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MINNESOTA COASTAL ZONE MANAGEMENT PROGRAM

public hearing draft czm plan feb. 24, 1978

COASTAL ZONE MANAGEMENT

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

MINNESOTA COASTAL ZONE MANAGEMENT PROGRAM

PUBLIC HEARING DRAFT

FEBRUARY 24, 1978

The preparation of this report was financed in part through a Program Development Grant under the Coastal Zone Management Act of 1972, administered by the Office of Coastal Zone Management of the National Oceanic and Atmospheric Administration.

MINNESOTA COASTAL ZONE MANAGEMENT POLICY ADVISORY COMMITTEE

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TO THE READER:

This document represents the second 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 and one-half years. 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 March. Notices of public hearings on the North Shore will be placed in local newspapers at this time.

2. Informational meetings will be held on the North Shore during March to enable citizens to familiarize themselves with the contents of the plan and have questions and comments clarified by staff.

3. Public hearings will be held during early April to allow all interested parties an opportunity to formally comment on the plan. Questions will not be answered at the hearing. We intend to hold hearings in Grand Marais, Silver Bay, Two Harbors, Duluth and St. Paul.

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

5. The Governor will review the plan and if he approves, send it to the federal Office of Coastal Zone Management (OCZM) in Washington around June 1st.

6. 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.

7. 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 S. Williams
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St. Paul, Minnesota 55101

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GLOSSARY

DRAFT

Memorandum to Eileen Mulaney

From Heather Coleman

Subject: Minnesota Threshold Review

The following are my comments and suggestions based upon my review of the Minnesota Public Hearing Draft CZM Plan (February 24, 1978). You asked me to review Chapter Three of the document concerning the proposed authorities and organizational structure for the Minnesota program.

General Comments: As I have indicated to you before, it is my opinion that the authorities and organizational structure proposed by Minnesota can meet the requirements of section 306 of the CZMA, as interpreted in OCZM's March 1, 1978 Program Development and Approval Regulations. I have no fundamental problems with the proposed approach, however there are a number of changes that I would recommend in the February document, as well as several steps which must be completed by the state before it can receive program approval.

Recommended Changes in Chapter Three: Minnesota is proposing a "networked" program which involves the state Environmental Quality Board's adoption of the program as state environmental policy, to which state agencies would be bound to adhere in conducting their programs and activities; and local adoption and/or revision of shoreland ordinances in conformity with the adopted state program. While state agencies would be bound to comply with the program immediately upon its adoption by the Environmental Qualtiy Board, local ordinance revision under DNR oversight would stretch out two years after program approval. Minnesota has proposed an interim control technique over local actions for this period of ordinance revision, and approval of the program

(p) The procedures within this Section shall also pertain to a disagreement between a state agency and a Federal agency resulting from a state agency's objection to the continued operation of a Federally conducted or supported activity or Federal development project which was: (i) previously determined to be consistent with the management program but which the state agency later maintains is not being conducted in the manner originally proposed and is no longer consistent with the management program; or (ii) previously determined not to be subject to the requirements of the management program but which the state agency later maintains is not being conducted in the manner originally proposed and, as a result of this change, is subject to and not consistent with the management program.

would be based initially upon this interim control scheme. Since initial approval would be based upon this interim scheme, provisions for monitoring local actions and for requiring local compliance with the program during the interim period should appear in the early part of the chapter. We therefore recommend the following reordering of the chapter:

1) Start the chapter with the discussion that now appears in Section I, part C. of Chapter Three, describing Minnesota's Networking Approach for Organization and Control of Land and Water Uses.

2) Under "Control of Land and Water Uses and Resolutions of Conflicts Among Competing Uses" (page 3-17), describe the process of EQB adoption of the program to mandate state agency compliance, the Governor's executive order, and then describe in detail the interim control approach for achieving local consistency with the program. This is the program which is proposed for approval under section 306. After the discussion of the interim control scheme, it would then be appropriate to describe the monitoring and review of local implementation after the shoreland ordinances have been approved by the Minnesota DNR. The document should state that an amendment or refinement to the program will be sought at the completion of the interim phase, before entering into the second phase of the program.

This discussion should provide a schedule for completion of the ordinance revision and DNR review process.

3) The discussion in detail of existing state legal authorities should appear at the end of Section I, as a reference and further explanation for the reader of the document. In addition, I would urge that appendix 3 containing the major statutes be expanded to include the Subdivided Land Sales Act and the Planning Act.

4) The Consistency discussion in Section 3 of Chapter Three should also describe how this process will work for local actions during both the interim and permanent phases of the program.

program. Accordingly, Congress determined that for these exceptional situations some leeway should be provided to Federal agencies, but added that it was not anticipated that there would be many situations where Federal agencies would be compelled to undertake activities or projects which deviated from approved program requirements. Therefore, following the spirit of Congressional intent, NOAA has narrowly defined the term "to the maximum extent practicable," in the form of a variance provision permitting deviations from state programs when justified by unforseen circumstances which compel non-adherence to an approved program in order to avoid a disproportionate burden on the Federal agency when measured against the benefits of complete adherence to the program.

(e) Many Federal agencies expressed concern that the preliminary draft regulations did not carefully adopt what might be termed the "causal" language within the consistency provisions, namely, that activities "directly affecting" and development projects "in" the coastal zone were the only actions subject to being consistent to the maximum extent practicable with an approved program. Additionally, the Federal agencies were generally dissatisfied with our initial attempt at defining the terms "affecting" and "directly affecting." In response to these criticisms, NOAA has done the following. First of all, the language of the proposed regulations will adopt the "causal" terms of the Act. Furthermore, no attempt will be made to define the meaning of "affecting" or "directly affecting" -- these terms will speak for themselves and difficulties will be addressed on a case by case basis.

Some discussion, however, is required at this point to inform all parties as to how NOAA intends to administer the Act with regard to the

insert p. 3

7) The discussion of existing state legal authorities should explain how soil conservation districts will be utilized during program implementation. Their role in the program is not clear from the present description.

8) Several suggested additions to the chart appearing on page 3-16: Add to EQB description the EQB's authority over subdivisions and power plants and transmission lines. Add to DNR's authority a reference to DNR's various permit and license authorities. Delete from all state agencies "1. amend rules consistent with CZM plan" from all state agencies box.

3

5) Omit the discussion entitled "compliance with Federal requirements." This can be judged by the reviewers and should be self-evident from the general discussion of organization and authorities in Minnesota.

6) Omit references to the need for state agency rule changes unless these are required before program approval (see below). The discussion of the Administrative Procedures Act and the Environmental Quality Board Act will be sufficient to inform the reader of how a new rule can be proposed or required of a state agency in the future, should such a need arise.

Steps Which Must be Completed Before Program Approval: In addition to the above recommended changes in the program document, there are a number of items which must be completed in the next few months.

1) Because the Subdivided Land Sales Act will be a very important means of ensuring that development in the coastal zone is consistent with the program, Minnesota has agreed to promulgate required consistency with the coastal program as an environmental standard for subdivisions, pursuant to EQB's authority under the Subdivided Land Sales Act,. This will involve the promulgation of revised rules by the EQB, which must take place before program approval.

2) Because the EIS process, which covers both local and state actions with potential for significant environmental effects, will be an important tool in monitoring local and state actions for consistency with the management program, Minnesota will amend its EQB EIS regulations to require an EIS in any circumstance where a major action is proposed that would be in violation of the program policies. However, it would be preferable for this rule to take place prior to program approval. The EIS rule change is not absolutely necessary prior to program approval because the EQB posseses the authority

(h) Hearings shall be as informal as may be reasonable and appropriate in the circumstances. At the hearing, the Federal agency and state agency may offer such relevant evidence as they deem appropriate subject to the hearing officer's supervision as to the extent and manner of presentation. The hearing officer may also accept relevant evidence offered by other interested parties. All oral testimony shall be under oath and witnesses shall be subject to questioning by the parties to the disagreement and by the hearing officer. Hearings will be recorded verbatim and transcripts thereof shall be made when requested by interested parties; costs of transcripts shall be borne by the requesting parties.

under the Minnesotat Environmental Policy Act and present regulations to require an EIS even if the proposed action or project is not referered to in the regulations. ~~See Subd. 2 of Minn. Stats. 116D.04.~~

3) In our discussion with John Herman, we have indicated some concern about the authority of the Environemntal Quality Board to adopt the coastal program as state environmental policy and thereby bind state agencies to act in compliance with the program. This authority is not explicitly provided for in the Environmental Quality Board statute. ~~John told me~~ Mr. Herman indicated that it would be possible to get a letter from the Attorney General's Office interpreting the EQB's authority to include the power to adopt the program as state environmental policy. This letter, or an equivalent docuement, should be available for inclusion in the DEIS. There is, however, another alternative which would provide the same or greater degree of certainty to EQB's authority. The Environmental Quality Board statute states specifically in section 116C.04 that the "powers and duties of the Minnesota Environmental quality board shall be as provided in this section and as otherwise provided by law or executive order..." (Emphasis supplied). Since an exeucutive order will be issued as a part of the Minnesota program, this order could also contain a provision that explicitly directs the EQB to review the program in light of the state environmental ~~policies~~ policy, and give it the authority to adopt the program as an interpretation of state environmental policy. In any event, the AG's letter or the Executive Order, or both, will be necessary for program approval.

(g) Prior to the hearing, the hearing officer may direct the parties to appear at a specified time and place for a prehearing conference to consider: (i) the possibility of withdrawal of the request for Secretarial mediation; (ii) the potential for obtaining stipulations, admissions of fact, and agreements to the introduction of documents; (iii) a limitation on the number of witnesses; and (iv) any other matters which may aid in the disposition of the hearing proceedings. The hearing record shall include an order, issued by the hearing officer, which recites the action and agreements developed at the prehearing conference.

4) The Governor's Executive Order should also contain a specific provision on the national interest requirement. This will help in avoiding some of the problems that we have been facing with other programs ~~x~~ concerning the national interest requirement. I will be happy to work with John Herman and others on the Minnesota staff in drafting such a provision~~x~~.

5) The discussion in Chapter Three on Amendments ~~s~~hould make reference to refinements, in sofar as state procedures for changes in the program a~~x~~e described. See pages 3-22 and 3-23.

6) The discussion in Chapter III, Section 3 should contain the new Federal Consistency Matrix Designation. Figure 3-2 should be changed to show (1) the "grant inconsistent, may not be made" as an alternative for #3 Federal Assistance to State or Local Governments; ~~of similar changes should be made~~ and (2) the "permit inconsistent, permit cannot be issued" as an alternative for #2 Federal License or Permit.

(d) A state agency should inform the Federal agency of its concurrence or disagreement with the Federal agency's consistency determination within 45 days of receipt of the notification. The Federal agency may presume state agency concurrence with the consistency determination if a state agency fails to respond within the recommended 45-day period; state agencies are encouraged not to express concurrence by failure to respond to the Federal agency's notification. In the event the state agency disagrees with the Federal agency's consistency determination, or determination that an activity or project is not subject to the consistency requirements of the Act, the state agency shall accompany its response to the Federal agency with its reasons for the disagreement. If the Federal agency disagrees, in whole or in part, with the state agency's position, the parties shall attempt to settle the matter by informal means. OCZM shall be available upon request to assist the parties in this regard.

Land Use

Overall Comment/Recommendation

Appears to be overlap in this Part with Economic Development and Recreation Sections.

Land Use Conditions

This is a section that has been added on in addition to the Problems and Issues section; I recommend it be deleted in this part of the document. Parts of it could be used for the Description of the Environment Affected in the EIA.

Problems and Issues

Issues 5 and 6 should be deleted from this section; they represent issues in other areas; the remainder of the issues identified are legitimate, but 1, 2, and 3 could be combined and 3, 4, 8 should be edited.

In addition, there should be an issues statement on the fact that the Shorelands Act needs implemented in municipal areas and revisions to county shoreland ordinances are needed.

Additional issues statements on shoreline erosion and floodplains should be stated.

Vegetation:

Overall Comment/Recommendation

Issues statement poorly developed; not related to coastal zone nor to policies. Section should be combined with Fish and Wildlife or Economic Development, as appropriate for a given issue.

Problems and Issues

Drop Issue #2, 3, 4, 6, 10, 11

Issues #1, 5, 8 should be combined and placed in section on Economic Development.

Remaining issues statements should be developed and organized according to (1) aesthetics and physical development, and (2) use and management for wildlife habitat, water quality, and fire prevention. (Note: Issue statements on the need for wetlands preservation and need for vegetation standards for aesthetics, physical development need to be developed.)

Goals, Policies, and Implementation Steps

Delete entire existing section.

Add policy statements derived from Section C - Policies and Authorities Relating to Vegetation from #5, 6, 7, 8, 10, 11, 12. (In most instances the policy statement will have to be an elaboration of the statements now in Section C.)

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Introduction

COASTAL ZONE MANAGEMENT

Boundary

The state has not identified the boundaries of the coastal zone. The primary reason for this negative finding is that the method of explaining the boundary is unclear.

To overcome this deficiency I recommend that (1) the entire background section (Section A) be deleted, and (2) ~~that~~ the boundary be stated directly, i.e., in rural areas, the coastal zone boundary is the 10 acre quarter section line beyond the T.H. 61 with bulges to include:

(a) State Parks

(b) GAPCs

(c) lots less than ten acres which cross the ten acre quarter section line. In municipal areas, the boundary is ...; In the water area, the boundary is ...

(3) ~~That~~, the state indicate the landward boundary is built on a series of hierarchial principles in rural areas as follows:

(1) 1000' - based on the principle of the Shoreland Act

(2) Highway 61 - Because of the issue of coastal development

(3) 10 acre coordinate grid system beyond 1000' or Highway 61 - because these grid lines permit ease in drawing the boundary to include the 1000' strip and Highway 61.

(4) State Parks and GAPCs

(5) lots less than ten acres which cross the 10 acre quarter section line

(4) ~~That~~, the state indicate the landward boundary is built on a series of hierarchial principles in municipal areas:

1)

2)

3)

(5) Any exceptions to these boundary principles, e.g., the boundary in the St. Louis River estuary.

(6) The process and conditions under which the boundary may change.

(7) ~~Statement that~~ Federal lands are excluded. In addition, this chapter should include:

1) the method the state will use for field inspection to determine the boundary in cases there is a question on boundary location and the time this determination will take;

2) interstate coordination on the boundary;

3) Availability and cost of coastal zone maps;

4) A revision of maps to provide for a legend for the boundary line and highway 61 and a north arrow;

5) The schematic boundary map should also illustrate private lands extending across the ten acre quarter section line and state parks and GAPCs.

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 divides 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 seven 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.

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 1960s 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. Four 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;

2. The waters off our shore are among the most biologically productive regions of the nation;

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

4. 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 discussed the jurisdictional-management problems involved in their management. 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:

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

2. Encourage and assist the states to exercise effectively their reponsibilities 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;

3. 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;

4. 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

5. 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.

3 1. 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.

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

2 3. 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.

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

problem

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.

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 them 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 Program / MgMt

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 nonresident 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 plans and local controls that reflect the special nature and conditions of the Shore. Controls such as zoning, subdivision regulations, 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 developed through the CZM Program. 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 measure future government activity and decisions against the CZM 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 Plannning. 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. In October, 1977 a representative from the City of Duluth was added to the PAC. 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:

Edwin Hansen	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
Meg Bye	City of Duluth
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 federal requirements that states must meet in designing their management programs.

Chapter 1 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 2 deals with the uses of land and water that are subject to the CZM Program. Through goals, policies and implementation steps, the program defines the activities of state and local government agencies in dealing with these uses and the impacts that may result from them.

Chapter 3 discusses the rationale used in selecting the organizational structure, existing authorities for controlling land and water activities, and the federal consistency review procedure.

Chapter 4 explains how uses of regional benefit and the national interest in the Coastal Zone have been dealt with.

Chapter 5 outlines the process used in nominating and selecting GAPCs for designation.

Chapter 6 contains a planning process for anticipating and managing the impacts resulting from energy-related facilities which may locate in the coastal zone.

Chapter 7 contains a process for assessing and dealing with the effects of shoreland erosion in the coastal zone.

Chapter 8 discusses beaches and existing and proposed beach access for both pedestrians and the boating public.

Chapter 9 discusses the preliminary results and recommendations of coastal zone management studies in the Duluth/Superior Harbor Area. This aspect of the CZM Program will be completed in June, 1978.

Appendix 1 contains a chronological history of federal, state and local involvement in developing the Minnesota CZM Program.

Appendix 2 contains a summary of coastal soil conditions and a guide to overcoming the limitations they impose on construction activities.

Appendix 3 contains the major state laws and rules and regulations pertaining to program implementation.

Glossary contains a list of acronyms and terms which requires definitions.

CHAPTER 1

Boundaries

COASTAL ZONE MANAGEMENT

CHAPTER 1:

BOUNDARIES OF THE MINNESOTA COASTAL ZONE

JAT

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)).

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 (Figure 1-1). 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.

- 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

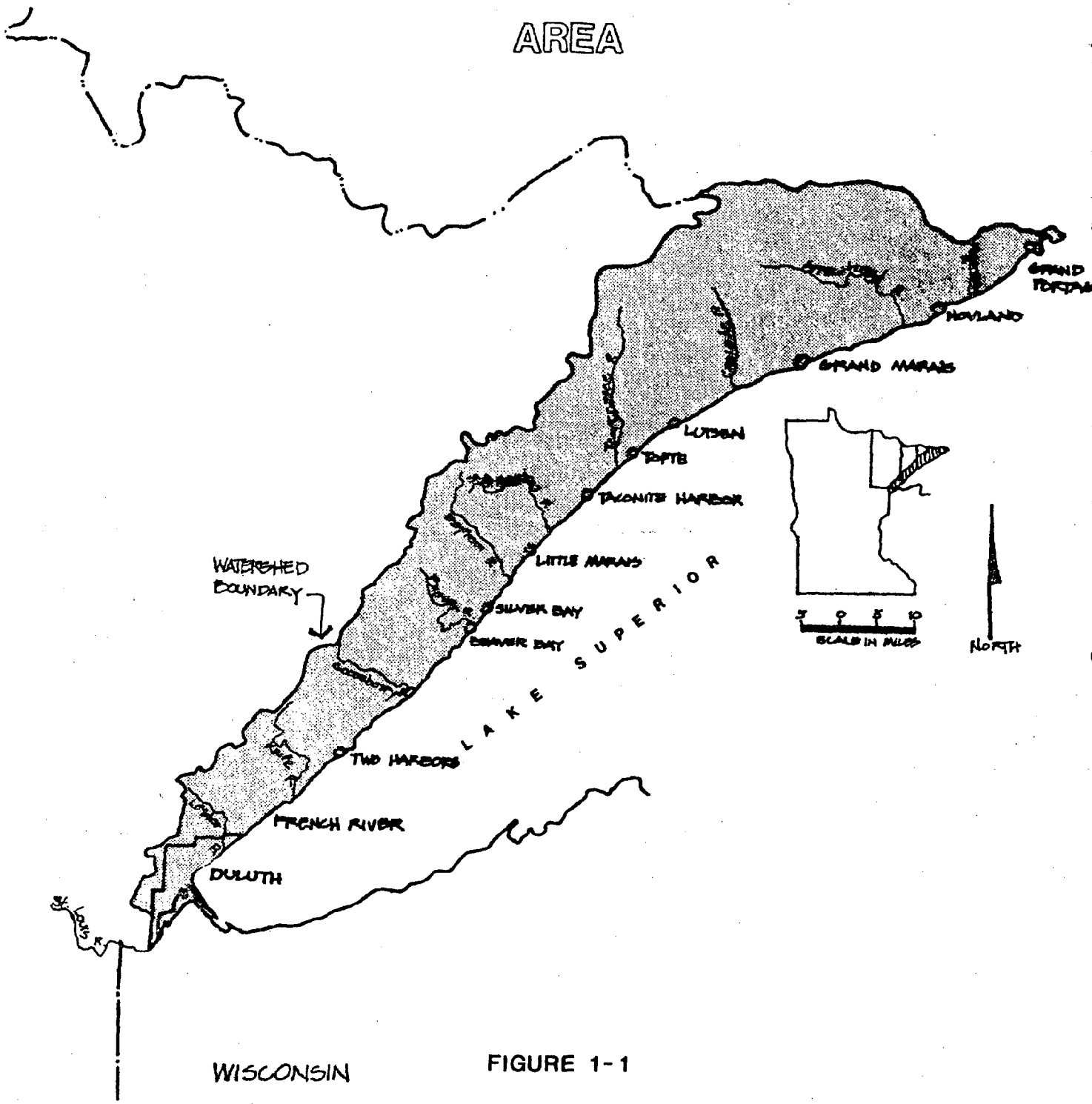


FIGURE 1-1

- 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 for the 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, Michigan, and Canada while inland the boundary approximates the 1,000 foot line from Lake Superior or T.H. 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 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 T.H. 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 T.H. 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.

timing ?

D. An Administratively Feasible Boundary

A boundary which is authorized by statute or by any other legally enforceable code should be definable 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 line.

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 (Figure 1-2).

COASTAL ZONE BOUNDARY DIAGRAM

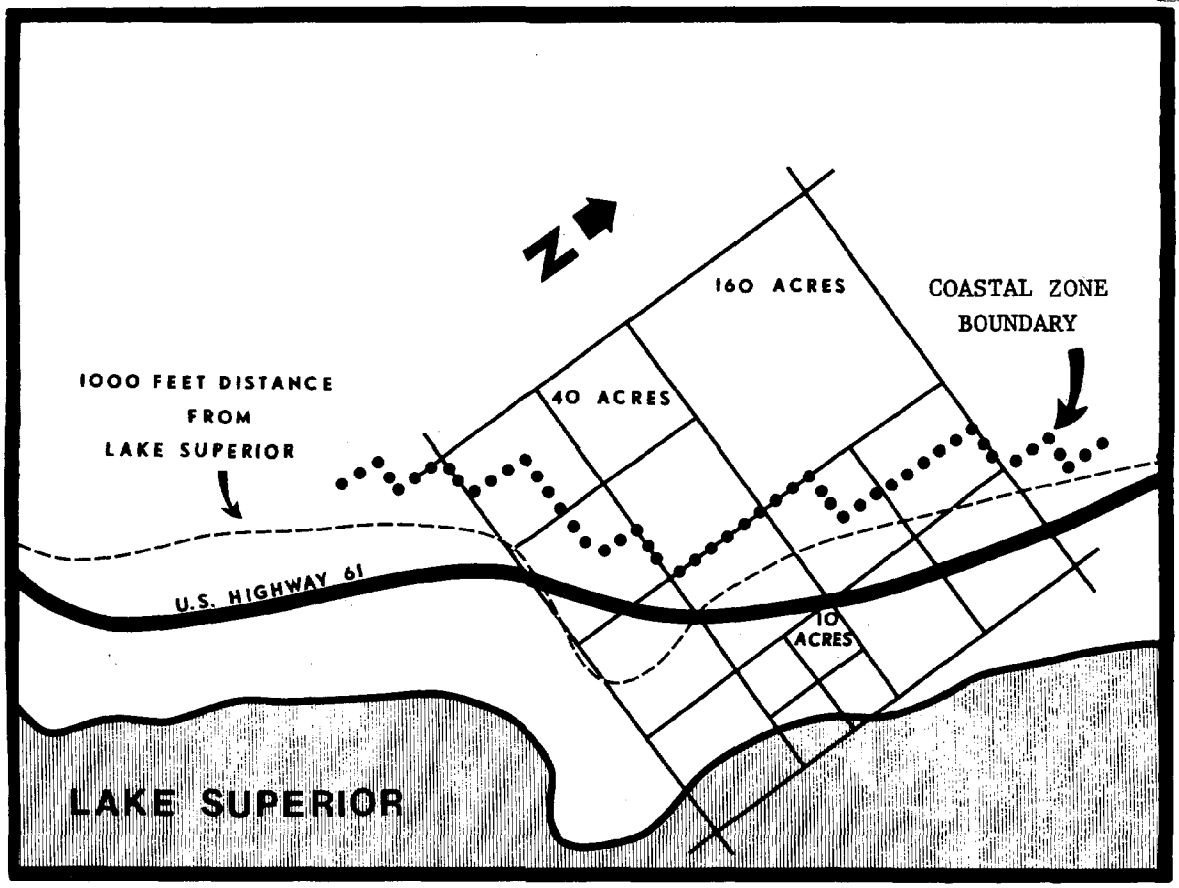


FIGURE 1-2

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 Organization 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.

