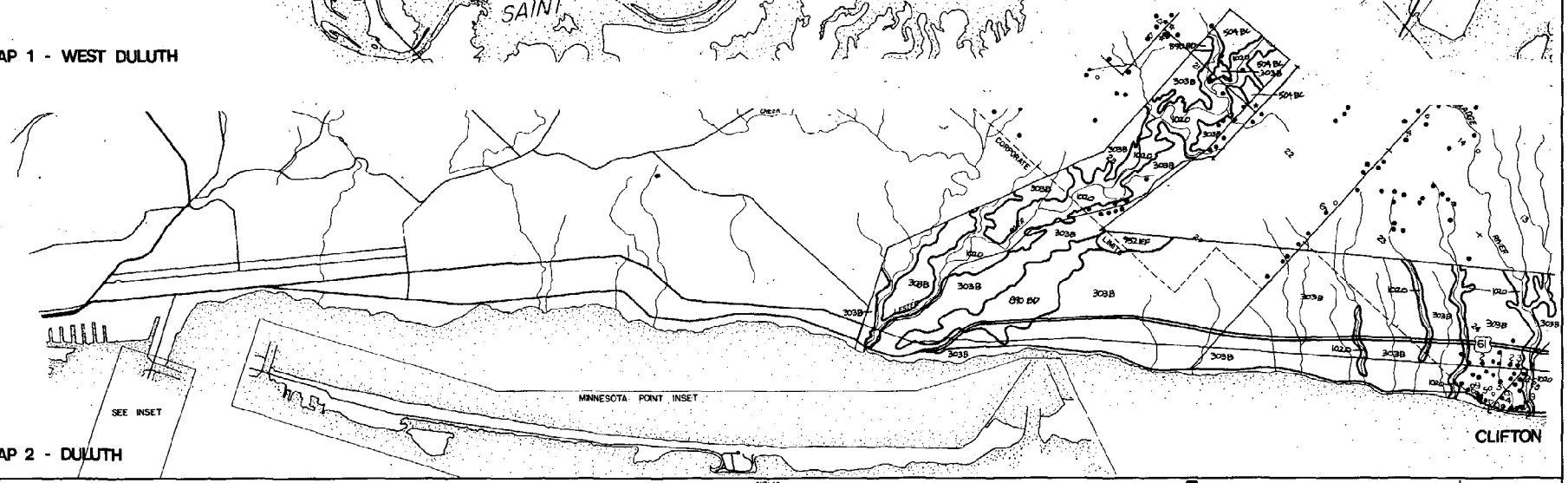
b. Table 2-1,Tabulation of Detail Soils for CZM Study Area in Acres. Statistics in this Table correspond to the survey area shown on Map 2-1.

c. Table 2-2,Problems Associated with Construction Activities in Coastal Zone Soils. The Table shows soils where certain construction problems may occur.

d. Table 2-3,Remedies to Problems Associated with Construction Activities in Coastal Zone Soils. The Table lists measures developers can take to overcome or minimize construction problems posed by soils.



MAP 1 - WEST DULUTH



MAP 2 - DULUTH

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

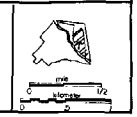
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
R - Commercial with living quarters

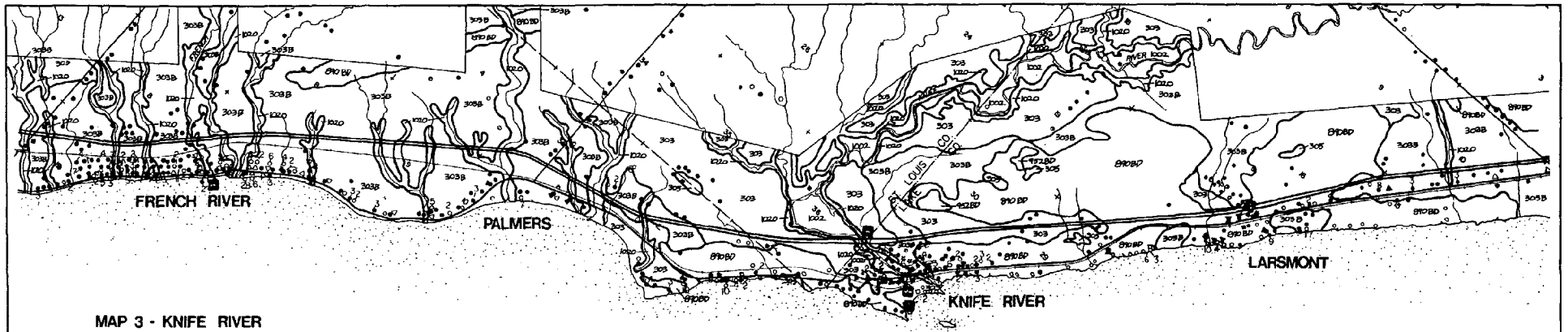
A - AGRICULTURE
S - SILVICULTURE
⊛ - MINERAL EXTRACTION (active)
⊛ - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊘ - Abandoned
3—⊖ - Dwellings, closely spaced

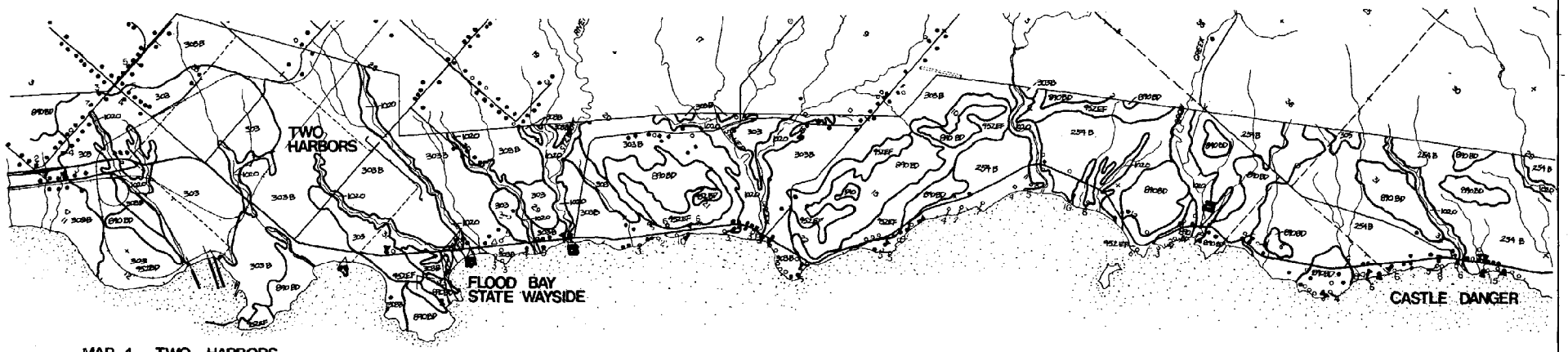
W - Wayside
C - Campground
PG - Picnic Grounds
PA - Public Access
P - Park
State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

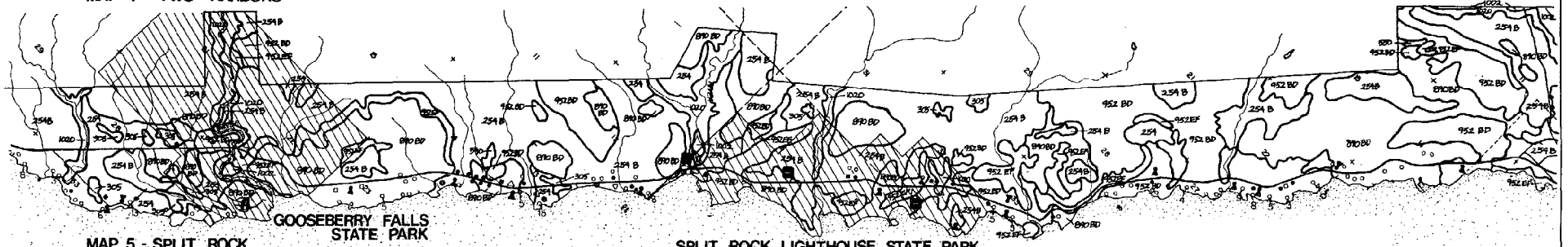




MAP 3 - KNIFE RIVER



MAP 4 - TWO HARBORS



MAP 5 - SPLIT ROCK

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

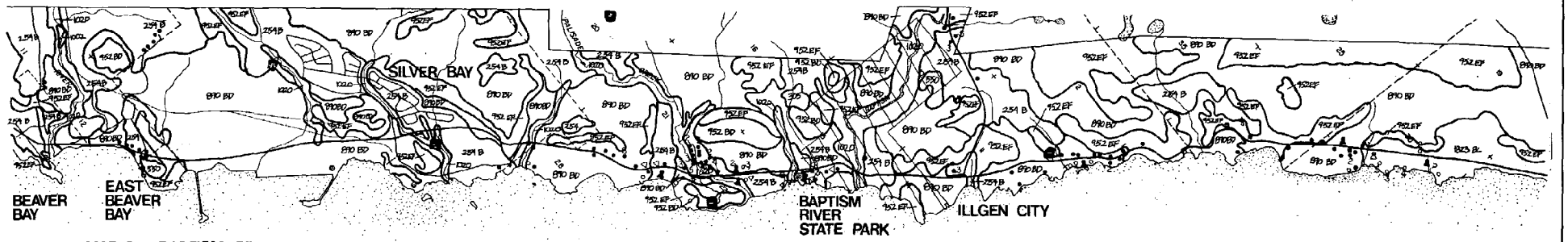
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▲ - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
⊕ - MINERAL EXTRACTION (active)
⊖ - " " (inactive)
Ⓜ - MANUFACTURING

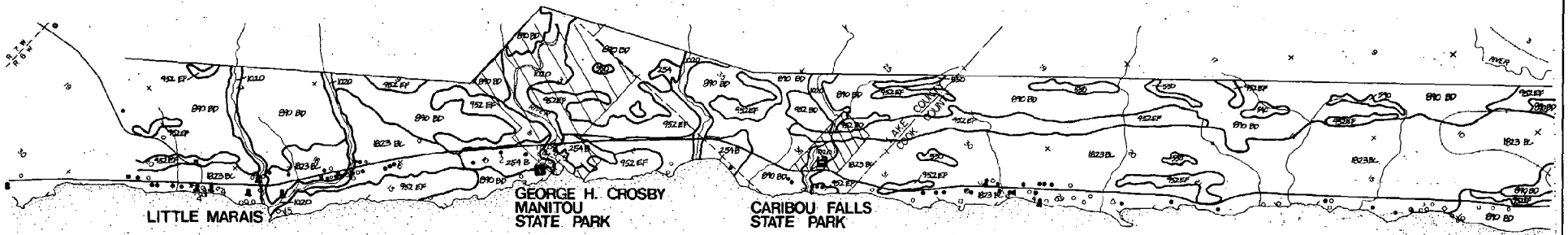
RESIDENTIAL
Single family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊘ - Abandoned
3→ - Dwellings, closely spaced

W - Wayside
C - Campground
P - Picnic Grounds
A - Public Access
S - Park
State Park

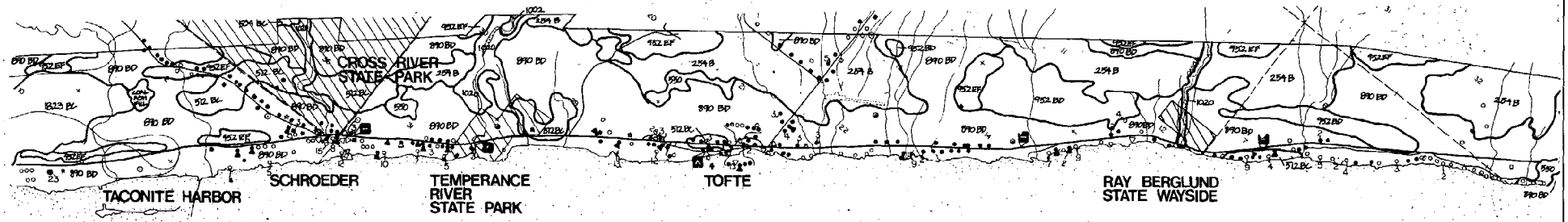
Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Realty Department



MAP 6 - BAPTISM RIVER



MAP 7 - MANITOU RIVER



MAP 8 - TEMPERANCE RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
★ - Semi-public

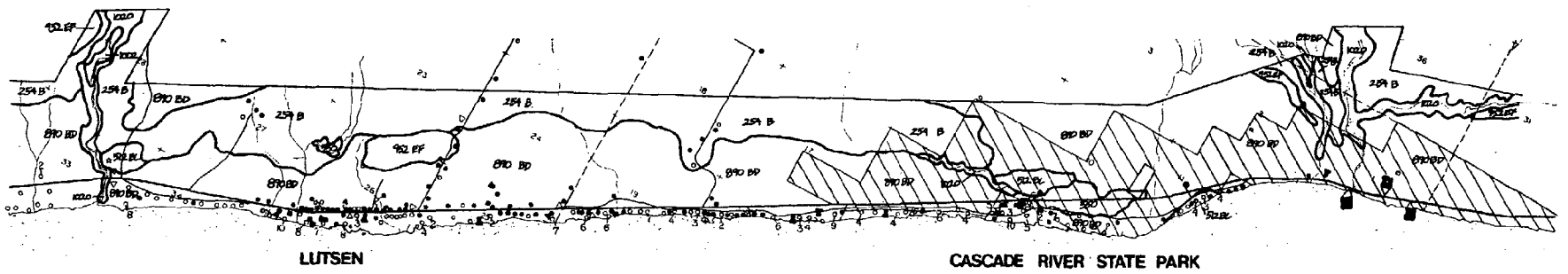
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
B - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
◉ - MINERAL EXTRACTION (active)
◉ - " " (inactive)
Ⓜ - MANUFACTURING

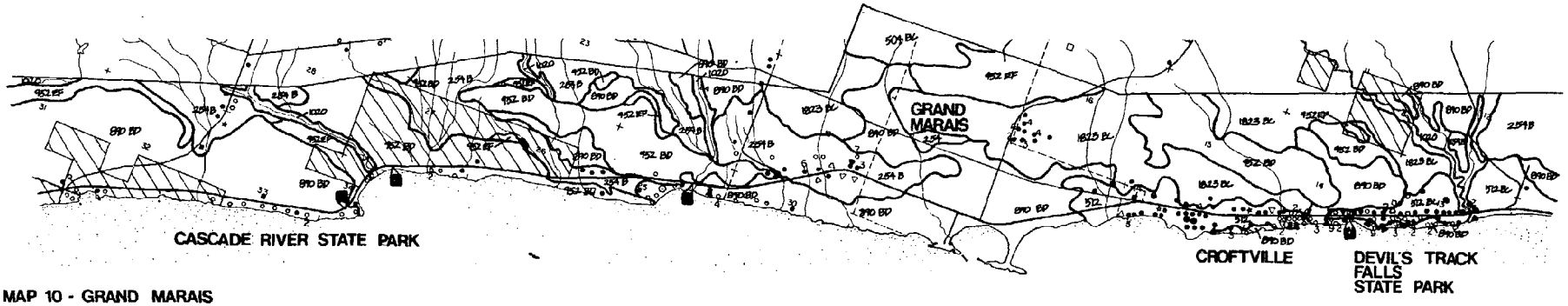
RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⌂ - Abandoned
- Dwellings, closely spaced

W - Wayside
C - Campground
P - Picnic Grounds
PA - Public Access
S - Park
State Park

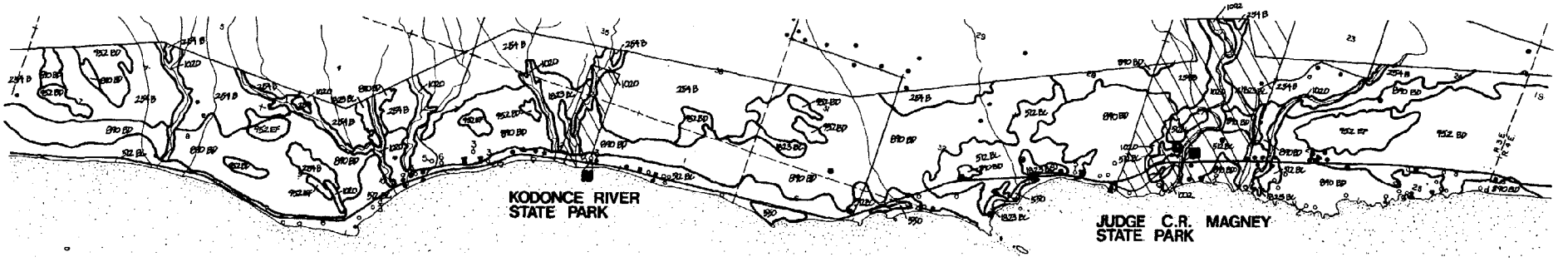
Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department



MAP 9 - CARIBOU CREEK



MAP 10 - GRAND MARAIS



MAP 11 - KODONCE RIVER

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
☆ - Semi-public

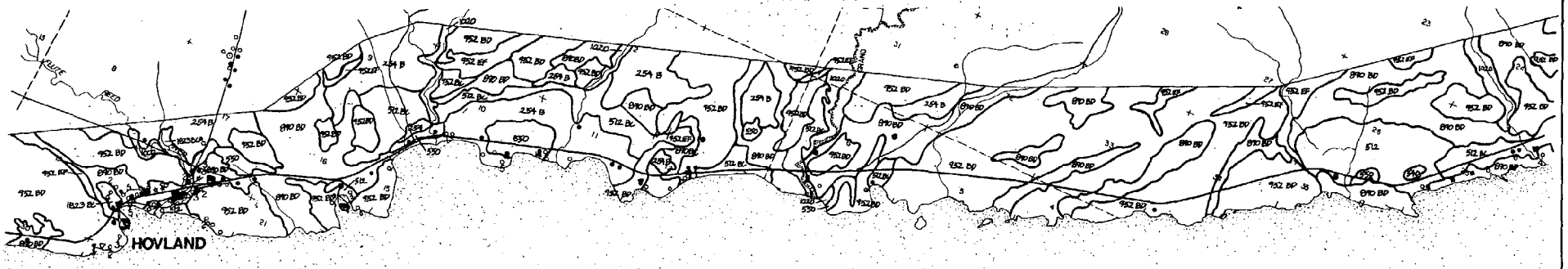
COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
■ - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
● - MINERAL EXTRACTION (active)
○ - " " (inactive)
⊕ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊙ - Abandoned
3—● - Dwellings, closely spaced

- Wayside
- Campground
- Picnic Grounds
- Public Access
- Park
- State Park

Source
Agricultural Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department



MAP 12 - RESERVATION RIVER

MAP 13 - GRAND PORTAGE

COASTAL ZONE PLANNING AREA

COASTAL ZONE MANAGEMENT

PUBLIC
★ - Public
★ - Semi-public

COMMERCIAL
△ - Retail Commercial
▲ - Service Commercial
▲ - Commercial with living quarters

A - AGRICULTURE
S - SILVICULTURE
● - MINERAL EXTRACTION (active)
● - " " (inactive)
⊙ - MANUFACTURING

RESIDENTIAL
Single Family
● - Conventional, year-round
○ - Conventional, seasonal
■ - Mobile, year-round
□ - Mobile, seasonal
⊘ - Abandoned
5—● - Dwellings, closely spaced

W - Wayside
C - Campground
P - Picnic Grounds
A - Public Access
P - Park
State Park

Source
Agriculture Stabilization & Conservation Service, U.S. Department of Agriculture
Minnesota Department of Highways
Minnesota Department of Natural Resources
St. Louis County, Department of Planning and Zoning
Lake County Zoning Department
Cook County Zoning Department
St. Louis County Health Department

mile
0 1/2
kilometer
0 5 1

Table 2-1

TABULATION OF DETAILED SOILS FOR
COASTAL ZONE MANAGEMENT SUDY AREA IN ACRES

Level	Symbol	Name	Percent Slope	St. Louis County	Lake County	Cook County	Total Soils For C.Z.M.	% of Total Soils Coded
1	21BC	Ahmeek	2-12%			442.5	442.5	.4%
2	254	Hibbing	0-2%		672.5	42.5	715	.6%
3	254B	Hibbing	2-6%		7667.5	10217.5	17885	15.6%
4	303	Ontonagon	0-2%	2417.5	2330		4747.5	4.1%
5	303B	Ontonagon	6-12%	6730	5405		12135	10.6%
6	305	Bergland		10	157.5	57.5	225	.2%
7	504	Duluth						
8	504BC	Duluth	2-12%	395	527.5	1295	2217.5	1.9%
9	512	Amasa	0-2%			1885	1885	1.6%
10	512BC	Amasa	2-12%			3497.5	3497.5	3.0%
11	540	Seelyeville			20	505	525	.5%
12	550	Suamico			150	12025	1352.5	1.2%
13	890BD	Barto-Mesaba	2-18%	655	14387.5	20817.5	35860	31.2%
14	952BD	Quetico-Rock	2-18%	45	2172.5	8257.5	10475	9.1%
15	952EF	Quetico-Rock	18-60%	25	4627.5	3282.5	7935	6.9%
16	1002	Fluvaquents		197.5	500	265	962.5	.8%
17	1020	Udorthents		2230	3212.5	3225	8667.5	7.5%
18	1823BC	Mesaba	2-12%		1050	4247.5	5297.5	4.6%
19		Wet Soils		12.5	50	12.5	75	.1%
20		Bedrock Outcrop			50	10	62.5	.0%
21								
22		Tailings Basins			40	52.5	92.5	.1%
23								
24	952AB	Barto-Mesabi						
25		Gravel Pits				67.5	67.5	.0%
Total Acres Coded				12720	43020	59167.5	114907.5	100.0%

SOURCE: CZM North Shore Soil Survey, Minnesota Land Management Information System, February 1977.