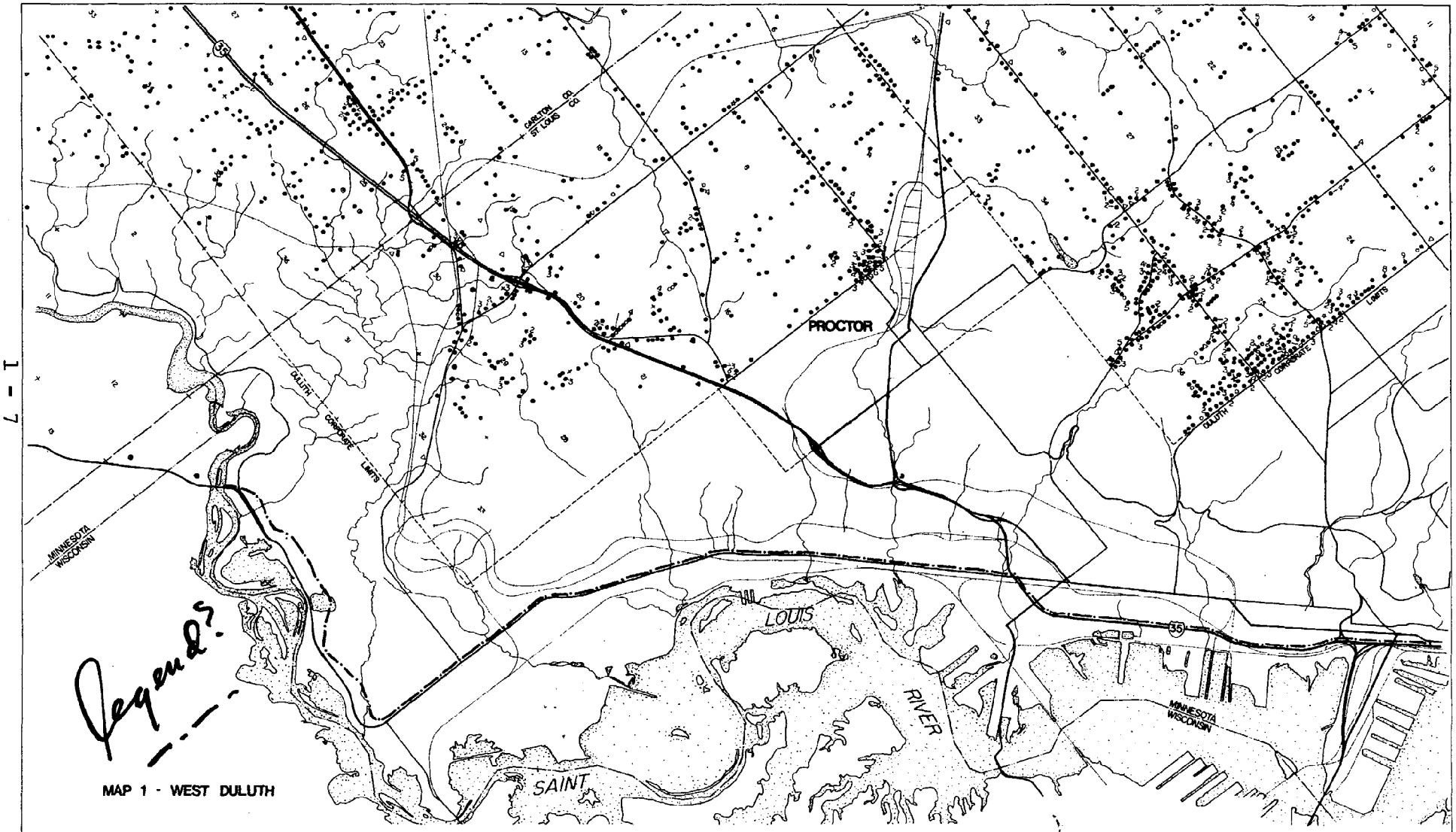
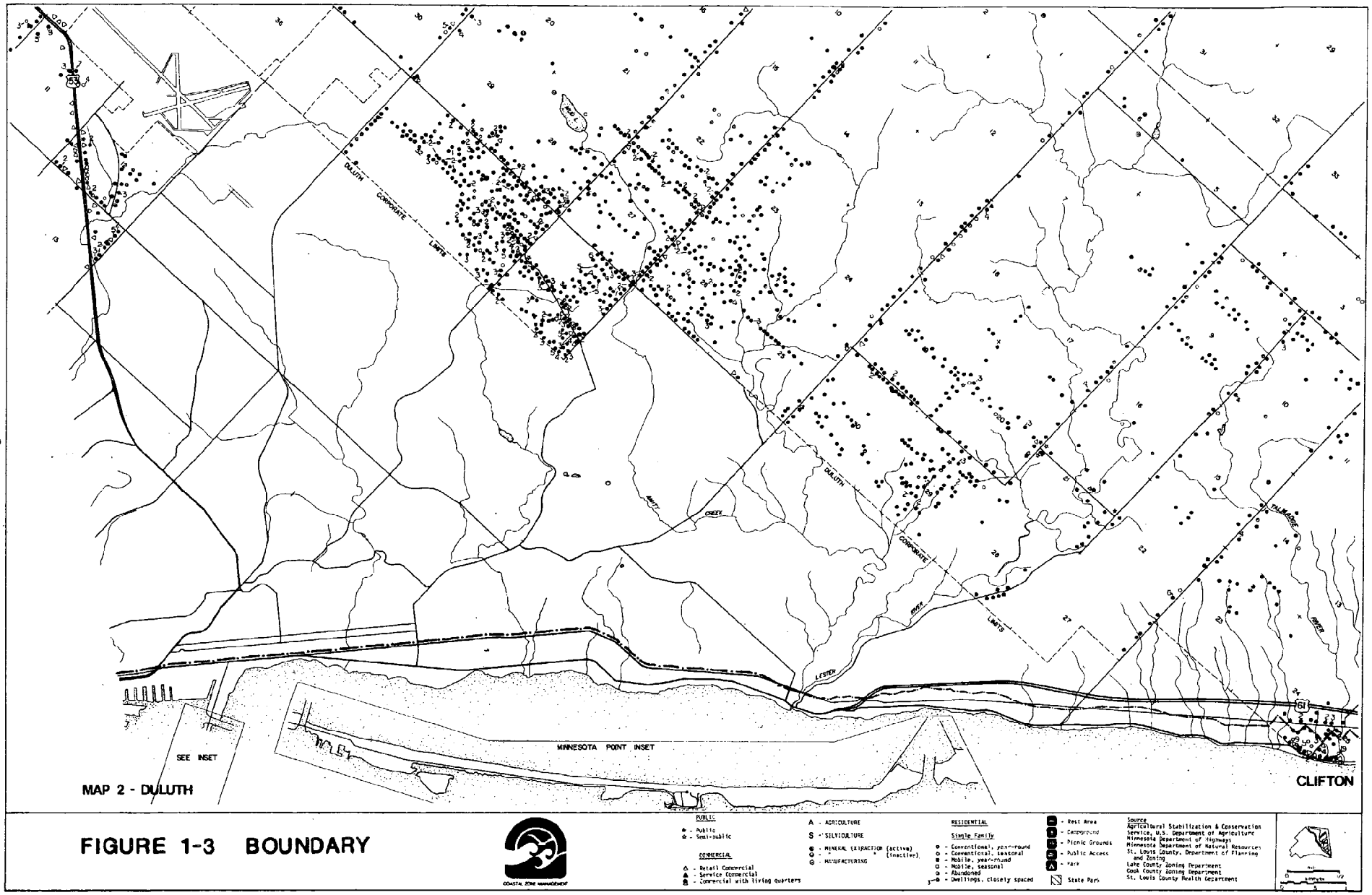


FIGURE 1-3 BOUNDARY



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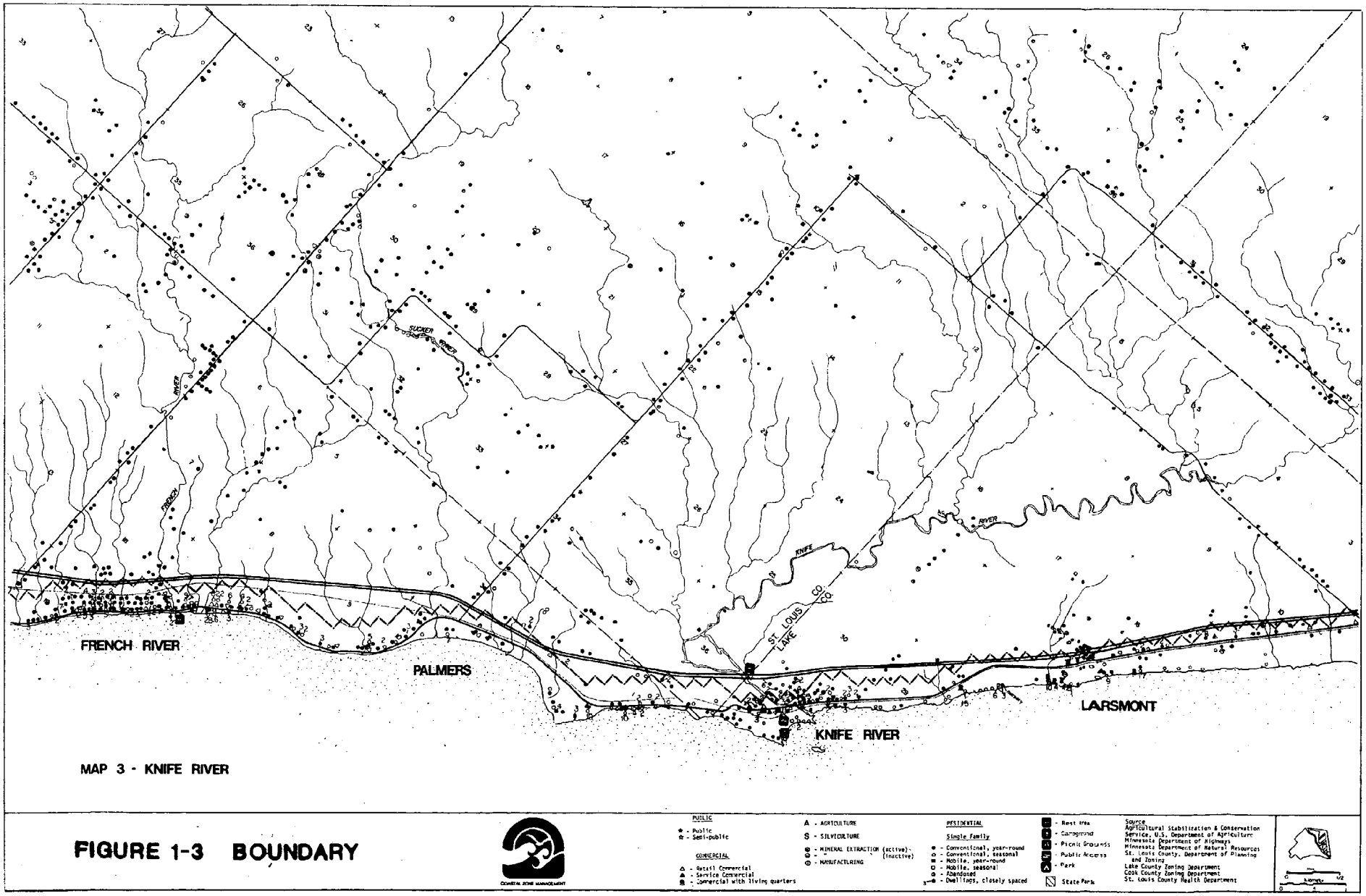

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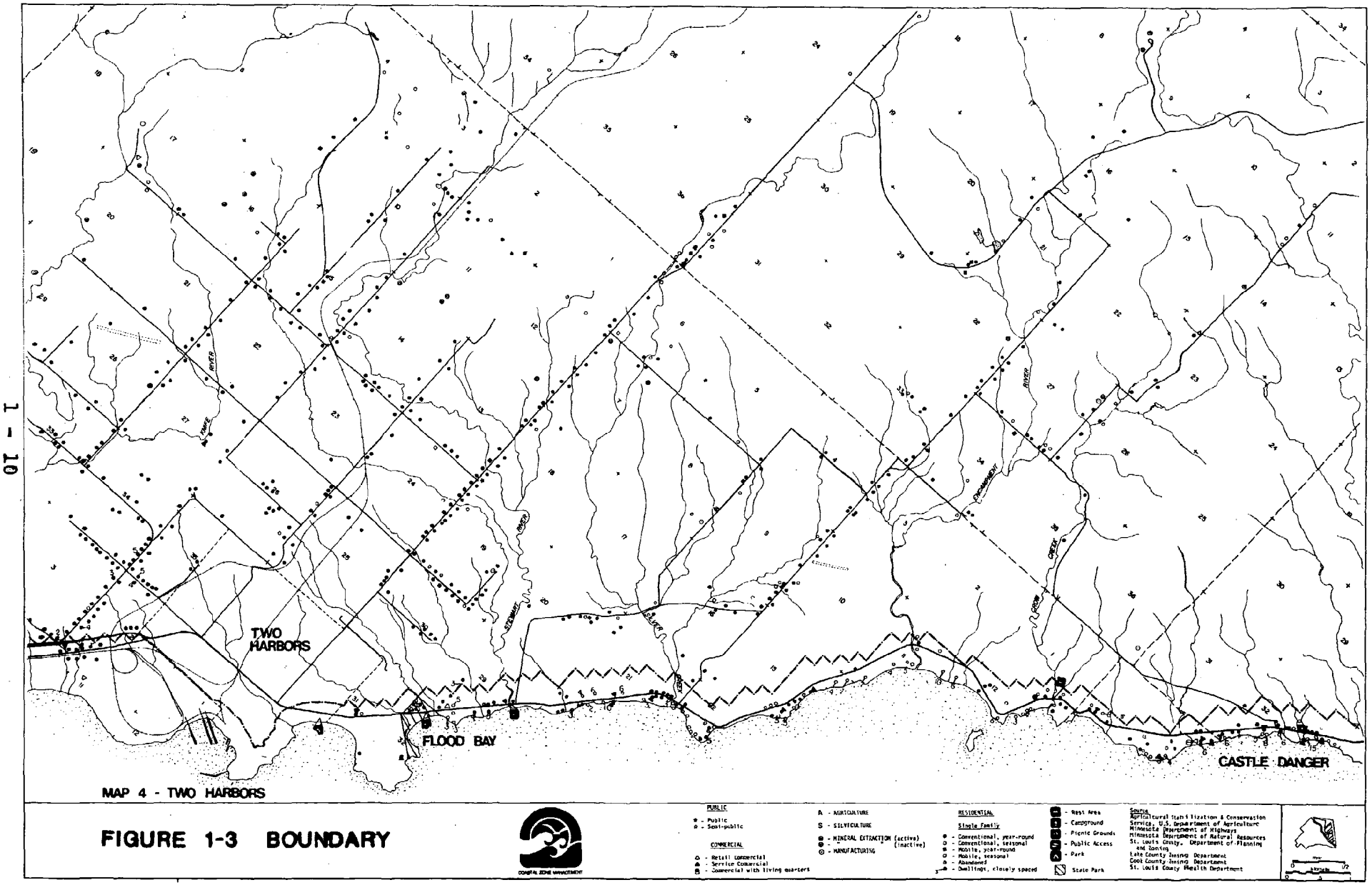

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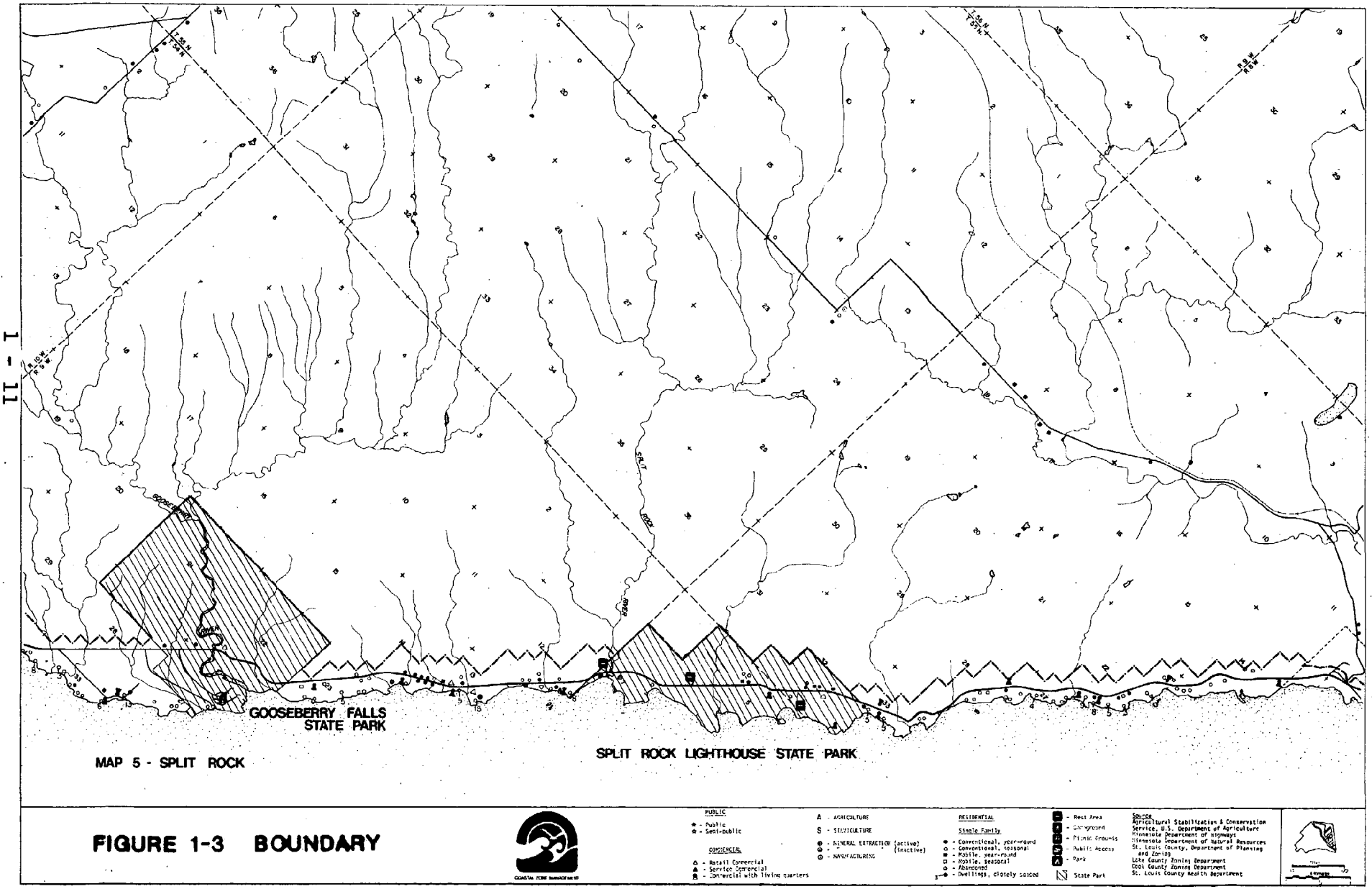

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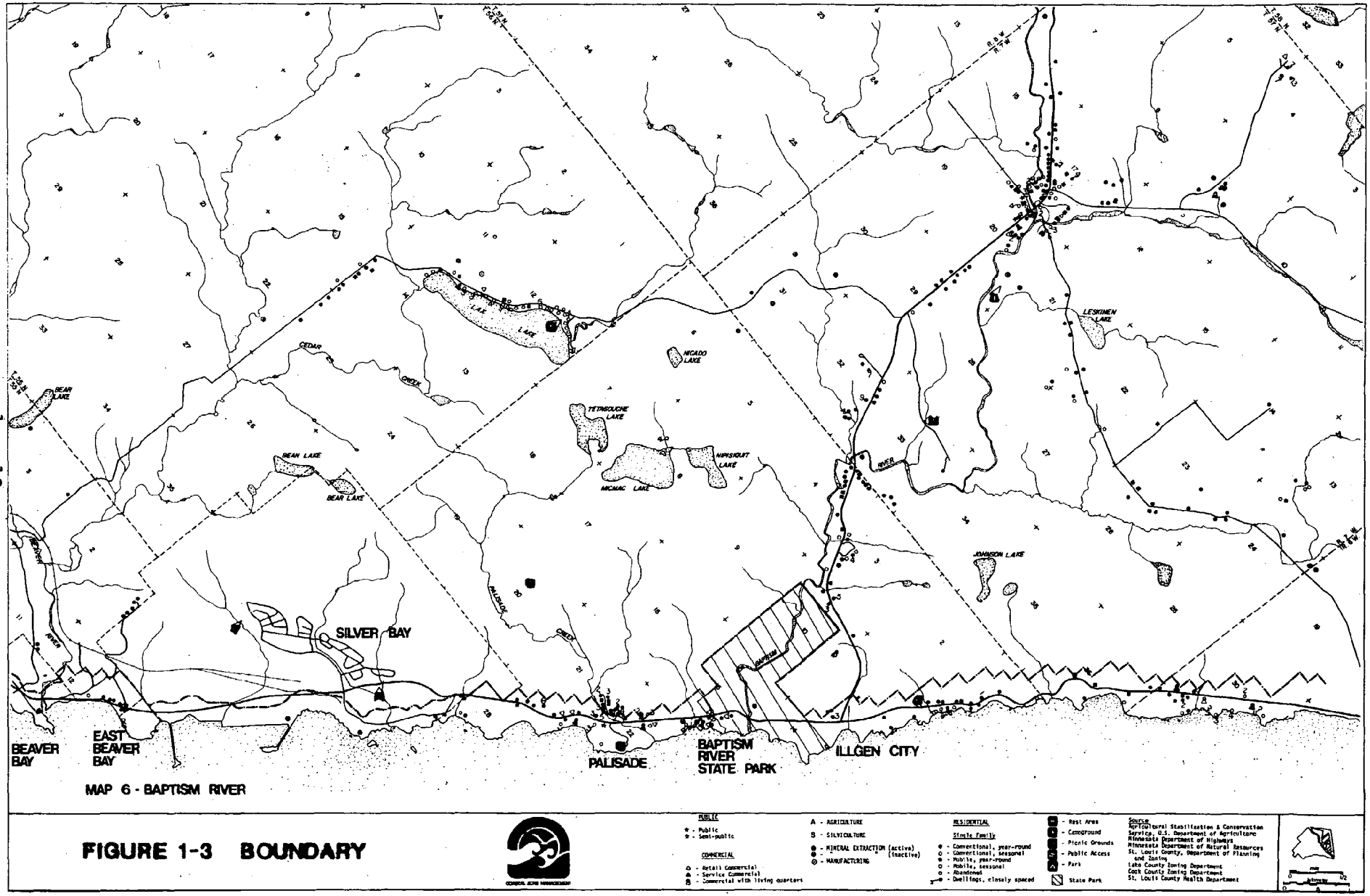

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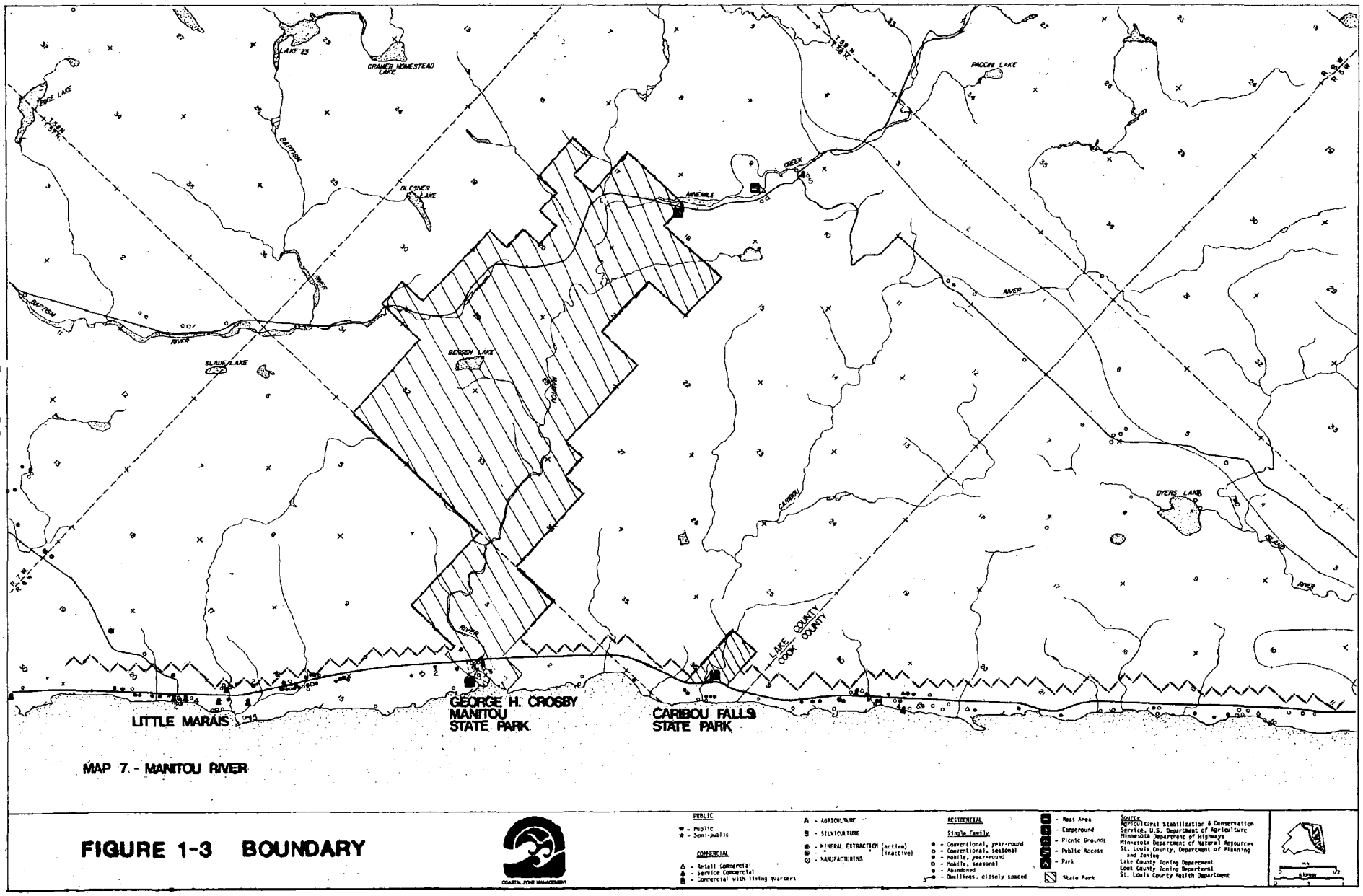