Table 2-2. PROBLEMS ASSOCIATED WITH CONSTRUCTION ACTIVITIES IN COASTAL ZONE SOILS

CONSTRUCTION ACTIVITY	CONSTRUCTION PROBLEMS	SOIL TYPES: Barto/Mesaba 890	Hibbing 254	Ontonagan 303	Quetico/Bedrock 952	Amasa 512	Mesaba Deep Var. 1823	Udorthents 1020	Flavaquents 1002	Quetico/Rock Complex 952EF	Seelyville Muck 540	Suamico Muck 550
Septic Tanks	shallow depth to bedrock	x			x		x					
	fill not available	x			x		x					
	steep slopes	x			x	x	x					
	high cost of installation	x	x	x	x		x					
	percolation rate too fast (f) or too slow (s)		s	s	s	f						
	sub-surface & surface water seepage or drainage	x	x	x	x	x	x					
	contamination of ground water	x			x	x	x					
Excavations	high cost	x			x							
	poor workability		x	x								
	cutbank caving		x	x		x						
Structures Without Basements	high cost of excavation for services	x			x							
	steep slopes	x			x	x	x					
	low bearing strength		x	x								
	soils shrink or swell		x	x								
Structures With Basements	high cost of excavation	x			x		x					
	high cost of backfill	x	x	x	x		x					
	high cost of tiling		x	x			x					
	steep slopes	x			x	x	x					
	poor workability		x	x	x							
	low bearing strength		x	x								
	soils shrink or swell		x	x								
Local Roads & Streets	high excavation costs	x			x							
	high cost of fill material	x	x	x	x							
	continued maintenance costs		x	x			x					
	low bearing capacity		x	x								
	soils shrink or swell		x	x								
Camping and Picnic Areas	steep slopes	x		x	x	x	x					
	sewage treatment	x	x	x	x	x	x					
	excavation for services	x			x							
	road building	x	x	x	x		x					
	soil erosion	x	x	x	x	x	x					
	soil compaction		x	x								
	shallow rooted trees	x			x							
	maintenance of groundcover	x	x	x	x	x	x					
	surface drainage		x	x								
Playgrounds	steep slopes	x	x	x	x	x	x					
	soil compaction		x	x								
	soil erosion	x	x	x	x	x	x					
	stoniness	x			x	x	x					
	maintenance of groundcover	x	x	x	x	x	x					
	surface drainage		x	x								
Paths & Trails	soil erosion	x	x	x	x	x	x					
	surface drainage		x	x								
	slumping		x	x								
	steep slopes	x			x							

These five soils present severe constraints to development.

Construction activities are subject to special county regulations.

Table 2-3 REMEDIES TO PROBLEMS ASSOCIATED WITH CONSTRUCTION ACTIVITIES IN COASTAL ZONE SOILS

CONSTRUCTION ACTIVITY & RELATED PROBLEMS	REASON FOR PROBLEM	REMEDIAL MEASURES
1. Septic Tanks		
The activity "septic tanks" refers to the traditional septic tank and drain field combination. Modifications of this traditional combination, such as the "gopher mound", may be satisfactory on a problem soil. In selecting a sewage treatment system, a developer should seek professional advice on the modified systems as well as a number of package treatment systems which PCA finds acceptable for Minnesota. Also, where conditions permit, several homeowners or businesses may save money and treat sewage more effectively by finding a suitable location for a larger treatment system and jointly hooking into it. Under extreme conditions a closed system, such as a sealed vault, may be the only suitable choice available. Developers should be aware that their site will often contain more than one soil type. The potential costs of installing and maintaining sewage systems are such that developers are advised to give high priority to locating sewage facilities early in the site planning process. A site may contain several suitable locations for a building, but only one which is acceptable for sewage treatment.		
a. depth to bedrock	inadequate soil absorption	Haul in earth fill to increase size of treatment area & obtain required depth over bedrock.
b. fill not available	soil not suited for fill	Survey site for appropriate fill material. Haul in fill from off-site.
c. steep slopes	drain field will not properly function	Modify slope. Consider alternative sites or systems.
d. high installation cost	other factors listed here	Consider alternative systems or group hookup.
e. percolation rate too fast or too slow	soil will not properly absorb effluent	In clay soils, haul in granular material to speed percolation. In Amasa soil, bring in earth fill to filter effluent. In shallow to bedrock soils, bring in earth fill to obtain required depth over bedrock.
f. sub-surface & surface water seepage/drainage	saturates absorption field	Provide surface drainage so water doesn't pond on disposal area. Install clay caps on drain tile trenches. Install curtain drains on systems in Ontonagon soil.

CONSTRUCTION ACTIVITY & RELATED PROBLEMS	REASON FOR PROBLEM	REMEDIAL MEASURES
g. contamination of groundwater	public health	Proper design, installation and maintenance of treatment systems.
2. Excavations		
A development site may contain a number of soil types as well as local variations in the characteristics of a given soil. These conditions may create conditions either more limiting or more desirable for excavations or other construction activities. Excavations should be planned to take advantage of localized areas with soil best suited to the activity. Developers should select locations, permanent or temporary, for storing excavated material that will minimize erosion and sedimentation. Suitability of the spoil for backfill should be considered. If a proposed excavation requires blasting, the proximity of wells, basements, overhead powerlines and underground services should be determined. Developers should be aware of and comply with local ordinances regulating blasting.		
a. high cost	bedrock near surface	Bore test holes to determine depth to bedrock. Check local requirements for minimum depth of buried utilities. Obtain cost estimates prior to starting work.
b. poor soil workability	clay soils are sticky and difficult to excavate when wet; when dry, they become very hard.	Attempt to excavate during late summer or early fall when moisture conditions are normally the most satisfactory.
c. cutbank caving	vertical banks can cave in if they are not supported	Saturated clay soils and sandy soils are most susceptible to caving. Moderate danger up to 6 feet deep, very dangerous if over 6 feet deep. Keep children away from excavations and provide shoring where necessary.
3. Structures Without Basements		
a. high cost of excavation for services	bedrock near surface	See above: 2. Excavations, a. high cost
b. steep slopes	steep slopes require more excavating or filling of site or special engineering solutions	Seek professional advice and cost estimates before construction.
c. low bearing strength	clay soils are plastic and move under pressure	Special designs for footings may be required to prevent settling.
d. soils shrink or swell	soils that shrink when dry and swell when wet can crack walls and floors	Floating slab should have gravel base under it for good drainage. Place footings below frost, install proper backfill and drain water away from building.

CONSTRUCTION ACTIVITY & RELATED PROBLEMS	REASON FOR PROBLEM	REMEDIAL MEASURES
4. Structures With Basements		
a. high cost of excavation	bedrock near surface	See above: 2. Excavations, a. high cost
b. high cost of backfill	if clay is used for backfill it will swell when wet and may crack walls--backfill source material is limited on shallow soils	Determine availability of fill on site. Haul in material from off-site if necessary.
c. high cost of tiling	percolation is very slow in clay soils	Provide backfill and proper drainage to avoid problems with shrink-swell, frost action problems or wet basements. Tiling is often best remedy and is good insurance. Tiling is much cheaper during construction than after building is completed.
d. steep slope	slopes over 8% necessitate more stringent design considerations	Site structure on moderate slope or seek professional advice
e. workability	clay soils are sticky and difficult to work when very wet or very dry.	Work soils when they are neither too wet nor too dry, usually late summer or early fall.
f. low bearing strength	clay soils are plastic and move under pressure	See above: 3. Structures Without Basements, c. low bearing strength
g. shrink-swell	soils that shrink when dry and swell when wet can crack basement walls and floors	Put gravel under slab for drainage. Place footings below frost line, install proper backfill and drain water away from building.
5. Local Roads and Streets		
a. high excavation costs	shallow depth to bedrock makes road bed preparation very costly.	Trade-off between filling and blasting to maintain grades. Follow the contour of the land in laying out roads to minimize cut/fill. Adequate base material will be needed to accomodate culverts.

CONSTRUCTION ACTIVITY & RELATED PROBLEMS	REASON FOR PROBLEM	REMEDIAL MEASURES
5. Local Roads and Streets (continued)		
b. high cost of fill	lack of fill material on-site	Hand fill from nearest available source.
c. continued maintenance	heaving and slippage of clay soils requires annual maintenance. Slippage gets worse each year if the slide is leveled out and filled over. This additional weight, on a soil with low bearing strength, adds to the problem.	Avoid clay soils if possible. Provide granular base of suitable depth.
d. low bearing strength	roadbed is likely to settle in places with high moisture	"
e. soils shrink or swell	expansion and contraction of roadbed stresses surface material and causes cracking on clay soils	"
6. Campground/Picnic Areas		
a. steep slope	slope may preclude desired activity	Select flatter sites or grade to meet accepted slope standards for activity
b. sewage treatment	soils may require modified systems to meet standards	See above: 1. Septic Tanks.
c. excavations for services		See above: 2. Excavations.
d. road building		See above: 5. Local Roads and Streets
e. soil erosion	aesthetics, site preservation, sedimentation.	Select flatter sites. On Hibbing/Ontonagon soils, surface heavy traffic and use areas with bark, wood chips, or mulch and stabilize soil surface. Cluster facilities and establish trails or walkways to correct uses.
f. soil compaction	increases speed and amount of water runoff; soil looses its ability to support vegetation	In clay soils, cluster facilities and surface heavy use areas and walkways. Rotate use areas periodically to allow them to rejuvenate.

CONSTRUCTION ACTIVITY & RELATED PROBLEMS	REASON FOR PROBLEM	REMEDIAL MEASURES
6. Campground/Picnic Areas (continued)		
g. shallow-rooted trees	creating openings allows wind to penetrate stands, creating windfalls and hazard to users.	Minimize creation of large openings in crown cover, particularly in Barto-Mesaba, Quetico and Mesaba Deep Var. soils.
h. maintenance of ground cover	appearance, erosion, compaction	On Barto-Mesaba, Mesaba Deep, Quetico and Amasa soils, periodic fertilizing and watering is necessary. Choose hardy native plant materials. Rotate use areas to maximum degree possible.
i. surface drainage	to prevent erosion and allow use of area after rain	Grade and landscape to route surface drainage away from use areas and eliminate ponding. Install grass drainageways. On clay soils, install water bars and diversions on paths.
7. Playgrounds		
a. slope	ease of use	See above: 6. Campgrounds, a. steep slopes
b. soil compaction	soil looses air space & is unable to absorb water or support vegetation	See above: 6. Campgrounds, f. soil compaction
c. erodibility		See above: 6. Campgrounds, e. soil erosion
d. stoniness	interferes with use; increases potential for injury	Look for soils without stones. Pick up stones periodically.
e. maintenance of ground-cover	grass, etc. dies with too much use and area is unsightly, unsuitable and easily erodible	See above: 6. Campgrounds, h. maintenance of groundcover
f. surface drainage	to allow playground function to resume soon after a rain	See above: 6. Campgrounds, i. surface drainage

CONSTRUCTION ACTIVITY & RELATED PROBLEMS	REASON FOR PROBLEM	REMEDIAL MEASURES
8. Paths/Trails		
a. erodibility	aesthetics, interferes with intended use, sedimentation	Install water bars. Minimize long, straight routes down slopes.
b. surface drainage	relates to erosion/sedimentation, washouts and ponding.	Install water bars. Minimize disturbance of natural drainages. Minimize disruption of downslope vegetation. Locate trails on ridges.
c. slumping	erosion/sedimentation, trail maintenance & safety	On clay soils and Amasa soils, minimize cuts for trail purposes. Stabilize cuts and fills by vegetation or structural means.
d. slope	ease of use, erosion/sedimentation	Conduct route survey to avoid steep slopes.

2. General Guidelines for Soil Management

a. Objectives

1) To minimize the risk of environmental damage and protect private developers and governmental units from incurring high capital and maintenance costs resulting from development on poorly suited soils.

2) To reduce the likelihood of ground and surface water pollution, preserve unique natural features and minimize the danger to the public of development on hazardous areas by regulating the development of unstable soils, steep slopes and areas of high scenic and aesthetic quality.

b. Guidelines

Soil and Water Conservation Districts have statutory authority for a broad range of soil and water management activities. Recently, the three separate Districts operating in the Coastal Zone formed, under the joint powers act, a Coastal Zone Area Committee of Soil and Water Conservation Districts. The Committee was created to assist the coastal counties in implementing portions of the CZM Plan relating to soils and plans to set up a North Shore office and hire professional help to do this. In addition, the three counties have entered into cooperative agreements with the Districts to perform soil and water-related services so the legal vehicle exists to effectively implement the CZM Soil Management Guidelines listed below.

--Counties should require that subdivision and development proposals be reviewed to determine whether the applicant has complied with the intent of these guidelines. The review could result in recommendations which are site-specific for the proposed development.

--Applications for subdivision or development approval should be accompanied by soils and development information sufficient to allow for the review noted above.

--Development activities should be conducted in stages so as to minimize the amount of soil exposed at any time.

--Where necessary, sediment basins, diversions, grade stabilization structures, mulching and other sediment control measures should be used during each construction phase.

--Cut faces and slopes should be protected during construction activities and then stabilized.

--Topsoil which is suitable for supporting vegetation and is to be removed during construction should be stockpiled on site and be returned upon completion of construction activities.

--Removal of vegetation from a construction site should be held to a minimum and the site should be revegetated as soon as practicable.

--Provision should be made for the storage and controlled release of storm water runoff from developed sites. Such runoff should not exceed the natural rate of runoff resulting from a three inch rainfall in a 24 hour period.

--Soil conditions on a development site should be stabilized within 30 days of completion of construction unless precluded by reason of frost, soil wetness or other factors affecting the workability of the soil.

--Sand and gravel deposits should not be covered with any material.

--Due to physical limitations imposed by soil conditions, alternatives to conventional septic tank/drain field systems should be required by local ordinance. These alternatives include package treatment plants, group hookups and systems provided for in the Pollution Control Agency's Proposed Standards for Individual Sewage Treatment Systems (WPC 40).

B. VEGETATIVE MANAGEMENT GUIDELINES

1. General

The question of vegetative management is twofold as it relates both to forest management for commercial purposes and to vegetative management in conjunction with other development activities. Due to the relatively small amount of commercial forest land in the coastal zone, it is felt that recommended guidelines for commercial forestry should be held in abeyance pending completion of Section 208 Water Quality Planning Studies by the PCA. The 208 plan will identify areas which are susceptible to damage from forestry practices and will recommend the best management practices for these areas designed to minimize non-

point pollution. Review and incorporation of these practices into the plan could be a legitimate element to be conducted under 306 implementation of the CZM plan. On the other hand, the Coastal Zone Area is situated in a very unique biological setting at the ecotone where land and water intermix. At this ecotone, diverse forms of vegetation and, subsequently, many forms of wildlife are found. The question of vegetational management must consider all these natural habitat forms such as coniferous forest, deciduous forest, shrubland, grassy meadow, sand dunes, sand beaches, emergent macrophytic marshes, or woody bogs. Vegetational management must consider the natural character of the terrain and minimize both the on and off-site negative impacts of a variety of developmental activities.

2. Objectives

   a. To provide for the protection, proper management and use of vegetative resources in the Coastal Zone in order to prevent damage from erosion and siltation and thus, minimize the loss of wildlife and the destruction of natural habitats.

   b. To protect and perpetuate vegetation in the Coastal Zone for its economic native terrestrial and aquatic scenic, ecological, scientific or historical value.

3. Vegetative Management Guidelines

   --Tree cutting in subdivisions and development sites should be held to the minimum amount necessary to accommodate on-site improvements.

   --The permanent removal of native vegetation for any development purpose should be minimized.

   --Vegetation removal should be prohibited in areas where a high erosion hazard exists.

   --Clearcutting should not be permitted, except where it can be demonstrated that it is necessary to achieve desired management objectives, as in the case of wildlife habitat or reforestation. In such cases, the size of clearcut blocks, patches or strips shall be held to the minimum necessary and related to the natural terrain.

   --When clearcuts are deemed feasible, they should be conducted between September 15 and May 15. If natural regeneration will not result in adequate vegetative cover, clearcut areas should be replanted. Such replanting should be performed as soon as possible after the end of cutting activity.

--Measures should be taken during construction to protect as many trees as possible on the site. Such measures include avoiding soil compaction over the root zone, piling dirt around the tree base and hitting trees with equipment.

--New development should be required to maintain a vegetative screen along major roads. This could consist of new plantings or preferably, the preservation of existing vegetation.

--A vegetative buffer should be maintained along all streams, rivers and lakeshore to protect against sedimentation and erosion. No cutting of trees in this buffer strip should be allowed unles it can be demonstrated that such cutting will not result in erosion or sedimentation.

--All aquatic marshes and bogs should be maintained in their natural character and the impact of development on these areas shall be minimized.

C. LAND SUBDIVISION GUIDELINES

1. Background

Land subdivision may be simply defined as the process of dividing a parcel of land into two or more parcels for the purpose of transferring ownership or building development. Subdivision regulations are nothing more than a codification of standards and procedures with which the process of subdivision is regulated. The importance of adequate subdivision controls cannot be overstated. Once created, a subdivision is a permanent feature of the community and establishes the framework for any future development. A properly designed and developed subdivision insures that public services can be provided efficiently and at a reasonable cost while providing a high degree of stability for investments by private individuals.

During the course of the CZM Program, some people have indicated that the lack of subdivision regulations in Lake and Cook Counties is a problem. However, both counties have indicated their intent to adopt subdivision regulations in the near future. Given this fact, the guidelines contained in this section have been prepared to assist in the preparation of subdivision regulations. Minnesota Statutes Chap. 394.25, Subd. 7, permits counties to regulate land subdivision, but the form and substance of these regulations are, to a large degree, left to the discretion of the counties. Basically, the only restriction imposed is that the final plat must comply with Minnesota Statutes Chap. 505 which primarily addresses requirements

for standardizing lot and block numeration, dimensional notation and recording. To be effective, however, subdivision regulations should address in some detail the actual design and construction of a subdivision.

2. Policy

Subdivision ordinances should be developed by local government units in the coastal zone.

3. Objectives

The following objectives should be satisfied in any new subdivision of land:

a. The subdivision should comply with the comprehensive plan for the area, particularly, with regard to major roads and land use.

b. The subdivision should allow for the efficient provision of services and utilities.

c. The subdivision should take into account, and adapt itself to, the natural physical characteristics of the site.

d. The subdivision should be designed so as to efficiently handle internal traffic and minimize traffic conflicts on major roads providing access to the subdivision.

4. Subdivision Guidelines

The Office of Local and Urban Affairs in the State Planning Agency has published a document titled "Subdivision Control for Minnesota Communities" dated May, 1975. This publication discusses the reasons why subdivision controls are needed, but more importantly, contains guidelines and examples for proper subdivision design. At a minimum, ordinances should follow the suggestions contained in

this publication, particularly with respect to the section called "Design Considerations." Following are additional guidelines which should be followed when land in the Coastal Zone is subdivided.

a. Where feasible, cluster development should be encouraged as the preferable method of subdivision. Cluster development refers to a development pattern which involves grouping lots around cul-de-sacs or short loop streets in order to minimize site clearance and preserve natural features. It is also generally less expensive to provide services to this type of subdivision.

Cluster subdivision patterns have a potential for use in the Coastal Zone. Cluster development can result in generous lot sizes, retention of existing vegetation, and the possibility of utilizing a centralized approach to drinking water and sewage treatment. If public open space is dedicated as part of the plat, residents of a cluster development may also have the use of more lakeshore than they would with a traditional lot. Consequently, with the high demand projected for future seasonal residential use, cluster development should be applied to seasonal use as an experiment. For the same reasons outlined above, cluster subdivisions should be encouraged for future permanent residential development. A common argument against clustering is that privacy will be lost. However, cluster development can be designed to provide as much privacy as the lots now permitted under county zoning. Furthermore, it is apparent that not all local residents seek privacy. Many have

constructed their homes close to Highway 61 or other roads and have purposely cleared a large portion of their lot.

b. Access from major roads, particularly Highway 61, to individual lots should be minimized to the greatest extent possible. Where possible, lot access should be provided by marginal access or frontage roads or internal streets within the subdivision. The intent here is to preserve the traffic carrying capability of major roads and to reduce the hazards associated with closely spaced individual driveways.

c. Subdivision design should recognize the potential for group sewer hookups where this is indicated by the soil type found on the site.

d. Where the potential exists for a large lot subdivision to be served with centralized sewer facilities at a later date, a re-subdivision plan should be prepared which indicates how the large lots may be divided into smaller lots. Building location on the large lots should recognize the potential re-subdivision and be situated so as not to interfere with the lot split.

e. The presence of existing natural drainageways on the site should be recognized and provision made to provide easements for the protection of these drainageways.

f. Appropriate sections of the Soil Resource Management Guidelines should be incorporated into the subdivision regulations to insure that subdivision activities do not result in increased runoff, erosion and sedimentation of water bodies.

D. MINERAL EXTRACTION GUIDELINES

1. Background

The economical availability of sand, gravel, rock, soil and other materials is vital to the continued growth of the Coastal Zone. The danger exists that incompatible land uses could unnecessarily deny the benefit of these materials in the future. Further, mining could create undesirable land and water conditions which can be detrimental to the health, safety and welfare and property rights of the citizens of the Coastal Zone. However, if mining activities are properly regulated and if reclamation of surface-mined land is required, mining can take place within the Coastal Zone in such a manner that undesirable side effects of the operation may be mitigated.