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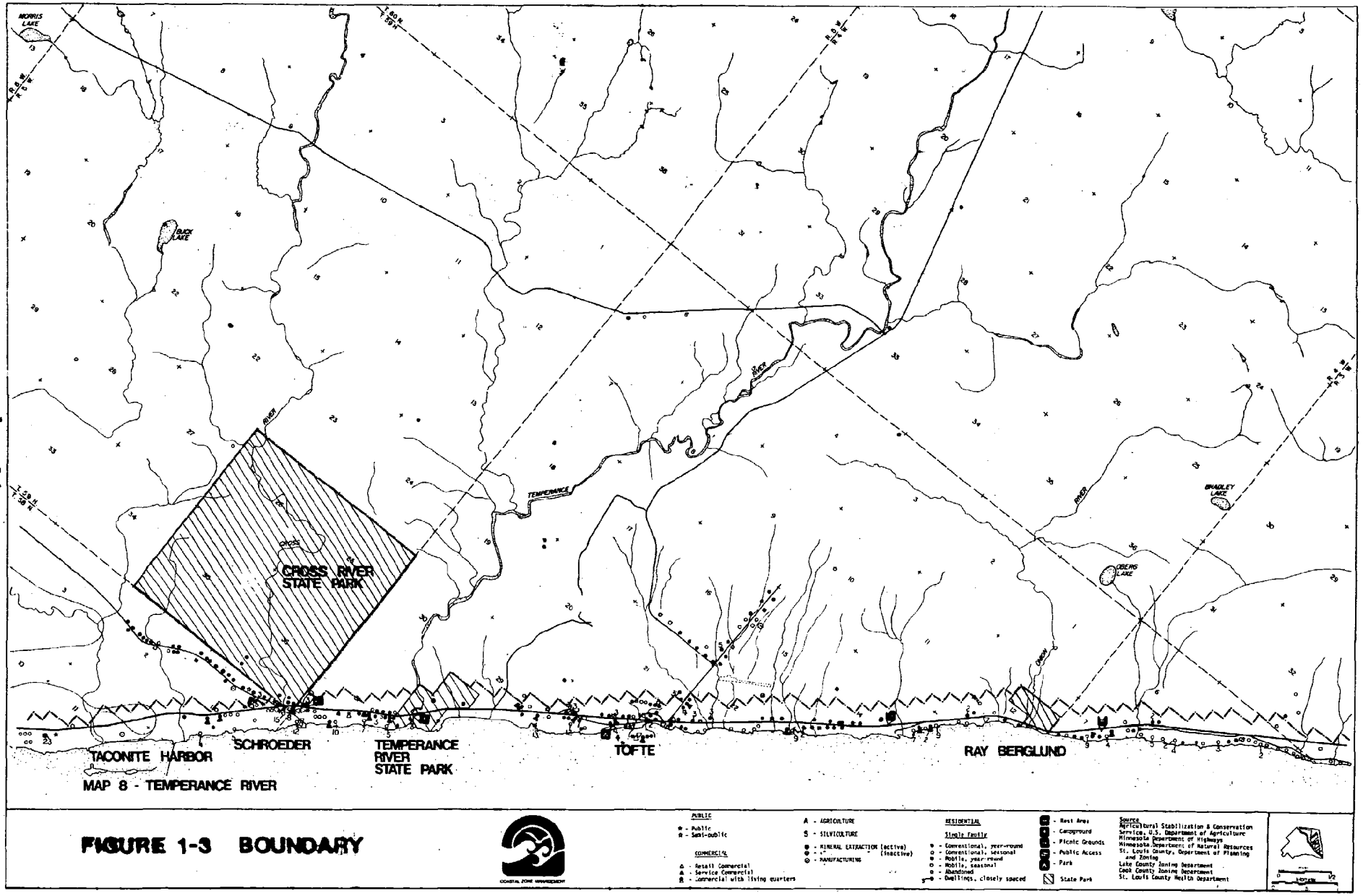

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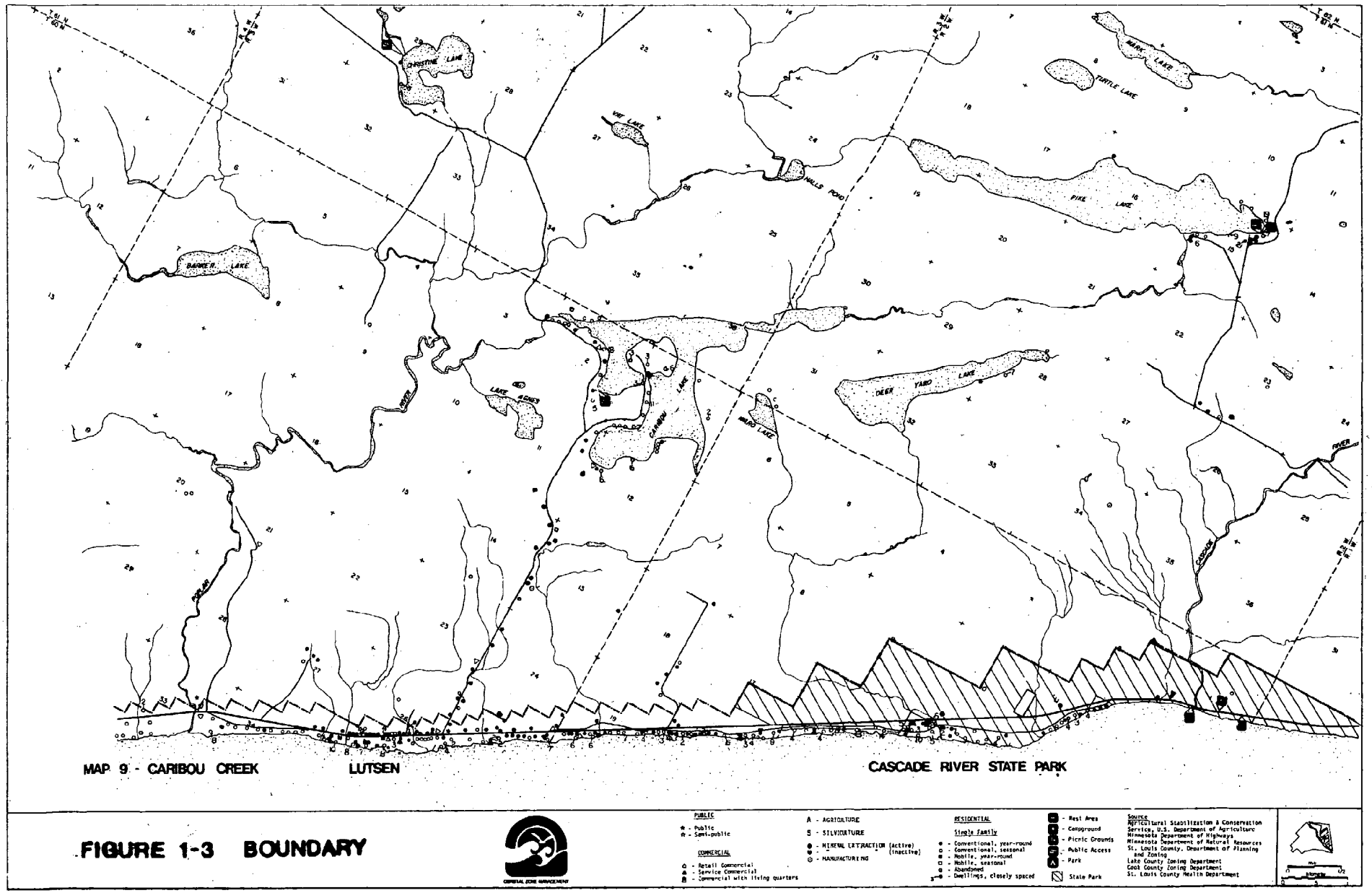

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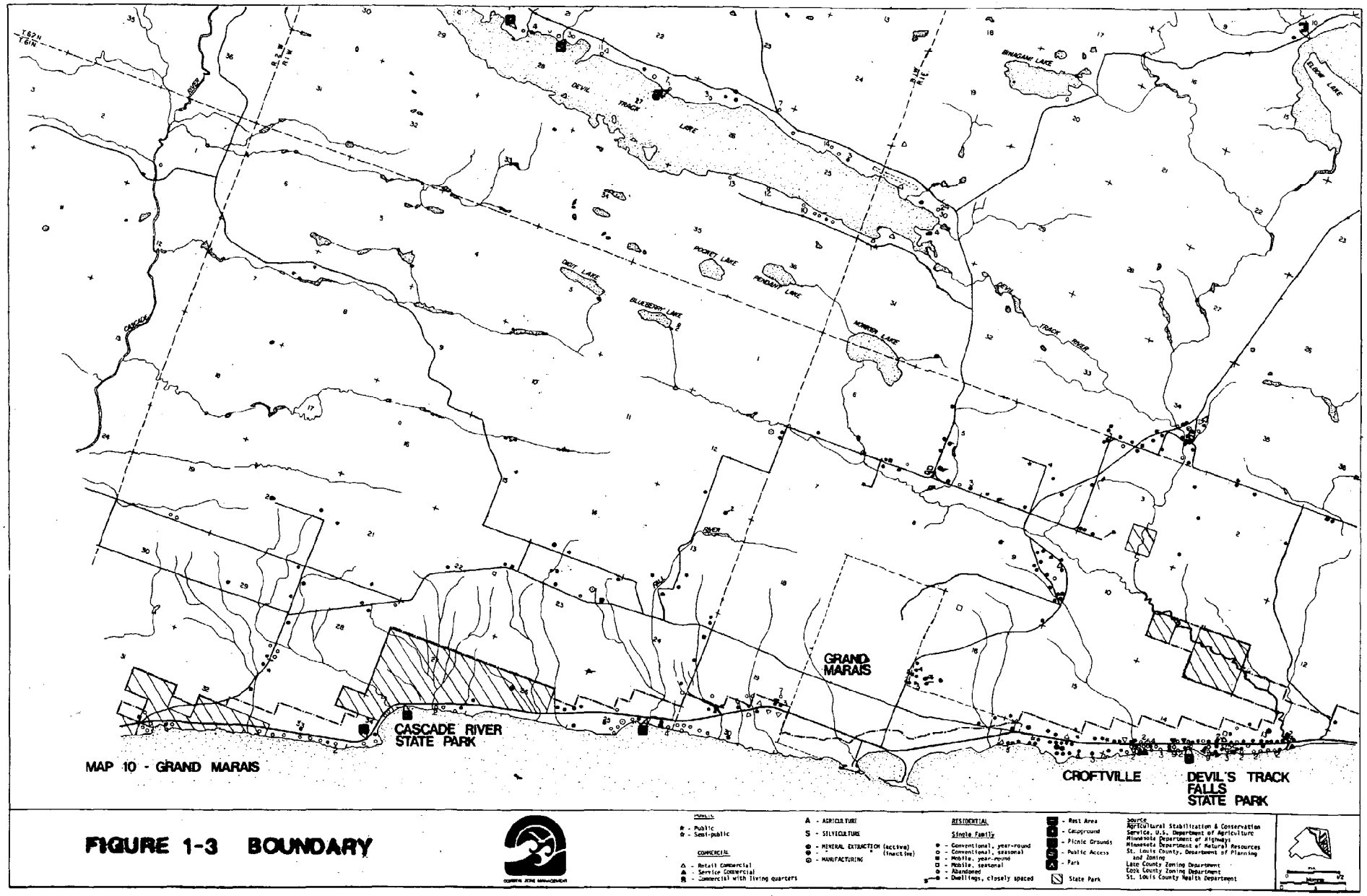

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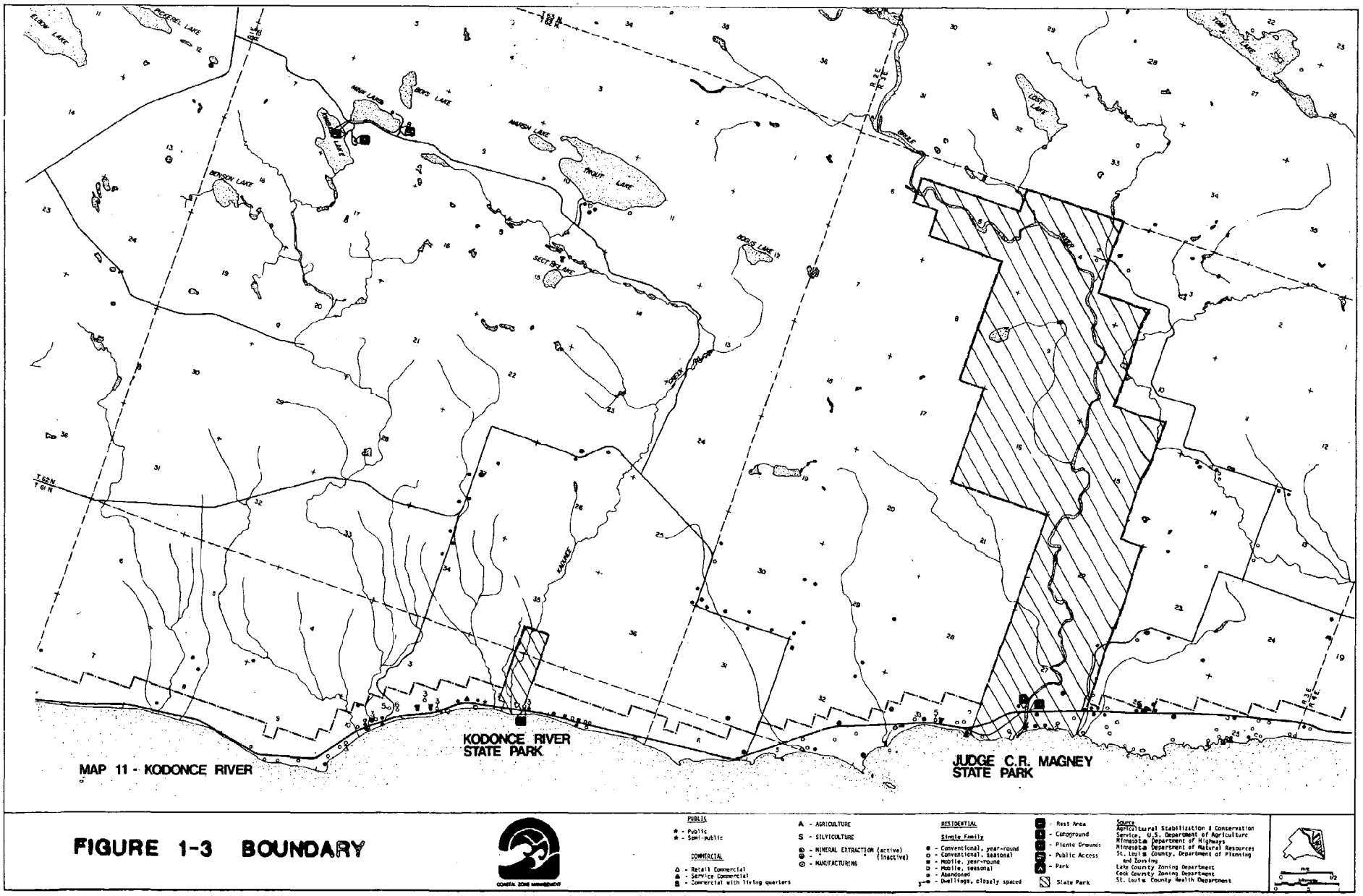

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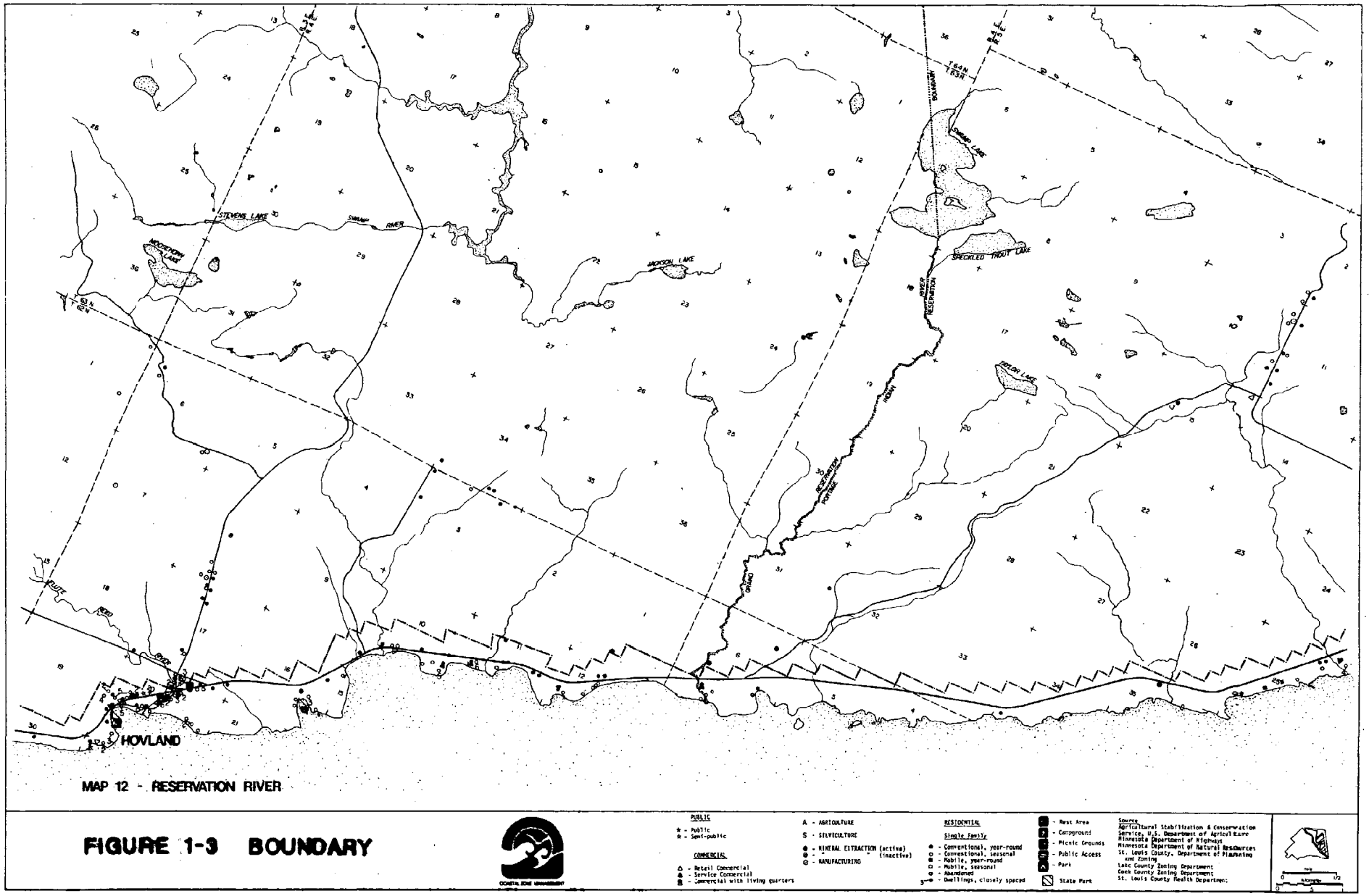

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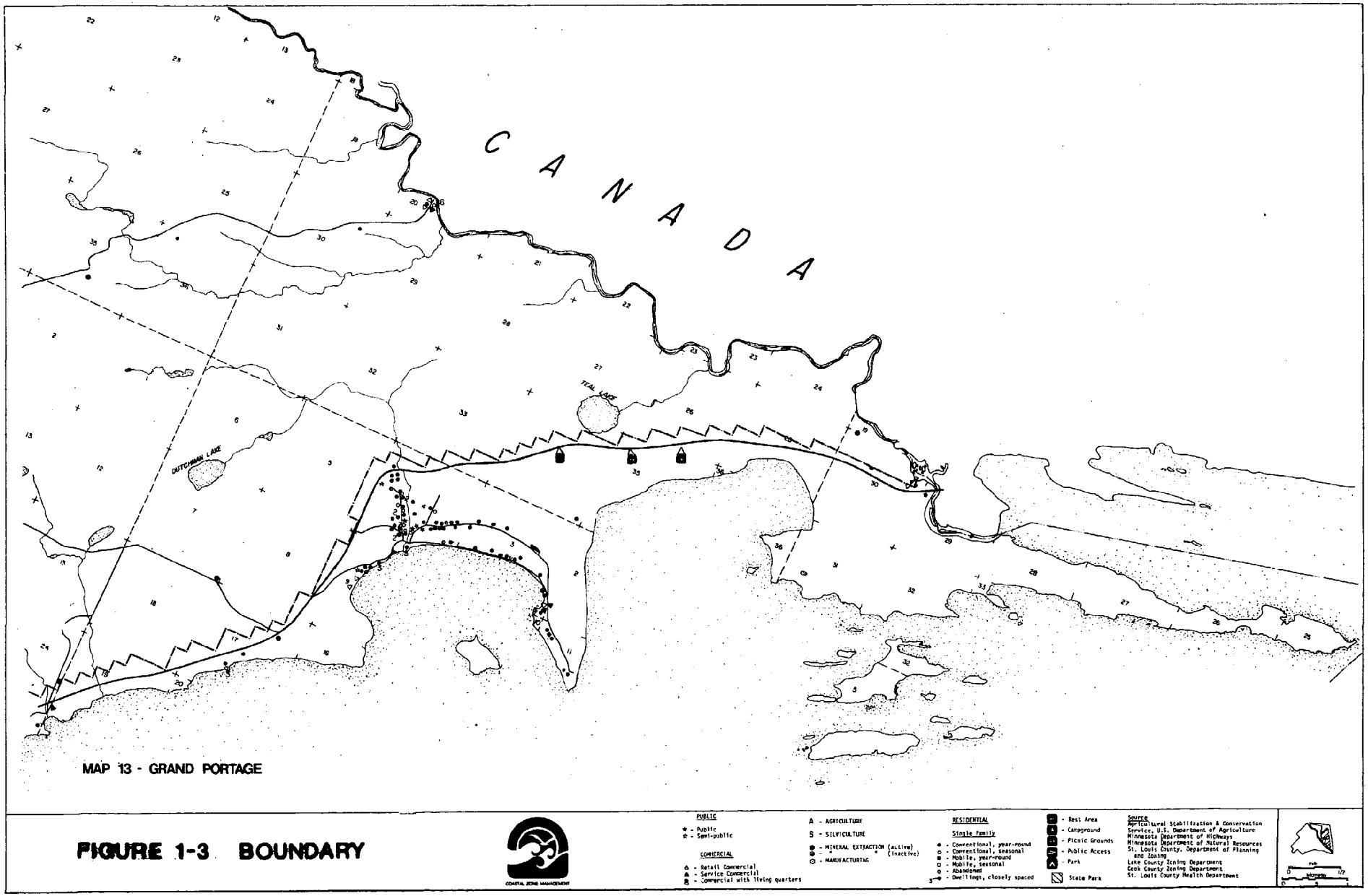

FIGURE 1-3 BOUNDARY

CHAPTER 2

Land and Water 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 of 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 divided for its entire length by T.H. 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 T.H. 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. Therefore, maintenance of the area's high aesthetic quality is an important consideration for both visitors and residents alike and consequently became an important component of the Coastal Zone Management Program.

Population projections and land use studies suggest that while the area is likely to continue to retain its low population density, the popularity of the Lake could result in accelerated growth of rural permanent and seasonal residential construction as well as new commercial development. Projections also point to continued growth in municipalities and other coastal settlement areas. Major developments are expected to be few in number. The thrust of the Minnesota CZM Program is to help assure that future private development and public land management occur in a manner beneficial to the region, state and nation.

Direct and Significant

The CZM Act requires the management program for each coastal state to include, "a definition of what shall constitute permissible land uses and water uses within the coastal zone which have a direct and significant impact on the coastal water." 305(b)(2).

Regulations 923.31 (d)(1) and (2) state that, "the purpose of determining direct and significant impacts on coastal waters or, more broadly, on coastal resources, is to assist in a determination of uses subject to the management program and thereby included within the management boundaries. Certain uses may cause direct and significant impacts only in terms of water or air quality impacts. However, once such uses have been identified, because of these impacts, as being subject to the management program, their management must be based on the comprehensive policies of the program which will address more than just air and water quality considerations."

For the Minnesota Coastal Zone Management Program, "direct and significant" has been defined as any use that occurs within the coastal zone boundary that is subject to legislatively adopted state policy. The Minnesota Legislature has passed legislation dealing with a wide variety of uses or impacts and behind each of these laws, is a determination that the affected uses or impacts are of state level significance.

Depending on the issue involved, the legislature has required either state agencies or local governments to take action. For example, the impacts of power plants were deemed to be of a significance that required direct state level siting. On the other hand, residential, commercial and industrial uses within 1,000 feet of lakes and 300 feet of streams are largely regulated by local ordinance. When size or impacts of these facilities reach certain thresholds, however, they are additionally governed by state performance standards addressing such things as pollution, water appropriation and discharge and work in the beds of public waters. Given this approach, the host of uses and impacts addressed in state legislation are subject to the Minnesota CZM Program.

For organizational purposes, these uses and impacts have been grouped into eleven categories such as air quality, transportation and land use. Each category contains goals, policies and implementation steps which outline desired end products and the state and/or local actions that are necessary or desirable to attain them. All actions are consistent with state policy, as enumerated in legislation, and with the authority delegated to state or local agencies by the legislature. The goals, policies and implementation steps serve to highlight the steps required to deal with coastal problems and issues within the context of broader statewide laws. Each of the eleven categories contains a listing of state policies and their statutory references. In addition, activities subject to state or federal policies which are likely to occur outside the coastal zone, but have the potential for significant impacts on coastal resources are listed for consistency monitoring in Chapter 3, Organization and Authorities.