2. Policy

Local units of government should develop reclamation procedures for sand and gravel extraction when updating their zoning ordinances.

3. Objectives

a. To help provide for the economical availability of sand, gravel, rock, soil and other materials vital to the continued growth of the region and the Coastal Zone.

b. To establish reasonable and uniform limitations, safeguards, and controls in the Coastal Zone for the future production of said minerals.

c. To control the effect of ~~the~~ mining operations upon adjacent property, public waters or other areas of the Coastal Zone

d. To provide for the restoration of the mining operation and mining area during and after termination of the removal operation.

e. To preserve future options for mining potentially valuable mineral resources within the Coastal Zone.

4. Guidelines

Standards regulating the operation of sand and gravel extractions should be developed by the county prior to granting a permit for such operation. Standards should reflect the following concerns as a minimum:

a. Minimum setbacks from existing roadways and adjacent properties.

b. Screening of the proposed operation.

c. Operating standards related to noise, dust and hours of operation.

d. Rehabilitation of the excavated land including maximum slope, treatment of slopes, cover material, revegetation, standards for wet pits and post-operational use of sites.

e. The estimated time required to complete mining and restoration.

f. Plans for drainage, erosion and sedimentation control.

g. Travel routes to an from the proposed operation and capacities of travel routes to handle additional proposed loads.

h. Safety precautions such as fencing.

E. GENERAL LAND USE GUIDELINES

1. General Land-Use Policies

a. DNR should work with city, county and regional planners in examining the potential for long range use of public land. Those parcels of land identified as being best suited for private management and ownership should be sold.

b. Minimum zone district requirements should be outlined to ensure some consistency particularly along the boundaries of adjoining counties and between county and township zone district boundaries.

c. Local units of government should prepare and adopt sanitary codes for their portion of the coastal zone.

2. Residential Development

a. Goal

To provide adequate numbers, types and distribution of housing units for all income levels compatible with existing and proposed development and physical resource limitations of the North Shore of Lake Superior.

b. Policies

1. Future residential development should be encouraged to concentrate in already urbanized areas.

2. Federal or state assistance should be made available for water and sewer extension to allow expansion in undeveloped areas in and surrounding municipalities.

3. CZM planning dollars should be made available for municipalities to update existing plans, capital improvement programs, and zoning ordinances to better accommodate development pressures.

4. Residential development should be concentrated in areas or nodes suitable for development and eliminate the "strip" pattern apparent along portions of Highway 61.

5. Clustering should be promoted with common water and waste disposal systems incorporated in planned developments.

6. Residential development should be discouraged in hazardous areas where slope, geologic, soil, erosion or flood conditions impose unnecessary public costs.

c. Guidelines

1. Residential development should be related to existing urban residential areas. Scattered residences should be avoided because of the difficulty encountered in providing necessary facilities.

2. Residential development standards should be related to development standards in nearby affected municipalities.

3. Residential districts should be of sufficient area to economically warrant public facilities and should provide adequate space for them.

4. Residential areas should be protected from intrusion of commercial and industrial activities. Design and site planning of physical features should adequately separate these activities.

5. Residential development standards should include adequate density and design criteria to protect the health and general welfare of the existing and anticipated area population.

2. Commercial Development

a. Goals

1. To provide commercial services to meet both year-round and seasonal needs ranging from retail and service commercial in major service areas to planned commercial service development in secondary service areas in accordance with scale of demand, existing land use, resource capability, traffic conditions and ability to provide necessary public services.

2. To encourage future retail and service commercial development to locate in either major or secondary commercial service areas along the North Shore. Major service areas are Duluth, Two Harbors, Silver Bay and Grand Marais. Secondary service areas are Knife River, Beaver Bay, Castle Danger, Schroeder, Tofte, Lutsen, Hovland and Little Marais..

3. To promote the improvement of and provision for small resort operations that provide adequate parking, landscaping, traffic controls, screening and architectural treatment in keeping with the character of the North Shore.

b. Policies

1. Public sewer and water should be provided in municipal districts. Development plans for settlement districts should be prepared so when sewer and water services are needed in these districts they can be provided more efficiently and economically.

2. Commercial development should be encouraged to cluster in planned commercial units at selected locations in the Coastal Zone.

3. Coastal-dependent commercial uses should be given priority over other commercial development for locations on or near Lake Superior's shoreline within municipal and settlement districts. Coastal-dependent commercial use is defined as any commercial use that cannot exist if it is not located on the immediate shore of Lake Superior or cannot directly use Lake Superior water.

4. High density commercial development should be required to locate in urban commercial areas where services are available.

5. New commercial development in the coastal zone should meet uniform standards established by local units of government for landscaping and screening.

c. Guidelines

1. Existing highway oriented service commercial developments should be controlled or where possible grouped and consolidated.

2. Highway oriented service commercial development should be carefully related to abutting highways. Service roads should be provided with controlled access, front yard setback should be provided, and on-site parking should be sufficient to meet estimated needs. Access

should be safe and convenient from major roads, and entrances into and out of the site should be well separated from a major street intersection and at least 100 feet apart.

3. Priority should be given to areas where utilities such as sewer and water are available or where they can be economically provided in the future.
4. A buffer strip, consisting of architectural or landscape screens, should be used when the commercial development abuts a residential or public use area.
5. A site plan which contains the following elements should be required of each proposed commercial development:

   a) suitable storage containers for all waste material;

   b) plant materials or architectural treatment to be used for screening purposes;

   c) type and location of all lighting fixtures;

   d) provision for surface water drainage;

   e) building location and dimensions;

   f) proposed parking area including:

      1) number and size of spaces
      2) surface treatment (concrete, asphalt, crushed rock, etc.)
      3) location and numbers of exit and entrance points.

   g) method of treating sewage and location of facilities;

   h) area to be cleared of vegetation;

   i) erosion control measures

6. Tourist accommodations should be clustered to:

   a) allow optimum use of high interest areas without destruction of the aesthetic appeal of such areas;

b) eliminate the need for duplication of certain types of recreation facilities through mutual use of such facilities at small resorts, enabling them to serve a wider range of recreation desires;

c) make the provision of necessary services to such establishments easier and more economical;

d) allow for expansion of existing facilities on present private lands by assuring more efficient land use.

7. Commercial recreation land use should be separated from other land-use types because:

a) these facilities are generally high traffic generators and would as such be undesirable in residential neighborhoods;

b) success of this type of commercial enterprise is often due to the attractiveness and site location of the facility itself;

c) such use areas should be protected from residential encroachment to enable expansion at a later date.

3. Industrial Development

a. Goal

To encourage diversified industrial development that will provide year-round employment opportunities, is serviceable, and respects the physical, social and environmental needs of the Coastal Zone area.

b. Policies

1. Coastal-dependent industrial development should be given priority over non-coastal-dependent uses for locations on the immediate shore of Lake Superior. Coastal-dependent industrial use is defined as any industrial use that cannot exist if it is not located on the immediate shore of Lake Superior or cannot directly use Lake Superior water.

2. Future industrial development should be encouraged to locate in existing areas where industry has already located along the North Shore (Duluth, Two Harbors, Silver Bay and Taconite Harbor).

3. Light industrial development should be promoted in Cook County which would not be in competition with the tourist economy and would be planned to harmonize with existing land use and the character of the Coastal Zone area.

4. A land exchange program for industrial site development near service areas should be promoted by all government levels. A land exchange program should be considered as an option in resolving industrial location issues if it is the most feasible alternative available.

5. Uniform industrial siting standards should be developed for the Coastal Zone that address minimum service requirements, screening, and other industrial siting factors.

6. Mineral processing activities such as mineral transportation, beneficiation, and power generation should be limited within the Coastal Zone to Duluth, Two Harbors, Silver Bay, and Taconite Harbor.

c. Guidelines

1. Coastal-dependent industrial use shall be located at or very near existing industrial sites in Duluth, Two Harbors, Silver Bay, and Taconite Harbor.

2. Non-coastal-dependent industrial uses shall be located in existing industrial parks in municipalities where they can be served with public utilities.

3. Although industrial development within Cook County and Grand Marais will be of limited scope, provisions should be made to provide industrial lands in areas which will not detract from the natural beauty of the area.

4. Preferred industrial sites are those which have:
   a) Reasonably level land, usually with not more than 5 percent slope, capable of being graded without undue expense.
   b) Direct access to commercial transportation facilities which might include railroad trackage, all-weather roads, airports and water freight.
   c) Utilities available at or near the site, including sewer, water and power.
   d) Surrounding land uses which will not conflict with the industrial use or vice versa.

5. Performance standards should be developed to deal with:
   a) Noise, smoke or dust emissions, odors, and the storage and disposal of toxic and noxious matter.
   b) Minimum land to building ratio.
   c) Minimum building setback.
   d) Minimum side yard setback.
   e) Parking requirements including number of spaces, on-site location and surfacing.
   f) Landscaping and buffering.
   g) Screening of outside storage areas.

6. Plans of all proposed buildings and improvements should be submitted to the county or municipality prior to the start of construction. Major industries which plan to have independent sewage or waste disposal facilities and 12 or more employees must obtain clearance from the Minnesota PCA prior to local government issuing a building permit.

SECTION 4:

POLICIES FOR PUBLIC ACTIVITIES IN THE COASTAL ZONE

SECTION 4: POLICIES FOR PUBLIC ACTIVITIES IN THE COASTAL ZONE

This section contains goals and policies approved by the PAC which affect public activities in the coastal zone. These goals and policies will be used by the implementing units of government to evaluate their administrative, regulatory or management activities within the coastal zone to determine compliance with the Coastal Zone Plan. A goal is defined as an end product desired to be attained for such things as transportation, recreation, forestry, or economic development, while a policy is defined as a course of action that will be pursued to attain the goals. While the goal statements may be broad in scope and general in nature, policy statements indicate what is to be done, how it is to be done, who should do it, and in some cases, when it should be done.

The goals and policies presented in this section are problem-oriented. During a 13 month effort from October 1975 to November 1976, the coastal zone staff met with local residents, planning commission members, and elected officials and interviewed or sent questionnaires to state and federal agencies and special interest groups. The purpose of this effort was to determine the various points of view concerning the problems and issues existing on the north shore along with proposed solutions for correcting them. Once the issues and problems were recorded, CZM staff worked with regional, state, and federal personnel in writing draft goals and policies which addressed these issues. These draft goals and policies were then presented to the PAC for review and approval, resulting in some being modified or deleted or new ones proposed and adopted.

This listing of goals and policies represents thinking at a certain point in time. As conditions change, or as better information or technology becomes available, some of these goals and policies may become obsolete or prove to be unworkable or undesirable. Therefore, these statements should be remembered as being flexible and subject to change if and when that becomes necessary.

Management of Natural Resources

RECREATION

General Recreation Goal (Private and Public Facilities):

To provide diverse, year-round opportunities for public recreation in the Coastal Zone by integrating public and private recreational facilities into a recreation system. The North Shore Outdoor Recreation System should be flexible enough to meet changing needs of all the people or conditions of the resources.

General Public Recreation Goal

To manage and protect natural, historic, and archaeological resources that are appropriate to each level of government and to develop supporting facilities and programs for public enjoyment thereof.

General Public Recreation Policies

1. Federal and state agencies and units of local government having planning and administrative jurisdiction within the Coastal Zone should work in cooperation with one another to determine appropriate roles so that the specific capabilities of each agency are recognized and utilized by the others in order to achieve the best planning, development, operation, maintenance, protection, and visitor use of the Coastal Zone's recreational resources. In providing future outdoor recreational developments, preference will be given to the lowest level of government capable of meeting the need.

2. Public outdoor recreation facilities in the Coastal Zone should provide for diverse recreational experiences ranging from those that are aesthetic or educational in nature and primarily benefit the human mind and spirit to those that require strenuous physical exertion and are primarily physical fitness oriented. Diversity should be maintained by managing such activities in a manner that minimizes conflicts among different user groups.

3. Public facilities should be administered in a manner consistent with national, state and local policies, legislative constraints, and the resource's carrying capacity.

4. To encourage private development of recreational facilities, subsidized public facilities should not compete with local private facilities.

5. All public recreation facilities should be developed, or upgraded when required, to conform to state health and pollution standards and state fire, safety, and building codes.

6. The PAC may recommend priorities for funding of acquisition and development for public recreational facilities within the Coastal Zone.

A. Federally Administered Recreation

Federal Goals

To develop, maintain, and upgrade existing federally-administered recreational facilities and to identify other federal lands having potential for federal recreational management.

To manage or assist others in managing those natural or man-made resources of national significance.

Federal Policies

The PAC should encourage federal agencies with jurisdiction over recreational activities to review proposed recreational management plans with them in order to improve the coordination of efforts between levels of government.

●U.S. Forest Service

Source: Guide for Managing the National Forests in the Lake States, Eastern Region, Forest Service, U.S. Department of Agriculture, August, 1975.

Goal The Superior National Forest should provide a fair share proportion of the varied recreational experiences appropriate to national forest lands.

Policies

1. The Superior National Forest will encourage, cooperate and avoid competing with private industry or other public agencies in providing new, highly developed recreation facilities.

2. Existing uncompleted national forest highly developed recreational facilities will be completed to achieve optimum site utilization.

3. Lakeshore development should be restricted to those lakes, or portions thereof, that can support facilities with acceptable environmental impact.

4. Under-utilized and/or high-cost recreation facilities, which do not offer a better than average recreation experience, should be evaluated for closure. Forest supervisors will perform indicated closure(s).

5. Forest plans will establish criteria for the protection of undeveloped lakes and rivers.

6. Regulations to control motor vehicle access to lakes will be established as needed in forest or unit plans.

7. The design and management of facilities (roads, trails, buildings, etc.) should be coordinated with the recreation experience level selected for the particular area.

8. New downhill skiing facilities in Superior National Forest may be constructed provided the environmental procedures support such a project.

9. Trails will be planned and developed to meet the needs of a variety of uses. Where possible, trail development should be designed to allow compatible uses on the same trail (e.g., horses during the summer, snowshoeing during the winter).

10. Where conflicting uses (e.g., cross country skiing/snowmobiling) occur during the same season, trails will be designed for, and use limited to, a specified use.

11. A limited number of bicycle trails should be constructed to test the demand for this type of forest recreation.

12. Each forest within the Lake States will provide trails and/or areas where off-road vehicles are allowed.

13. Where refuse facilities are not provided, a carry-in/carry-out policy should be considered.

14. Visitor information services should be provided in a fashion which responds to the forest users' interest in, and desires for, interpretation of the local environment and to their need for knowledge about nearby recreation opportunities. Federal information services should be coordinated with those services provided on the state level as to material content and dissemination.

● Department of the Interior

Policies

1. The Department of Interior should consider, through the Bureau of Outdoor Recreation, the recreational priorities established by the Policy Advisory Committee in funding public recreational facilities within the Coastal Zone.

2. The National Park Service should ensure that planning and development activities of the Grand Portage National Monument and the National Natural Landmarks Program are coordinated with the Minnesota North Shore Recreation System Plan.

3. The National Park Service should continue its liaison with Minnesota's State Historic Preservation Officer for administration of grant programs and identification of sites eligible for listing on the National Register of Historic Places.

4. The Bureau of Land Management will manage its recreation resources to provide recreation opportunities commensurate with public needs and resource capabilities. BLM's Recreation Resource Management Program will be oriented toward natural and cultural values. The Bureau will manage public use of its national resource lands to protect the resources, to promote visitor safety, and to enhance the visitor's recreation experience.

5. The Bureau of Land Management in both its marine and upland management programs will manage and protect the cultural resources under its jurisdiction or control and will avoid inadvertent loss or destruction of cultural resources.

6. The Bureau of Land Management will plan, design, and implement its resource management activities in a manner which will minimize adverse effects on the visual resource.

7. The Bureau of Land Management will manage its national resource lands to protect representative areas of unique and/or typical natural history resources.

●Corps of Engineers

Policies

1. The Corps of Engineers should coordinate implementation of the Harbor of Refuge Program and Small Boat Harbor Program with state and local recreation programs

B. State Administered Recreation

State Policies

1. State agencies should concentrate on developing facilities in existing units of the Outdoor Recreation System.

2. North Shore state recreation facilities should be designed with an architectural theme which combines styling and materials which are appropriate to the area.

3. The State should provide technical assistance to private enterprise in developing high quality recreation facilities in the Coastal Zone.

4. DNR and/or the Minnesota Historical Society should provide interpretive programs and facilities such as interpretive centers, nature displays, trails, and viewing points.

5. State recreation development should be designed to stress energy conservation in the Coastal Zone.

6. The Coastal Zone Management Program supports the adoption by the Legislature of an equitable statewide formula for payment in lieu of taxes based on per acre value

●Department of Natural Resources

Policies

1. To develop, maintain and upgrade existing state administered recreational facilities.

2. To legally establish and/or maintain those natural and man-made resources in the Coastal Zone which have statewide or, in some instances, national significance.

3. Study the recreational potential of each management unit or area and provide the recreational facilities as specified in an approved management plan formulated in accordance with the Outdoor Recreation Act of 1975 and the following unit classifications contained herein:

a. Natural State Parks;
b. Recreation State Park;
c. State Scientific and Natural Areas;
d. State Wilderness Area;
e. State Wild, Scenic, and Recreational Rivers;
f. State Trails;
g. State Water Access Sites;
h. State Historic Sites;
i. State Forests and State Forest Sub-areas;
j. State Wildlife Management Areas;
k. State Rest Areas.

The Outdoor Recreation Act, passed in 1975, creates an outdoor recreation system which includes all state managed facilities for outdoor recreation. The new system categorizes state recreation facilities into eleven different types of facilities or components; the components are listed above in a) through k). The first step in implementing the Outdoor Recreation Act is for state agencies -- Department of Natural Resources, Minnesota Historical Society, Department of Transportation, and State Planning Agency -- to review all recreational land holdings and jointly recommend to the legislature which classification best describes each site. The state legislature then makes the final classification decision. After classification, a master plan is prepared for each major site. Along the North Shore, only one site has been classified, Gooseberry State Park; a management plan for this park is being prepared during 1976. The North Shore Recreation Study funded by the Coastal Zone Program will provide guidelines for clarifying and planning other state recreation lands on the North Shore.

4. To cooperate with other state agencies and local governmental units in reviewing state land within the Coastal Zone to determine the potential of these lands for recreational use.

5. To promulgate rules and regulations for the administration of recreational units within the State Outdoor Recreation System in the Coastal Zone as required by the Outdoor Recreation Act of 1975.

6. Provide adequate recreational facilities along Wild and Scenic Rivers in order to enhance the recreational values of the river and insure that public use of the river will not adversely affect the scenic, natural, historical and scientific values of the river.

7. Develop management plans and rules and regulations for any designated Wild and Scenic River.

8. DNR should coordinate plans for Wild and Scenic Rivers in the Coastal Zone with the Coastal Zone Plan.

9. Inventory potential Scientific and Natural Areas and develop procedures for review and selection of such areas.

10. Assess the adequacy of public access to Lake Superior, streams and beaches in relationship to the characteristics of these areas and make recommendations for the provision of access sites.

11. Maximize use of existing linear corridors such as utility rights-of-way, abandoned railroads and roadways for trail use when such use complements the area's other recreational opportunities and potentials. (This policy does not refer to Mile Post 7.)

12. Encourage all state, federal, and local agencies to monitor resources under their jurisdictions on a periodic basis.

13. Encourage the development of special facilities for the handicapped where such use is feasible and explore new designs that enable the handicapped to participate in more activities.

14. Provide high quality interpretive programs and implement environmental education activities.

15. Develop long distance corridor trails designed to accommodate multiple use, be serviced by adequate collateral facilities, and be located so that major population centers are linked and scenic vistas preserved. (This policy does not refer to Mile Post 7.)

16. Develop Scientific and Natural Areas to maintain or reintroduce natural processes.

17. Prepare, adopt, and implement procedures for accomplishing adequate maintenance of existing state facilities.

18. Treat tax-forfeited lands in a manner consistent with policies established by the legislature in M.S. Chapters 282 and 89.034 as amended.

VEGETATIVE MANAGEMENT

Goal Provide sustained multiple use of Coastal Zone forest resources, including the management and harvesting of timber and other forest crops, support of recreational activities, protection of watershed areas, and preservation and development of rare and distinctive species of flora and fauna native to the area.

Policies

1. Additional vistas to Lake Superior should be provided on state lands.

2. Development on state lands should be screened from popular travel routes where such development is inconsistent with the scenic quality of the North Shore and where visibility is not required to effectively serve the public (examples are storage areas, maintenance facilities, gravel pits, etc.)

3. Within the coastal zone boundary, forestry personnel from the counties, DNR, Soil Conservation Districts and the U.S. Forest Service should work together in developing and implementing an integrated vegetative management approach for all public lands, regardless of ownership, and for private owners willing to participate.

FLOODPLAIN AND SHORELAND MANAGEMENT

Goals 1. To promote the wise use of shorelands of public waters, to preserve and enhance the quality of surface waters, preserve the economic and natural environmental values of lands, and provide for the wise utilization of water and related land resources.

2. To guide development in floodplain areas so as to minimize loss of life and threat to health, and to reduce private and public economic loss caused by flooding.

Policies

1. Working jointly with local units of government, use the Floodplain Management Act as the basis for evaluation of flood damage reduction alternatives including delineation of floodplains and floodways.

FISH AND WILDLIFE MANAGEMENT

General Fish and Wildlife Management Goals

1. To maintain and develop diverse habitat to insure a variety of both game and non-game fish and wildlife species.

2. To establish management priorities based on natural resources as well as human needs.

Policies

1. Insure coordination among all resource management agencies and programs to maintain or increase fish and wildlife populations and to determine the management requirements for the Coastal Zone.