CZM Policy Development Process

The development of coastal goals, policies and implementation steps required three major work elements.

A. Data Collection

Beginning in the first year and extending through year two of the program, data on the cultural and natural resource conditions of the area were collected and mapped including data on:

- Existing land use
- Land ownership
- Existing zoning
- Platted lands
- Shoreland characteristics
- Wildlife
- Minerals
- Historic features
- Scientific features
- Recreation features
- Soils
- Geology
- Traffic volume

These data were analyzed and used during the policy development stage of the Program.

B. Coastal Problems and Issues

Between October, 1975, and July, 1976, SPA staff interviewed 19 divisions and sections of 7 state agencies to determine their perceptions of problems and issues along the North Shore as well as their future plans for the area. Each interview went through three phases:

1. An interview with the program director or relevant staff member in St. Paul; an interview with the regional representative if one existed; write-up of both interviews for comment with additional questions attached.

2. A telephone follow-up interview to both program director and regional representative to receive comments on the interview summary and to receive answers to the additional questions. First revision mailed out.

3. Follow-up call to all participants requesting comments on first revision.

   Final publication of state interviews was sent to local residents and federal agencies for review and comment.

During June and July, 1976, 45 federal agencies received questionnaires basically requesting the same information solicited from the state agencies. Ninety-eight public and private organizations were also contacted to determine their perceptions of problems and issues.

During July, August, and September of 1976, staff from the Arrowhead Regional Development Commission conducted eight public meetings with elected officials, planning commissions, interest groups, and general citizens along the North Shore to obtain opinions on problems and issues. Consequently, by September, a comprehensive list of problems and issues had been developed. These problems and issues were organized into sixteen problem areas as follows:

- air quality
- water quality
- solid waste
- residential development
- economic development
- tourism development
- agriculture
- transportation
- forestry
- mineral development
- floodplain and shoreland
- recreation
- health/education and public services
- energy
- land ownership
- intergovernmental relationships

As stated above, the problem and issue statements were derived from numerous organizations and there was not unanimous agreement on the substance, wording, accuracy or relative importance of each statement. Although not formally adopted by PAC the statements did provide a necessary framework for policy development. The relative importance of each statement, and consequently the level of activity required to solve each problem and issue, was determined through the participatory process used in framing goals, policies and implementation steps.

C. Policy Development

During September, October, and November, CZM staff worked with regional, state, and federal personnel in writing draft goals and policies which addressed the problems and issues identified during the preceding 11 months. Data collected for the CZM Program was used in framing the goals and policies. In some cases, staff was not sure what should happen or how something should happen regarding a particular issue. Consequently, policy questions were formulated rather than policy. In November, a preliminary policy framework was approved by the Coastal Zone Policy Advisory Committee, and in December, 11 public meetings were conducted along the North Shore to obtain comments from the public on the draft goals, policies, and policy questions. Meetings were held with the following groups:

- Lake County Coastal Zone Advisory Committee
- Township Supervisors
- Silver Bay and Two Harbors Planning Commissions
- East Chapter of Lake County NEMEEC
- West Chapter of Lake County NEMEEC
- Cook County and Grand Marais Planning Commissions
- Duluth Planning Commission
- Lakewood and Duluth Townships

Due to the length of the document, the Policy Framework could not be discussed in its entirety at any one meeting. Therefore, each group was requested to meet on their own and compile comments on the portions of the document not discussed at the initial meeting. On January 6, 1977, these comments were received by staff at a "spokesperson meeting" attended by elected representatives from each of the above groups.

In February, 1977, the Policy Advisory Committee discussed the comments received in January on the policy framework and voted on half of the document. During February, March, and April, the local advisory groups continued to discuss the remaining portion of the policy framework, and in May, the Policy Advisory Committee finalized the remaining goals and policies.

Using the approved policies, CZM staff developed the more detailed portions of the permissible use section. These consisted of permissible use area maps and a listing of permitted and conditional uses within each area. The intention was to have local units of government develop plans and ordinances that were consistent with these sections.

Doc of Concern Team

On October 17, 1977, the Policy Advisory Committee requested staff to eliminate the maps and listings of permitted and conditional uses. The PAC preferred a more general approach using the CZM goals and policies which would allow local units of government more flexibility in developing plans and ordinances. The PAC requested staff to review the goals and policies in the August 31 draft of the CZM Program with local action committees to assure their accuracy and adequacy in view of the preferred approach.

Commencing in late November, 1977, SPA and ARDC staff began a round of meetings with each of the three county advisory committees and local PAC members. Staff met with each committee on four consecutive weeks to review and, if desirable, amend the goals and policies contained in the August draft. In the case of state and local recreation, the majority of the goals and policies were derived from the North Shore Recreation Study conducted as part of the CZM Program. In addition, each policy was followed by one or more implementation steps which will serve as a basis for the CZM Action Program. The Action Program will be developed after the CZM Plan is submitted to OCZM and will contain the implementation steps, a general work program for each step, the entity or entities that will do the work, and estimated cost and priority for completing each step within the five year 306 phase. The PAC has determined that no unit of government is required to carry out the implementation steps contained in this Plan if CZM financial assistance is not available.

Based on the four-week review with the action committees, the previous list of sixteen problem areas was consolidated into eleven. In the following sections, each of the eleven areas is discussed in the following format:

1. Review of existing conditions (where appropriate).

2. Summary of problems and issues. (Some problem and issue statements have been revised or eliminated by PAC members for this draft.)

3. Coastal zone goals, policies and implementation steps.

4. Existing legislative policies and legal authorities.

A. AIR QUALITY: PROBLEMS AND ISSUES

1. The impacts upon the Coastal Zone (North Shore), including Duluth, of fugitive dust and acid rain from the Iron Range and from major coal-fired power plants is unknown and potentially significant. Causes of fugitive dust emanating from the Iron Range include removal of overburden, blasting for ore, traffic on unpaved roads, wind erosion of unvegetated mine dumps and tailings disposal areas, and taconite processing.

   The extent of acid rain occurring in northeastern Minnesota is currently not known. When fuels such as coal or oil which contain sulfur are burned, the sulfur is converted into SO_2 and, to a much lesser extent, SO_3. SO_3 emitted to the atmosphere will readily combine with moisture or precipitation to form a weak sulfuric acid. If a pollution control device such as a wet scrubber is used to clean the combustion gasses, it is possible for droplets or a mist of acidic scrubbing liquid to be carried up the stack and emitted to the atmosphere if an adequate mist eliminator hasn't been provided.

   The expansion of taconite mining and initiation of copper/nickel mining or smelting in the Iron Range and the curtailment of natural gas will only add to the above two problems by creating more particulate and SO_2 emissions. Additional cross-boundary air emissions may result from the proposed Atikokan, Ontario, electric generating facility.

2. Duluth air quality is affected by outside sources including those from Superior, Wisconsin, and Wrenshall and Cloquet in Minnesota. The PCA suspects that the Murphy refineries in Superior and a refinery in Wrenshall are contributing to hydrocarbon levels in Duluth while the Northwest Paper Company in Cloquet may be adding hydrogen sulfide to the air. The extent of hydrocarbon or hydrogen sulfide pollution from any of these sources is not known since the pollutants are not being monitored. Hydrocarbons are not being measured because current monitoring devices are expensive and their operation is manpower intensive.

3. Ambient air quality standards for CO are being exceeded in Duluth and more monitoring is needed, especially in areas other than downtown Duluth. The existing monitor is located in the heavily traveled street canyon formed by the buildings on either side of Superior Street.

4. Eighty-three percent of the hydrocarbons in Duluth come from transportation-related sources. When hydrocarbons and nitrogen oxides mix with sunlight, they form photo-chemical oxidants of which over 90 percent is ozone. In March of 1975, levels of ozone exceeding the standards for photo-chemical oxidants were found during a month when such levels are expected to be low, thereby emphasizing the need for photo-chemical oxidants monitoring.

5. Air Quality in Duluth, at least concerning particulate levels, has improved; this is predominantly due to the phase out of several major emitting sources and additional control equipment placed on existing facilities. The concentrations of other pollutants may present additional problems. The number of monitoring stations in Duluth for NO_2, SO_2, and particulates is satisfactory at two, three and seven respectively.

6. In general, ambient air quality and emission source standards need to be reviewed. Specifically, PCA regulation APC-5(d)(3) may not be adequate enough to handle future mining expansion and should be reviewed relative to its effectiveness in controlling particulate emissions from major point sources such as taconite processing plants. It currently reads:

> "The owner or operator of any industrial process equipment which was in operation after July 9, 1969, which is located outside the Minneapolis-St. Paul Air Quality Control Region and the City of Duluth, which is located not less than one-fourth mile from any residence or public roadway, and which has control equipment with a collection efficiency of not less than 85 percent by weight, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of subsection (d)(1)(aa) of this regulation."

If taconite mining should expand as well as copper/nickel mining, this regulation may not be adequate enough to ensure good air quality. The PCA has never had to face the problem before of upgrading point source standards as growth occurs in an area.

7. There is a need for monitoring efforts along the North Shore and on the Iron Range. No state monitoring is being conducted along the North Shore currently, although the U.S. Environmental Protection Agency has monitors at Silver Bay. In order to monitor particulates, SO_2, and NO_2, monitoring stations need to be established. There is a need to monitor heavy metals, although it is not required in the PCA rules and regulations. Data collected could be used as background information to determine the impact on air quality of copper/nickel mining. This monitoring would not necessarily have to be continuous, but could be periodic and could be an extension of the existing monitoring network set up by the Copper/Nickel Study.

8. Specific major pollution sources:

For Duluth:

Name of Source	Location	Pollutant(s)	Under Schedule
General Mills grain elevator	Duluth	Particulates	Yes
Capital grain elevator	Duluth	Particulates	Yes
Cargill	Duluth	Particulates	Yes
U.S. Steel coke plant	Duluth	Particulates, SO_2, Hydrocarbons	Yes
Duluth Steam	Duluth	SO_2, Particulates	Yes
Duluth Missabe Iron Range RR taconite piles	Duluth	Particulates	Needs further study
Continental Oil Refinery	Wrenshall	Particulates SO_2, Hydrocarbons	In compliance
Murphy Oil Refinery	Superior	Hydrocarbons	Unknown
MP&L Power Plant	Duluth	Particulates SO_2, NO_x	In compliance
Northwest Paper Co.	Cloquet	Hydrogen Sulfide Particulates SO_2	Yes
Fugitive dust	Taconite mining & processing in Iron Range	Particulates	Additional study needed-current project

Name of Source	Location	Pollutant(s)	Under Schedule
Automobiles	Throughout Duluth Metropolitan Area	CO & Hydrocarbons	To be addressed in development of control plan.
Coal burning vessels	Harbor	Particulates SO_2	Yes
For the North Shore:			
Reserve Mining Co.	Silver Bay	Particulates & asbestiform fibers, SO_2	Yes
Erie Mining Co. Taconite unloading docks	Taconite Harbor	Particulates	In compliance

9. Automobiles are contributing to CO and hydrocarbon levels in Duluth. (Catelytic converters do not operate properly until after the engines are warmed; the problem is even more critical in Duluth due to colder ambient temperatures.) Consequently, during rush hour traffic in downtown Duluth, pollutants are being emitted because of cold start conditions. During the summer, higher traffic volumes in the Duluth area add to the CO and hydrocarbon levels; however, the problem exists year round as evidenced by CO levels in violation of the one hour standard on January 18, 1978.

10. The possibility of inadvertent weather modification caused by fugitive dust is a potential problem.

11. The major reason more monitoring is not being conducted in Duluth or along the North Shore is because monitoring is manpower intensive and the financial resources are not adequate. A more accurate assessment of air quality, fugitive dust, and acid rain along the North Shore can be made if additional funds are provided.

12. The Mesabi Iron Range, Duluth, Cloquet and Silver Bay have been designated as areas not attaining particulate standards. Duluth has also been designated as a non-attainment area for carbon monoxide. The MPCA in coordination with other state, regional, and local agencies must develop regulations and standards that will assure that air quality standards are met in these areas by 1982 as required by the U.S. Clean Air Act Amendments of 1977.

13. New or modified facilities that are major sources of air pollutants must be reviewed by the MPCA pursuant to requirements for preventing significant deterioration of air quality and for attaining air quality standards by 1982. These requirements could have significant effects on the design of any new facilities such as smelters.

B. AIR QUALITY GOAL, POLICY AND IMPLEMENTATION STEPS

Goal: A level of air quality that will enhance and maintain the natural environment and man's health, safety and welfare.

Policy: Air quality levels be maintained, or if necessary attained, consistent with EPA and MPCA standards.

Implement:

1. Collect baseline data.
2. Engage in air quality monitoring and enforcement which is no more restrictive than in other areas of the state.
3. Measure impact of atmospheric pollution on water quality of Lake Superior and its sub-basin.
4. Review and revise State Implementation Plan to ensure air quality standards attained by 1982.
5. Review proposals for major new developments to ensure compliance with applicable air quality and emission standards, including federal requirements for the prevention of significant deterioration of air quality and conformance with State Implementation Plan.

C. POLICIES AND AUTHORITIES RELATING TO AIR QUALITY AND AIR POLLUTION

1. State policies and authorities

a. Minnesota-Wisconsin boundary compact.

A Minnesota-Wisconsin Boundary Commission, the purpose of which is to conduct studies and develop recommendations relating to the present and future protection, use, and development of the lands, river valleys, and waters which form the boundary between the states is formed. The Commission is charged with considering and

promoting the consideration by municipalities of measures for controlling air pollution. (See Minn. Stat. §1.31-1.40.)

b. Pollution Control Agency.

Air quality shall be improved by promoting, in the most practical way possible, the use of energy sources and waste disposal methods which produce or emit the least air contaminants consistent with the overall goal of reducing all forms of pollution. The Pollution Control Agency is charged with adopting standards of air quality and promulgating regulations or standards which may relate to sources or emissions of air contamination or air pollution, to the quality or composition of such emissions, or to the quality of or composition of the ambient air or outdoor atmosphere, or to any other matter relevant to the prevention, abatement, or control of air pollution. The agency is also charged with developing a biannual long-range plan and program for the effectuation of air quality policy and with giving due consideration in the exercise of its powers to the operation and expansion of business, commerce, trade, and other economic factors affecting the feasibility and practicability of any proposed action. Local units of governments may not set standards of air quality more stringent than those set by the Pollution Control Agency. (See Minn. Stat. §§ 116.01-116.41.)

c. Minnesota Environmental Rights Act.

Each person is entitled to the protection, preservation, and enhancement of . . . air . . . within the state and each person has a responsibility to contribute to its protection, preservation, and enhancement. It is the state's policy to create and maintain conditions under which man and nature can exist in productive harmony in order that present and future generations may enjoy clean air . . . The act creates a civil action for any person to bring a lawsuit for the "protection of the air . . . located within the state . . ." (See Minn. Stat. §§ 116B.01-116B.13.)

d. Minnesota Environmental Policy Act.

State government should use all practical means to reduce the deleterious impact on air quality from all sources, including the deleterious environmental impact due to operation of vehicles with internal combustion engines in urbanized areas. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental effects and prohibits any state action which is likely to cause pollution, impairment, or destruction of the air . . . 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 natural resources. (See Minn. Stat. §§116D.01-116D.07.)

2. Municipal authorities

a. Municipal planning.

Municipal planning commissions may engage in research and study concerning the control and prevention of air pollution in conformity with applicable federal and state laws. (See Minn. Stat. §§462.392.)

II. WATER RESOURCES

A. EXISTING CONDITIONS

1. 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.

2. Fifty-nine streams, descending as much as 1,300 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 highfalls and steep cascades within one to three miles of the lake. These streams are home for rainbow, brook, and brown trout.

3. Fish stock in Lake Superior has been limited since about 1950. Following the invasion of 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.

4. 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.

5. 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.

B. WATER RESOURCES PROBLEMS AND ISSUES

Coastal Zone water resource problems and issues are ranked as follows by the MPCA:

1. Controlling of industrial and municipal waste.
2. Non-point source pollution planning (208 planning).
3. Dredge spoil problem in Duluth.
4. Monitoring of point and non-point sources.
5. Revision of water quality standards as necessary.

1. INDUSTRIAL AND MUNICIPAL WASTES -- POINT SOURCES

St. Louis River Sub-basin

Due to the number of dischargers along the St. Louis and the contaminated bottom sediments, PCA does not know whether the St. Louis River will meet the 1983 federal goal. All dischargers along the St. Louis River are upgrading their effluent to meet the standards set forth in WPC 15 and 28, and it is only a matter of time when all dischargers will be in compliance. When new industrial treatment facilities are completed, new permits will be issued which will contain the final effluent standards.

Locations of significant point sources to the St. Louis River and St. Louis Bay directly upstream of Superior Bay are found in Figure 2-1.

In addition to these dischargers, there are 39 major docking facilities heavily concentrated in the harbor, St. Louis Bay, and Upper Superior Bay. Ships are serviced by a harbor disposal contractor to remove liquid wastes. A service barge picks up liquid wastes from vessel retention devices and delivers these to a dock, where they are pumped into the Duluth sewer system. However, the pumpout facilities available are not adaptable to some types of commercial watercraft and some of this liquid waste is dumped directly into the bay by vessel operators. Ballast, tanker hold cleanout wastes, and oil and grease from ship operations are uncontrolled.

Based on current nutrient loadings and biological indicators, the Duluth-Superior Harbor is in an eutrophic condition. Nutrient and BOD loadings contribute to low dissolved oxygen values in the harbor. Values of fecal coliform, turbidity, phenols, and copper are encountered in the harbor which violate State of Minnesota water quality standards. Contaminated sediments are also encountered which restrict dredging disposal methods.

All Minnesota dischargers shown in Figure 2-1, except for U.S. Steel, will be linked to the regional sewage collection system. The treatment facilities, both municipal and industrial, which will be phased out of service are:

Conwed Corporation	Jay Cooke State Park
Potlatch Northwest Paper Div.	Thompson Township*
Cloquet Municipal	Nopeming Nursing Home*
Scanlon Municipal	Superwood Corporation*
Carlton Municipal	four municipal facilities in Duluth
Wrenshall Municipal	Continental Oil Company

After the regional plant becomes operational in 1978, the industrial and municipal wastes along the St. Louis will receive secondary treatment with phosphorus removal.

A point source problem which PCA is just beginning to examine is the chloro-organics which are formed when sewage effluents are chlorinated. The chlorine atom adheres to the organic particles in the sewage wastes and forms a second generation chlorine compound, which can be very toxic to aquatic organisms. Presently, the effect of chloro-organics is undetermined on fish and other organisms. This problem should be given further study. Eventual impact could be the end of chlorination of Duluth and Superior's water supply.

Lake Superior Sub-basin

Farther north along the shore, areas not in compliance are Silver Bay and Two Harbors. Reserve Mining Company at Silver Bay is continuing to dump 67,000 tons of taconite tailings daily into Lake Superior. Reserve will not be in compliance until an on-land disposal site is operational on April 15, 1980. The necessary state permits have been issued for construction of the on-land disposal site. In addition, the municipal sewage treatment facility at Silver Bay cannot adequately treat both sewage and storm runoff. Two Harbor's municipal wastewater treatment plant (secondary with phosphorus removal) became operational in July, 1976; however, the Two Harbor's plant is experiencing the same problem as the municipal facility at Silver Bay, in that both storm water and sewage are sometimes not adequately treated during severe rain storms.

*Dischargers not shown on the map, but will be linked to the WLSSD regional plant.

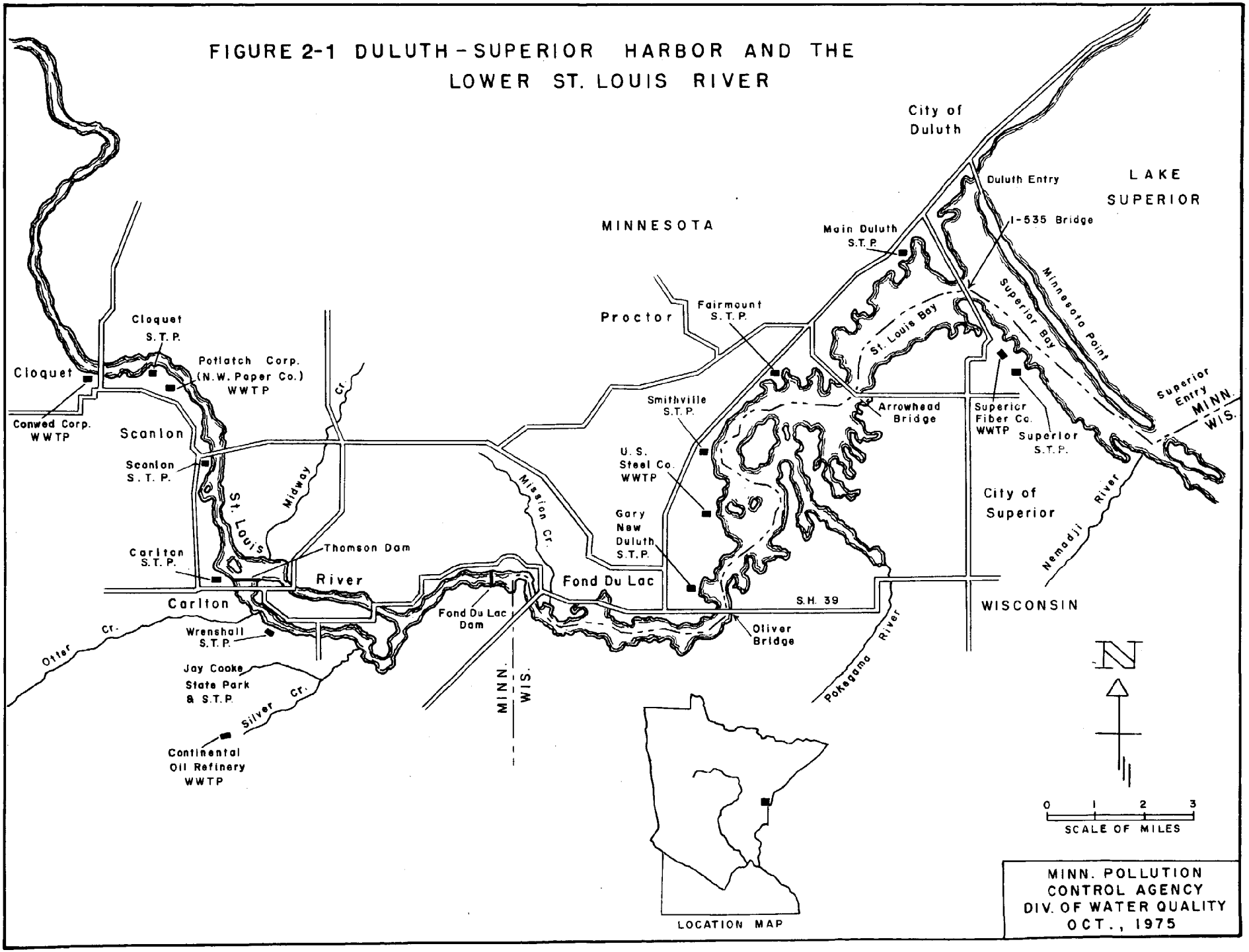
FIGURE 2-1 DULUTH-SUPERIOR HARBOR AND THE LOWER ST. LOUIS RIVER
City of Duluth
Duluth Entry
LAKE SUPERIOR
MINNESOTA
Main Duluth S.T.P.
I-535 Bridge
Minnesota Point
Superior Bay
St. Louis Bay
Proctor
Fairmount S.T.P.
Cloquet S.T.P.
Cloquet
Potlatch Corp. (N.W. Paper Co.) WWTP
Conwed Corp. WWTP
Scanlon
Scanlon S.T.P.
Midway Cr.
Smithville S.T.P.
Arrowhead Bridge
Superior Fiber Co. WWTP
Superior S.T.P.
Superior Entry
MINN.
WIS.
U.S. Steel Co. WWTP
Mission Cr.
St. Louis River
City of Superior
Nemadji River
Gary New Duluth S.T.P.
Carlton S.T.P.
Thomson Dam
Carlton
Fond Du Lac
S.H. 39
WISCONSIN
Fond Du Lac Dam
Oliver Bridge
Wrenshall S.T.P.
Otter Cr.
Jay Cooke State Park & S.T.P.
Silver Cr.
Pokegama River
Continental Oil Refinery WWTP
MINN.
WIS.
N
0 1 2 3
SCALE OF MILES
LOCATION MAP
MINN. POLLUTION CONTROL AGENCY
DIV. OF WATER QUALITY
OCT., 1975

Other point sources include Sea Villas, Best Western, Lutsen Ski Chalet and Aspen Wood in Cook County.

Partially treated sewage and untreated paper mill wastes are being dumped into Lake Superior at Thunder Bay. Due to the counter-clockwise eddy pattern of the Lake, this effluent is influencing water quality along the North Shore.

NON-POINT SOURCE POLLUTION

The state is conducting a water quality management process which is studying various non-point souce pollution issues on a statewide basis. In the coastal zone, 208 management planning and implementation will be coordinated with implementation of the CZM Plan.

Individual sewage treatment systems along the North Shore are causing pollution of surface and groundwater. This problem has been surveyed through the Coastal Zone Program, but more extensive analysis is needed, such as dye testing and determining correlations with soil types, bedrock, and location.

Red clay erosion is also occurring along the north and south shore of Lake Superior; however, the erosion along the north shore is not as severe as it is along Wisconsin's coast which is eroding at an average annual rate of four feet per year. On the Minnesota side, erosion is occurring between the Knife and Lester Rivers. Every time a storm occurs, the clay particles become resuspended. The extent of this problem in Minnesota is not currently known.

Contaminated sediments (i.e., heavy metals such as zinc, copper, lead, mercury, and cyanide) are in the St. Louis Bay. There is a need for monitoring these sediments at least ten miles inland from the Bay.

Groundwater contamination is also occurring along the North Shore from landfills and open dumps. Dumps, whether closed or open, as well as sanitary landfills need to be monitored, and sampling conducted at least annually.

3. DREDGE SPOIL PROBLEM IN DULUTH

A decision regarding where dredge spoils should be deposited must be made. Currently, dredging is causing pollution problems in the Duluth-Superior Bay, but there is inadequate documentation on the extent of the problem. Dredging is also occurring at Two Harbors and Silver Bay, but problems are minor there. Grand Marais' harbor appears to be clean. The PCA has requested that dredging and the disposal of the wastes be halted by the Corps of Engineers until the potential impacts on the water quality can be evaluated. The PCA has recommended disposal of the wastes on land leading to the problem of identifying and developing suitable on-land disposal sites.

4. MONITORING OF POINT AND NON-POINT SOURCES

Water quality monitoring stations are needed along the North Shore. Even the monitoring along the St. Louis River, which is known to be polluted is inadequate. Only three stations are monitoring on a regular basis: 1) at the old interstate bridge; 2) Fond du Lac; and 3) Duluth ship canal. The PCA doesn't know how much it would cost to do a satisfactory job on monitoring within the coastal zone, because they do not know which lakes or streams need it. There is a lack of time and funds to study this problem in-depth currently. There is a need for background data on "clean" waters so any degradation can be checked.

5. REVISION OF WATER QUALITY STANDARDS AS NECESSARY

Water quality classifications need to be reassessed to reflect chloro-organic problems, mercury, and heavy metals. In addition, effluent standards for oil and phosphorus need to be upgraded.

6. OTHER PROBLEMS

a. The PCA should start to implement its non-degradation policy. However, before this can be done, PCA must collect baseline data on streams statewide.

b. The PCA questions the level of water quality of Lake Superior since recommendations from the Great Lakes Environmental Contaminants Survey suggested not eating more than one meal per week of lake trout. In mid-lake fish, three petrol-hydrocarbons have been identified.

c. The PCA recently completed the Duluth-Superior Pollution Control Study which analyzed the shipboard waste problem.* Conclusions were that existing state regulations promulgated in 1971 are limited. Also Coast Guard standards for oil -- no visible sheen of oil allowed -- should be upgraded. Currently, to avoid violation of the oil standard, tankers dump their bilge water at night.

The federal government is proposing rules and regulations for shipboard wastes, but they would allow dumping of partially treated sewage. The PCA wants complete containment of all vessel wastes with discharge only allowed at approved facilities. The PCA is petitioning EPA to allow the use of state regulations. However, EPA will not allow state regulations to pre-empt federal regulations unless facilities are provided for handling the disposal of bilge water on commercial craft. The problems of shipboard wastes arise from the deposition of commercial craft waste and not recreational.

d. The expansion of taconite mining and potential copper mining may potentially directly influence water quality of north shore surface waters. If pollution does occur, it will be revealed in the water quality of the St. Louis and Rainy Lake Basin. Mining will probably influence North Shore ground water, but the extent of the influence is not known.

7. WATER LEVELS

In the early 1970's, the International Joint Commission (IJC) implemented Regulation SO 901 on an emergency basis because of high water levels. Regulation SO 901 regulates Lake Superior levels with reference to the lower lakes. The intent of the regulations is to minimize high water damages on the lower lakes. It is likely that this regulation of Lake Superior, which maintains a higher than normal minimum level, in combination with naturally occurring high water levels has contributed to excessive erosion problems along the North Shore.

*Shipboard wastes consist of sanitary wastes and bilge and ballast water.

C. WATER RESOURCES GOALS, POLICIES AND IMPLEMENTATION STEPS

Goal: A level of water quality which will enhance and maintain the natural environment and man's health, safety and welfare.

Policy: Water quality levels be achieved and maintained consistent with MPCA classifications of lakes and streams.

Implement:
1. Coordinate and classify existing water quality data to serve as a basis for determining the need for new data.
2. Collect baseline water quality data for Lake Superior and North Shore streams and quality and quantity data for ground water.
3. Engage in water quality monitoring and enforcement which is no more restrictive than in other areas of the state.

Policy: Encourage appropriate agencies and departments of the federal government to actively seek a solution to the pollution of Lake Superior at Thunder Bay.

Point Source Degradation

Policy: Sewage, industrial and other waste disposal systems and other sources of pollutants be in conformance with appropriate standards and National Pollution Discharge Elimination System (NPDES) Permits as required by Public Law 92-500.

Implement: Monitor sewage, industrial and other waste disposal systems and other sources of pollutants to assure compliance.

Non-Point Source Degradation

Policy: Pollution from non-point sources be minimized or eliminated if feasible.

Implement:
1. The Minnesota PCA Section 208 Water Quality Program be coordinated with the Coastal Zone Management Program by establishing a schedule for PAC review of 208 Program findings and recommendations.
2. Pursue research on and minimize the effect of salt runoff from storage areas and roads on the natural environment, including groundwater, and develop and implement a plan to minimize those effects.

3. Minimize the effects of soil erosion on North Shore streams and Lake Superior by:

   a. adopting agricultural and forestry management practices that are in keeping with the soil and slope characteristics of the Coastal Zone,
   b. promoting the use of soils information by private developers and public agencies engaged in development activities,
   c. preparing, adopting and enforcing soil management standards that reduce the likelihood of ground and surface water pollution.

4. Pursue research, demonstration projects and education on on-site sewage system alternatives which are economically feasible and technologically sound for North Shore conditions.

5. Minimize the effects of urban runoff (impervious surfaces, rooftops, parking lots, storm sewers, etc.) on water quality.

6. Develop an assistance program for bringing existing on-site sewage systems into compliance with local or state standards.

Dredging

Policy: Minimize impacts on water quality and fish and wildlife habitat from dredging and dredge material disposal.

Implement:

1. Identify environmentally sensitive areas and areas suitable for on-land disposal.

2. Establish standards for spoils disposal in water and on land.

3. Evaluate the physical, biological, and chemical impacts of dredge spoils on water quality.

4. Identify alternatives for the disposal of dredge spoils, including the development of marsh and island fish and wildlife habitat and geologically sound beach nourishment.

5. Once adopted by ARDC, the Duluth-Superior Harbor Study recommendations pertaining to dredging and dredge material disposal shall be incorporated into the CZM plan.

Lake Superior Shore Erosion

Policy: It is in the interest of public, residential, commercial and undeveloped property owners on the shore of Lake Superior to minimize the artificial fluctuation of the water levels in the lake.

Policy: 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.

Not enforceable

Implement: Implement CZM Program erosion control work element to:

a. Develop data on past trends, recession rates, and natural stream loadings in areas affected by erosion.

b. Determine the effects of fluctuating water levels on Lake Superior shoreland.

c. Identify where structural or non-structural erosion control measures are needed on the Lake Superior shoreline.

d. Identify and classify Lake Superior beaches so that their role in dynamic coastal processes and shoreland protection shall be maintained.

Shipping of Hazardous and Toxic Substances

Policy: Potential pollution problems resulting from the shipment of hazardous and toxic substances be minimized and where possible, eliminated.

Implement: Develop and implement, in cooperation with other Great Lakes States, standards for shipping season, vessel design loading facilities, etc. for the transport of hazardous and toxic material.

Vessel Discharges

Policy: Pollution problems resulting from the improper disposal of sewage, vessel wastes and ballast should be eliminated.

Implement:

1. Enforce existing regulations and statutes and develop and enforce additional standards where necessary, in cooperation with other Great Lakes States, to address the disposal of sewage, vessel wastes and ballast in Lake Superior.

2. Develop adequate vessel waste disposal systems and sites for commercial ships and recreational watercraft.

Water Appropriation

Policy: The quality of appropriated water and that which is returned not adversely affect the water table or the water body from which the water is drawn.

Implement:

1. Develop baseline data on water tables.

2. Develop and enforce standards for the quality of water being returned, (chemical composition, temperature, turbidity, etc.)

Policy: Any inter-basin transfer of water shall conform to state and local laws.

D. POLICIES AND AUTHORITIES RELATING TO WATER RESOURCES AND WATER QUALITY

1. Great Lakes Basin Compact

The Great Lakes Basin Compact has been ratified by the State of Minnesota. The purposes of the compact are, inter alia, to promote the orderly, integrated, and comprehensive development, use, and conservation of the water resources of the Great Lakes Basin, and to advise in securing and maintaining a proper balance among industrial, commercial, agricultural, water supply, residential, recreational, and other legitimate uses of the water resources of the basin. By ratification, the state has agreed to consider whatever action the Great Lakes Basin Commission, established by the compact, recommends with respect to stabilization of lake levels; measures for combating pollution, beach erosion, floods, and shore inundations; uniformity in navigation regulations; proposed navigation aids and improvements; uniformity or effective coordinating action in fishing laws and regulations and cooperative action to eradicate destructive and parasitical forces endangering the fisheries, wild life, and other water resources; suitable hydroelectric power developments; cooperative programs for the control of soil and bank erosion; and diversion of waters from and into the basin. (See, Minn. Stat. §§ 1.21 - 1.25.)

2. Minnesota-Wisconsin Boundary Compact.

A Minnesota-Wisconsin Boundary Commission, the purpose of which is to conduct studies and develop recommendations relating to the present and future protection, use, and development of the lands, river valleys, and waters which form the boundary between the states, is formed. The Commission is charged with considering and promoting the consideration by municipalities of measures for controlling water pollution, maintaining water quality and controlling water use; programs for the control of soil and river bank erosion and the general improvement of the river basin; and the diversion of waters from and into the rivers. (See, Minn. Stat. §§ 1.31 - 1.40.)

3. Soil and Water Conservation Districts.

It is the state's policy to provide for the conservation of soil and soil resources and for the control and prevention of soil erosion, for land resource planning and development, and for the implementation of land resource use practices that effectively reduce siltation and loss of the land base through various activities. Soil and water conservation districts may be organized to conduct erosion control projects and to develop comprehensive plans for the conservation of soil and water resources. A district may provide technical assistance to land owners and request assistance from the state. (See, Minn. Stat. §§ 40.005 - 40.15.)

4. Control of Public Waters.

Charge and control of the public waters of the state are vested in the Commissioner of Natural Resources, who is also given the authority to institute proceedings on behalf of the state to abate or enjoin any disturbance, obstruction, or interference with the natural flow or condition of public waters beyond the boundaries of the state which seriously affects the public welfare and interests of the state. (See, Minn. Stat. §§ 84.027, 84.031.)

5. Displacement of Underground Waters.

Permits from the Commissioner of Natural Resources are required before any underground waters of the state may be displaced by the underground storage of any gas or liquid under pressure. (See, Minn. Stat. § 84.57 - 84.621.)

6. State Water Policy.

To conserve and utilize the water resources of the state in the best interests of the people of the state, it is state policy that all waters of the state which serve a material beneficial public purpose are public waters subject to the control of the state; that the state, to the extent provided by law, shall control the appropriation and use of surface and underground waters of the state; and that the state shall control and supervise, so far as practicable, any activity which changes or will change the course, current, or cross section of public waters. Beneficial public purposes; with regard to waters of the state, include but are not limited waters supply from municipal, industrial, or agricultural purposes; recharge of underground waters stratus; retention of water to prevent or reduce downstream flooding; entrapment and retention of nutrients and other material which impair the quality of natural resources; recreational activities such as swimming, boating, fishing, and hunting; public navigation other than for recreational purposes; wildlife habitat areas the spawning, rearing,

feeding, and nesting of wildlife; and areas designated as scientific and natural areas pursuant to section 84.03. Permits from the DNR are required for any surface or groundwater appropriation and for any dredging, filling, dam construction of other activity effecting the course, current or cross section of the public water. See 10 and 11 infra. (See Minn. Stat. §§ 105.37 - 105.38.)

7. Water Conservation Program and Public Waters Inventory.

The Commissioner of Natural Resources was directed in 1947 to develop a general water resources conservation program for the state, in accordance with which permits for the use and appropriation of state waters and for the construction of water control structures would be issued. In 1974 he was redirected to prepare a statewide water and land resources plan by November 15, 1975. In 1976, he was directed to inventory the water basins of each county and to make a preliminary designation as to which constitute public waters. (See, Minn. Stat. §§ 105.39, 105.391, 105.403.)

8. Wetlands.

It is in the public interest to preserve the wetlands of the state and thereby to conserve surface waters, to preserve wildlife habitat, to reduce runoff, to provide for floodwater retention, to reduce stream sedimentation, to contribute to improved subsurface moisture, to enhance the natural beauty of the landscape, and to promote comprehensive and total water management planning. The Commissioner of Natural Resources is authorized to promulgate rules with regard to these purposes and to enter into agreements with landowners for the conservation of wetlands. The program so established is intended to supplement and complement the federal waterbank program. (See, Minn. Stat. § 105.392.)

9. Water Supply Management Policy.

The Commissioner of Natural Resources is directed to develop and manage water resources to assure a supply adequate to meet long-range seasonal requirements for domestic, municipal, industrial, agricultural, fish and wildlife, recreational, power, navigation, and quality control purposes from surface or groundwater sources. (See, Minn. Stat. § 105.405.)

10. Water Appropriation and Use Permits.

Permits from the Commissioner of Natural Resources are required before any appropriation or use of the waters of the state are made. The Commissioner is directed to promulgate rules to govern the allocation of permits to potential water users based upon a series of legislative priorities. According to this legislative policy, first

priority shall be given to domestic water supply, excluding industrial and commercial uses of municipal water supply and agricultural irrigation involving consumption in excess of 10,000 gallons per day. Second priority shall be given to any use of water that involves consumption of less than 10,000 gallons of water per day. Third priority shall be given to power production involving consumption in excess of 10,000 gallons per day. Fourth priority shall be given to industrial and commercial uses involving consumption in excess of 10,000 gallons per day. Fifth priority shall be given to other uses involving consumption in excess of 10,000 gallons per day. (See, Minn. Stat. §§ 105.41, 105.415, 105.44 - 105.47.)

11. Permits for Work in Public Waters.

Permits from the Commissioner of Natural Resources are required before any change in any reservoir, dam, or obstruction on any public water, or before any change or diminution of the course, current or cross-section of any public waters is made by any means. The Commissioner is also given, subject to the approval of county boards, power to grant permits to establish, construct, maintain and control wharfs, docks, piers, levees, breakwaters, basins, canals, and hangers in and adjacent to public waters of the state except within the corporate limits of cities. The Commissioner is directed to promulgate standards and criteria governing the issuance and denials of permits for work in public waters. Such standards shall correspond to certain legislative policies which include restricting projects to those which will involve a minimum amount of damage to the environment, and restricting certain types of projects to those areas governed by shoreland conservation or flood plain ordinances. (See, Minn. Stat. §§ 105.415, 105.42, 105.44 - 105.47.)

12. Establishment of Lake Levels.

Application for authority to establish and maintain levels on any public water and applications to establish the natural ordinary high water of any body of public water may be made to the Commissioner of Natural Resources by any public body or by a majority of the riparian owners thereon, for the purpose of conserving or utilizing water resources of the state. (See, Minn. Stat. § 105.43 - 105.47.)

13. Stream Maintenance.

The legislature finds that the removal of debris and rubble for the purpose of cleaning of stream beds and flood plains

of streams is of benefit to the public health, safety, and welfare. The Commissioner of Natural Resources has directed to establish and supervise a stream maintenance program which shall include grants in aid to participating counties. (See, Minn. Stat. § 105.475.)

14. Construction and Maintenance of Dams.

The Commissioner of Natural Resources is given the authority to construct, maintain, and operate all necessary dikes, dams, and other structures necessary to maintain uniform water levels. He is, in addition, given certain authority to facilitate the repair and restoration of dams owned by the state and local governmental units. Upon application of the governing body of any governmental subdivision of the state having authority to maintain and operate dams or other control works affecting public waters, the Commissioner, with the approval of the Executive Council, may transfer to such subdivision the custody of any such dam or other water control works belonging to the state where he determines that the transfer will be in furtherance of the best interests of the public. (See,Minn. Stat. §§ 105.48, 105.482, 105.52, 105.63.)

15. Lake Improvements.

The Commissioner of Natural Resources, with the assistance of the Pollution Control Agency and the State Planning Agency, is directed to assess the need for particular kinds of lake improvements, including improvements related to pollution problems, water levels, and other resource management considerations, and to develop criteria for allocating state aid funds among proposed projects. (See, Minn. Stat. § 105.484.)

16. Shoreland Management Act.

It is in the public interest 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. All counties and municipalities are required to adopt shoreline management ordinances, which meet statewide standards, established by the DNR and governing the placement of structures, lot sizes, land uses, etc. Shorelands include lands within 300 feet of streams and rivers and within 100 feet of lakes. (See, Minn. Stat. § 105.485, Minn. Reg. NR 82-84, Cons. 70-77.)

17. Cooperation of DNR with other Agencies.

The Commissioner of Natural Resources is authorized to cooperate and enter into agreements with the United States, any state department of Minnesota, or any state or county adjacent to the state of Minnesota for the purpose of effecting his duties with regard to water resources. (See, Minn. Stat. § 105.49.)

18. Wells.

For the conservation of the underground water supplies of the state, the Commissioner of Natural Resources is authorized to require the owners of wells, especially flowing artisean wells, to prevent waste. See also 39 infra. (See, Minn. Stat. § 105.51.)

19. Drainage or Diversion of Water to Facilitate Mining.

The Commissioner of Natural Resources is authorized to grant permits for the drainage, diversion, control, or use of any waters under his jurisdiction when necessary for the mining of iron ore, taconite, copper, copper-nickel, or nickel. Such permits may only be granted if the proposed diversion will be necessary for the mining of substantial deposits of the identified metal and if no other feasible and economical method therefor is reasonably available; if the proposed diversion will not substantially impair the interests of the public in lands or waters or the substantial beneficial public use thereof and will not endanger public health or safety; and if the proposed mining operations will be in the public interest and the public benefits resulting therefrom are sufficient to warrant the proposed diversion. (See, Minn. Stat. § 105.64.)

20. Water Resources Board.

The legislature finds that the code of water law in Minnesota is contained in numerous statutes which must be considered as a whole to effect a systematic administration of water policy. Seeming contradictions in the laws when applied in a specific proceeding create a need for a form where the conflicting aspects of public interest involved can be presented and by consideration of the whole body of water law the controlling policy can be determined and apparent inconsistencies resolved. A Water Resources Board is created to resolve certain questions of water policy, where use, disposal, pollution, or conservation of water is a purpose, incident, or factor in a proceeding. (See, Minn. Stat. § 105.71-105.79.)

21. Impounding and Diversion of Drainage System Waters.

Individuals, public and municipal corporations, governmental subdivisions, the state and its agencies, and the United States and its agencies are authorized to petition the county boards or the district courts for the installation of dams or other control works in drainage ditches under their jurisdictions to impound or divert waters for any beneficial use. (See, Minn. Stat. § 105.81.)

22. Public Drainage Systems.

County boards and the district courts are authorized to establish public drainage systems; to deepen, widen, straighten or change the channel or bed of any waterway; to extend the same into to through any municipality for the purpose of securing a suitable outlet; and to construct all needed dikes, dams, control works and power appliances in accordance with certain legislatively established criteria, including the overall environmental impact of the proposed drainage system. If the water basin or water course is determined to be public waters, however, the permissible drainage activities shall be governed by section 105.391(3)and (6), in cooperation with the Commissioner of Natural Resources. (See, Minn. Stat. §§ 106.011 - 106.673.)

23. Control of Certain Shorelines in Cook, Lake, and St. Louis Counties.

In order to preserve shorelines, rapids, waterfalls, beaches, and other natural features in an unmodified state of nature, no dam and no addition to any existing dam shall hereafter be constructed in or across any public stream or body of water within or bordering upon those portions of the area of Cook, Lake, and St. Louis Counties designated in the Act of Congress of July 10, 1930, and no alteration of the natural water level or volume of flowage of any such stream or body of water shall be made and no easement for flooding or overflowing lands adjacent thereto shall be granted, unless specific authority has first been obtained by an act of the legislature. (See, Minn. Stat. § 110.13.)

24. Eminent Domain for Dam Purposes.

Private individuals are authorized to erect dams on their own lands for milling or manufacturing purposes so long as they cause the damages to lands which are owned by other persons and which shall be overflowed or otherwise damaged to be ascertained and paid. (See, Minn. Stat. §§ 110.14 - 110.17.)

25. Regulation of Lake Water Levels.

In certain cases, where dams, however constructed or maintained, have affected the water levels of lakes and the lakes have been used by the public for beneficial public purposes, perpetual flowage easements for all overflow and other effects of water resulting from the existence, maintenance, or operation of such dams, are presumed to be dedicated to the state. (See, Minn. Stat. §§ 110.31 - 110.40.)

26. Conservancy Districts.

Drainage, flood control, and the control of the use of drainage systems in the interests of sanitation and public health are clearly within the functions of governmental action and the exercise of the right or authority to authorize or direct drainage carries with it the right to care for and control the waters thus gathered and turned into natural or artificial channels. It is furthermore the policy of the state to promote the retention and conservation of all water precipitated from the atmosphere in the areas where it falls, as far as practicable. The district courts are authorized to establish drainage and conservancy districts for the following purposes: regulating streams, channels, or water courses, and the flow of water therein; reclaiming by drainage, or filling, diking, or otherwise protecting lands subject to overflow; providing for irrigation; preventing fires in areas of agricultural lands by controlling the waters in any ditch or drain; regulating and controlling floodwaters and preventing floods; diverting, in whole or in part, streams or water courses and regulating the uses thereof; and providing for sanitation and public health by regulating the use of streams, ditches, or water courses for the purposes of disposing waste materials. (See, Minn. Stat. §§ 111.01 - 111.82.)

27. Watershed Districts.

To carry out conservation of the natural resources of the state through land utilization, flood control and other needs upon sound scientific principles for the protection of public health and welfare and the provident use of natural resources, the Minnesota Water Resources Board is vested with jurisdiction to establish watershed districts for any or all of the following conservation purposes: control or alleviation of damage by floodwaters; improvement of stream channels for drainage, navigation and other public purposes; reclaiming or filling wet and overflowed land; providing water supply for irrigation; regulating the flow of streams and conserving the waters thereof; diverting

or changing water courses in whole or in part; providing and conserving water supply for domestic, industrial, recreational, agricultural, and other public uses; providing for sanitation and public health and regulating the use of streams, ditches, or water courses for the purpose of disposing waste; repairing, improving, relocating, modifying, consolidating, and abandoning drainage systems within the watershed district; imposing preventive or remedial measures for the control or alleviation of land and soil erosion and siltation of water courses or bodies of water affected thereby; and regulating improvements by riparian owners of beds, banks, and shores of lakes, streams, and marshes by permit or otherwise in order to preserve the same for beneficial use. (See, Minn. Stat. §§ 112.34 - 112.86.)

28. Water Pollution Control.

The Pollution Control Agency is established as the successor of the Water Pollution Control Commission and is charged with meeting the variety and complexity of problems relating to water pollution in the areas of the state affected thereby, and with achieving a reasonable degree of purity of water resources of the state consistent with the maximum enjoyment and use thereof in furtherance of the welfare of the people of the state. The Pollution Control Agency is further charged with administering and enforcing all laws relating to water pollution; with establishing pollution standards; and with issuing and enforcing orders, permits, regulations, etc. with regard to the prevention and control of water pollution. It is further directed to establish standards consistent with the Federal Water Pollution Control Act and to cooperate with any agency of another state, of the United States, or of Canada. Civil and criminal penalties are provided for violations of certain water pollution control measures established by the legislature of the PCA. The PCA has established receiving water standards, effluent standards and other water quality and treatment standards as part of a comprehensive program of water pollution control permits. It is authorized as the permitting agency under the Water Pollution Control Act Amendments of 1972 (Pub. Law 92-500). (See, Minn. Stat. §§ 115.01 - 115.09; 116.01 - 116.02, Minn. Reg. WPC 1-36.)

29. Regional Water Pollution Control.

The Pollution Control Agency is authorized to create sanitary districts for any territory embracing an area or a group of two or more adjacent areas, whether contiguous or separate, but not situated entirely within the limits of a single municipality, for the purpose of promoting the public health and welfare by providing an adequate and efficient system for correcting, conveying, pumping, treating, and disposing domestic sewage and garbage and industrial wastes within the district. (See, Minn. Stat. §§ 115.15 - 115.37.)

30. Municipal Water Pollution Control.

It is the policy of the state to provide for the prevention, control, and abatement of pollution of all waters of the state, so far as feasible and practical, in furtherance of the conservation of such waters and the protection of the public health and in furtherance of the development of the economic welfare of the state. The Pollution Control Agency is directed to prepare a long-range plan and program for the affectuation of said policy and to make progress reports to the legislature biannually. The PCA is also directed to give due consideration, in the exercise of its powers, to the establishment and expansion of business and to other economic factors affecting the feasibility and practicability of any proposed action, including the burden on a municipality of any tax which may result therefrom. The PCA is further directed to group the designated waters of the state into classes and to adopt classifications and standards of purity and quality therefor. The Agency is further authorized to facilitate cooperation between two or more municipalities, if necessary, to provide for area waste management and treatment, with the Federal Water Pollution Control Act, or to prevent, control, or abate pollution. Subject to the same limitations as are applicable to statutory cities, towns are granted the power to construct, install, acquire, and maintain disposal systems and parts thereof, to levy taxes and special assessments, to issue bonds, and to do all other things necessary for such construction, installation, acquisition, and maintenance. (See, Minn. Stat. § 115.41 - 115.53.)