2. The coastal zone program supports DNR and U.S. Fish and Wildlife Service efforts to preserve endangered, threatened and unique species.

3. The coastal zone program supports DNR and U.S. Fish and Wildlife Service efforts to identify critical or rare habitats which should be avoided by intensive development.

Fisheries Goal To improve recreational and commercial fishing in the Coasal Zone on Lake Superior and in adjacent lakes and streams.

Fisheries Policies

1. Protect, maintain and improve habitat in streams and lakes for the natural propagation of fish species through stream improvement, spawning area development, and preservation of existing spawning and harvest areas.

2. Provide free access on public lands to streams and Lake Superior to allow fishing while protecting water quality and other natural resources.

3. Continue to stock streams and lakes where natural propagation of game species is not possible or is insufficient for expected fishing demand.

4. Provide lamprey control, lake trout restoration and fish utilization in Lake Superior. Continue efforts to control rough fish and rehabilitate inland lakes.

Wildlife Management Goal To provide habitat types which maintain populations of a variety of game and non-game species within the Coastal Zone.

Wildlife Management Policies

1. Maintain and enhance vegetative species and age group diversity to insure adequate wildlife habitat and to promote management practices through cooperative programs involving state, county and federal personnel and private land owners.

2. Determine which lands and waters are best suited for wildlife management purposes based on land and water capability and socio-economic needs.

3. Evaluate existing game refuge lands to insure that they continue to meet wildlife management needs.

MINERALS

Goal To provide a mineral resource management program which is consistent with other resource management objectives and with the objectives of the CZM Program.

Policies

1. Local units of government should develop reclamation procedure for sand and gravel extraction when updating their zoning ordinances.

2. DNR should study and evaluate the mineral potential within the coastal zone so that specific land use decisions can be made on the basis of the most complete knowledge available.

3. Mining of metallic minerals should not be allowed in the coastal zone.

Management of Physical Development

ECONOMIC DEVELOPMENT

Goal: To provide stable, year-round employment opportunities for the existing North Shore labor force to increase the economic security of residents and the economic flexibility of the local units of government.

Policies

1. The Coastal Zone Plan should support development of industrial parks and sites in urbanized areas that exhibit a potential for industrial growth and can efficiently provide sewer, water, power, and other public services.

2. The ARDC should coordinate the efforts and capabilities of private interests and federal, state, and local agencies involved in economic development to:

   a. assist local communities in evaluating costs and benefits of development, and

   b. develop a method to more efficiently deliver economic technical services and funding.

3. All economic research in the coastal zone should be conducted by the Arrowhead Regional Development Commission in cooperation with the State Planning Agency and/or local units of governments.

4. The economic opportunities provided by the waters of Lake Superior which might include expanded commercial and recreational fishing, pleasure cruises, ferry service and commercial transport should be determined in the market place.

5. A tourism advertising and promotion campaign should be initiated for the North Shore area through a joint state and local effort.

6. A state-local effort should be undertaken to study the feasibility of building and operating visitor centers at Pigeon River and other locations to enhance recreation and tourism within the coastal zone.

TRANSPORTATION

Goal: To provide a transportation system which allows for the safe, efficient movement of people, goods and services; complements existing and proposed development patterns; and reflects environmental considerations of the Coastal Zone.

Policies

1. The Department of Transportation in cooperation with DNR should prepare a Vegetative Management Program for state roads within the Coastal Zone which addresses:

   a. appropriate screening of highway storage maintenance areas;

   b. aesthetic improvement and variation of the natural landscape along T.H. 61 and T.H. 1;

c. view enhancement of Lake Superior from T.H. 61; and

d. planting for improvement of the expressway median from Duluth to Two Harbors.

2. The Department of Transportation should design future bridges, overpasses, parking areas, guardrails, and other such transportation appurtenances along T.H. 61 in a manner which complements the natural landscape.

3. The Department of Transportation should review its Transportation Plan with the PAC when it is completed and should place emphasis on the need to coordinate the timing of transportation plans in the Coastal Zone area with the implementation of the Coastal Zone Plan.

4. The Department of Transportation should continue to participate in the Department of Natural Resources' North Shore recreation study to determine the potential recreational use and management of highway lands.

5. Any new highway construction along the North Shore should be planned in cooperation with the Fish and Wildlife Division of the Department of Natural Resources so as to mitigate environmental degradation along North Shore trout streams and wildlife habitat areas.

6. Safe bikeways should be provided on the North Shore for use by local residents and tourists. Local units of government should work jointly with the Department of Transportation and the Department of Natural Resources in determining methods to provide bikeways.

7. Upgrade Highway 61 to a safe 9-ton all-weather road.

8. The Department of Transportation, Arrowhead Regional Development Commission and local units of government should work jointly in examining other transportation alternatives to alleviate pressures on Highway 61.

9. Highway 61 right-of-way should be brushed to help alleviate the highway deer kill problem.

10. Coastal Zone transportation activities between the Department of Transportation and local units of government should be coordinated through the interchange of permit applications.

11. The Department of Transportation should accelerate its plans for upgrading T.H. 61 from Two Harbors to Illgen City. Specific problem areas which need improvement include Chapin's Curve, Silver Creek Cliff, LaFayette Bluff, and Gooseberry Falls. The Department of Transportation shall prepare plans for upgrading T.H. 61 from Illgen City to Grand Marais and T.H. 1 to nine-ton capacity where capacity limitations, road conditions and safety hazards warrant improvement and funding becomes available.

12. The Department of Transportation, Department of Natural Resources, and the Minnesota Historical Society should cooperatively develop a sign program to provide adequate highway signage for public recreational areas in the coastal zone and to standardize sign appearance within state recreation facilities. All counties in the coastal zone should coordinate their sign ordinances to insure consistency in sign appearance along the North Shore.

ENERGY RELATED FACILITIES (to be developed)

Power Plants

Pipelines

Coal loading facilities

Management of Environmental Quality

AIR QUALITY

Goal To attain and maintain state air quality standards in the Coastal Zone which will protect the natural environment and man's health, safety and welfare. These standards should not exceed state air quality standards.

Policies

The Coastal Zone Management Program endorses the existing MPCA and EPA air quality standards and enforcement and monitoring problems.

WATER QUALITY

Goal To attain and maintain the high quality of coastal waters in the Coastal Zone which will protect the natural environment and man's health, safety and welfare. Water quality standards should not exceed existing water quality standards.

Policies

1. The Pollution Control Agency's 208 Water Quality Program should be coordinated with the Coastal Zone Management Program.

2. The levels of Lake Superior should continue to be regulated pursuant to the policies and limits expressed in the 1914 Orders of Approval of the IJC and the most recent operating rule adopted thereunder, the 1955 Modified Rule of 1949, which requires that the control works on the St. Mary's River be operated so as to maintain the level of Lake Superior as near as may be between the levels of 600.5 and 602.2, such regulation to be based solely on the level of Lake Superior. The concept of regulating Lake Superior with reference to the lower lakes, i.e. balancing the levels of the Great Lakes on a basin-wide basis, is directly contrary to the policies and limits stated in the 1914 Order and the 1955 Modified Rule and should not be adopted until (1) adequate data are developed which demonstrates with reasonable certainty that the benefits to the entire Great Lakes System will actually exceed the damages inflicted on Lake Superior interests; (2) adequate provision is made for the compensation for the damages caused to Lake Superior interests; and (3) 1914 Orders are amended and a new operating rule is adopted in the manner provided by law.

3. Provided adequate funding is made available, PCA should collect baseline water quality data for Lake Superior, North Shore streams, and groundwater, so that the state policy of non-degradation can be applied to the above-mentioned waters. This data should include:

   a. Data on past trends, recession rates, and natural stream loadings in areas affected by red clay erosion, other than the Nemadji River Basin and

   b. The effects of fluctuating water levels on Lake Superior shoreland.

4. Municipal sewage disposal systems and industrial sources of pollutants should be monitored to assure compliance with appropriate effluent standards and National Pollution Discharge Elimination System (NPDES) permits.

5. Water quality monitoring and regulations should be enforced equally throughout the State of Minnesota.

6. The Coastal Zone Program recognizes the potential pollution problems resulting from the trans-shipment of hazardous and toxic substances and the improper disposal of vessel wastes. The program, therefore, supports state efforts to develop a set of cooperative standards with other Great Lake States to address these issues.

7. The Pollution Control Agency should investigate how atmospheric pollution affects the water quality of Lake Superior.

8. The MPCA should pursue research on on-site sewage systems in cooperation with local units of government in the coastal zone.

9. The physical, biological, and chemical impacts of dredge spoils on water quality should be evaluated.

SOLID WASTE

Goal To manage a solid waste program in the Coastal Zone in a manner that is economically feasible, accessible to users, and consistent with existing state and federal laws and the regional solid waste plan.

Policies

1. All public agencies should comply with existing regulations governing the collection, deposition, and transportation of solid waste.

2. DNR and the Minnesota Department of Transportation should, in conjunction with the counties, prepare, adopt, and implement procedures to improve refuse collection and disposal at state parks, waysides, rest areas, campgrounds and all other state recreation facilities. These procedures should consider seasonal variations in use, including the smelt season, and should provide for adequate funding and manpower to achieve the intent of this policy.

3. PCA should complete its evaluation of existing solid waste rules and regulations to determine whether they should be modified to reflect the low population densities within the Coastal Zone.

4. PCA should assist the counties in exercising their responsibility to determine if leachate problems exist at closed dumps, landfills, and modified landfills so that proper control and remedial measures may be taken.

5. Portions of the North Shore County Solid Waste Management plans which apply to the coastal zone should be eligible for coastal zone section 306 funding for implementation.

POLICY ITEMS TABLED BY PAC AT MAY 11th COASTAL ZONE MEETING*

1. A moratorium should be placed on the development of state campsites and other facilities which are in direct competition with local motels, cabin resorts, and private campgrounds until the state agrees to reimburse counties for in lieu of tax and solid waste disposal, or until they sell or lease the facilities to private business.

2. If private land, not now within an existing unit of the State Outdoor Recreation System, needs to be acquired for any future facility of the State Outdoor Recreation System, the state should consider the tax base of the affected unit of local government and the statutory procedures for land acquisition.

3. Should mining of beach gravel be allowed within the Coastal Zone?

4. To preserve future options on potentially valuable mineral resources within the Coastal Zone.

*The policy items listed on this page were tabled at the May 11th PAC meeting and will be re-introduced at the October PAC meeting for their review and approval along with policies on energy-related facilities.

CHAPTER 1 2 3 4

CHAPTER CHAPTER CHAPTER CHAPTER

Organization and Authorities

COASTAL ZONE MANAGEMENT

Chapter 3:

LEGAL ORGANIZATION AND AUTHORITIES FOR MANAGEMENT OF THE COASTAL ZONE

Introduction

The Coastal Zone Management Act mandates that the state establish a comprehensive and coordinated mechanism for administration and control of land and water uses within the coastal zone. It also provides for a review, by the state, of federal activities to determine their consistency with the state CZM plan. Last, it has a number of other organizational requirements for technical implementation of the CZM process, including the designation of a lead agency at the state level and a procedure for amendment.

Implicit in the structure for organization and control of land uses in the Coastal Zone are two factors: the boundary established for the coastal zone and the definition of those uses having a direct and significant impact on the coastal area necessitating CZM regulation. Considering these factors, in the context of existing laws and intergovernmental relationships, Minnesota has determined to utilize a method of interweaving or "networking" of existing state laws to satisfy the requirements of the act and insure that land and water uses will be appropriately regulated. The State Planning Agency, traditionally involved in land use planning and intergovernmental relations, will be the lead agency and heavy emphasis will be placed on co-operation and consultation amongst governments at different levels.

In Section 1 of this chapter of the plan, coastal zone controls are examined in three parts: (A) the legal requirements specified in the Act; (B) a summary of the key state laws utilized for implementation of the "networking" method of compliance; and (C) the specifics of Minnesota's "networking" approach. In Section 2, other organizational requirements of lesser complexity will be indicated, including the basis for selection of State Planning as the lead agency and the mechanism for plan amendment. In Section 3, the acts requirement regarding federal consistency will be examined as well as the Minnesota proposal for federal and state/local consistency evaluation.

SECTION 1:

AUTHORITIES FOR CONTROL OF LAND AND WATER ACTIVITIES IN THE COASTAL ZONE

SECTION 1: AUTHORITIES FOR CONTROL OF LAND AND WATER ACTIVITIES IN THE COASTAL ZONE

A. With respect to necessary regulatory authorities, over land and water uses, the Act requires:

> "(d) prior to granting approval of the management program, the Secretary of Commerce shall find that the state, acting through its chosen agency or agencies including local governments, area wide agencies designated under §204 of the Demonstrations Cities and Metropolitan Development Act of 1966, regional agencies, or interstate agencies, has authority for the management of the coastal zone in accordance with the Management Plan. Such authority shall include power--
>
> (1) to administer land and water use regulations, control development in order to insure compliance with the management program and to resolve conflicts among competing uses. . . ." §306(d) (Emphasis supplied).

This general requirement of adequate regulatory controls is supplemented by a specific indication of the extent of state involvement necessary for program approval.

> "(e) prior to granting approval, the secretary shall also find that the program provides: (1) for any one or a combination of the following general techniques for control of land and water uses within the coastal zone;
>
> (a) state establishment of criteria and standards for local implementation subject to administrative review and enforcement of compliance;
>
> (b) direct state land and water use planning and regulation; or
>
> (c) state administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by a state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings." ¢306(e)(1)(a)-(c) (Emphasis supplied).

These authorities must be in place at the time of approval of the Coastal Zone Management Plan.

The OCZM has prepared a background paper regarding organization and authority that fleshes out the requirements of the three techniques for control of land and water uses enumerated in the Act. In the Minnesota networking approach, all three types will be utilized in combination, depending upon the type of action and levels of government and type of permits involved. In summary form the methods are:

(1) State establishment of land use "criteria and standards for local implementation." In this case the CZM plan will indicate certain standards and criteria regarding permissable uses in various portions of the coastal zone. See Chapter 2. Then local governments are required to adopt local zoning ordinances consistent with these criteria or standards. The local ordinances must be reviewed by the state and subject to state approval as in conformity with the state promulgated "criteria and standards." State enforcement of consistency will result in the event a local government consistently fails to implement the ordinance.

(2) Direct state planning and regulation of land and water uses in the coastal zone. All state permitting programs and state construction programs are examples of such an approach, since in these programs the state agency directly plans the actions or regulates the use.

(3) The third technique provides for local adoption of regulations consistent with the Coastal Zone Management Plan, without prior preparation of state standards and criteria. Where these regulations apply, the Act requires that each governmental decision, e.g. each permit, within the coastal zone related to such regulations be subject to adminstrative review by a state agency.

B. SUMMARY OF EXISTING STATE LEGAL AUTHORITIES.

This section will briefly indicate the most important existing state laws utilized or available for use in the Minnesota "networking" approach to implementation of the coastal zone plan.

1. Shoreland Management Act, Minn. Stat. §105.485.

The Shoreland Management Act allows the Commissioner of the Department of Natural Resources (DNR) to promulgate standards and criteria regarding land use, subdivision, and development of shoreland areas and requires local governments to adopt zoning ordinances consistent with the standards. "Shoreland" is defined as land within one thousand feet of the normal high water mark of a lake and within three hundred feet of a river or stream or the landward side of the floodplain of such river or stream, whichever is greater. The areas to be covered in the standards and criteria include, but are not limited to the following:

"(a) the area of a lot and length of water frontage suitable for a building site;
(b) the placement of structures in relation to shorelines and roads;

(c) the placement and construction of sanitary and waste disposal facilities;
(d) designation of types of land uses;
(e) changes in bottom contours of adjacent public waters;
(f) preservation of natural shorelands through the restriction of land uses;
(g) variances from the minimum standards and criteria. . . ." Minn. Stat. §105.485, Subd. 3.

Ordinances must be submitted to the Commissioner by local governments for review. In the event the Commissioner finds an ordinance inconsistent with the promulgated criteria, he shall adopt a complying ordinance appropriate for the county or city. Every county in the coastal zone boundary currently has a Shoreland Zoning Ordinance.

The Shoreland Management Act has no provision for administrative review and disapproval of locally granted variances, but notice to the Commissioner is required of each variance application and its disposition, Minn. Reg. Cons. 75 (a). Variances cannot be granted allowing for a use not permitted in the zoning ordinance. Minn. Stat. §§462.357, Subd. 6; 394.27, Subd. 7. Standards for granting conditional uses are suggested by the DNR regulations in the Model Ordinance. Minn. Reg. Cons. 77 (7.4). Thus, change in use in the ordinance would require its resubmission for DNR review and approval, and a conditional use could be required to meet minimum criteria set forth in the DNR regulations prior to approval.

With respect to land within cities, the act provides:

> "municipal planning and land use controls for land other than shoreland in the vicinity of shoreland shall be, to the maximum extent practical, compatible with planning and land use controls for shoreland . . . ." Minn. Stat. §105.485, Subd. 7.

This appears to create an enforceable standard to require consistency in the coastal zone area within municipalities beyond the one thousand and three hundred foot shoreland area, but no comparable standard for land use beyond the defined shoreland areas in unincorporated jurisdictions is provided.

With respect to a systematic failure by a county or municipality in enforcing the shoreland standards, several options are available. First, the DNR or the lead agency, the State Planning Agency, can intervene in selected local zoning proceedings pursuant to the Environmental Rights Act, see discussion below, to attempt to influence the outcome in that specific case. Second, either state agency could seek judicial review of the reasonableness of any variance granted by the local governmental unit or under the Rights Act's feasible and prudent alternative language. Third, selected variance applications would give rise to environmental impact statement review if they resulted in "significant impact on the environment."

2. Critical Areas Act, Minn. Stat. Chapter 116G.

A critical area can be designated, by the Governor, upon the recommendation of the Environmental Quality Board (EQB), if among other things, the area has "historical, natural, scientific or cultural resources of regional or statewide importance." Minn. Reg. MEQC 52. The evaluation of an area by the EQB for critical area recommendation may be initiated by the Board itself or the Regional Development Commission. No such evaluation of the North Shore coastal zone has been initiated at this time and it is not now anticipated that this device will be used in the Minnesota Coastal Zone Plan. However, it would be a method to deal with a systematic failure to implement the plan by local or state units of government. It also provides a legal mechanism satisfying the Coastal Zone Management Act (technique one) for state establishment of criteria and mandatory local ordinance adoption in the coastal zone beyond the shoreland ordinance boundary. Again, this use is not contemplated here, since local governments have indicated they will voluntarily adopt consistent ordinances in this area. The Critical Areas approach is mentioned here only for completeness.

The order of the Governor designating an area of critical concern shall contain:

> "Standards and guidelines to be followed in preparing and adopting plans and regulations [governing land use and development by counties and cities within the critical area] and indicate what development, if any, shall be permitted . . . pending the adoption of plans and regulations." Minn. Stat. §116G.06, Subd. 2(b).

Thus, the Critical Areas Act operates in the same manner as the Shoreland Management Act. Standards and criteria are developed by a state agency, and then local counties and municipalities must adopt zoning ordinances and land use plans consistent with the promulgated criteria and guidelines. If the plans are not adopted or, if after review, they are found inconsistent, the state agency may promulgate regulations which the local governmental unit must enforce. The Critical Areas Act differs from the Shoreland Management Act in that during the interim between promulgation of criteria and the adoption of plans, the Critical Areas Act allows state regulation of all specific development decisions. See Minn. Stat. §116G.12.

After local plans are adopted, Critical Areas, again like Shoreland Management provides for no state administrative review of each specific local land use decisions, however, it does provide:

> "If plans and regulations for an area of critical concern have become effective under the provisions of §116.07, the local unit of government shall permit development <u>only</u> in accordance with those plans and regulations." Minn. Stat. §116G.12, Subd. 3 (Emphasis supplied).

This would allow the state adopted criteria and standards to serve as a test for local government in granting variances and conditional uses.

More important, the Critical Areas Act, unlike Shoreland Management, provides for a direct legal course of action by the EQB to mandate "proper enforcement of the plans and regulations," if the "administration of the local plans and regulations are inadequate to protect the state or regional interest." Minn. Stat. §116.09, Subd. 4. This direct authority to sue to require consistency would strengthen the hand of the state in challenging a systematic failure to implement the CZM Plan.

The Critical Areas Act provides for state grants to pay the "nonfederal cost of preparing and adopting plans and regulations for areas of critical concern." Minn. Stat. §116.14. A critical area designation is effective for only three years, unless ratified by the applicable regional development commission or the state legislature.

3. Subdivided Land Sales Act, Minn. Stat. Chapter 83.

Minnesota has a typical subdivided land sales act the fundamental purpose of which is to require prior registration of large subdivisions and full and complete disclosure to prospective buyers. It is, however, unique, in that the Commissioner of Securities can prevent sale of subdivided

land which fails to conform to environmental standards. The Act provides that:

> "The state environmental quality standards . . . for the subdivision and development of land in this state shall be established by the Environmental Quality Board." Minn. Stat. §83.29, Subd. 3.

The EQB in implementing the coastal zone management plan can promulgate as an environmental standard for any subdivision within the coastal zone a requirement that the subdivision comply with the land and water use controls of the Plan. Then, with respect to any regulated subdivision, there would be a direct state review of development and a requirement of plan consistency. This, in most cases, is the only state permit which will regulate residential housing development.

The value of the Subdivided Land Sales Act as a regulatory device in the coastal zone is limited by the Act's exemption of small projects. Fewer than ten lot subdivisions which are offered in any period of twelve months are absolutely exempt. Offers of fifty lots within twelve months are exempt unless the Commissioner of Securities specifically limits this exemption by rule or order. Similarly, lands in subdivisions located in proximity to cities of various sizes are exempted, but again, the Commissioner may revoke or condition this exemption. See generally Minn. Stat. §83.26. In the latter two cases the exemption would be limited to developments demonstrating complete compliance with the Coastal Zone Plan.

4. Minnesota Environmental Policy Act (MEPA) Minn. Stat. Chapter 116D

The Minnesota Environmental Policy Act (MEPA) is the fundamental environmental law of the state. It provides policies to guide actions affecting the environment, as well as the requirement that an environmental impact statement (EIS) be prepared when an action involving a governmental entity (either directly or in terms of a permit) has "potential for significant environmental affect." Minn. Stat. §116D.04, Subd. 1.

Two policies established in the Act relate specifically to land use and the protection of the coastal zone.

> "(f) develop and implement land use and environmental policies, plans, and standards for the state as a whole and major regions thereof through a coordinated program of planning and land use control;
>
> (g) define, designate, and protect enviromentally sensitive areas. Minn. Stat. §§116D.02, Subd. 2 (f), (g). (Emphasis supplied).

A number of other policies relate indirectly or partially to coastal zone planning. See Minn. Stat §§116D.01,.02.

Under Minn. Stat. §116D.04, an environmental impact statement is required for any "major [state or local] governmental action," see Minn. Reg. MEQC 22 (L), having "potential for significant environmental effects." The EIS must consider the environmental effect of the proposed action as well as all reasonable alternatives to the action. The EQB is authorized to prescribe by rule those circumstances in which an EIS is required. These regulations will be amended to require an EIS in any circumstance where any major action

is proposed that would be in violation of the Coastal Zone Plan. Such an inconsistent activity would presumptively have potential for significant environmental impact. While an EIS is only an informational document, such a detailed review should help lead to decisions which are sound in terms of coastal zone planning. Another provisions of the policy act requires that:

> "No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction. Economic considerations will also not justify such conduct. Minn. Stat. §116D.04 Subd. 6 (Emphasis supplied).

Compliance with the Coastal Zone Plan represents a "feasible and prudent alternative," which must be chosen under this requirement, absent a showing of a strong justification. The EQB is also given direct authority to review, and, if appropriate, reverse or modify, decisions on "any state project or action significantly affecting the environment if the Board finds . . . that the action or project is inconsistent with the policy and standards of §116D.01 to 116D.06." Minn. Stat. §116D.04, Subd. 9 (Emphasis supplied). The Board will prospectively indicate that any decision by a state agency in violation of the Coastal Zone Plan will

occasion such review and, where appropriate, reversal. Thus, with respect to state agency actions, an administrative review mechanism is available to monitor on a case by case basis CZM plan compliance.

5. Environmental Quality Board Statute, Minn. Stat. §116C.01-08.

The EQB, the implementing agency for MEPA, is composed of seven state agency heads (State Planning, Energy, Transportation, DNR, Agriculture, Health, PCA), a representative of the Governor's office, plus four citizens (three appointed by the Governor and one by the Chairman of the Citizens Advisory Committee to the EQB). The Chairman is the State Planning Director. It is given strong powers to act as the environmental co-ordinating body by statute, including authority to:

> "(b) . . . review programs of state agencies that significantly affect the environment and coordinate those it determines are inter-departmental in nature, and insure agency compliance with state environmental policy.
> (c) . . . review environmental regulations and criteria for granting and denying permits by state agencies and . . . resolve conflicts involving state agencies with regard to programs, regulations, permits and procedures significantly affecting the environment, provided that such resolution of conflicts is consistent with state environmental policy." Minn. Stat. §§116C.04, Subd. 2(b),(c).

As noted above, two of the state's environmental policies relate directly to the coastal zone planning effort. Thus, these two sections give the EQB authority to review all direct activities as well as regulations, permits and procedures of state agencies, to insure consistency and compliance with

the coastal zone plan. Again, as with the §116D.04, Subd. 9 authority of the Board to review and reverse decisions of state agencies, no authority is given here to review ordinances, activities, or decisions of local governmental units.

6. Minnesota Environmental Rights Act, Minn. Stat. Chapter 116B.

The Environmental Rights Act creates a civil action for any person to bring a lawsuit for the "protection of the air, water, land, or other natural resources located within the state, whether publicly or privately owned, from pollution, impairment, or destruction." Minn. Stat. §116B.01. "Natural resources" is defined to include, but not be limited to: "all mineral, animal, mechanical, air, water, land, timber, soil, quietude, recreational and historical resources." "Scenic and aesthetic resources" are also natural resources "when owned by any governmental unit or agency." Minn. Stat. §116B.02, Subd. 4. Many of the grounds for a co-ordinated approach to the north shore and development of the Coastal Zone Plan are within the list of resources enumerated. Thus, this law would create an action for a private person or the state CZM lead agency to judicially review a decision involving a land or water use in the coastal zone. The standard of the Act requires the court to order use of a "feasible and prudent alternative" if it is less environmentally harmful. Minn. Stat. §116B.04.

Another provision of the Act allows intervention as a party to "any person" in "any administrative, licensing, or other similar proceeding." Upon intervention, environmental

considerations must be part of the proceeding and the governmental entity is advised that it must meet the "feasible and prudent alternative" standard. See generally Minn. Stat. §116B.09. Thus, the state CZM lead agency, DNR, or EQB will, where appropriate intervene in local or state permit proceedings to influence those decisions in a manner consistent with the plan. Thereafter, the Rights Act would provide a basis for judicial review with a more favorable standard in terms of plan compliance than the normal administrative challenge of a permit decision.

7. Administrative Procedure Act, Minn. Stat. §15.0411 to 15.052

The Administrative Procedure Act of Minnesota contains one provision which will be helpful with respect to the Coastal Zone process. As noted above, there are a number of provisions for reviewing the consistency of state agency regulations. Nonetheless, early participation in rule making by the designated CZM agency in Minnesota can help to insure state agency regulations which appropriately dovetail. Minn. Stat. §15.0415 provides the following:

> "Any interested person may petition an agency requesting the adoption, suspension, amendment or repeal of any rule. The petition shall be specific as to what action is requested and the need for the action. Upon receipt of such a petition an agency shall have sixty days in which to make a specific and detailed reply in writing as to its planned disposition of its request. If the agency states its intention to hold a public hearing on the subject of the request, it shall proceed according to §15.0412. The attorney general shall prescribe by rule the form for all petitions under this section and may prescribe further procedures for their submission, consideration, and disposition."

Thus, the lead agency will, as appropriate, propose rule provisions for other state agencies at the initiation of the CZM rule amendment process.

8. Direct State Permit Programs.

Direct state permits are required from a number of Minnesota agencies prior to a wide variety of land and water development activity. The vast majority of these permit programs are implemented by state agencies having membership on the EQB, thus they will be familiar with the CZM program. As noted previously, regulations of these agencies, as well as others with permitting responsibilities not on the EQB, will be amended to insure consistency with the Coastal Zone Plan. State permits will not be granted for activities inconsistent with the management plan. Amongst the permits expected to be required most frequently on activities in the coastal zone are the following:

a. Modifications of Public Water, Minn. Stat. Chap. 105. State law requires a permit from the DNR prior to the construction, improvement, abandonment, or other change of a "reservoir, dam or waterway obstruction on any public water," or resulting in a change or diminution in the "course, current or cross-section of any public waters. . . by any means, including but not limited to, filling, excavating, or placing of any materials in or on the beds of public waters. . . . " Minn. Stat. §105.42. Public waters are broadly defined to include all waters having a "material beneficial public purpose." Minn. Stat. §105.38. In

turn, "beneficial public purpose" is defined to include but not be limited to, a wide variety of water related benefits. Minn. Stat. §105.37, Subd. 6. These include water supply, recreational activities, and public navigation, activities generally related to large bodies of water or major rivers' as well as recharge of groundwater, storm water runoff retention, entrapment of nutrients, and wildlife habitat activities, activities which enlarge the class of public waters to include most wetland and marsh areas.

Consistency of permits regarding public water with the CZM Plan will be significant in terms of rivers, on shore water bodies, and Lake Superior itself. For example, the protection of delineated areas requiring from dredging and filling operations to preserve fish spawning locations will be implemented through the denial of this DNR permit.

b. Pollution Abatement Permits, Minn. Stat. Chap. 115 and 116. Minnesota administers a comprehensive air, water and solid waste permit program through the Pollution Control Agency (PCA). Numerous specific permits are required for installation of equipment producing air pollution or water pollution. Most industrial development requires one or more of such permits. In addition, direct permitting of all solid waste facilities is conducted by the agency. Permits are also required for any sewer system. See Minn. Stat. §115.01-09.

Amongst the regulations of the PCA regarding sewer facilities, Minn. Reg. WPC 40, is currently noticed for hearing, requiring individual sewage treatment systems utilizing subsurface soil treatment and disposal to meet certain standards. This will require that if the system services a facility generating more than 15,000 gallons per day, a combination of facilities generating more than 5,000 gallons per day, or more than 15 dwelling units on a single system, it must receive a PCA permit. Under the Shoreland Management regulations of the DNR, Minn. Regs. Cons. 72 (b)(2), NR 83(d)(2)(bb) Shoreland Management Ordinances of counties and municipalities are required to conform to "applicable standards, criteria, rules and regulations of the Minnesota Department of Health and the Pollution Control Agency. . . in terms of size, construction, use and maintenance" of septic tank systems. Thus, upon adoption, the standards of WPC 40, will be mandatory for the shoreland ordinances in the Minnesota coastal zone.

9. Soil and Water Conservation Districts Minn. Stat. Chap. 40.

Minnesota law provides for the creation of local soil and water conservation districts having powers which can be dovetailed to assist in the implementation of the Coastal Zone Management Plan. Soil and water conservation districts are authorized in part to undertake activities designed to

control and prevent soil erosion; foster land research planning and development; implement land resource use practices that reduce siltation and loss of land base through activities associated with farming, mining, construction and forestry; prevent flooding; assist in maintaining navigability of rivers and highways; preserve wildlife areas; protect the tax base and protect public lands. See, inter alia, Minn. Stat. §§40.02, .07, .071, and .072. In order to accomplish these purposes, soil and water conservation districts may "develop comprehensive plans for the conservation of soil and water resources and for the control and prevention of soil erosion within the district." These plans are required to be consistent with "the state plan for water and related land resources." Minn. Stat. §40.07, Subd. 9. Thus, the plans of these districts would have to be consistent with the Coastal Zone Management Plan. A soil and water conservation district is also empowered to undertake works of improvement to accomplish its purposes. Many of these will require state permits, however, even in cases where such permits are not required, such plans are subject to a finding by the State Water Resources Board that they are consistent with "systematic administration of state water policy." Minn. Stat. §40.072 Subd. 3. Again, a state agency is therefore given authority to review and require consistency of the conservation district improvement projects.

C. MINNESOTA NETWORKING APPROACH FOR ORGANIZATION AND CONTROL OF LAND AND WATER USES.

As noted above, the CZM Act specifies three alternative

techniques, or a combination of these alternatives, as mandatory to satisfy the organization and regulatory authority requirements for control of land and water uses. Although a number of states have passed new legislation creating coastal zone agencies to implement these responsibilities, the vast majority of states are implementing the necessary controls through "networking" of existing state authorities and state and local agencies. This is the technique Minnesota will pursue. Emphasis will be on co-ordination and co-operation amongst state agencies, the Arrowhead Regional Development Commission (ARDC) and local units of government. The result is satisfaction of the Act's requirements utilizing a combination of the three methods.

No new legislation will be required, however numerous state agencies will have to amend their regulations and local units of government will, in some cases, have to modify existing zoning ordinances. These changes are in response to the new guidelines on appropriate land and water uses in the coastal zone. These permissible uses are described in detail in Chapter 2. The coastal zone area in which the network approach will operate is discussed in Chapter 1. It recognizes both the importance of development in the immediate land-water interface, the Shoreland Management area and the importance of the transit/visual/land use interface along highway 61.

In the Minnesota approach to land use controls, two zones or tiers are subject to differing regulatory authority,

in terms of the CZM Act methods. Nonetheless, the permissable uses plan indicates the general concern of Minnesota regarding land uses throughout the zone. In the shoreland management area all land use activities, whether local or state, will be regulated in a manner conforming to one or another of the prescribed methods defined in the CZM Act.

In the area beyond the Shoreland management tier, only matters of the larger size involving a state permit will be regulated by one or another of the techniques specified in the Act. It should be noted that the state will strictly review residential development by preclusion of exemptions under the Subdivided Land Sales Act for developments not in conformity with the Coastal Zone Plan. Thus, only very small scale residential development, less than 10 units, will not have a state review. Beyond the Shoreland Mangement area amendment of local zoning ordinances to accomplish consistency with the Coastal Zone Plan will be voluntary. However, because of the participation of local representatives in the development of the permissable uses specified in the plan, and the major role assigned to local and regional government with respect to consultation and coordination in the Minnesota networking approach, it is anticipated that voluntary ordinance adoption will occur. Because of the supportive nature of these activities to the Coastal Zone Plan, it is proposed that Coastal Zone Management Act implementation funds be used to support voluntary ordinance adoption activities of local governments, as well as the mandatory ordinance

adoption within the Shoreland Management Zone. In the event voluntary adoption does not occur, and development pressure of significance to the coastal zone results, new legislation or critical area regulations may be necessary.

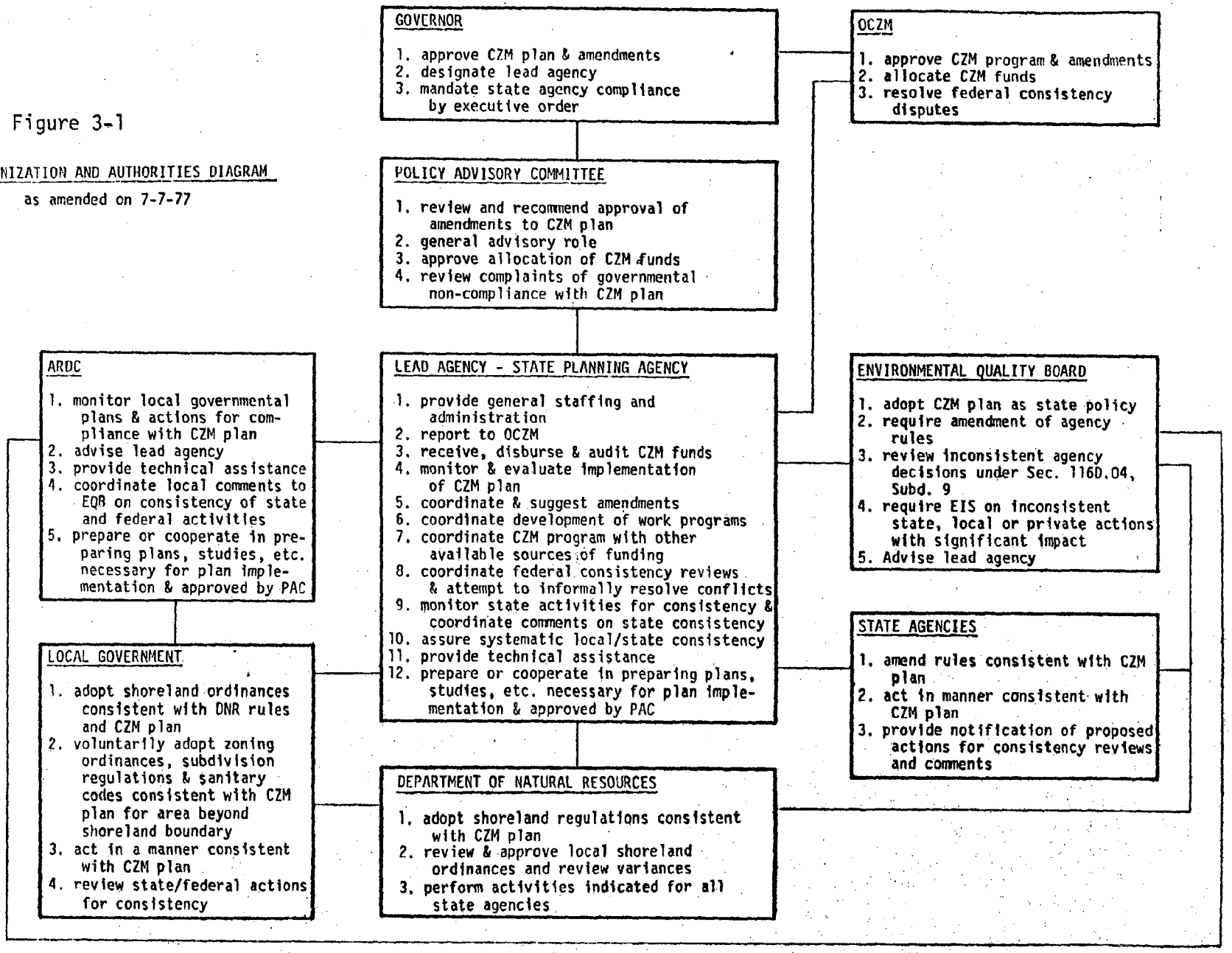
The organization and authorities diagram, Figure 3-1. indicates the inter-relationship of agencies and legal authorities proposed in the Minnesota networking approach. The following discussion will more fully describe the organizational structure, different local and state government and agency functional responsibilities and techniques of compliance with the Act's specific land and water control methodology requirements.

Structure: All existing public agencies at all levels of government will continue to exercise their existing authorities within the coastal zone, but in a manner consistent with the permitted uses specified in the plan. New regulations for state agencies and new zoning ordinances at the local level will be adopted and utilized to carry out appropriate portions of the coastal zone "control of land and water uses." In addition the governor will act to approve the CZM plan and mandate state agency action of a consistent nature. The present PAC, composed of local and state officials, plus a representative of ARDC, will be enlarged to add a representative of the City of Duluth, the largest municipality in the zone. It is now a non-statutory advisory body, but its role was actually that of the directing entity in the CZM plan preparation process. It will be formally recognized and continue to

Figure 3-1

ORGANIZATION AND AUTHORITIES DIAGRAM

as amended on 7-7-77



operate pursuant to the CZM Plan and the Executive Order adopting the plan. Up to now its role has been the key one of preparation of the draft plan for hearings. In the future the PAC role will include review of comments on the draft plan and preparation of the final plan for submission to the Governor, recommendations of later amendments and CZM fund allocation, plus a continuation of its general advisory role.

Control of Land and Water Uses and Resolution of Conflicts Amongst Competing Uses: Within the Shoreland Management Zone, counties and municipalities along the North Shore currently regulate land use pursuant to Shoreland Management zoning ordinances. These ordinances are in accordance with existing criteria promulgated by the DNR and each ordinance must be approved by the DNR. DNR would be required to promulgate revised shoreland management criteria and guidelines that adopt the uses specified in the Coastal Zone Plan. These would constitute the criteria and standards with which local governmental zoning and land use ordinances would have to comply. Such ordinances would then be reviewed for consistency by the DNR. This procedure is identical to the one followed in the adoption of the present ordinances.

Although the existing Shoreland Management Regulations of DNR lack specificity as to land uses and do not classify various sectors of one lake differently, as is provided in the Coastal Zone Plan's permissive uses element, the broad authority of the Shoreland Management Act would allow for

changes in the criteria to reflect the plans greater specificity. In the coastal zone area beyond 1,000 feet or 300 feet from a river or stream, the Shoreland Management Act does not provide for state criteria or standards and later adoption of zoning or land use plans by local government. However, the DNR criteria and standards will be designed to provide guidance for ordinances to cover this area and the lead agency, PAC and ARDC will provide technical assistance and aggressively urge adoption of consistent zoning ordinances in this area. In municipal areas, compatible ordinances within the zone will be required to the maximum extent practical pursuant to Minn. Stat. §105.485, Subd. F.

In all areas of the coastal zone, matters requiring state agency approval will be regulated to insure plan consistency. Similarly, direct state actions will be required to be in conformity with the plan. The EQB will mandate that programs and regulations of all state agencies be consistent. In appropriate cases SPA will initiate rule changes (including possibly the DNR shoreland criteria changes) pursuant to the Administrative Procedure Act petition provisions.

EQB regulations will also be amended to require EIS review of any activity, state, local or private, anywhere in the zone, if it has potential for significant environmental effects. For purposes of this test, non-conformity with the plan will be a major consiseration indicating significant effect.

State Consistency: Under the EQB statute, the EQB, in consultation with the lead agency, will review, on a regular basis, agency regulations and programs to monitor consistency. State Planning will suggest such a review whenever an apparent inconsistency is identified either by CZM staff or through public or other governmental agency or unit comments. Individual actions by state agencies will be subject to an administrative review mechanism in the EQB under the Environmental Policy Act, Minn. Stat. §116B.06, Subd. 9. Again, the lead agency, the general public or another governmental entity can trigger such an EQB review. EIS preparation, where appropriate will also foster consistency. Finally, through the Executive Order of the governor, all state agencies will also be subject to the charge to act in a consistent manner.

Local Consistency: In the event of systematic non-compliance by a local agency in the implementation of the shoreland zoning ordinance, the lead agency will pursue one of a variety of options: (1) it may seek to intervene in important local variance or conditional use decisions affecting the coastal zone as a party under the Environmental Rights Act in order to directly affect the outcome of the proceeding; (2) it may seek judicial review to require compliance with the ordinance either by a direct review of whether a decision was arbitrary and capricious or by a review under the Environmental Rights Act, arguing plan compliance is a feasible and prudent alternative. In addition, in tandem with the above, the MEPA requirement for an EIS will be applied in appropriate circumstances as a tool to provide greater information on impacts and foster sound decisions.