31. Regional Sanitary Sewer Districts.

For the purpose of providing a method by which municipalities in a drainage area designated by law may join together to prevent water pollution in excess of reasonable standards of purity and quality as may be established by state regulatory agencies, the creation of sanitary sewer districts is authorized. Such districts shall be municipal corporations, responsible for acquiring, constructing, improving, extending, operating, and maintaining facilities for the collection, treatment, and disposal of sewage and industrial and other wastes received from the sewer systems of all municipalities within its corporate limits. (See, Minn. Stat. §§ 115.61 - 115.67.)

32. Classification of Water Supply and Waste Water Treatment Facilities.

The Secretary of the State Board of Health is directed to classify all water supply systems used by the public on the basis of their degree of hazard to public health together with the type and loading of plant and the population affected. The Director of the Pollution Control Agency is directed to classify all waste water treatment facilities used by the public on the basis of their degree of hazard to the public health together with the type and loading of plant and the population served. A waste and waste water treatment operator's certification council is established for the purpose of recommending the issuance of certificates to water supply system operators and waste water treatment facility operators attesting to their competency. (See, Minn. Stat. §§ 115.71 - 115.82.)

33. State Water Pollution Control Fund.

It is determined that state financial assistance for the construction of water pollution prevention and abatement facilities for municipal disposal systems is a public purpose and proper function of state government, in that the state is trustee of the waters of the state and such financial assistance is necessary to protect the purity of state waters, and to protect the public health of the citizens of the state, which is endangered whenever pollution enters state waters at one point and flows to other points in the state. A state water pollution control fund is created for the acquisition and betterment of public land, buildings, and improvements of a capital nature needed for the prevention, control, and abatement of water pollution. The Commissioner of Finance is directed to issue bonds of the state of Minnesota for the purpose of providing money for municipalities from the state water pollution control fund. (See, Minn. Stat. §§ 116.16 - 116.18.)

34. Specific Pollutants.

Certain limitation are established on the use of nutrients in cleaning agents and water conditioners and on the use and manufacture of PCB or any product containing PCB. (See, Minn. Stat. §§ 116.21 - 116.37.)

35. Public Water and Sewer Systems.

County boards and the district courts are authorized to make, with respect to any area of the county or judicial district not organized into cities all necessary orders for, and to cause to be constructed and maintained, public water or sewer systems or combined water and sewer systems

to serve such areas, including outlets, treatment plants, ponds, lift stations, service connections, mains, valves, hydrants, wells, reservoirs, tanks, and other appurtanances of public water or sewer systems. (See, Minn. Stat.§§ 116.A.01 - 116A.26.)

36. Minnesota Environmental Rights Act.

Each person is entitled to the protection, preservation, and enhancement of . . . water . . . located within the state and each person has a responsibility to contribute to its protection, preservation, and enhancement. It is the state's policy to create and maintain conditions under which man and nature can exist in productive harmony in order that the present and future generations may enjoy clean . . . water . . . The Act creates a civil action for any person to bring a lawsuit for the "protection of . . . water . . . located within the state. . ." (See, Minn. Stat. §§ 116B.01 - 116B.13.)

37. Minnesota Environmental Policy Act.

The state government should use all practical means to reduce the deleterious impact on water quality from all sources and to encourage advanced waste treatment in abating water pollution. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental effects and prohibits any state action which is likely to cause pollution, impairment, or destruction of the . . . water . . . 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 natural resources. (See, Minn. Stat. §§ 116D.01 - 116D.107, 6 MCAR § 3.)

38. Domestic Water Supplies.

The Board of Health is vested with general charge of all springs, wells, ponds, and streams used as sources of water supply for domestic use and is empowered to take all necessary steps to preserve the same from such pollution as may endanger the public health. (See, Minn. Stat. §§ 144.35 - 144.37.)

39. Water Wells.

To reduce and minimize the waste of groundwater resources and to protect the health and welfare by providing a

means for the development and protection of the natural resource of underground water in an orderly, sanitary, and reasonable manner, the Board of Health is authorized to regulate and license the drilling and constructing of all water wells within the state, to examine and license water well contractors, and, after consultation with the Commissioner of Natural Resources and the Pollution Control Agency, to establish standards for the design, location, and construction of water wells within the state. (See, Minn. Stat. § 156A.01 - 156A.08.)

40. Lake Superior Drinking Water.

The State Board of Health is directed to establish a grant program for the construction of water filtration and purification systems for those communities using Lake Superior as a drinking water source. (See, Minn. Stat. § 298.244.)

41. Waters and Water Craft Safety.

It is the policy of the state which is blessed with an abundance of water, to promote its full use and enjoyment by all of the people, now and in the future, to promote safety for persons and property in connection with the use of the waters of the state, to promote uniformity of laws relating to such use, and to conform with any requirements of the United States relating thereto. Provision is made for the licensing and regulation of water craft and watercraft use. (See, Minn. Stat. §§ 361.01 - 361.29.)

42. Water Surface Uses and Lake Improvement Districts.

In order to preserve and protect the lakes of the state of Minnesota and to increase and enhance the use and enjoyment of those lakes, it is in the public interest that there be established a statewide lake improvement program to: preserve the natural character of lakes and their shoreland environment as feasible and practical, improve the quality of water in lakes; provide for reasonable assurance of water quantity in lakes, where feasible and practical; and to assure protection of the lakes from the detrimental effects of man's activities and certain natural processes which are detrimental to the protection of the lakes. County boards, subject to certain conditions, are authorized to acquire existing dams or control works; to construct and operate water control structures; to undertake projects to change the course, current, or cross-section of public waters; to improve navigation; and to enter into agreements for the purpose of water improvement and conservation.

County boards are also authorized to regulate by ordinance the surface use of any bodies of waters situated wholly or partly within the boundaries of the county and not situated entirely within the boundaries of a single city or lake conservation district; to regulate public beaches, public docks and other public facilities for access to the body of water; to regulate the construction of commercial marinas and their related facilities and docks and moorings; to regulate the means of removing weeds and algae from the body of water; and to regulate the uses of the body of water at various times and the uses of various parts of the body of water. The Commissioner of Natural Resources is directed to coordinate and supervise a local and state program for the establishment of lake improvement districts by counties and cities for lakes located within their boundaries based on state guidelines and regulations and compatible with all state, regional, and local plans where such plans exist. (See, Minn. Stat. §§ 378.31 - 378.56.)

43. Harbors, etc.

Various types of cities are given authority to establish and regulate harbors, docks, wharfs, etc. (See, Minn. Stat. §§ 412.221; 458.02 - 458.03; 458.20 - 458.46.)

44. Port Authorities.

A commission known as "Port Authority of _____" is established in and for every city of the first class situated upon, or adjacent to, or embracing within its boundaries, in whole or in part, a port or harbor located on a navigable lake or stream. It is the general duty of any such port authority to promote the general welfare of the port district, and of the port as a whole; to endeavor to increase the volume of the commerce thereof; to promote the efficient, safe, and economic handling of such commerce; and to provide or promote adequate docks and railroad terminal facilities open to all upon reasonable and equal terms for the handling, storage, care, and shipment of freight and passengers to, from, and through the port. (See, Minn. Stat. §§ 458.09 - 458.1991.)

45. Minnesota Seaway Property Conservation Fund.

It is declared that the harbors in this state are valuable natural resources; that there are tracts of land in this state located in harbors upon the Great Lakes-St. Lawrence Seaway, which by reason of topography, submersion, erosion,

depletion, and other causes tend to impede navigation and are valuless for any useful riparian purpose; that the conservation, development, reclamation, and protection of these lands so as to constitute them economically valuable is an essential governmental function of the state of Minnesota; that the conservation, development, reclamation, and protection of such lands will promote the public welfare of the state of Minnesota by developing to usefulness certain of these lands, and that such processes are essential to assure the inclusion of the state of Minnesota in both domestic and foreign systems of water-borne commerce. A special fund known as the Minnesota Seaway Property Conservation Fund is established, from which money may be appropriated to any port authority which owns lands in a port upon the Great Lakes-St. Lawrence Seaway, which are submerged, erroding, or depleted, and which are so situated so as to be beneficial to the citizens of the state if developed to their economic usefulness. (See, Minn. Stat. §§ 458.50 - 458.60.)

III. VEGETATION

JPT

A. PROBLEMS AND ISSUES

1. Demand for some forest species along the North Shore is low because of adequate supplies closer to the mills and high costs of logging due to the terrain. More forest industries are locating or expanding in the central part of the state because the timber land is more accessible there. Cook County is exporting spruce and jack pine to Canada. If a plant expansion goes through in Thunder Bay, demand for Cook County timber will increase and the forestry industry will have a larger role in the economy of the North Shore.

2. Forest management might conflict with aesthetic or recreational goals. For instance, many people are disturbed over the use of clear cutting.

3. Balsam fir is being killed because of a spruce budworm infestation.

4. DNR does not have an in-depth study of future supply and demand of forest products in Minnesota. However, there are good national projections of supply and demand which can be applied to Minnesota. Our weakness is our resource data which must be applied to the national projections. This will be corrected in several years when the statewide inventory is completed. If shortages occur elsewhere in the country, the pressure on our resources will intensify as will the pressure to intensify forest management.

5. The market for low grade hardwoods along the North Shore needs improvement. A pulp and paper mill or other fiber conversion mill of 200,000 cord consumption is the primary need for the coastal area.

6. There is a general shortage of softwoods, which is predicted to continue.

7. DNR is beginning to coordinate state forest plans with national forest management plans. There was little need to coordinate before because of the oversupply of wood. However, supply is diminishing as demand goes up, so there is a greater need to coordinate between state and federal agencies.

8. By the year 2000, the state will need all commercial forest land* it now has. Canada has a lot of timber, but much is unaccessible so it will not be available for many years.

9. Cutting needs to be used as a management tool in state parks to improve the recreational aspects of the parks by aesthetically improving a stand of trees.

10. Aspen, a low grade hardwood, is not being utilized to its full potential because of low demand for pulpwood. However, demand for pulpwood is projected to improve. Generally where saw timber is available, there is a good market; but the hardwoods along the North Shore are not suitable for this purpose.

11. If 1985 timber demand projections become a reality, a more intensive inventory of state land will be needed to make comprehensive 50 to 100 year management plans.

12. Wind storms have blown down a considerable amount of timber in some state parks. These areas are in need of vegetative rehabilitation.

B. VEGETATION GOALS, POLICIES AND IMPLEMENTATION STEPS

Goal: Management of the vegetative resource for wood products, aesthetics, recreation, wildlife habitat and controlled quality and quantity of water.

Policy: Public agencies develop management plans which recognize the multiple use value of Coastal Zone vegetation.

Forested Areas

Policy: Long term multiple use of the forest resources be preserved.

Implement: Develop and implement integrated forest management practices for all public lands and for voluntary private participation to include:

*Land which is either growing timber or capable of growing timber. It does not include forest land dedicated to a special use such as recreation.

a. Maximizing timber production and harvesting of pulp, timber and other forest crops, consistent with other values, where land is of relatively suitable productive quality. (assumes larger boundary)
b. Recreational use.
c. Re-forestation, including species of tree to replant for future balance of yield and healthy stands.
d. Protection of soils and waters from erosion and chemical pollution.
e. Protection of rare and/or distinctive native species of flora and fauna.
f. Management of a natural diversity of wildlife habitats.

Vegetation and Physical Development

Policy: The vegetation along the Coastal Area is recognized as a great aesthetic resource in controlling views, screening storage and unattractive material and separating areas of development from the highway and adjacent land uses.

Implement: Develop guides for:

a. areas where vegetation should be removed for enhancing views and sightlines for road safety.
b. areas where vegetation should be used for noise control, privacy and for screening areas such as gravel pits, vehicle storage, industrial activities, maintenance facilities, etc.
c. Appropriate plant species for these uses.

These guides shall be implemented on public lands and offered to private owners as suggestions.

Wetlands (assumes expanded boundary)

Policy: Wetlands are valuable for water retention and purification, habitat for aquatic and terrestrial animals, and areas of landform diversity and shall be protected.

Implement:
1. Wetlands should be identified.
2. Local development and implementation of wetland protection measures.
3. Incorporate wetland protection measures into all public management and regulatory programs.

C. POLICIES AND AUTHORITIES RELATING TO VEGETATION

1. Constitutional Provisions.

   School and other public lands of the state better adapted for the production of timber than for agriculture may be set apart as state school forests, or as other state forests as the legislature may provide. The legislature is authorized to provide for their management on forestry principles. (See, Minn. Const., Art. 11, Sec. 11.)

2. Authority of Commissioner of Natural Resources.

   Charge and control of all the public lands, parks, and timber of the state are vested in the Commissioner of Natural Resources. (See, Minn. Stat. § 84.027.)

3. Lands Dedicated for Conservation.

   For the purpose of vesting and revesting the state with title to lands suitable primarily for the development of forests and the prevention of forest fires, and for experimenting and advancing afforestation and reforestation, or for the purpose of impounding, controlling, and regulating the waters of meandered lakes and the flow of natural streams of the state, county boards are authorized to request that certain lands on which taxes are delinquent be taken over by the state for afforestation, reforestation, or flood control projects. (See, Minn. Stat. §§ 84A.20 - 84A.37.)

4. Outdoor Recreation.

   An outdoor recreation system is established which is composed of natural state parks; recreational state parks; state trails; state scientific and natural areas; state wilderness areas; state forests; state wildlife management areas; state water access sites; state wild, scenic, and recreational rivers; state historic sites; and state rest areas. Standards for the administration of each type of unit are established. (See, Minn. Stat. §§ 86A.01 - 86A.11.)

5. The Director of the Division of Lands and Forestry in the Department of Natural Resources and county boards are authorized to exercise certain powers with respect to the prevention and abatement of forest fires and to the clearing and improvement of land by the removal from such land of trees, brush, and other substances which contribute to the danger of forest fires. Provision is made for the creation of auxiliary forests from any tract of land in the state containing not less than

35 acres, which is generally suitable for the planting, culture, and growth of trees for the production of timber or forest products. The Commissioner of Natural Resources is authorized to furnish owners of forest lands certain forest management services consisting of advice in management and protection of timber, selection and marking of timber to be cut, measurement of products, aid in marketing harvested products, and other services. (See Minn. Stat. § 88.01 - 88.79.)

6. Prairie and Waste Lands and Control over Forests.

The Commissioner of Natural Resources is directed to ascertain the best methods of reforesting cut-over and denuded lands, foresting waste and prairie lands, preventing destruction of forest and lands by fire, administering forests on forestry principles, encouraging private owners to preserve and grow timber for commercial purposes, and conserving the forests around the headwaters of streams and on the watersheds of the state. He is further directed to execute all rules and regulations pertaining to forestry and forest protection within the jurisdiction of the state. (See Minn. Stat. § 89.01.)

7. State Forests.

A system of state forests is established for growing, managing, and harvesting timber and other forest crops, for the establishment of recreational areas, and for the protection of watershed areas and the preservation and development of rare and distinctive species of flora and fauna native to such areas. Management and control of all state forest lands are vested in the Commissioner of Natural Resources who has the authority to make and enforce all necessary regulations for their administration. (See Minn. Stat. §§ 89.021 - 89.28; 86A.05.)

8. Tree Planting.

The Commissioner of Natural Resources is authorized to supply planting stock for use on any public or private lands within the state for the purposes of forests, wood lots, windbreaks, shelter belts, erosion control, soil conservation, water conservation, provision of permanent food and cover for wildlife, and afforestation and reforestation. Educational units are also authorized to establish and maintain forests. (See Minn. Stat. §§ 89.35 - 89.43,)

9. Timber Lands.

It is the intent and desire of the legislature to provide equal opportunity for all seqments of our society to participate in the [state timber] sale process; and to attempt to prevent the purchase or acquisition of excessive volumes of the state's timber resources by any one individual or corporation. The Department of Natural Resources is directed to enact regulations to reach this objective, including provision for sale of all timber species by both the informal and the auction sale method. The Commissioner of Natural Resources is directed to make thorough inquiry into the extent, character, and value of the timber on all state lands, and to take such measures as will protect timber from damage or loss by fire, trespass or otherwise; and to make such regulations for the care and control of the lands and for the sale of the timber thereon. A system of permits for the sale of state timber is established. (See Minn. Stat. §§ 90.005 - 90.50.)

10. Wetlands.

It is in the public interest to preserve the wetlands of the state and thereby to conserve surface waters, to preserve wildlife habitat, to reduce runoff, to provide for floodwater retention, to reduce stream sedimentation, to contribute to improved subsurface moisture, to enhance the natural beauty of the landscape, and to promote comprehensive and total water management planning. The Commissioner of Natural Resources is authorized to promulgate rules with regard to these purposes and to enter into agreements with land owners for the conservation of wetlands. The program so established is intended to supplement and complement the federal water bank program. (See Minn. Stat. § 105.392.)

11. Minnesota Environmental Policy Act.

The state government should use all practical means to assure for the people of the state aesthetically pleasing surroundings; to preserve important natural aspects of our national heritage; and to improve the management of renewable resources in a matter compatible with environmental protection. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental affects and prohibits any state action which is likely to cause pollution, impairment, or destruction, of the state's natural resources so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare. (See Minn. Stat. §§ 116D.01 - 116D.07.)

12. Little Shipstead-Nolan Act

All state lands bordering on or adjacent to meandered lakes and other public waters and watercourses and the live timber growing thereon are withdrawn from sale except under specific conditions, and the Commissioner of Natural Resources is authorized to sell such timber as otherwise provided by law under such conditions as he deems necessary for the protection of watersheds, wildlife habitat, shorelines, and scenic features. In addition, the timber on state lands in certain areas of Cook, Lake, and St. Louis Counties are subjected to the same restrictions as are imposed by the federal Shipstead-Nolan Act with regard to timber on federal lands. The federal act promotes the principle of conserving the natural beauty of shorelines for recreational use, and prohibits logging to a depth of 400 feet from the natural waterline of any lake or stream used for boat or canoe travel which is within or contiguous to certain areas within Cook, Lake, and St. Louis Counties.(Minn. Stat. §92.45; 16 U.S.C. §577-577b.)

IV. MINERAL EXTRACTION

A. PROBLEMS AND ISSUES

1. There is inadequate information on the availability, distribution, and value of metallic minerals and their mining potential in the Coastal Zone area.

2. The location, extent, and useability of sand and gravel resources within the Coastal Zone have not been evaluated.

3. Future use of limited sand and gravel resources within the Coastal Zone may be preempted by other land use decisions.

4. Mining reclamation standards have not been adopted at the local or state level.

5. Beach deposits on Lake Superior have been mined as a source of gravel in the past.

B. MINERAL EXTRACTION GOALS, POLICIES, AND IMPLEMENTATION STEPS

Goal: Manage the extraction of mineral resources to avoid conflict with other land uses, observe health, safety, welfare and property rights of individuals, allow for the continued availability of minerals and provide for the reclamation of land following extraction.

Policy: Open pit mining of hard rock minerals shall not be allowed in shoreland management areas as defined by M.L. 1969, Chap. 777.

Implement: State permits shall not be granted.

Policy: Mining of beach deposits for sand and gravel on Lake Superior shall not be allowed.

Implement: State or local permits shall not be granted.

Policy: Consider long-term availability of mineral resources in land use planning.

Implement:

1. Evaluate hard rock mineral resources within coastal zone.

2. Conduct a detailed analysis of gravel source locations within and adjacent to the coastal zone as basis for developing a plan which would insure the availability of adequate gravel resources for the area.

3. Provide for continued availability of sand and gravel resources in local land use plans.

4. Develop and enforce mineral extraction standards for mining of sand and gravel in the coastal zone and for hardrock minerals outside of shorelands based on:

   a. impacts on existing and future land uses.
   b. management of affected public lands.
   c. pollution control standards.
   d. reclamation and re-use of lands.

5. Place high priority on development of gravel sources on state lands other than state parks.

6. Close and reclaim existing gravel pits in state parks, when alternative sources of gravel are available.

7. Reclaim all depleted gravel pits on state lands in a manner beneficial to land management objectives.

8. The Environmental Quality Board should work closely with the PAC in reviewing any proposed hardrock mineral excavation in the coastal zone.

C. POLICIES AND AUTHORITIES RELATING TO MINES AND MINERALS

1. Powers of the Commissioner of Natural Resources.

The Commissioner of Natural Resources is vested with charge and control of all of the minerals of the state and of the use, sale, leasing, or other disposition thereof. (See Minn. Stat. §84.027.)

2. Reservation of Minerals.

The state reserves for its own use all the iron, coal, copper, gold and other valuable minerals on land which now or hereafter may belong to it by virtue of any act of Congress, and reserves to itself all iron ores and other minerals on, in, or under lands within the state which lie beneath the waters of navigable lakes and rivers, together with the right to enter upon such lands and to explore for and mine and remove such iron ore and other minerals. (See Minn. Stat. §§93.01-93.07.)

3. Permits and Leases for Prospecting and Mining.

A system of permits and leases for prospecting and mining iron ore, taconite iron ore, copper, copper nickel, and other minerals is established. (See Minn. Stat. §§ 93.016 - 93.335, 93.043, Minn. Reg. NR 94, 99, 104, 109, 114.)

4. Mining and Prospecting Under Certain Waters.

The discovery and mining or removing of gold, silver, copper, cobalt, coal, graphite, petroleum, sand, gravel, stone, natural gas, and all minerals, excepting iron ore, from the land under public waters in the state is a matter of public interest. The Department of Natural Resources, with the approval of the Executive Council, is directed to adopt rules and regulations for such prospecting and mining. Certain laws governing the prospecting and mining of iron ore from under public waters are also established, and the Executive Council is given the authority to permit the draining of certain public lakes for the purpose of mining iron ore owned by the state beneath the beds of such lakes. (See Minn. Stat. §§ 93.13 - 93.14; 93.34 - 93.357; 105.44(1)(a), Minn. Reg. NR 94, 99, 104, 109, 114.)

5. Reclamation of Mine Lands.

In recognition of the effects of mining upon the environment, it is hereby declared to be the policy of this state to provide for the reclamation of certain lands hereafter subjected to the mining of metallic minerals where such reclamation is necessary, both in the interest of the general welfare and as an exercise of the police power of the state, to control possible adverse environmental effects of mining, to preserve the natural resources, and to encourage the planning of future land utilization, while at the same time promoting the orderly development of mining, the encouragement of good mining practices, and the recognition and identification of the beneficial aspects of mining. The Commissioner of Natural Resources is directed to conduct a comprehensive study to determine the extent to which the regulation of mining areas is necessary; and mining operations for metallic minerals within the state are prohibited without a permit from the Commissioner. Persons applying for a permit must submit a proposed plan for the reclamation or restoration, or both, of any mining area affected by mining operations to be conducted on and after the date on which permits are required for mining. (See Minn. Stat. §§ 93.44 - 93.51.)

6. Minnesota Environmental Policy Act.

State government should use all practical means to minimize wasteful and unnecessary depletion of non-renewable resources, and to provide for reclamation of minelands and assure that any mining is accomplished in a manner compatible with environmental protection. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental effects and prohibits any state action which 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 natural resources. (See Minn. Stat. §§ 116D.01 - 166D.07, 6 MCAR § 3.)

7. Eminent Domain and Taconite Mining Companies.

The business of mining and beneficiating taconite is declared to be in the public interest and necessary to the public welfare, and the taking of private property therefor is declared to be for a public use and purpose. Any corporation engaged in the business of mining and beneficiating taconite is authorized to acquire-for the purposes of such business-easements, rights-of-way, and surface rights over, through, or across any lands not owned by the state or devoted to a public purpose. (See Minn. Stat. §§ 117.46 - 117.461.)

8. Deposits of Mining Wastes.

The Commissioner of Natural Resources is authorized to grant permits and licenses or leases on and across lands owned by the state for the depositing of strippings, lean ores, tailings, or waste products of a taconite mining business. (See Minn. Stat. § 117.47.)

9. Mine Inspectors.

County boards of counties where there are at least five mines are authorized to appoint an inspector of mines. Such inspectors are authorized to condemn all such places where they shall find that the employees are in danger from any cause, and to require certain safeguards for operating idle mines. (See Minn. Stat. §§ 180.01 - 180.13.)

V. FISH AND WILDLIFE

JMT

A. PROBLEMS AND ISSUES

1. Many existing managed streams are being over-used leading to the destruction of streambanks and vegetation.

2. Barriers exist in many streams which limit the habitat available for fish spawning.

3. Siltation caused by adverse development along streams poses a serious threat to existing spawning areas.

4. In some areas, fishing pressure exceeds the natural reproduction rate.

5. Access to Lake Superior for recreational fish is inadequate.

6. Habitat for game species is deteriorating. In particular, there is a need for logging to create and maintain forest openings near deer concentration areas.

7. Many deer are being killed by automobiles on T.H. 61. Currently deer are being fed by North Shore residents, but feeding stations are not located properly. In many areas, vegetation grows close to the roadway and motorists cannot sight the deer in time to avert hitting them.

B. FISH AND WILDLIFE GOALS, POLICIES, AND IMPLEMENTATION STEPS

Goal:

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.

General 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. Preserve endangered, threatened and unique species.

3. Identify critical or rare habitats which should be avoided by intensive development.

Fisheries

Policy: To improve recreational and commercial fishing in the Coastal Zone on Lake Superior and in adjacent lakes and streams.

Implement:

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

Wildlife

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

Implement:

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.