Compliance with Federal Requirements: The above-described networking of existing state regulations results in compliance with the Coastal Zone Management Act requirements. As to local governmental decisions within the shoreland management area, there is compliance pursuant to method one. All three elements exist: state setting of criteria and standards, state review and approval of locally adopted ordinances, and state authority to seek judicial review in the event of a pattern of inconsistent enforcement. With respect to state actions within the coastal zone, compliance results under both methods two and three. There are direct state permit controls under consistent regulations for all regulated actions and a mandate of consistency of all programs, plus there is an administrative review available in the EQB of every individual decision for plan consistency.

SECTION 2:

MISCELLANEOUS ORGANIZATION REQUIREMENTS INCLUDING LEAD AGENCY SELECTION AND PLANS AMENDMENT

SECTION 2: MISCELLANEOUS ORGANIZATION REQUIREMENTS INCLUDING LEAD AGENCY SELECTION AND PLANS AMENDMENT.

In addition to the requirement that the state have appropriate authority for control of land and water uses, the Act poses a number of other legal requirements with respect to CZM organization and plan adoption. Some of these requirements are merely descriptive, such as the requirement of §305(b)(6) that the Plan include "a description of the organization structure proposed to implement the management program. . . ." These are complied with throughout the plan.

The Act requires that:

> "The management program and any changes thereto have been reviewed and approved by the Governor." §306(c)(4).

Such approval will occur only at the time of plan submission. It will be accompanied by an Executive Order requiring state agencies to act in compliance with the plan. In addition, as discussed above, there will be an EQB plan adoption resolution indicating that the plan represents state environmental policy. Thereafter, pursuant to both the executive order and the EQB's authority to require state regulations and programs be consistent with state policy, all state agency actions will be required to be consistent.

Lead Agency: The federal act requires that:

> "The governor of the state has designated a single agency to receive and administer the grants for implementing the management program. . . ." §306(c)(5).

This state coastal zone lead agency is a critical factor in the plan, in terms of working with other agencies and insuring coordination and consistency. Noted above was the authority in the Administrative Procedure Act to petition for rule adoption, a function the lead agency will, where appropriate, utilize to trigger state agency rule making proceedings. Also the lead agency will be the focus for monitoring compliance by local and state agencies with the plan. It will seek judicial review or trigger EQB §116D.04, Subd. 9 inquiry as appropriate. It will also ask for EIS's where this will foster study desirable in ascertaining whether an alternative to a non-complying proposal is appropriate. The PAC considered three agencies for this role, however one was the unanimous choice of the state and local PAC representatives involved in plan development -- the State Planning Agency.

The State Planning Agency has a number of advantages for this task. First the Chairman of the EQB is the director of the State Planning Agency, thus providing a direct link between those agencies. Generally the State Planning Agency has staffed the EQB on various matters. The State Planning director is also chairman of the PAC. State Planning has acted as the staff for PAC and the Coastal Zone studies undertaken up to this time, and is the agency most familiar

with the legal and proposed land use plan requirements of the CZM. Further, it has experience with respect to land use planning that is broader than any other state agency and has the general statutory responsibility to insure coordination amongst various agencies. See Minn. Stat. §§4.10-.12. The latter is a key concern with respect to Minnesota's proposed organization with its heavy emphasis on obtaining comments from other agencies and coordinating multi-level governmental actions by networking a number of existing state laws. Finally, it has long been involved in grant administration to local governmental units.

Amendment Process: The Coastal Zone Management Act itself is silent with respect to amendments. In the regulations, 15 CFR §923.57 recognizes that plans will be subject to amendment and provides for a review procedure and mandatory approval "prior to initiation of the change contemplated." This establishes an expedited review procedure where agreement can be "presumed for minor amendments if the State has not been notified of objections within thirty (30) working days of date of postmark of the request." Implicit is the necessity for review in the same manner as an initial application if the change is of substantial proportions, i.e. material changes in permissable uses or the CZM boundary.

Because the Act provides no guidance, the structure of the plan with respect to amendments is within the discretion of the State. Because Minnesota will be utilizing a "networking"

approach with respect to organization and authorities for control of land and water uses, the implementation of an amendment will depend upon the particular state law being used to effectuate the plan in the area where the amendment occurs. For example, if the amendment would change the plan with respect to uses regulated by local ordinances within the Shoreland Management Zone, it would be effectuated by: (1) adoption of the amendment by the Governor and Environmental Quality Board, (2) amendment of the Shoreland Management Regulations of the DNR, and, (3) amendment of local ordinances by local governmental units. If the amendment deals with an area beyond the shoreland tier or where the activity was subject to a state permit, it would be implemented in two steps, with plan adoption as in (1) above and then modification of state agency regulations.

This indication of how formal, legal, implementation of an amendment would occur, does not answer the question as to how amendments will be generated and approved. The state's current development of the Coastal Zone Plan heavily utilized the Policy Advisory Committee (PAC) made up of local (6) and state (6) officials. The PAC will continue to act as a supervisory entity with respect to coastal zone planning. The continued existence and role of the PAC will be indicated by the Governor in the Coastal Zone Plan and accompanying Executive Order. One of the PAC's continuing functions would be the review of suggested plan amendments and their

approval for recommendation to the Governor. Amendments could come from many sources, including the State Planning Agency (the CZM lead agency), any local governmental unit, the ARDC, a state agency, a federal agency, the EQB, an interested citizen or business entity, or the PAC itself. The PAC would then study and review such amendments, with staffing from the lead agency, and submit them with comments and recommendations to the Governor.

SECTION 3:

FEDERAL AND STATE/LOCAL
CONSISTENCY REVIEW MECHANISMS

SECTION 3: FEDERAL AND STATE/LOCAL CONSISTENCY REVIEW MECHANISMS

A major element in inducing states to implement a CZM program is the several authorities in the Act allowing states with approved CZM plans to review federal actions for consistency with the State plan. Minnesota will utilize its Lead Agency to co-ordinate this program to insure maximum comment from state and local agencies. Consistency of state and local actions will be enforced as provided in the Organization and Authorities discussion in Section 1, C. However, the input of local and state governmental entities in this review is also desirable. A parallel state/local "consistency review" operating format will thus be implemented to insure maximum intergovernmental input.

A. FEDERAL CONSISTENCY REVIEW.

1. Legal Authorities. Section 307 establishes the CZM procedure for insuring federal activities are consistent with the state's Coastal Zone Plan. Generally consistency review can be considered in two categories. First, are federal activities including development projects, undertaken by the federal agency itself. § 307 (c)(1) and (2). These actions are subject to a consistency finding if they "directly" affect the coastal zone. The consistency review is undertaken by the federal agency carrying out the project or program. The agency must find that its program is "consistent to

maximum extent practicable" with the state plan or it cannot be pursued without modification. The state must be provided notice of the proposed federal action and the federal agency's consistency finding, along with sufficient information for state review a minimum of 90 days before any commitment. The state then has 45 days to review consistency and if it does not respond within that time state concurrence in the federal finding is presumed. More time may be requested, for cause. If the state disagrees with the federal finding it can discuss the matter informally with the federal agency or seek mediation by the Secretary of Commerce. It cannot administratively prevent the federal agency from taking the action, but judicial review is available at any time.

The second class of cases are federal license and permit activities and federal assistance to state and local governments. For these, the category of actions covered is broader, including activities "affecting" the Coastal Zone. See §307 (c)(3)(A) and §307(d). Actions requiring a federal license or permit and grants to local and state governments must be consistent with the Coastal Zone Plan. Again, this is a stronger requirement than with respect to direct federal actions. The responsibility for notifying the state rests with the license applicant or grant seeking governmental agency. In the first instance, the state may establish a particular method for the applicant to utilize. In the

second case, the use of the A-95 notification procedure through the regional agency (here ARDC) is mandatory. If the state makes a finding of non-consistency with the Coastal Zone Plan, the federal agency may not approve the license or permit or make the grant. The state has six months after receipt of a notification from a license applicant accompanied by sufficient data to indicate its consistency finding. A failure to act within that time period results in a conclusive presumption of consistency. With respect to grants, the review time is the same as under the A-95 procedure. In both license and grant cases, a binding secretarial administrative appeal mechanism is available and the possibility of ultimate judicial review exists. Tables compiling these various federal consistency provisions are attached as Figures 3-2 and 3-3.

The two critical implementation requirements of the Act, which the plan must indicate, are: first, who will make the state consistency determination, and, second, what activities will be subject to consistency review. The Act provides that the state lead agency is responsible for making the consistency determination, but that this responsibility may be delegated to any other state and local agency. With respect to actions subject to a consistency review under §307(c)(3) and §307(d) the state is charged to enumerate in the plan the geographic areas and categories of permits which will automatically be subject to review. Other non-

enumerated permits may be reviewed on a case by case basis and the list of permits can be updated and modified at any time subject only to approval by the associate administrator of OCZM. Non-enumerated grants may be reviewed only with the approval of the Associate Administrator. The permits, grants and other actions where the state review will be automatic are attached as supplements.

2. Minnesota Consistency Review Format. As noted above, the lead agency may delegate the consistency review function in whole or in part. Most states appear to be utilizing a pairing approach where federal agencies, whether acting directly or by permit or grants, are paired with their respective state counterparts, e.g. Environmental Protection Agency - Pollution Control Agency; Department of Interior or Forest Service - Department of Natural Resources. Minnesota will also utilize this approach. Thus, the lead agency will refer a consistency matter to the appropriate state agency or agencies for review and comment. In addition, a method of local involvement will be necessary. The ARDC will be utilized as the local clearing house for this input. Referrals will go to ARDC for review and comment with the understanding that this body (itself composed of local officials) will consult with other governmental entities, its own advisory boards, and local PAC members, as appropriate. The EQB will also receive and provide inter-agency notification

so that the views of non-paired agencies can be made by way of an EQB comment as to consistency. The lead agency will serve as the clearing house for comments from local and state agencies, transmit these comments to the appropriate federal agencies, and initiate appropriate mediation, arbitration or judicial review. In cases where comments of state agencies, EQB, ARDC or local governments were inconsistent, the lead agency would mediate, informally seek to achieve consensus and, if necessary, make the final decision as to state position.

Again, as with respect to the amendment mechanism, the law and regulations allow great latitude to the states. Aside from the denomination of the lead agency as the initial responsible agency, much flexibility is allowed in terms of consultation device. Because of the large number of actions to be reviewed and the short time periods involved, it is necessary to establish detailed protocol for review of consistency to insure timeliness of comment and to vest the review with the staffed lead agency. On cases where the commenting agencies reach differing conclusions and an agency is dissatisfied with the lead agency action, review by the PAC is available. Such review would be triggered by a commenting agency placing the matter on a PAC agenda.

3. State/local Consistency Review.

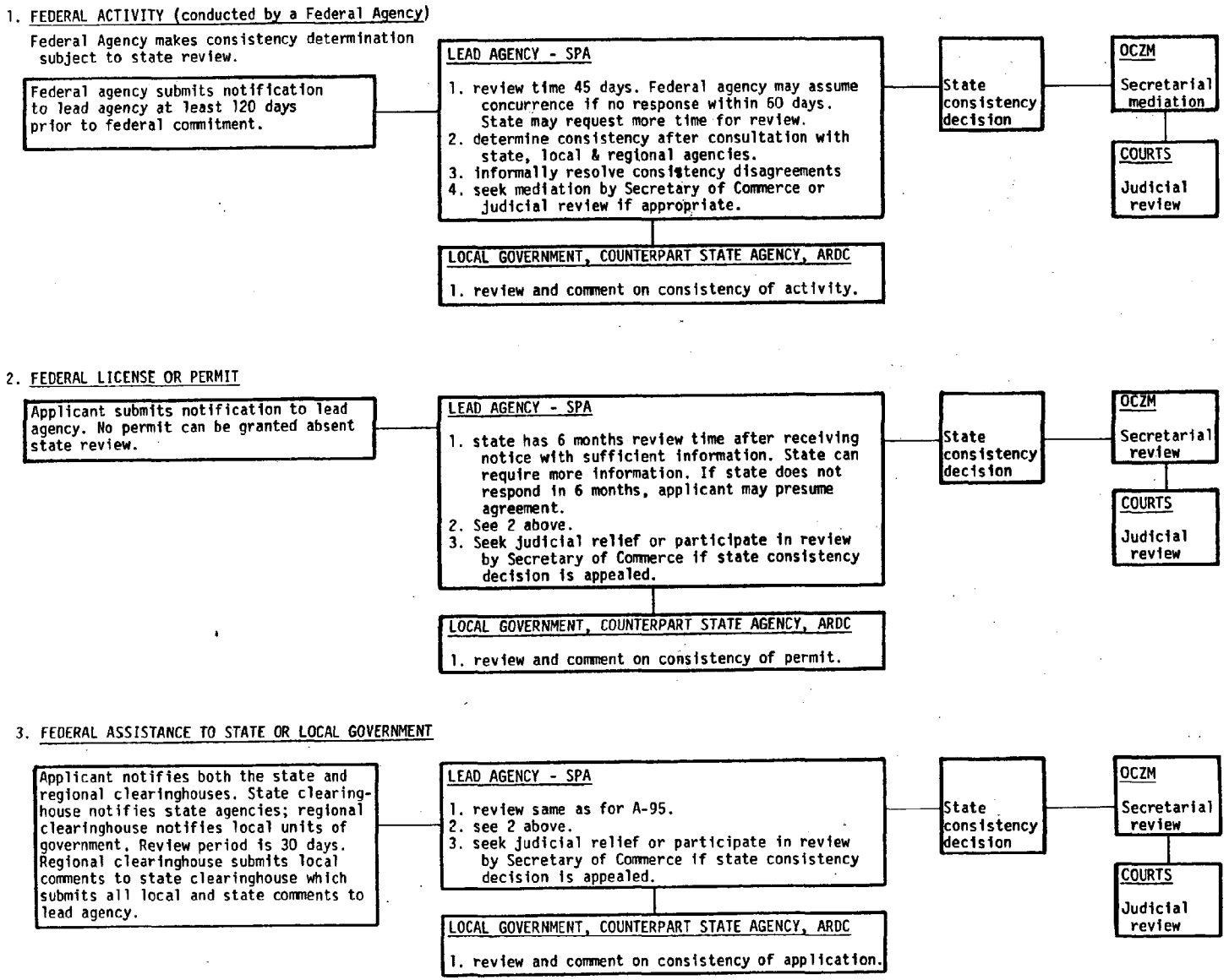
Explicit in the Minnesota "networking" approach interweaving existing state authorities, as discussed previously, is the review of local and state direct activities and programs as well as permits to ensure CZM plan consistency. To comply with Section 306(e)(1)(a) there must be a program of state review of local activities to allow identification of a system failure to comply. Similarly, the administrative review authority of the EQB, Minn. Stat. §116D.04, Subd. 9, will be used to evaluate deviations and variances by state agencies from the Coastal Zone Plan. While different from the federal consistency review provisions there is a kinship between the two programs which argues for a dovetailing of the mechanisms for reviewing compliance. With respect to state and local activities, the lead agency is the entity appropriate for checking local decisions against the standard of systematic non-compliance and the EQB for checking those of state agencies. The lead agency also will interact with the EQB and trigger EQB review. In both cases, a close relationship to the ARDC and local governments is critical, since both are in a good position to provide input and judgment as to whether local implementation at variance with the plan is appropriate. Also, regarding state actions within their locality, such comments have the same desirability as local input on federal

consistency matters. Also, by utilizing a parallel review procedure, confusion regarding the handling of comments on consistency would be minimized.

Notice of pending state actions in the coastal zone, which are of potential significance will be provided in the State Register in the EQB Monitor section. This will trigger a state/local consistency review of such matters. A preliminary list of state actions which may be noticed is attached as a supplement to be reviewed by the PAC.

Figure 3-2

FEDERAL CONSISTENCY REVIEW DIAGRAM 6-30-77



FEDERAL CONSISTENCY TABLE, FIGURE 3-3 .

CZMA Section	307(c)(1) & (2)	307(c)(3)(A)	307(c)(3)(B)	307(d)
Federal Action	Federal activities including development projects	Federally licensed and permitted activities	Not applicable to Minnesota Shoreland, see 43 U.S.C. §1331	Federal assistance to State and local governments
Coastal Zone Impact	"Directly affecting the coastal zone"	"Affecting land or water uses in the coastal zone"*		"Affecting the coastal zone" *
Responsibility to notify State	Federal agency proposing the action	Applicant for Federal license permit		State or local government applicant for Federal assistance
Notification procedure	Alternatives chosen by Federal agency (subject to NOAA regulations)	Consistency certification or equivalent procedure set forth in CZMP		OMB Circular A-95 notification procedure
Consistency requirement	Consistent to the maximum extent practicable with CZMP	Consistent with the CZMP		Consistent with the CZMP
Consistency determination	Made by Federal agency (Review by State agency)	Made by State agency		Made by State agency
Federal agency obligations	Federal agency not required to disapprove action following State agency disagreement	Federal agency may not approve license or permit following State agency objection		Federal agency may not grant assistance following State agency objection
Administrative Conflict resolution	Voluntary mediation by the Secretary	Appeal to the Secretary by applicant or independent Secretarial action		Appeal to the Secretary by applicant agency or independent Secretarial action

CZMA Section	307(c)(1) & (2)	307(c)(3)(A)	307(c)(3)(B)	307(d)
Timing of State Action	Notice time: 90 days before any commitment; Rev. time: w/i 45 days; if no response concurrence presumed; can ask for more time.	Notice time: by applicant Rev. time: 6 mo. after app. w/ suff. data; if no rev. w/i time can presume agreement.		Notice time: A-95 Rev. time: same as under A-95
Judicial conflict resolution	Judicial Review available	Judicial Review available		Judicial Review available

* These terms have the same meaning and include secondary effects.

CHAPTER 1 2 3 4

CHAPTER 3

CHAPTER 4

GAPCs

COASTAL ZONE MANAGEMENT

CHAPTER 4:
GEOGRAPHIC AREAS OF PARTICULAR CONCERN

Introduction

The federal Coastal Zone Management Act of 1972 requires that the state's Coastal Zone Management Plan must identify and designate "Geographic Areas of Particular Concern" (GAPCs). By definition, GAPCs are those coastal land and water areas which deserve special planning attention; that is, they are not or cannot be managed adequately either through local land use controls or through the "Permissible Use" Section of the overall Coastal Zone Management Plan. Those areas may also represent significant opportunities with regard to the Coastal Zone which suggest coordinated action between several levels of government. These areas may have significant natural or historic value or they may be already developed areas with various uses competing for space. They may be in need of reclamation or restoration or they may be relatively undeveloped regions which may be expected to come under considerable development pressures in the future. In any case, GAPC designation is an additional tool that the state or local units can use to manage specific areas of concern within the larger coastal zone.

A. Federal Requirements for the GAPC Process

The federal legislation allows latitude for each state to develop its own process for nominating and designating GAPCs and for producing management programs. Certain factors, however, must be considered by every state.

Federal regulations demand consideration of certain types of areas for possible GAPC designation, but each state need not designate one area from each category. The categories for consideration are:

(1) "Areas of unique scarce, fragile or vulnerable natural habitat, physical feature, historical significance, cultural value and scenic importance;

(2) Areas of high natural productivity or essential habitat for living resources, including fish, wildlife and the various trophic levels in the food web critical to their well-being;

(3) Areas of substantial recreational value and/or opportunity;

(4) Areas where developments and facilities are dependent upon the utilization of, or access to, coastal waters;

(5) Areas of unique geologic or topographic significance to industrial or commercial development;

(6) Areas of urban concentration where shoreline utilization and water uses are highly competitive;

(7) Areas of significant hazard if developed, due to storms, slides, floods, erosion, settlement, etc.;

(8) Areas needed to protect, maintain or replenish coastal lands or resources, including coastal floodplains, aquifer recharge areas, sand dunes, ... reefs, beaches, offshore sand deposits ... (923.13(a) of the Rules and Regulations).

In addition, federal regulations require that the following steps must be covered in the overall management plan sent to the Secretary of Commerce for approval:

(1) The boundary of the GAPC.

(2) An identification of the state's interest in designating an area as a GAPC. This discussion should include the important values or unique characteristics of the area and any problems, present or anticipated, with the use of the area. In addition, a general scheme of use priorities should be laid out.

(3) An initiation of planning and policy-making efforts. Final plans do not have to be completed before the overall management plan is sent to the Secretary of Commerce for approval. However, the state must demonstrate its intention to fulfill this requirement of the Act. Such demonstration of effort might include planning studies underway, meetings with affected groups to discuss policy options or drafts of policies.

B. Potential GAPCs in Minnesota's Coastal Zone

In order to arrive at a listing of areas to be considered as GAPCs, Minnesota used two approaches:

(1) A survey of potentially significant natural and cultural features was conducted during the first year of the Program. Sites contained in this survey were evaluated in the North Shore Recreation Study to determine the most appropriate treatment of them. Table 4-1 lists the areas considered.

TABLE 4-1

AREAS HAVING POTENTIAL SIGNIFICANCE AS SCIENTIFIC AND NATURAL AREAS[b]

Level I Sites[c]

Site Name	Major Feature	Ownership	Priority for Consideration[d]
Minnesota Point - Oatka Beach (a)	Bay mouth bar Unique Plant Community	Private Municipal	2-4
Hawk Ridge	View of hawk migration	Municipal County	1
Moose Mountain	Diabase sill	Private	4
Stoney Point	Plant communities Birding Area	Private Municipal	4
Knife River (a)	Gravel Beach Gull rookery	State Federal Private	1
Silver Cliff and Encampment forest	Diabase sill Plant communities	Private County	4
Bud Hill	Virgin Maple	Private County	4
Good Harbor (a) Beach	Concentration of the mineral Thompsonite	Private State	1-4
Grand Marais Point	Tombolo Vegetative Community	Private Municipal	4
Devil's Track River (a)	Diabase Plant community	State Private	1
Grand Rock	Volcanic rocks Gull rookery	Federal	4
Maple Lake	Plant community	Federal	4
Big Noise	Plant community	Private	4
Embarass Mountain	Plant community	Federal State Private	4

Table 4-1 continued

Site Name	Major Feature	Ownership	Priority for Consideration[d]
Weber Lake	Bog succession	Federal	4
Kodonce River	Plant communities Trout spawning area	Federal State	1
Paradise Beach (a)	Beach process Plant community	State	2
Josephine and Teal Lake	Bog succession Geologic processes	Federal	4
Susie Islands (a)	Plant communities Geologic processes	Federal Private	1
Level II Sites			
Blueberry and Pancake Islands[a]	Gull rookery	Federal	4
Big Bay	Geologic processes	Federal	4
Hovland Woods	Plant community	State Private	3
Mineral Center Hardwood Ridge	Plant community	Federal	4
Hollow Rock	Geomorphic processes	Private	4
Pigeon Falls	Geologic processes	Federal Private	4
Lester River - Amity Creek	Trout habitat	Municipal	4
French River	Trout habitat	State	3
Sucker River	Trout habitat	Private	4
Lighthouse Point	Birding Area	?	?
Gooseberry	Plant Community	?	?
Beaver Island[a]	Gull rookery	Federal	4

Table 4-1 continued

Site Name	Major Feature	Ownership	Priority for Consideration[d]
Palisade Head	Geologic processes	State Private	3
Shovel Point - Baptism	Fish habitat	State	1
Crystal Bay	Sea coves	?	?
Tettagouche Highlands	Geologic processes	Private	4
Sugar Loaf Cave[a]	Tombolo	?	?
Schroeder Hardwoods	Plant community	Federal	4
Two Island River Hardwoods	Plant community	Federal	4
Gull and Bear Islands[a]	Gull rookery	Federal	4
Tofte Tom Park	Geologic processes	County	4
Carlton Peak	Geologic processes	?	?
Cascade River	Deer yard	State Federal	1
Brule River	Deeryard Trout	State Federal Private	1-2

(a) Also nominated as GAPCs through the public nomination process.
(b) Not all of these areas are within the Coastal Zone boundary as adopted.
(c) Level I sites are those where the potential for exploitation or resource damage is high. Level II sites are those where such potential is lacking or minimal.
(d) Priorities are as follows:
  (1) State-owned areas whose management is consistent with the goals of a Scientific/Natural Area.
  (2) Level I sites on State land whose current management is not consistent with Scientific/Natural Areas.
  (3) Level II sites on state-owned land whose management is consistent with the goals of a Scientific/Natural Area.
  (4) Level I and II sites on non-state owned land.

(2) A nomination process was conducted whereby public agencies, private citizens, and various organizations could submit their ideas as to what constituted a GAPC. This process involved the mailing of nomination packages which contained a discussion of the types of areas which could be considered as GAPCs, a brief discussion of the implications of GAPC designation, the procedures to be followed in nominating GAPCs and a nomination form to be filled out which described the area and the reasons why it should be considered as a GAPC. Nomination forms were also placed in the repositories along the North Shore and published in local papers. In response to this mailing, 25 responses were received nominating various areas as GAPCs. Table 4-2 summarizes the results of the nomination process.

As noted in B-1, above, significant natural and cultural features were evaluated in the North Shore Recreation Study. That report contains a more detailed description and inventory of each site or feature and recommendations as to how each site should be treated.

Of the 43 sites listed in Table 4-1, ten were nominated as GAPCs by the public and are included in Table 4-2. The remainder are recommended for consideration as state scientific and natural areas which are designated, by law, by the Commissioner of Natural Resources.

The nominated areas were submitted to a screening process to determine which areas should be recommended for designation as GAPCs. The following describes the steps in the screening process.

Step 1: GAPC nominations were evaluated to see if they fell within one or more of the categories listed in the Federal CZM Act. The categories are:

1. "Areas of unique, scarce, fragile, or vulnerable natural habitat, physical feature, historical significance, cultural value and scenic importance;

2. Areas of high natural productivity or essential habitat for living resources, including fish, wildlife and the various trophic levels in the food web critical to their well-being;

TABLE 4-2

GAPC NOMINATIONS

	AREA	NOMINATOR	DESCRIPTION
1.	80 acre tract north of U.S. 61 near Pigeon Falls on the Pigeon River-Cook County within Grand Portage Indian Reservation	Lake States Office; (federal) Bureau of Land Management	Federally-owned tract, natural area, currently managed for wildlife habitat. Nominator wishes to preserve the area.
2.	Unsurveyed islands in Lake Superior in Cook County	Lake States Office; Bureau of Land Management	Federally-owned unsurveyed islands, presently managed as wildlife habitat. Nominator wishes to preserve the area.
3.	Areas in Cook County for which prospecting permit applications are pending approval. T64N, R1 and ZE, 4th PM	Lake States Office; Bureau of Land Management	Only area in CZM study area with known prospecting permit application pending. The U.S. Forest Service has surface management responsibilities but BLM has the mineral leasing authority. No recommendation from nominator.
4.	Unsurveyed islands in Lake Superior in Lake County	Lake States Office; Bureau of Land Management	Federally-owned islands under BLM administration, valuable as gull nesting habitats. Nominator recommends preservation.
5.	3 islands in Pigeon River, Cook County	Lake States Office; Bureau of Land Management	Federally-owned islands under BLM administration. Not unique but valuable as wildlife habitat. Nominator recommends preservation.
6.	Cook County Historical Museum, Lot 3 & 4, Block 30, Grand Marais	Board of Directors, Cook County Historical Society	The Historical Society would like to buy the 2 lots adjoining the present museum in order to complete reassembling of the former Mayhew estate, home of the first white settlers in Grand Marais. These two lots are presently privately owned.
7.	Campsite on Burlington Bay and Water & Light Plant, City of Two Harbors, Lake County	City Council, City of Two Harbors	Camp and power plant owned by Two Harbors are suffering erosion damage, from lake level changes and from storm waters.
8.	The Mississippi River at and below the Twin Cities	Robert Anderson, NEMEEC	Area is "messed up." Nominator feels that it needs help. Would require considerable extension of CZM boundaries to be included.

	AREA	NOMINATOR	DESCRIPTION
9.	2 parts of proposed North Shore Trail: Barrs Lake Township Historic Site, St. Louis County. Silver Bay Township proposed Tailings Site, Lake County	Trails Section-State Department of Natural Resources	Trail has potential high recreational use. Land necessary is currently in both public and private ownership. Recommendation is that the immediate area surrounding the trail should be wisely managed to protect the significant features for recreation and educational uses.
10.	Entire Coastal Zone Study Area with exception of incorporated towns, cities and villages.	North Star Chapter, Sierra Club	"The entire area is of statewide concern as a resource for recreational and scientific activities." Nominator wishes to see area managed according to state standards implemented by the local units of government.
11.	Selected sites for future additions to Wildlife Management Areas (see attached map for locations).	U.S. Fish and Wildlife Service	These are areas which the Fish and Wildlife Service would like the state Department of Natural Resources to acquire for their Wildlife Management Program.
12.	Minnesota Point (undeveloped portion from Oatka area to Superior entry) and Hearding Island, Duluth City	Minnesota Ornithologist's Union	Only significant undeveloped areas remaining on Minnesota Point. Receives extensive use by classes from UMD. Recently proposed as National natural Landmark in National Park Services Natural Area Program. Recommends that State, U.S. Corps of Engineers and City of Duluth develop a management plan for the protection of the area's natural resources.
13.	Offshore islands with large gull breeding colonies (Blueberry Island, Pancake Island, Five Mile Rock, Marr Island, Gull Island & Bear Island, Beaver Island, Encampment Island & Knife Island)	Minnesota Ornithologist's Union	These ecologically sensitive areas need to be protected as the breeding grounds of the herring gull. Recommends that the DNR purchase development rights.
14.	Marshes in the St. Louis River from the Arrowhead Bridge (Duluth) to the Fond du Lac (Duluth) especially Grassy Point, Indian Point, Spirit Lake, Mud Lake and Fond du Lac areas.	Minnesota Ornithologist's Union	These ecologically sensitive areas are the only marshes left in the Duluth Harbor and are vital for waterfowl nesting and feeding areas. There are no other marshes in the Minnesota Coastal Zone. The marshes should be identified by vegetational surveys and designated as sanctuaries.

	AREA	NOMINATOR	DESCRIPTION
15.	Abandoned and modern beaches, Red Rock Creek area, N.E. Cook County in Grand Portage Indian Reservation	John Green, UMD Geology Department	The area is of scientific-educational value with abandoned "washboard" beach ridges in an undisturbed natural area. There is very little such habitat in Minnesota. Recommends preservation from development.
16.	Sugarloaf Point and Beach, SW Cook County	John Green, UMD Geology Department	This privately-owned area is of scientific, educational, historic and natural value, especially important for volcanic features of billion year old lava flows. Often used for field work by UMD students. Recommend getting non-development easements from present owner (Consolidated Paper Co.) or possibly public acquisition.
17.	Paradise Beach Area, Cook County	John Green, UMD Geology Department	This is an area of fine, natural gravel and back-beach bogs. These wild undeveloped natural areas offer excellent examples of wave-deposition processes and geomorphology and provide essential natural habitat for resident wildlife and birds migrating along the coast. In combination public/private ownership. Nominator recommends non-development easements and regulations by the DNR and the Minnesota Highway Department prohibiting the removal of sand and gravel from these beaches.
18.	Grand Portage Island, in Grand Portage Indian Reservation, Cook County	John Green, UMD Geology Department	This area has natural value as wildlife habitat and contains significant geologic features where exposed Puckewunge Sandstone formation contacts the base of the overlying Keweenawan lavas. Nominator recommends developing a management plan to prevent logging or residential developments.
19.	Devil Track River-Durfee Creek Area in Cook County. Includes 1/8-¼ mi. wide strip along Highway 61 from Devil Track River east past Durfee Creek until Highway bends away from lake in Section 9.	John Green, UMD Geology Department	This area, in both public and private ownership, is of great scientific and educational interest. It contains excellent examples of abandoned beach and shore features (especially wave-cut cliffs) of 5,000 yr. old Lake Nippissing stage of Lake Superior. Area also contains good natural shingle beaches for recreational use. Nominator recommends more state ownership on the land side of Highway 61 to include as much as possible of the abandoned wave-cut slope, coupled with a non-disturbance policy for the remainder of the area.

	AREA	NOMINATOR	DESCRIPTION
20.	Knife River Beach, southwestern Lake county (from rocks at north end near house to southeast end at harbor entrance; all along lake side of Knife River Marina) Staff recommends all of Knife River	John Green, UMD Geology Department	This area is primarily in public ownership. It is an excellent natural sand and gravel beach, unique in St. Louis and Lake Counties. It is used by UMD faculty and students. It is also of recreational value with abundant agate pebbles. Also provides beach habitat for water birds during breeding season and migration. Nominator recommends continuation of present management, but no further riprapping or other on-shore erosion prevention devices should be allowed.
21.	Thomsonite Beach, Good Harbor Bay, Cook County	John Green, UMD Geology Department	This area, presently owned by the state has good recreational value both as a beach and source of thomsonite; scientific educational value due to exposed geologic forms in the road cut; and aesthetic value from the Highway 61 overlook. Nominator recommends continuation of present management.
22.	Susie Islands Archipelago, Cook County	Henry Roberts(board member of the Nature Conservancy, but making nomination on own behalf)	This area has natural value (wild islands with dense boreal forest and rocky shore); as an historic area (old mine site on Susie Island) and as an ecologically sensitive area (several rare flowers in the arctic-alpine community occur south of their normal range in the severe microclimate on the Lake Superior ledge). The current ownership is mixed: some private, some public (Indian lands) and some Nature Conservancy (southern half of Susie Island). Nominator recommends transferring the Conservancy parcel to a public agency who would preserve it and urges the Grand Portage Reservation to take the natural areas into account in their future planning.
23.	North Shore Streams	Izaac Walton League	North Shore streams are felt to be particularly sensitive to development pressures and concerted efforts should be applied to protect them from detioration caused by development activities. The nominator stressed the biological importance of streams to the Lake Superior fishery and also indicated the scenic and recreational importance of the streams.

	AREA	NOMINATOR	DESCRIPTION
24.	Duluth-Superior Harbor	Izaac Walton League	Lying at the western tip of the Great Lakes - St. Lawrence Seaway the Twin Ports provide for the transshipment of Minnesota iron ore, Midwest grain, Montana coal, and various general and bulk cargos. Each year national and international shipping operations handle forty million tons of cargo. Because of its geographic setting, size, and diversity of activities, the harbor is a complex area. The harbor poses critical decisions on industrial development, marine traffic, dredge activities, recreation, water pollution and possesses extremely valuable wildlife resources.
25.	Silver Bay Area	Great Lakes Basin Commission	The Silver Bay area should be considered as a GAPC because of the intense pollution problems associated with the disposal of taconite tailings. In addition, the proposed on-land tailing disposal site(s) should also be considered for GAPC status because of the potential direct and significant impact of this use on the Lake Superior waters.

3. Areas of substantial recreational value and/or opportunity;

4. Areas where developments and facilities are dependent upon the utilization of, or access to, coastal waters;

5. Areas of unique geologic or topographic significance to industrial or commercial development;

6. Areas of urban concentration where shoreline utilization and water uses are highly competitive;

7. Areas of significant hazard, if developed, due to storms, slides, floods, erosion, settlement, etc.;

8. Areas needed to protect, maintain or replenish coastal lands or resources, including coastal flood plains, aquifer recharge areas, sand dunes, coral and other reefs, beaches, offshore sand deposits and mangrove stands." (From federal "threshold papers")

Step 2: Staff evaluated the viable nominations against the following designation criteria. For the site to be recommended for designation, each question should be answered "yes."

1. Is the existing resource management for the proposed GAPC in some way inadequate?

2. Can the Coastal Zone Management Program (as opposed to some other type of state or local action) effectively assist in the management of the proposed GAPC?

3. Within the Coastal Zone Management Program itself, would the GAPC designation be more appropriate than dealing with the area through general policies developed in the permissible use section of the plan?

4. Is the magnitude or complexity of the area's problems or opportunities sufficient to warrant special GAPC designation?

5. Is the value or significance of the area's resources sufficient to justify special GAPC designation?

Step 3: This step was the final screen used to determine which areas would be recommended. Those areas which made it through the first two steps were checked for two things. First, if the area in question was in federal ownership, it was excluded from further consideration because federal lands

are excluded from the program. Second, if the area in question was substantially outside the CZM boundary adopted by the Policy Advisory Committee at their May 11 meeting, it was eliminated.

Table 4-3 summarizes the results of the screening process. Numbers on the left margin of the Table correspond to the numbers in Table 4-2 which lists the GAPC nomination. Numbers along the top under the listing of the various steps refer to the criteria listed under each step above.

The areas which survived the screening process are Minnesota Point, Duluth-Superior Harbor, St. Louis River marshes, Knife River, the Silver Bay-Milepost 7 area and Thomsonite Beach. These areas are briefly described in Table 4-3 and their general locations are shown on Maps 4-1 and 4-2. Maps 4-3 to 4-6 indicate the extent of each nominated area. The boundaries shown are approximate and subject to change.

It should be noted that the areas recommended for GAPC designation extend, in most instances, beyond the boundary approved by the Policy Advisory Committee on May 11. This was done in order to indicate what was felt to be the area suited for GAPC designation. Restricting GAPCs to the approved boundary would have resulted in the elimination of a portion of the area which was nominated.

At its meeting on June 9, 1977, the PAC reviewed and discussed the six areas which met the screening criteria and took the following action.

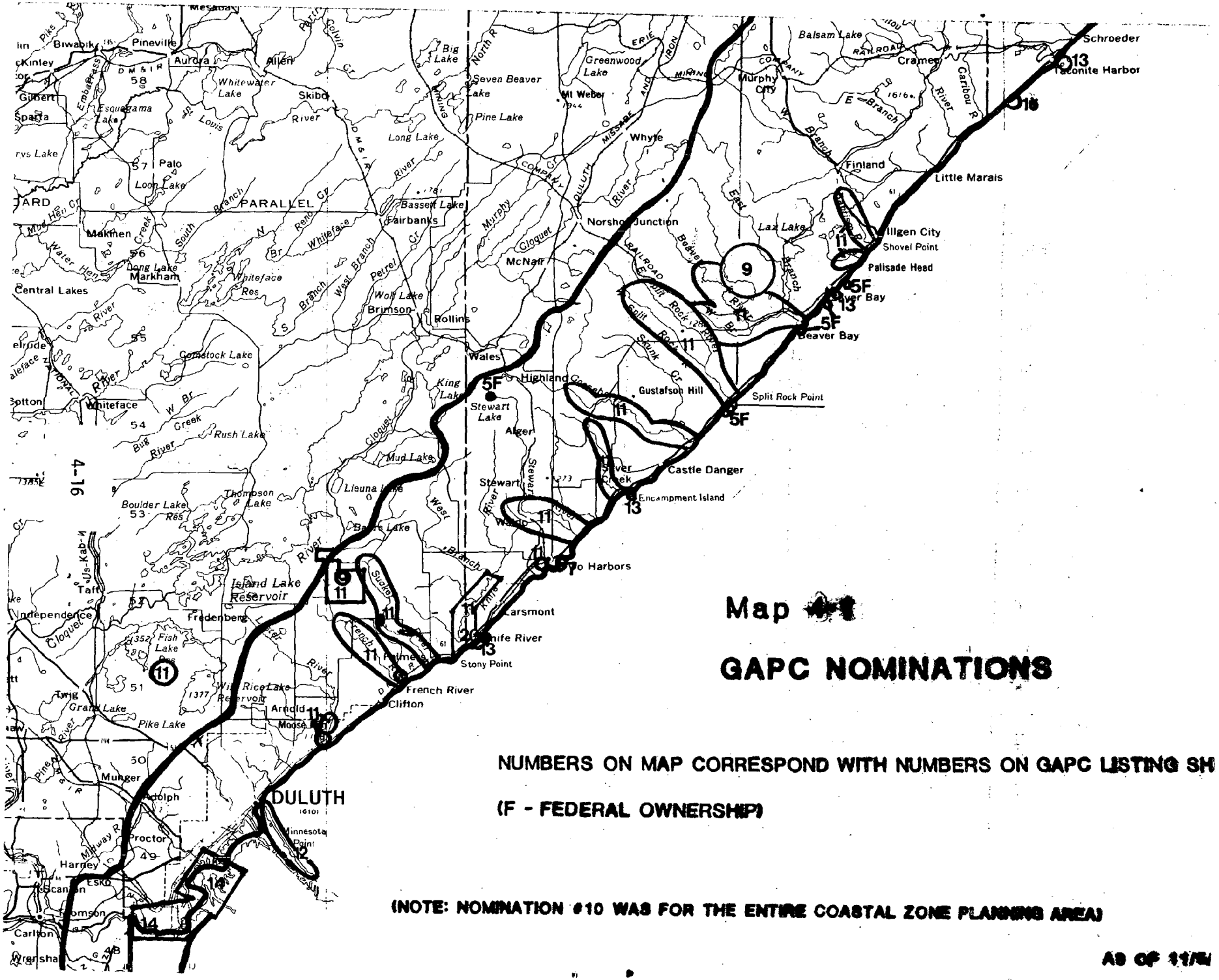
1. The Silver Bay Milepost 7 area was dropped from consideration because it was felt that a considerable amount of planning had gone into the selection of the Milepost 7 site and that the various state and federal permits required would insure that environmental impacts would be minimized. It was further noted that most of the construction workers on the Milepost 7 disposal site would be commuters and there would be little increased demand for housing or public services.