4. Consider wildlife values in managing all state and federal lands.

5. Develop and implement deer management programs, as a first priority, in the Cascade and Brule River Management Areas.

6. Determine the need for additional wildlife management areas as management conditions change.

7. Develop management programs for moose, bear, grouse and other species where needed and appropriate.

C. POLICIES AND AUTHORITIES RELATING TO FISH AND WILDLIFE

1. Great Lakes Basin Compact.

The Great Lakes Basin Compact has been ratified by the state of Minnesota. The purposes of the compact are, inter alia, to promote the orderly, integrated, and comprehensive development, use, and conservation of the water resources of the Great Lakes Basin. By ratification, the state has agreed to consider whatever action the Great Lakes Basin Commission, established by the compact, recommends with respect to uniformity or effective coordinating action in fishing laws and regulations and cooperative action to eradicate destructive and parasitical forces endangering fisheries, wildlife, and other water resources. (See Minn. Stat. §§ 1.21 - 1.25.)

2. Commissioner of Natural Resources.

Charge and control of the wild animals of the state are vested in the Commissioner of Natural Resources. (See Minn. Stat. § 84.027.)

3. Certain Game Preserves.

Management of games preserves established within reforested areas is vested in the Commissioner of Natural Resources, who is directed to care for, protect, and preserve all species of wildlife therein. (See Minn. Stat. §§ 84A.20 - 84A.32; 84A.55.)

4. Ownership of Wild Animals.

The ownership of wild animals, insofar as they are capable of ownership, is in the state in its sovereign capacity for the benefit of all of its people, and no person shall acquire any property therein, or destroy the same, except as authorized by law. (See Minn. Stat. §§ 97.42 - 97.43.)

5. General Game and Fish Laws.

The Commissioner of Natural Resources is authorized to extend protection to any species of wild animal by further limiting or closing open seasons established by law, whenever he finds such action necessary to guard against undue depletion or extinction, or to promote the propogation and reproduction of such animals; he is authorized to enter into contracts with Wisconsin relating to the removal of rough fish in boundary waters between Minnesota and that state; and he is authorized to make any and all regulations for the taking, possession, and transportation of wild animals, fish, and mussels from any boundary waters between Minnesota and adjacent states and from international waters. He is further authorized to set aside and reserve, for any period he deems advisable, public waters of the state in aid of the propagation and protection of any wild animals, and to acquire by gift, purchase, or otherwise real property desirable for game farms, hatcheries, game refuges, and wildlife development programs. A predator control program is established to systematically control predatory wild animals doing damage to public or private property, and provisions are enacted to prevent the taking, import, transport, or sale of any endangered or threatened species of wild animal. Certain laws with respect to the possession and transportation of wild animals are established, and the power to enforce such laws is vested in the Commissioner of Natural Resources. (See, Minn. Stat. §§ 97.40 - 97.85.)

6. Taking of Game and Fish.

A system of licenses and regulations for the taking of protected and unprotected wild animals and fish is established. (See, Minn. Stat. §§ 98.45 - 98.52; 101.26 - 101.37; 101.41 - 101.51; 102.23 - 102.30.)

7. State Game Refuges.

A system of state game refuges, which includes all state parks, is established and its management vested in the Commissioner of Natural Resources. (See, Minn. Stat. §§ 99.25 - 99.26.)

8. Minnesota Environmental Policy Act.

The state government should use all practical means to preserve important existing natural habitats of rare and endangered species of plants, wildlife, and fish, and provide for the wise use of our remaining areas of natural habitation, including necessary protective measures where appropriate. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental effects and prohibits any state action which is likely to cause pollution, impairment, or destruction of the natural resources of 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 natural resources. (See, Minn. Stat. §§ 116D.01 - 116D.07.)

VI. TRANSPORTATION

A. PROBLEMS AND ISSUES

1. Traffic congestion is created on T.H. 61 by the influx of tourists during summer months and winter weekends, local use of the highway, and the increased number of commercial trucks.

2. There are problems with portions of T.H. 61 between Two Harbors and Illgen City including road alignment and sight lines, lack of passing lanes, width, lack of nine-ton carrying capacity, and the danger of rock slides.

3. Road access onto T. H. 61 is unsafe in some cases. Current county zoning ordinances permit a driveway for each 200 foot lot. Counties have not developed subdivision regulations which minimize the number of access points to T.H. 61 and still provide proper access to property. Counties should also control the location of and access to highway-oriented commercial establishments in a manner that prevents hazardous situations from occurring in the future.

4. The Minnesota Department of Transportation has allowed access roads onto T.H. 61 that conflict with the administration of local zoning ordinances.

5. Transportation alternatives have not been explored, thus the pressure on T.H. 61 continues to grow.

6. There is a need to provide standards for highway construction and right-of-way treatment that are uniform throughout the Coastal Zone and enhance the scenic qualities of the area.

7. There are no safe bikeways along most of the North Shore.

8. There is a need to brush and prune vegetation along T.H. 61 to increase highway safety by improving visibility and to enhance the view of Lake Superior.

9. Heavy tourist usage of county roads increases county maintenance costs.

B. TRANSPORTATION GOALS, POLICIES AND IMPLEMENTATION STEPS

Goal: A transportation system which allows for the safe, efficient movement of people, goods, and services; complements existing and proposed development patterns; and reflects the environmental considerations and multi-modal possibilities of the North Shore.

Policy: Develop a transportation system which utilizes the full potential of coastal resources.

Implement:

1. Conduct a transportation study for the Coastal Zone which examines the potential of all modes of transportation - air, water, rail and highway - to determine the most desirable means of moving people and goods.

2. Generate data for various modes on the following:

   a. Economics
   b. Safety
   c. Resource efficiency (BTUs/ton, etc.)
   d. Convenience to user
   e. Seasonal limitations
   f. Impact on land and water uses.

Policy: All public transportation plans and activities in the Coastal Zone shall be coordinated among all levels of government.

Implement:

1. DOT shall periodically report the findings and recommendations of its statewide transportation plan to the PAC for review and comment.

2. All levels of government shall exchange information pertaining to proposed transportation activities including access permit applications, improvements, land acquisition, public and private development proposals which would change existing types or levels of traffic and any other activity which would have an impact on the movement of people and goods.

Trunk Highway 61

Policy: Conflicts between residential and recreational traffic and through commercial truck traffic shall be reduced.

Implement:

1. DOT and ARDC shall coordinate with local units of government in formulating and implementing a short range plan for separating through truck traffic from local and recreational traffic. The study shall consider existing traffic data, proposals to increase truck traffic and the physical condition of the existing roadway including width, lack of shoulders, vertical and horizontal curvature. The study shall also consider such alternatives as restricting truck traffic to certain days of the week or hours of the day.

2. DOT and ARDC shall investigate, in cooperation with trucking companies and organizations familiar with waterborne transportation, alternative means of moving goods between Canada and the United States to provide a long-term solution to truck/automobile conflicts.

Policy: Trunk Highway 61 shall be upgraded to provide a safe facility for moving traffic.

Implement:

1. DOT, in cooperation with ARDC and local units of government,shall place high priority on the earliest possible completion of Project No. FOOl-4, to upgrade T.H. 61, between Two Harbors and T.H. 1 (Illgen City).

2. In designing the Project, DOT shall:

   a. Provide design solutions to existing hazardous conditions at Chapin's Curve, Silver Creek Cliff, Lafayette Bluff and the eastern approach to the Gooseberry Falls bridge and the 9 miles of roadway west of Beaver Bay.
   b. Select a roadway design that is in keeping with the aesthetic and topographic character of the North Shore, and design future bridges, overpasses, parking areas, guardrails and other such transportation appurtenances along T.H. 61 in a manner which complements the natural landscape.

c. Provide for additional passing lanes, shoulder widening and turn lanes to speed the flow of traffic and improve highway safety.

d. Maximize opportunities for highway users to pull off the highway to view the scenery of the North Shore in a safe manner. Highway wayside recommendations contained in the North Shore Recreation Study and approved by PAC shall be implemented.

   Portions of former and existing roadbed that may be eliminated from the highway as a result of realignments and have value for use as scenic lookouts, rest stops, bicycle trails, etc. shall be retained in state ownership.

e. Consider existing land use patterns and future land use plans of local government.

f. Develop frontage roads or other means of consolidating driveways and entrances where possible.

g. Prepare plans for upgrading T.H. 61 from Illgen City to Grand Marais using the same considerations listed above.

Policy: The deer kill problem on T.H. 61 shall be minimized.

Implement: DOT shall brush the T.H. 61 ditch to provide greater sight distance in accordance with a plan approved by the counties and PAC.

Policy: Safe bikeways within the T.H. 61 corridor shall be provided.

Implement:

1. DOT, in cooperation with local units of government, shall develop and implement a plan for state construction of bikeways along T.H. 61 that provides adequate separation between bikers and highway traffic and adequate signing and enforcement to assure that bikers stay off vehicular traffic lanes.

2. DOT shall cooperate with local units of government in making bikeway grant money available for local bikeways.

All Coastal Highways

Policy: Highways in the Coastal Zone be aesthetically attractive and complement the natural landscape.

Implement: Prepare, implement, and fund a vegetative management program for improving the aesthetics of roads within the Coastal Zone which addresses:

a. appropriate screening of highway storage maintenance areas.
b. view enhancement of Lake Superior from T.H. 61.
c. plantings for improvement of the aesthetics and safety of expressway median from Duluth to Two Harbors.

Policy: Signs should be in keeping with the aesthetics and image of the North Shore.

Implement: Examine existing sign conditions in the Coastal Zone and develop a model signing guide for possible adoption by local units of government.

This signing model should address:

a. Height
b. Area
c. Materials
d. Setbacks
e. Colors
f. Lighting, direct or internal flashing
g. On vs. off-premise locations

Policy: DOT shall not issue sign permits without the written approval of the affected unit of local government.

Implement: DOT shall submit all application for sign permits to local units of government for written approval.

Policy: Adequate signing for public recreational areas should be established consistent with local sign ordinances.

Implement: Establish a cooperative state/local effort to develop a sign program to provide adequate highway signing for public recreation lands and facilities in the Coastal Zone and to standardize sign appearance within state recreational facilities.

C. POLICIES AND AUTHORITIES RELATING TO TRANSPORTATION

1. Public Highway System.

The state is authorized to construct, improve, and maintain public highways, and to assist political subdivisions in this work. A trunk highway system, a county state-aid highway system, and a municipal state-aid street system are created. A highway user tax distribution fund, a county state-aid highway fund, and a municipal state-aid street fund are also created. (See, Minn. Const., Art. 14, §§ 1-11.)

2. General Provisions for Highways, etc.

Provisions are enacted governing the establishment, operation, and financing of trunk highways, county state-aid highways, municipal state-aid streets, county highways, town roads, trunk highways, bridges, and ferries. (See, Minn. Stat., Ch. 160-167.)

3. Department of Transportation.

In order to provide a balanced transportation system, which system includes aeronautics, highways, motor carriers, ports, public transit, railroads and pipelines, a Department of Transportation is created, which is supervised and controlled by the Commissioner of Transportation. The Commissioner is directed to maintain close liaison with the private sectors of transportation, the Upper Great Lakes Seaway Development Commission Corporation, and any multistate organization involved in transportation issues affecting the state. It is further directed to participate in the planning, regulation, and development of the state's port authorities. In order to best meet the present and future transportation needs of the public, to ensure a strong state economy, to make the most efficient use of public and private funds, and to promote the more efficient use of energy and other resources for transportation purposes, the Commissioner is directed to develop and monitor a statewide transportation plan, which incorporates all modes of transportation and provides for the interconnection and coordination of different modes of transportation. It is directed that the statewide plan recognize established national transportation policies and that the Commissioner and the Public Service Commission take no action inconsistent with the state's plan. The Commissioner

is directed to develop and monitor a statewide rail transportation plan as part of the statewide transportation planning process, and he is directed to consider the social, economic, environmental, and energy effects resulting from existing and proposed transportation facilities and to make continuing efforts to mitigate any adverse effects. Finally, it is directed that any state agency which receives an application from a regional development commission, metropolitan council, public transit commission, airport commission, port authority, or other political subdivision of the state for financial assistance for transportation planning, capital expenditures, or operations to any state or federal agency, shall first submit the application to the Commissioner of Transportation for review to determine whether it contains matters that substantially affect statewide transportation planning and priorities; the director of the Pollution Control Agency is also directed to inform the Commissioner of Transportation of all activities of the PCA which relate to the adoption, revision, or repeal of any standard or rule concerning transportation. (See, Minn. Stat. §§ 174.01 - 174.51.)

4. Railroads.

Provisions are enacted regulating the construction and operation of rail transportation systems and regulating the operations of common carriers. (See, Minn. Stat., Ch. 218, 219, and 222.)

5. Aeronautics.

The Commissioner of Transportation is vested with general supervision over aeronautics within the state and is empowered and directed to encourage, foster, and assist in the development of aeronautics and to encourage the establishment of airports and other navigational facilities. He is further authorized to issue rules, regulations, and procedures for the purpose of protecting the general public interest and safety with regard to aeronautics. A provision is also made for the Commissioner to cooperate with the United States in the planning, acquisition, and construction of airports; and municipalities, groups of municipalities, and counties are authorized to acquire and operate airports. To prevent creation or establishment of airport hazards, provision is further made for municipalities or joint airport zoning boards -- created where airports owned or controlled by

one municipality are located within the territorial limits of another county or municipality -- to adopt and enforce airport zoning regulations. Provisions regulating the use of aircraft and the construction of airport structures are also adopted. (See, Minn. Stat. §§ 360.011 - 360.93.)

6. Port Authorities.

A commission known as "Port Authority of _____" is established in and for every city of the first class situated upon, or adjacent to, or embracing within its boundaries, in whole or in part, a port or harbor located on a navigable lake or stream. It is the general duty of any such port authority to promote the general welfare of the port district, and of the port as a whole; to endeavor to increase the volume of the commerce thereof; to promote the efficient, safe, and economic handling of such commerce; and to provide or promote adequate docks and railroad terminal facilities open to all upon reasonable and equal terms for the handling, storage, care, and shipment of freight and passengers to, from, and through the port. (See, Minn. Stat. §§ 458.09 - 458.1991.)

VII. LAND USE

A. LAND USE CONDITIONS

1. General

--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.

--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.

--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 cargoes 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. The U.S. Army Corps of Engineers has substantially completed plans for construction of two small-boat harbors-of-refuge at Silver Bay and Schroeder.

2. Specific Land Uses

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 Townships aggregate population is projected to remain stable through the year 2000. While Duluth is expected to decline somewhat in population, the townships are expected to increase at about the same rate.

--In 1973, 77% of Cook County's permanent population lived within 1/2 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% 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.

Commercial

--Commercial development in the Coastal Zone Planing Area is confined mainly to the T.H. 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.

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.

--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, junk-yards, 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 facilties. The new industrial park in Two Harbors is expected to accommodate most new industrial expansion in that community.

Public Land Uses

--Public uses comprise an unusually high percentage of the land base in coastal counties, totalling 60.3% in St. Louis; 77.4% in Lake and 92% in Cook County.

--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 acres (27.8%).

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

3. Status of Local Land Use Plans and Ordinances

a. County

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 recommended 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 is currently amending its zoning ordinance and addressing many issues raised through the CZM Program. The text portion of the new ordinance has been produced in draft form and the Planning Commission is beginning work on the zoning map. Cook County has also begun work on a new health code. Lake County adopted a county-wide zoning ordinance, has initiated efforts on subdivision control ordinance and has developed new goals for land use planning countywide. St. Louis County has adopted a revised zoning ordinance text, but has not as yet amended the zoning map. The St. Louis County Planning Commission has recommended that land use studies be completed before mapping takes place. The St. Louis County Board has responded by passing a resolution on December 17, 1977 that authorizes the preparation and adoption of an ordinance entitled "Comprehensive Plan for St. Louis County."

b. Municipal

In 1973, the Arrowhead Regional Development Commission prepared guide plans for the following North Shore communities:

Grand Marais	Beaver Bay
Silver Bay	Knife River
Two Harbors	

These plans were prepared as a prerequisite for obtaining sewer and water grants from the Farmers Home Administration. In developing the plans, ARDC evaluated existing land use patterns, population, public services and other factors and made recommendations pertaining to future residential, commercial, industrial, public and transportation development as well as future sewer and water needs. Although the localities did not adopt the plans, ARDC did and uses them as a basis for reviewing sewer and water grant applications.

The municipalities of Grand Marais, Silver Bay and Two Harbors have developed various plans in the past. However, there are no adopted comprehensive plans. These municipalities have adopted zoning ordinances.

The municipality of Beaver Bay does not have zoning. Knife River and other unincorporated settlements and rural townships are governed by county zoning ordinances.

The provisions of Minnesota's Shoreland Management Act were extended to municipalities during the 1971 Legislative Session. The DNR published rules and regulations for managing municipal shoreland areas in 1976. Thus far, none of the North Shore municipalities have been contacted by DNR to initiate the shoreland management process. Duluth recently decided to begin on its own. When notified by DNR, Two Harbors, Beaver Bay, Silver Bay and Grand Marais will be required to develop shoreland management ordinances within 1,000 feet of Lake Superior and 300 feet of streams.

B. LAND USE PROBLEMS AND ISSUES

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

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

3. 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 T. H. 61. Development of additional access points to T. H. 61 could 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.

4. Local residents perceive the high amount of existing public land, and the intentions of state and federal agencies to acquire more land, as a major problem in terms of self determination and tax base and development options. 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. Since ownership patterns and roadways are the major determinants in current land-use patterns, state and federal public ownership policies have had the effect of concentrating development in the T.H. 61 corridor along Lake Superior. There is an obvious need for greatly improved cooperation between federal, state and local interests. Federal and state agencies continue to push private development closer to Lake Superior and, at the same time, oppose additional private development on the shore. Reasonable plans must be developed and coordinated, by all three levels of government, to achieve the proper balance of local, state and national interests.

5. Most state recreational areas are in dire need of sound planning, development and management. Many areas are unsightly, are not developed in a manner that affords appropriate use and appreciation of the resources and do not bear any relationship to privately developed recreational facilities.

6. State, federal and county forest lands have not been adequately assessed to determine areas which are commercially productive. Active management for forest production can achieve a better return on the public's investment and aid the local economy.

7. Local units of government have not adopted land use plans to serve as a basis for implementation ordinances. This is due to various reasons including lack of financial or professional resources and lack of good information such as soils, geology, slope, land use and forest cover. In addition, there has been a general feeling that local planning is futile in view of the dominant public ownership patterns. The Coastal Zone Management Program provisions for funding, reliable data and consistency have renewed the emphasis on local decision-making.

8. 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. Clayey 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. 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. Local governments should consider soil properties in developing plans and ordinances and in approving building permits and subdivision plats.

Conventional septic tank-drain field combinations do not appear suited to most coastal zone soils. Research on alternative sewage treatment systems is lacking.

C. LAND USE GOALS, POLICIES AND IMPLEMENTATION STEPS

Goal: Land use plans which provide realistic growth opportunities for commerce and industry; protect the lifestyles of existing residents and provide for a choice of future living situations; provide for public uses, and reflect both the values provided and limitations imposed by natural resources in the Coastal Zone.

Policy: To provide financial and technical resources to units of local government in the Coastal Zone to enable them to review, revise or develop if necessary and to adopt and implement land use plans and regulations to include land use plans, erosion control ordinances, zoning and shoreland ordinances, subdivision regulations and sanitation codes consistent with the Coastal Zone Plan.

Implement: Local units of government develop and adopt land use plans which:

1. General

   a. examine existing land use and ownership patterns to determine the current scale, type and location of development and use and to identify potential conflicts between land uses.
   b. examine trends and future projections of permanent and seasonal population, recreational demands, economic base and natural resource base to determine demands for land and resources and to project a desired carrying capacity for land use activities.

c. examine soils, geologic, topographic, hydrologic, vegetation, fish and wildlife and other relevant natural resource data to determine opportunities or limitations created by these resources.
d. contain land use goals and policies which reflect the steps above (a, b, and c) and the desires of local residents as to the type, location and intensity of future land uses.
e. contain land use districts which reflect land use goals and policies.
f. assess the type, level and cost of public services required to support the desired pattern, type and intensity of future land use.
g. assess the effects of land development patterns on highway access and traffic flow.
h. identify public lands that should be sold or exchanged to the private sector to accomplish the objectives of the land use plan.
i. contain guidelines for treating conditional uses in a manner that assures consistent application and maintains the integrity of the land use plan.

2. Residential

a. Provide a variety of residential densities observing existing development and the potential for providing public services.

    1) Provide for higher density in and around developed areas.
    2) Determine legal obligation of counties to provide services in rural or remote areas. (assumes larger boundary)
    3) Recognize various levels of potential public services.

b. Consider locating future large scale residential development in already urbanized areas.

c. Provide for planned cluster developments with common water and waste disposal systems.

d. Discourage residential development in areas where slope, geologic, soil, erosion, or flood conditions impose hazards or excessive public costs.

3. Commercial

   a. Provide for the seasonal and year-round retail and service needs in a manner that is compatible with other land uses and the character of the area.

      1) Provide for new general commercial uses in a manner that strengthens existing service areas.
      2) Provide for location-dependent commercial uses such as resorts, ski areas, marinas, airports, etc. to meet standards for parking, screening, setbacks, etc. and to insure compatibility with adjacent uses and the highway corridor.

   b. Provide for high density commercial development in urban commercial areas where services are available.

   c. Establish appropriate standards for landscaping and screening new commercial development.

4. Industrial

   a. Encourage future heavy industrial development, including mineral processing activities and associated power generation, to locate in Duluth, Two Harbors, Silver Bay and Taconite Harbor where industry has already located along the North Shore.

   b. Provide for light industrial development which would not detract from the tourist economy and would be planned to harmonize with existing land use and the character of the Coastal Zone.

   c. Develop appropriate industrial standards proportionate to the potential impact of various types and intensities of industrial use that address siting, minimum service requirements, screening, noise, traffic generation, hours of operation and other industrial factors.

5. Coastal Dependent Uses

   a. Identify coastal dependent commercial and industrial uses that are likely to occur in the Coastal Zone and determine those which are most desirable and consistent with coastal zone land use policies. Coastal dependent commercial and industrial land use is defined as any commercial or industrial use that cannot exist if it is not located on the immediate shore of Lake Superior or cannot directly use Lake Superior water.

   b. Identify land areas best suited for desirable coastal dependent commercial and industrial uses.

   c. Assess methods of reserving suitable land areas for desirable coastal dependent uses.

6. Recreation

   Provide for local recreational facilities consistent with goals and policies contained in Section X of the Plan.

Implement: 1. Prepare and adopt necessary codes and ordinances to implement the provisions of the local land use plan including:

   a. zoning standards which include but are not limited to lot size; type of use; building height; bulk and density; setbacks; sign standards; conditional use criteria; floodplain controls; parking; screening; erosion control and soil management.
   b. health codes which include standards for solid waste disposal and transporation; recycling; sewage treatment and disposal; licensing of contractors and servicers; and permitting.
   c. standards for the use, appearance, operation and reclamation of sites used for the extraction of sand, gravel, rock and other materials. Standards should include setbacks; screening; noise; dust; hours of operation; drainage, waste disposal erosion and sedimentation control; transportation routes; safety precautions such as fencing; duration

of operation and rehabilitation of excavated land including slope stabilization, revegetation; wet pits and post-operational use.

d. subdivision regulations which include but are not limited to standards for lot and block numeration; dimensional notation and recording; external and internal traffic access and circulation; water treatment; sewage and waste disposal; protection of natural drainageways; re-subdivision, if appropriate; soil and topographic factors; lot size and configuration and setback.

e. standards for the management of shoreland areas within 1,000 feet of lakes and 300 feet of streams in accordance and consistent with ML 1969, Chapter 777 and Minnesota Regulations Conservation 70, including provisions for land use zoning districts; water supply; sewage and waste disposal; lot size; placement of structures on lots; shoreland alterations; subdivision regulations and general administration.

Policy: The potential long-range use of public lands be assessed.

Implement:

1. In developing land use plans, local units of government shall identify public lands that should be sold or exchanged to accomplish the objectives of their land use plan.

2. Public agencies shall assess lands and resources under their jurisdiction to determine the best use, management and ownership.

Policy: Public lands shall be managed to achieve their best use.

Implement:

1. Public land parcels best suited for private management and ownership shall be sold or exchanged for land of equal value, within the same county whenever possible.

2. All levels of government shall cooperate in a land sale or exchange program which balances local, state and federal land use policies.

3. Public agencies shall exchange lands when it would result in more efficient and effective resource management and public use.

Policy: Future acquisition of private land by public agencies shall be in accordance with published plans which have received public review and comment and shall minimize the negative effects on the local tax base.

Implement:

1. Public agencies shall prepare management plans for areas under their jurisdiction which clearly identify the intended use of those areas, outline the associated management and development activities and identify the actual land area required for that use, management and development.

2. Public agencies shall prepare an annual or biennial report of properties to be acquired. The agency shall file this report in the courthouse in each county, publish the report in local newspapers and notify all affected property owners.

3. Public agencies shall submit annual acquisition plans to PAC for review and comment.

4. For each additional private parcel purchased in fee simple by a state or federal agency, that agency shall offer to sell or exchange public land of equal value in the same county.

Policy: All public and private land use developments shall comply with all applicable local, state and federal standards and codes for setback, screening, building construction, soils management, sanitation, erosion control and other factors governing construction.

Implement: Public agencies shall notify local land use authorities of their proposed activities.

D. POLICIES AND AUTHORITIES RELATING TO LAND USE

1. State policies and authorities

a. Minnesota-Wisconsin boundary compact.

A Minnesota-Wisconsin Boundary Commission, the purpose of which is to conduct studies and develop recommendations relating to the present and future protection, use, and development of the lands, river valleys, and waters which form the boundary between the states is formed. The Commission is charged with considering and promoting the consideration by municipalities of joint regional planning for the development of boundary areas, programs for control of soil and riverbank erosion, and the general improvement of the river basins, and restrictions and regulation of land use development designed to preserve the scenic and recreational attributes of the river basin. (See Minn. Stat. §§ 1.31-1.40.)

b. Statewide comprehensive planning and land classification.