TABLE 4-3: GAPC SCREENING PROCESS

Nominated Areas	Step 1 OCZM Categories								Step 2 Designation Criteria					Step 3 Ownership/ Boundary	Designation
	1	2	3	4	5	6	7	8	1	2	3	4	5		
1. Pigeon River		+												Federal Ownership	No
2. Lake Superior Islands		+												Federal Ownership	No
3. Prospecting Area					+									Out of Boundary	No
4. Lake Superior Islands		+												Federal Ownership	No
5. Pigeon River Islands		+												Federal Ownership	No
6. Cook Co. Hist. Museum	+														No
7. Campsite/Power Plant	+		+				+		+	+					No
8. Mississippi River														Out of Boundary	No
9. North Shore Trail			+						+	+	+			Out of Boundary	No
10. Coastal Zone Study Area	+		+						+	+					No
11. Wildlife Mgmt. Areas	+	+	+											Currently being evaluated by DNR	
12. Minnesota Point	+		+			+		+	+	+	+	+	+		Yes
13. Gull Rookeries		+												Federal Ownership	No

Table 4-3 continued

Nominated Areas	Step 1 OCZM Categories								Step 2 Designation Criteria					Step 3 Ownership/ Boundary	Designation
	1	2	3	4	5	6	7	8	1	2	3	4	5		
14. St. Louis River Marshes	+	+							+	+	+	+	+		Yes
15. Beaches	+														No
16. Sugarloaf Point	+														No
17. Paradise Beach	+							+							No
18. Grand Portage Island	+														No
19. Devil's Track River	+		+												No
20. Knife River Beach	+	+	+					+	+	+	+	+	+		Yes
21. Thomsonite Beach	+		+						+	+	+	+	+		Yes
22. Susie Islands	+		+												No
23. North Shore Streams	+	+	+				+	+	+	+		+	+		No
24. Duluth-Superior Harbor	+	+	+	+	+	+		+	+	+	+	+	+		Yes
25. Silver Bay Area	+			+	+	+			+	+	+	+	+		Yes



Map 4-1

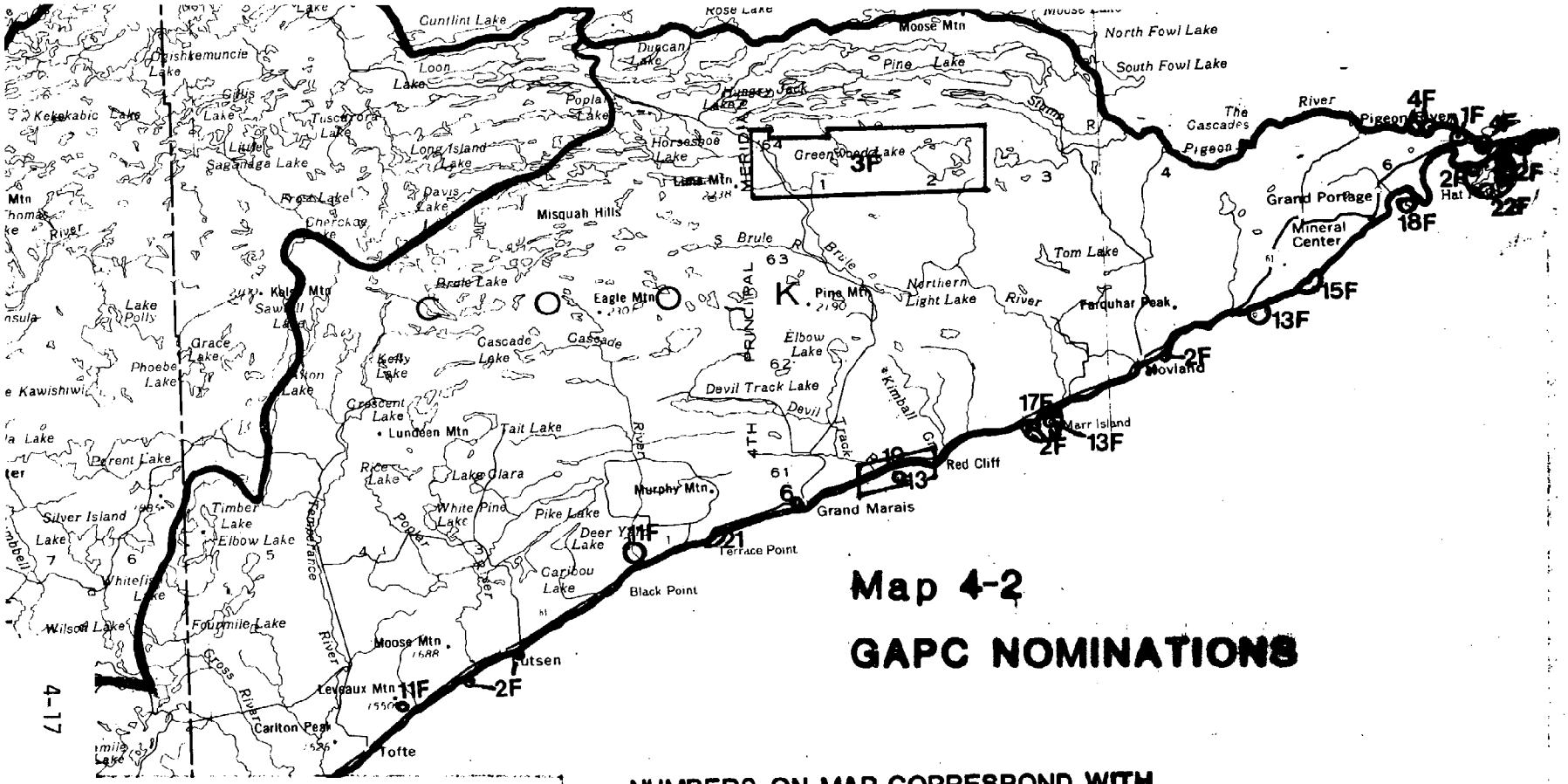
GAPC NOMINATIONS

NUMBERS ON MAP CORRESPOND WITH NUMBERS ON GAPC LISTING SH

(F - FEDERAL OWNERSHIP)

(NOTE: NOMINATION #10 WAS FOR THE ENTIRE COASTAL ZONE PLANNING AREA)

AS OF 11/5/



Map 4-2

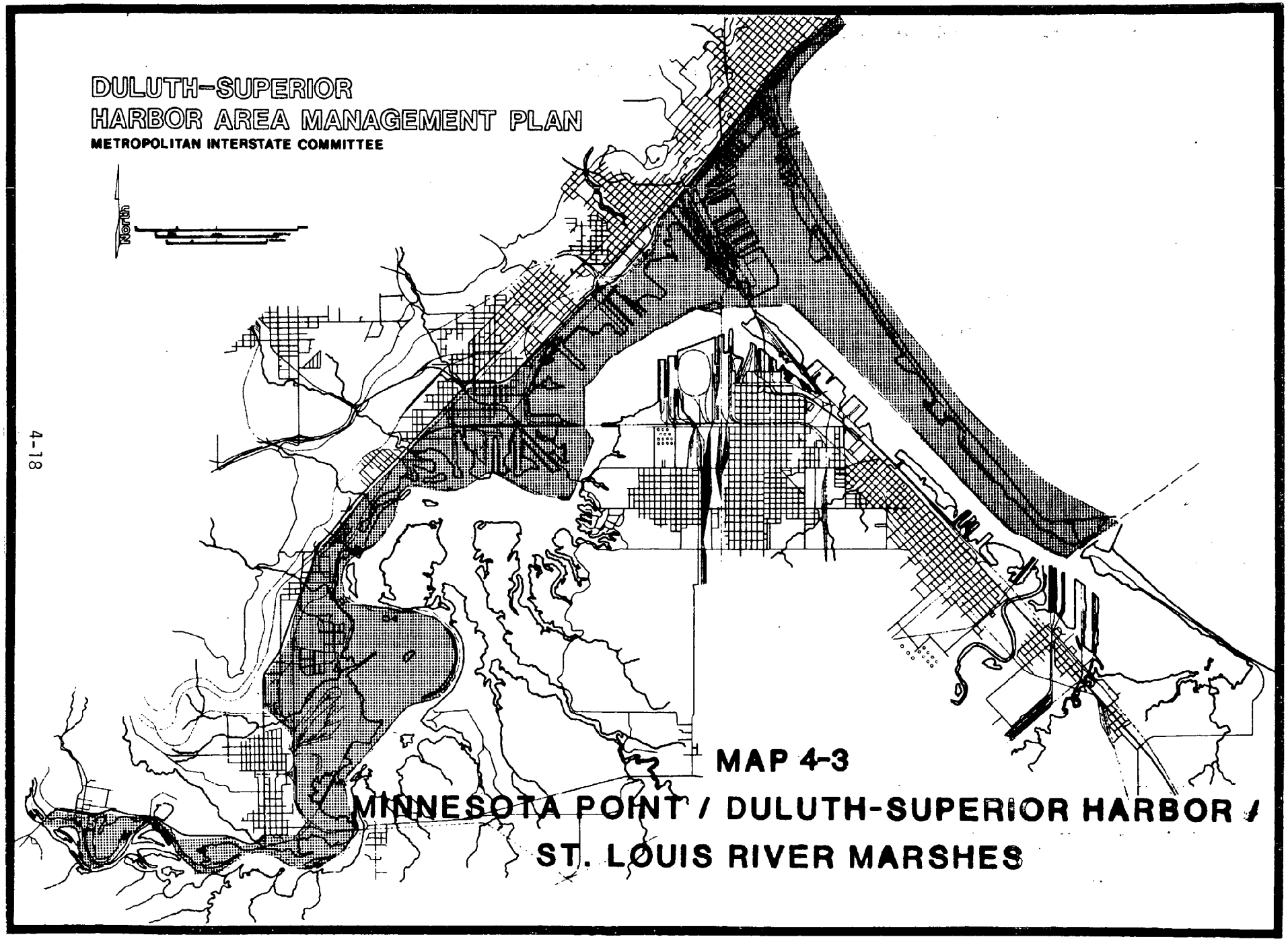
GAPC NOMINATIONS

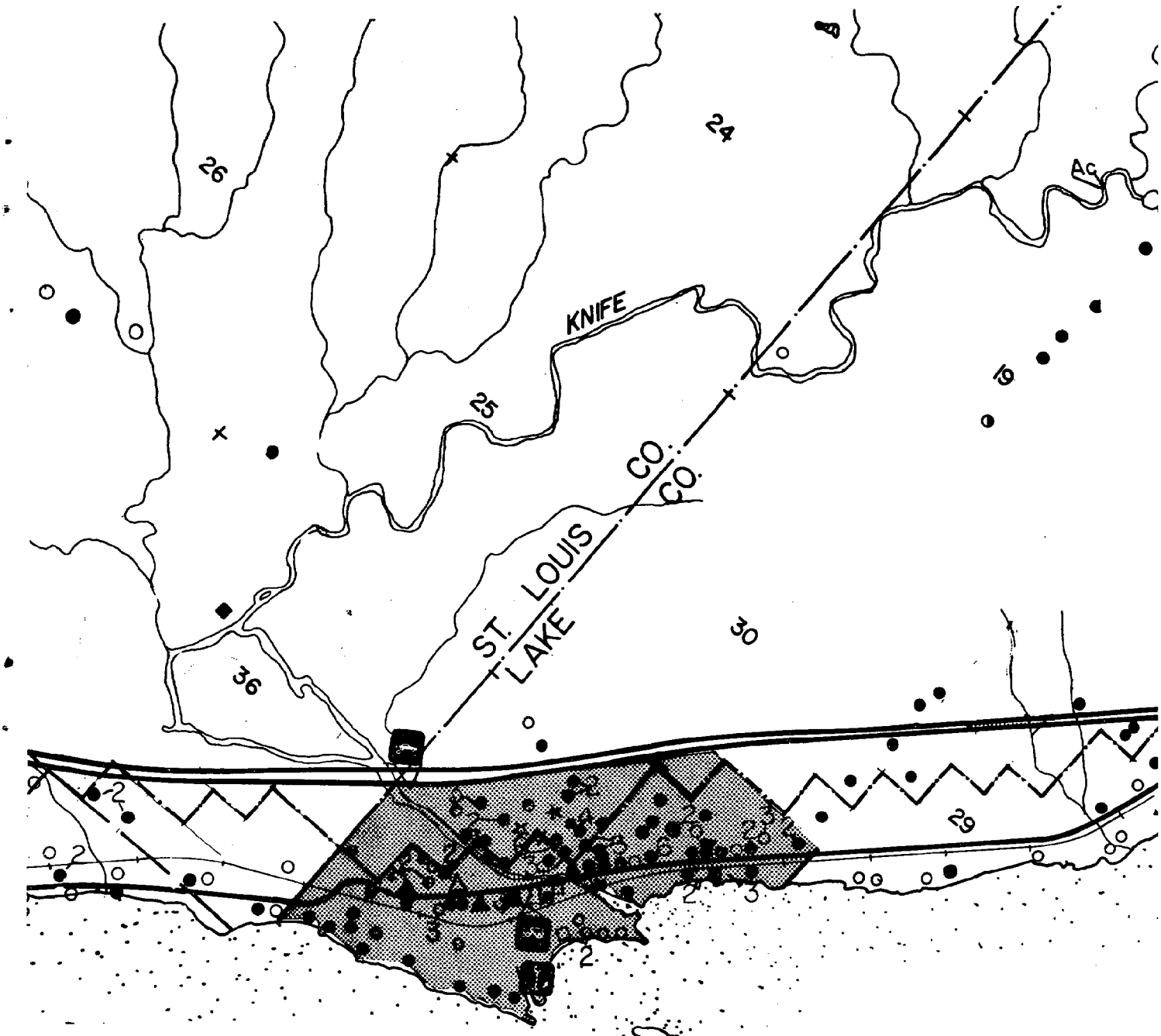
NUMBERS ON MAP CORRESPOND WITH
NUMBERS ON GAPC LISTING SHEET

(F - FEDERAL OWNERSHIP)

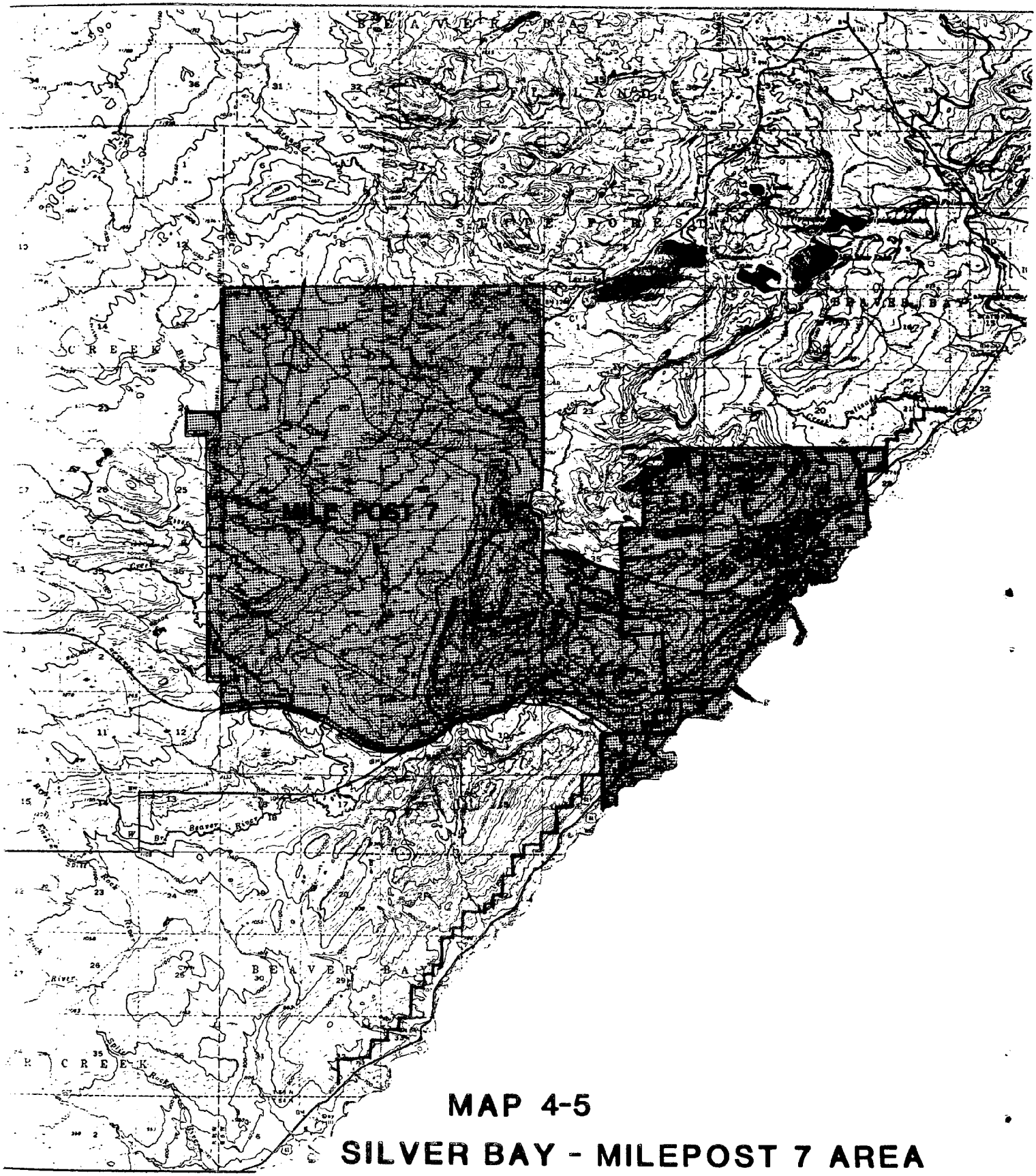
(NOTE: NOMINATION #10 WAS FOR
THE ENTIRE COASTAL ZONING PLANNING AREA)

AS OF 11/8/76


DULUTH-SUPERIOR
HARBOR AREA MANAGEMENT PLAN
METROPOLITAN INTERSTATE COMMITTEE
North
MAP 4-3
MINNESOTA POINT / DULUTH-SUPERIOR HARBOR /
ST. LOUIS RIVER MARSHES

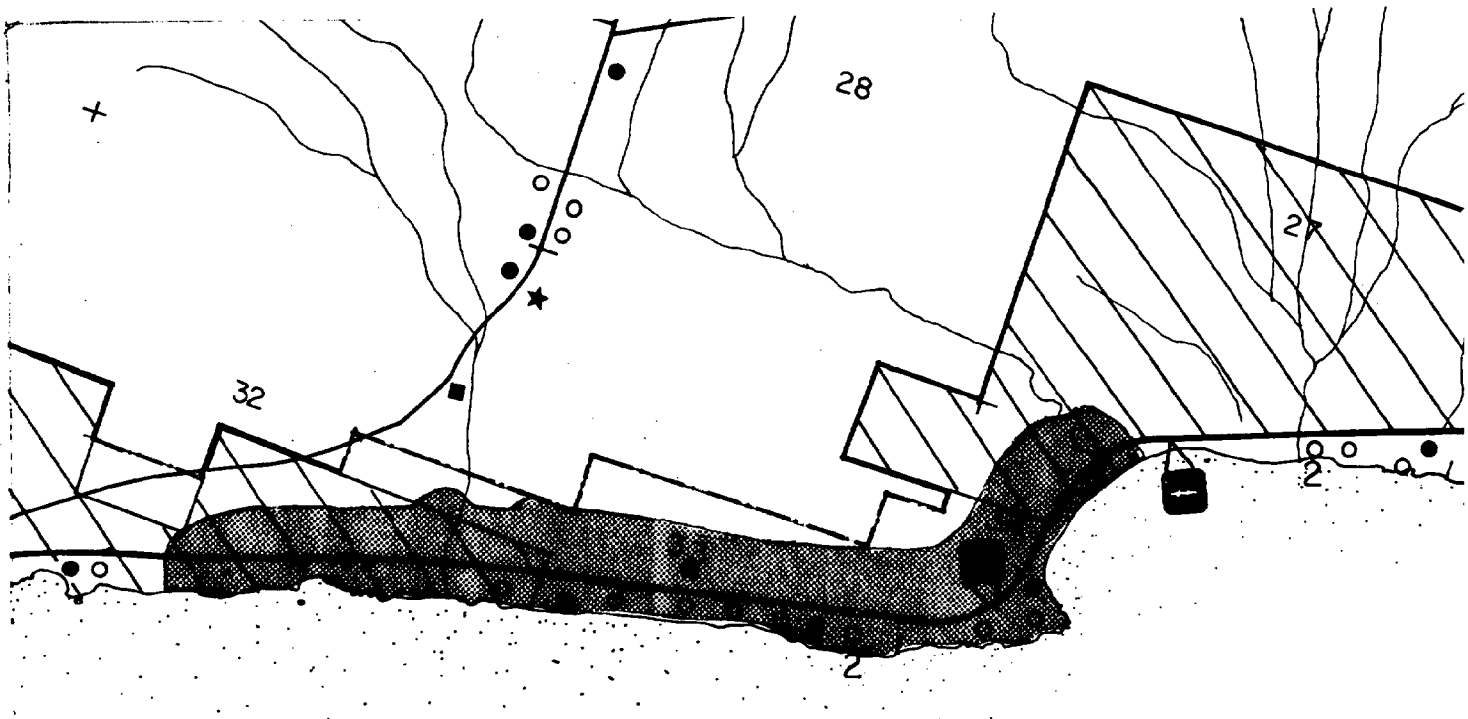


MAP 4-4 KNIFE RIVER



MAP 4-5

SILVER BAY - MILEPOST 7 AREA



MAP 4-6 THOMPSONITE BEACH

2. The Minnesota Point, Duluth-Superior Harbor and St. Louis River marshes areas were combined into one single nomination and tentatively approved by the PAC, subject to approval of the designation by the City of Duluth.
3. Action on Knife River and Thomsonite Beach was deferred pending discussions with local residents and governmental units.

Following action by the City of Duluth and the parties involved with Knife River and Thomsonite Beach, the PAC will officially designate GAPCs. If additional GAPCs are proposed after the CZM Plan has been reviewed by the National Oceanic and Atmospheric Administration in Washington, the process could be repeated at a later time.

Effect of GAPC Designation

The designation of an area as a GAPC carries with it the assumption that the area contains natural, cultural or economic resources which are of significant value and that present management is either very complex or highly difficult. Once an area has been designated, additional funds can be made available for federal, state and local interests to cooperate in the development of a management plan for the area which addresses the special concerns identified through the designation process. Further, the CZM Act provides for funds on a continuing basis to assist state and local government in implementing plans which are developed. These funds can be used for technical studies, to hire staff to administer programs and to do detailed design work.

It must be emphasized that GAPC designation, in and of itself, does not preclude any activity or provide preference for one activity over another. Designation simply means that the area is considered sufficiently important to warrant a detailed study of the area and development of a management plan which addresses the issues and concerns which make the area important.

The Arrowhead Regional Development Commission is finalizing a paper that describes the chain of events following designation. This paper will be included in the supplemental material to this plan.

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