It is in the public interest that a statewide planning agency be created to engage in a program of comprehensive statewide planning. The planning agency shall act as a directing, advisory, consulting, and coordinating agency to harmonize activities at all levels of government. The state planning agency also has the authority to classify all public and private lands in the state with reference to the uses for which those lands are adapted. (See Minn. Stat. §§ 4.10-4.25; 92.35-92.36.)

c. Subdivided Land Sales Practices Act.

Subdivided lands, unless exempted, must be registered and meet federal and local environmental quality standards and state environmental standards which are established by the

Environmental Quality Board. (See Minn. Stat. §§ 83.20-83.42.)

d. Conservation restrictions.

The Commissioner of Natural Resources and certain non-profit charitable corporations may acquire by gift or purchase from private landowners conservation restrictions in the form of easements, covenants, or conditions, which are enforceable by injunction and which will be effective to retain land or water areas predominantly in their natural, scenic, open, or wooded condition, or as a suitable habitat for fish and wildlife. (See Minn. Stat. §§ 84.64-84.65.)

e. State parks.

A system of state parks is established and its management is vested in the Commissioner of Natural Resources. Under recently adopted legislative policies, the management of natural state parks shall seek to maintain a balance among the plant and animal life of the park and to re-establish desirable plants and animals formerly indigenous to the park area, and park use shall be primarily for aesthetic, cultural, and educational purposes, rather than designed to accommodate all forms of recreational use. Recreational state parks shall be administered to provide as broad a selection of opportunities for outdoor recreation as is consistent with maintaining a pleasing natural environment. (See Minn. Stat. §§ 84.027, 84.03; 85.011 et seq.; 86A.05(2)-(3)).

f. State forests.

A system of state forests is established and its management is vested in the Commissioner of Natural Resources. Under recently adopted legislative policies, state forests are administrated for growing, managing, and harvesting timber and other forest crops and for the establishment and development of recreational areas,

for the protection of watershed areas, and for the preservation and development of rare and distinctive species of flora and fauna. (See Minn. Const., Art. 11, § 11; Minn. Stat. §§ 89.001 et seq., 86A.05(7)).

g. Wildlife management areas.

Game refuges or wildlife management areas are established and their management vested in the Commissioner of Natural Resources. Under recently adopted legislative policies, wildlife management areas are to be administrated for the protection of those lands and waters with a high potential for wildlife production; for public hunting, fishing, and trapping; and for other compatible outdoor recreational uses. (See Minn. Stat. §§ 86A.05(8); 99.25 et seq.)

h. Flood plain management.

The public interest requires sound land use development, and the flood plains of the state are a land resource to be developed in a manner which will result in minimum loss of life and threat to health, and reduction of private and public economic loss caused by flooding. It is the state's policy to reduce flood damages through flood plain management, stressing such measures as zoning, flood proofing, and flood warning practices. DNR has established statewide standards specifying requirements for local zoning and subdivision ordinances applicable to the flood plains, floodways, and flood fringe areas. The regulation's set detailed structural standards for such areas. All counties and municipalities are required to have ordinances which comply with those standards for areas that are flood prone when the Commissioner of DNR finds there is sufficient data to determine the flood plain and floodway on a watercourse. (See Minn. Stat. §§ 104.01-104.08, Minn. Reg. NR 85-93.)

i. Wild and scenic rivers.

It is the state's policy to preserve and protect certain state rivers that possess outstanding scenic, recreational, natural, historical, scientific, and similar values. DNR may develop management plans for designated rivers, establishing allowable setbacks, struc-

ture heights, subdivision regulations, etc. Land use controls which comply with those plans must be adopted and enforced by local governments, and land may be acquired by the Commissioner of Natural Resources. General standards for such land use controls have been established by the department by regulation. (See Minn. Stat. §§ 104.31-104.40; 86A.05(10), Minn. Reg. NR 78-84.)

j. Shoreland Management Act.

It is in the public interest 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. All counties and municipalities are required to adopt shoreline management ordinances, which meet statewide standards, established by the DNR and governing the placement of structures, lot sizes, land uses, etc. Shorelands include lands within 300 feet of streams and rivers and within 1000 feet of lakes. The regulations require consideration in the land use zoning which includes: soils, geology and biological features; appropriate classification of land use districts; centralization of commercial development and industrial uses; ownership; natural and historic features and sanitary concerns. (See Minn. Stat. § 105.485, Minn. Reg. NR 82-84, Cons. 70-84.)

k. Minnesota Environmental Rights Act.

Each person is entitled to the protection, preservation, and enhancement of . . . land . . . located within the state and each person has a responsibility to contribute to its protection, preservation, and enhancement. It is the state's policy to create and maintain conditions under which man and nature can exist in productive harmony in order that present and future generations may enjoy . . . productive land . . . The act creates a civil action for any person to bring a lawsuit for the "protection of . . . land . . . located within the state . . . ." (See Minn. Stat. §§ 116B.01-116B.13.)

l. Power Plant Siting Act.

The EQB may designate power plant sites and powerline routes via certificates of compat-

ibility which will supersede all local controls, and such certificates must be issued in accordance with criteria established by regulation that will minimize adverse effects on the environment, including many land use related factors such as urban land uses and settlement, agricultural uses, recreational and historic lands, visual impact, natural systems and areas, soils and geology, and forest and mineral areas. (See Minn. Stat. §§ 116C.51-116C.69, Minn. Reg. MEQC 71-75.)

m. Minnesota Environmental Policy Act.

State government should use all practical means to assure for the people of the state aesthetically pleasing surroundings; 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; define, designate, and protect environmentally-sensitive areas; and prohibit, where appropriate, flood plain development in urban and rural areas. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental effects and prohibits any state action which is likely to cause pollution, impairment, or destruction of the . . . land . . . 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 natural resources. Land use effects are a significant factor in the decision whether an EIS is needed under EQB regulations implementing the EIS program. (See Minn. Stat. §§ 116D.01-116D.07, 6 MCAR §§ 3.021-3.047.)

n. Critical Areas Act.

The state should identify those areas possessing important historic, cultural, or aesthetic values, or natural systems which perform functions of greater than local significance, and assist and cooperate with local units of government in the preparation of plans and regulations for the wise use of those areas. The governor may desig-

nate critical areas upon the recommendation of the Environmental Quality Board, after which land use plans and regulations are prepared and enforced by local authorities with assistance from the state in compliance with minimal standards set by the state. Regulations providing general guidance on the critical areas process and the land use zoning requirements thereunder have been adopted by the EQB. (See Minn. Stat. §§ 116G.01-116G.14, Minn. Reg. MEQC 51-57.)

c. Historic sites and districts.

It is in the public interest to provide for the preservation of historic sites, buildings, structures, and antiquities of state and national significance. Certain sites, under various ownerships, are designated state historic sites and the state and other instrumentalities of government are prohibited from changing or altering the physical features or historic character of those sites without first obtaining the prior approval of the Minnesota Historical Society. Certain structures, sites, and open spaces of historical and architectural significance, which together combine to give such an area historic significance are designated state historic districts, and the governing bodies of the subdivisions of the state in which those districts are located are given the power to create boards or commissions to provide special zoning conditions for the districts to impose regulations governing their alteration and use, and to adopt other measures appropriate for their preservation and protection. (See Minn. Stat. §§ 138.51-138.65; 138.71-138.75; 86A.05(11)).

2. Municipal authorities

a. Municipal planning.

Municipal planning will assist in developing lands more wisely to serve citizens more effectively, will make the provision of public services less costly, and will achieve a more secure tax base. Municipalities are given the authority to prepare and adopt comprehensive municipal plans and to implement those plans through a variety of implementation measures. (See Minn. Stat. §§ 462.351-462.364.)

3. Township authorities

a. Township planning.

Townships may plan and zone, subject in some cases to the approval of the voters. (See Minn. Stat. §§ 394.33, 366.10-181; 368.01.)

4. County authorities

a. County planning.

Counties are authorized to prepare and adopt comprehensive plans and to implement those plans through a variety of implementation measures; to enter into agreements with the federal government for various programs of land conservation and utilization; and to enter into agreements with other counties for the conduct of regional planning activities. (See Minn. Stat. §§ 394.21-394.37; 375.471; 462.371.)

5. Other authorities

a. Soil and water conservation districts.

It is the state's policy to provide for the conservation of soil and soil resources and for the control and prevention of soil erosion, for land resource planning and development, and for the implementation of land resource use practices that effectively reduce siltation and loss of the land base through various activities. Soil and water conservation districts may be organized to conduct erosion control projects, and to develop a comprehensive plan for the conservation of soil and water resources. A district may provide technical assistance to landowners and request assistance from the state. (See Minn. Stat. §§ 40.005-40.15.)

b. Regional development commissions.

It is the policy of the state to facilitate intergovernmental cooperation and to insure the orderly and harmonious coordination of

state, federal, and local comprehensive planning of development programs for the solution of economic, social, physical, and governmental problems. Regional development commissions may be established by combinations of counties and municipalities. Such commissions may adopt comprehensive regional plans concerning physical, social, and economic needs, and may review the plans of local units of government and special purpose districts. (See Minn. Stat. §§ 462.381-462.397.)

VIII. SOLID WASTE

A. PROBLEMS AND ISSUES

1. The nature and extent of, and practices and procedures for handling hazardous and special wastes along the North Shore have not been determined.

2. The linear development pattern along the North Shore adds to the cost of solid waste collection and disposal. Wildcat dumping continues because some canisters or landfill sites are not accessible.

3. Land ownership patterns and poor soils limit the number of suitable landfill sites.

4. Due to large seasonal population fluctuations, solid waste facilities must be flexible, thereby adding to costs of providing and planning for such facilities.

5. Counties lack adequate funds to carry out and enforce comprehensive solid waste management programs. Unique factors of the Coastal Zone (see problems 2, 3, and 4 above) only add to the costs.

6. Solid waste generated at state and federal recreational facilities has not always been handled in a manner consistent with state standards.

7. Potential leaching problems from old dumps or existing sanitary landfills have not been examined.

8. Small, illegal dumps are appearing in Duluth due to lack of door-to-door collection, which is required by the county solid waste plan.

B. SOLID WASTE GOALS, POLICIES AND IMPLEMENTATION STEPS

Goal: A solid waste management program that is economically feasible, accessible to users, and consistent with the regional solid waste plan and state and federal laws and regulations.

Policy: Complete an evaluation of existing solid waste rules and regulations to determine whether they should be modified to reflect the low population densities in the Coastal Zone.

Policy: All public agencies comply with regulations governing collection, deposition, and transportation of solid waste.

Implement:

1. Prepare, adopt and implement procedures to improve refuse collection and disposal at state parks, waysides, rest areas, campgrounds and all other state facilities used by the public.

2. Prepare, adopt and implement procedures that consider seasonal variations in use, including the smelt season, and provide for adequate funding and manpower.

3. Determine the extent of leachate problems at closed dumps and at landfills and modified landfills so that proper controls and remedial measures may be taken if necessary.

Policy: Portions of the county solid waste management plans which apply to the Coastal Zone be eligible for CZM Section 306 funding for implementation.

C. POLICIES AND AUTHORITIES RELATING TO SOLID WASTES

1. Pollution Control Agency

The Pollution Control Agency is established to meet the variety and complexity of problems relating to water, air, and land pollution in the areas of the state affected thereby, and to achieve a reasonable degree of purity of water, air, and land resources of the state consistent with the maximum enjoyment and use thereof in furtherance of the welfare of the people of the state. The agency is charged with promoting solid waste disposal control by encouraging the updating of collection systems, the elimination of open dumps, and improvements in the incinerator practices. The agency is also directed to adopt standards for the control of the collection, transportation, storage, and disposal of solid waste for the prevention and abatement of water, air, and land pollution. The agency is further authorized to issue or deny permits, under such conditions as it may prescribe, for the collection, transportation, and disposal of solid wastes, or for the installation or operation of any system or facility related to the collection, transportation, or disposal of solid wastes. Regulations regarding solid waste have been adopted by the PCA. (See, Minn. Stat. §§ 116.01 - 116.11, Minn. Reg. SW 1-11, 75-79, 51.)

2. Solid Waste Disposal Facilities.

The Pollution Control Agency is authorized to classify facilities for the disposal of solid waste according to the degree of hazard to the public health or the environment involved in their operation, and according to the volume or hazardous character of solid waste disposed of at the facility. The agency may develop standards of competence for persons operating various classes of facilities for the disposal of solid waste. (See, Minn. Stat. § 116.41.)

3. Minnesota Environmental Policy Act.

State government should use all practical means to reduce wasteful practices which generate solid waste and should conserve natural resources and minimize environmental impact by encouraging the extension of product lifetimes, by reducing the number of unnecessary and wasteful materials practices, and by recycling materials which would conserve both materials and energy. MEPA requires an environmental impact statement for any major governmental action having the potential for significant environmental affects and prohibits any state action which 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 natural resources. (See Minn. Stat. §§ 116D.01 - 116D.07, 6 MCAR §3.)

4. Recycling of Solid Waste.

The legislature seeks to encourage both the reduction of the amount and type of material entering the solid waste stream and the reuse and recycling of the materials. It is declared that solid waste represents discarded material and energy resources, and it also represents an economic burden to the people of the state. The recycling of solid waste materials is one alternative for the conservation of material and energy resources, but it is also in the public interest to reduce the amount of materials requiring recycling or disposal. A grants-in-aid program is established to provide appropriations for regions, municipalities, or institutions for the development of resource recovery systems and programs to encourage solid materials conservation. The Pollution Control Agency is directed to promulgate rules for the administration of such grants-in-aid, and to advise and assist industry and business in providing and developing the packaging of containers consistent with the environmental policies of the state. In exercising its powers, the agency is directed to seek those alternatives which maximize the conservation of energy and materials while minimizing the environmental impact of the cost to the people of the state. It is directed to consider economic factors, including but not limited to,effects on the labor force. (See Minn. Stat. §§ 116F.01 - 116F.08, Minn. Reg. SR 1-6.)

Solid Waste Management.

In order to protect the state's water, air, and land resources so as to promote the public safety, health, welfare, and productive capacity of its population, it is in the public interest that counties conduct solid waste management programs. Counties are authorized to establish solid waste management programs and to promulgate rules, regulations, and standards for solid waste management and pollution. The counties are further directed to cooperate with the Minnesota Pollution Control Agency in the development and implementation of systems for the recovery and use of materials and energy from solid waste, and toward that end, shall modify applicable county ordinances consistent with the rules, regulations, and standards of the agency concerning that subject. (See Minn. Stat. §§ 400.01 - 400.17.)

6. Municipalities and Rubbish Disposal.

Statutory cities are authorized to provide facilities for rubbish disposal and to regulate such disposal by ordinance. (See Minn. Stat. §§ 412.221(22); 443.015 - 443.35.)

EM

IX. ECONOMIC DEVELOPMENT

A. PROBLEMS AND ISSUES

1. Industrial development opportunities are hampered because:

   a. the area is remote from large consumer markets,
   b. transportation options are limited,
   c. the employment pool is small and skills may be limited to certain areas of expertise, i.e., mining, forestry,
   d. the demand for wood products used in the paper industry is currently very low, and
   e. the potential for mining is unknown.

2. Commercial development opportunities are hampered because:

   a. the area is remote from large consumer markets,
   b. transportation options are limited,
   c. existing primary industry is limited.

3. The lack of a diversified economic base is a major long-term problem on the North Shore. Major full-time employment currently depends on extractive resource type industries which has created single industry communities.

4. Because of limited industrial and commercial development, there is a strong reliance on seasonal activities such as forestry and tourism, in some parts of the Coastal Zone.

5. Some North Shore residents are under-employed due to the lack of full-time employment opportunities.

6. The nature and extent of economic opportunities, including tourism, along the North Shore have not been adequately determined.

B. ECONOMIC DEVELOPMENT GOALS, POLICIES, AND IMPLEMENTATION STEPS

Goal: A stable year-round economy with employment opportunities for the existing North Shore labor force, increased economic security for residents and economic flexibility for local units of government.

Policy: The efforts and capabilities of private interests and federal, state and local agencies involved in economic development be coordinated.

Implement:

1. Analyze the economic development opportunities of the Coastal Zone and develop a strategy which reflects the geographic location, labor force characteristics, natural resouce base, land use, transportation and other potentials of the area.

2. Utilize this strategy in referring prospective developers to the North Shore area at the state level and to assist in prioritizing the use of development grants and loans at the federal level.

3. Develop procedures for more effectively delivering economic development technical services and funding to local units of government including the evaluation of costs and benefits of economic development and the funding of public services such as sewer and water.

4. Develop a cooperative program for better informing visitors to the Coastal Zone of the recreational opportunities.

   a. develop materials which better inform North Shore visitors of the public and private recreation opportunities.

   b. study the feasibility of building and operating a visitor center at Pigeon River and other locations.

C. POLICIES AND AUTHORITIES RELATING TO ECONOMIC DEVELOPMENT

1. Pollution Control Agency.

In exercising its powers, the Pollution Control Agency is directed to give due consideration to the establishment, maintenance, operation, and expansion of business, commerce, trade, industry, traffic, and other economic factors and other material matters affecting the feasibility and practicability of any proposed action, including, but not limited to, the burden on a municipality of any tax which may result therefrom, and it is further directed to take or provide for such action as may be reasonable, feasible, and practicable under the circumstances. (See Minn. Stat. §116.07(6).)

2. Minnesota Environmental Rights Act.

The Minnesota Environmental Rights Act creates a civil action for any person to bring a lawsuit for the protection of air, water, land, or other natural resources located within the state, and further provides that economic considerations alone shall not constitute a defense to such a lawsuit. (See Minn. Stat. §§ 116B.01 - 116B.13.)

3. Minnesota Environmental Policy Act.

The Minnesota Environmental Policy Act prohibits any state action which 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 natural resources. It further provides that economic considerations alone shall not justify such conduct. (See Minn. Stat. §§ 116D.01 - 116D.07.)

4. Iron Range Resources and Rehabilitation.

The Office of Commissioner of Iron Range Resources and Rehabilitation is created, and an Iron Range Resources and Rehabilitation Board is created. Whenever the Commissioner or Board shall determine that distress and unemployment exist or may exist in the future in any county by reason of the removal of natural resources or a possible limited use thereof in the future and that the decrease in employment will result therefrom, they are authorized to take certain actions with regard to appropriations and property acquisitions for the purpose of developing the remaining resources of the affected county and for the purpose of promoting the vocational training and rehabilitation of the county's residents. (See Minn. Stat.§ 298.22.)

5. Regional Tourism Development Credit Corporations.

Provision is made for the creation of regional tourism development credit corporations for the purpose of assisting, encouraging, developing, and advancing the tourist and recreational business and the prosperity and economic welfare of the state; for the purpose of encouraging and assisting in the location of new tourist and recreational businesses in the state and for rehabilitating the existing tourist and recreational businesses; and for the purpose of stimulating and assisting in the expansion of all kinds of tourist and recreational activities which will tend to promote the tourist and recreational development and maintain the economic stability of the state, while providing maximum opportunities for employment. (See Minn. Stat. §§ 301A.01 - 301A.14.)

6. Rural Development Finance Authorities.

Any county or combination of counties is permitted to establish a rural development financing authority for the purposes of, inter alia, promoting new job opportunities through the development of natural resources and the agricultural industry by cooperating with private companies and with agencies of the federal and state governments and with agencies and political subdivisions of other states and of foreign nations to engage in the processing of agricultural products. (See Minn. Stat. §§ 362A.01 - 362A.08.)

7. Economic Development Department.

A department of economic development is established to investigate and undertake means of promoting the prosperity, development, and protection of the legitimate interests and welfare of Minnesota business, industry, and commerce; to locate markets for manufacturers and processors and to aid merchants in locating and contacting markets; to investigate and disseminate information concerning the conditions affecting Minnesota business; to conduct research to further new and more extensive uses of the natural and other resources of the state and to develop new products and industrial processes; to serve as a clearing house for business and industrial problems of the state; to encourage and develop commerce with other states and foreign countries; and to cooperate with interstate commissions engaged in formulating and promoting the adoption of interstate compacts and agreements helpful to business, industry, and commerce. The department is also directed to advise and cooperate with municipal, county, regional, and other planning agencies within the state for the purpose of promoting coordination between the state and localities as to plans and development in order to maintain a high level of gainful employment in private profitable production and to achieve economic advancement in social and cultural welfare. (See Minn. Stat. §§ 362.07 - 362.40.)

8. County Agricultural Development.

County boards are authorized to appropriate money to any incorporated development society or organization of the state which, in the opinion of the board, will use such money for the best interests of the county in promoting, advertising, improving, or developing the economic and agricultural resources of the county, and such other matters as may tend to the development of the county. (See Minn. Stat. § 395.08.)

9. Port Authorities.

A commission known as "Port Authority of _____" is established in and for every city of the first class situated upon, or adjacent to, or embracing within its boundaries, in whole or in part, a port or harbor located on a navigable lake or stream. It is the general duty of any such port authority to promote the general welfare of the port district, and of the port as a whole; to endeavor to increase the volume of the commerce thereof; to promote the efficient, safe, and economic handling of such commerce; and to provide or promote adequate docks and railroad terminal facilities open to all upon reasonable and equal terms for the handling, storage, care, and shipment of freight and passengers to, from, and through the port. (See Minn. Stat. §§ 458.09 - 458.1991.)

10. Area Redevelopment Act.

The legislature finds that there exist in the state certain areas of substantial and persistent unemployment causing hardship to many individuals and their families and that there exist certain rural areas where development and redevelopment should be encouraged; that to overcome the problem, the powers and facilities of the state government and local communities, in cooperation with the federal government, should assist rural areas and areas of substantial and chronic unemployment in planning and financing economic development by private enterprise. It further finds that economic insecurity due to underdevelopment and unemployment or under-employment in certain regional or local areas of the state can be eliminated by the promotion, attraction, encouragement, and assistance of commerce, industry, and manufacturing in such areas. Provision is made for a municipality or group of municipalities to establish a public body to be known as the local or area redevelopment agency for the purpose of promoting a development project. (See, Minn. Stat. §§ 472.01 - 472.16.)

11. Municipal Development Districts.

The legislature finds that there is a need for new development in areas of municipalities which are already built up to provide employment opportunities, to improve the tax base, and to improve the general economy of the state. Municipalities are authorized to develop a program for improving such districts to provide impetus for commercial development; to increase employment; to protect pedestrians from vehicle traffic and inclement weather; to provide the necessary linkage between the peripheral parking facilities and places of employment and shopping; to provide off-street parking to serve the shoppers and employees of the district; to provide open space relief within the district; and to provide other facilities as are outlined in the development program adopted by the governing body. (See, Minn. Stat. § 472A.01 - 472A.13.)

12. Municipal Industrial Development Act.

The legislature finds that the welfare of the state requires promotion, attraction, encouragement, and development of economically sound industry and commerce through governmental actions for the purpose of preventing, so far as possible, the emergence of blighted and marginal lands in areas of chronic unemployment. It is the policy of the state to facilitate and encourage action by local government units to prevent the economic deterioration of such area to the point where the process can be reversed only by total redevelopment through the use of local, state, and federal tax funds. The legislature further finds that a primary factor necessitating such action is technological change in agriculture, mining, forestry, and other traditional industries of the state. The legislature further finds that unless existing and related industries are retained and new industries are developed to use the available resources in each community, a large part of the existing investment of these communities and of the state as a whole in educational or public service facilities will be lost. The Municipal Industrial Development Act grants to municipalities and redevelopment agencies the powers in addition to those prescribed elsewhere by the laws of the state, for the purpose of aiding in the redevelopment of the existing areas of blight, marginal land, and substantial and persistent unemployment. These powers include the powers to issue revenue bonds, to enter into agreements with other municipalities, political subdivisions, and state authorities for planning, constructing, leasing, purchasing, mortgaging, or otherwise acquiring redevelopment projects. (See Minn. Stat. §§ 474.01 - 474.15.)

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X. OUTDOOR RECREATION

Introduction

As part of the Coastal Zone Management Program, the Department of Natural Resources conducted a North Shore Recreation Study. The primary purpose of this study was to evaluate the recreational potential of local, state, federal and private facilities and recommend how they might be improved and coordinated.

Public lands were studied as to their location and accessibility by various means of transportation; their natural characteristics such as wildlife suitability, vegetation types, soils and topographic relief; their recreational features, both natural and historical; existing types and numbers of recreational facilities, and problems related to management for recreation. Patterns of use were determined through interviews with local residents, resort and private campground owners, and state and federal agency personnel familiar with local conditions. Park attendance figures over a five year period, University of Minnesota Extension Service Reports, DOT studies, and various economic studies for the region also helped define the long-term trends.

Study recommendations deal with the overall role each existing facility should play in satisfying a portion of the North Shore recreational demand, how each facility should be managed, the agency best suited to manage it and proposed new sites, if required, to serve certain recreation demands in the future. In determining the type of management best suited to the various publicly-owned areas on the North Shore, the study considered:

a. the relationship between privately-owned recreational facilities and publicly-owned lands;

b. the type of management that is deemed most appropriate for specific resources by resource managers; and

c. the total range of public and private recreation lands and facilities within the study area.

The recommendations emphasize the need for greater cooperation between various public agencies as well as the public and private sectors. Major recommendations have been incorporated into this section as policies or implementation steps. They will serve as the basis for monitoring consistency with the CZM Plan and serve as guidelines to state agencies in developing more detailed management plans for specific state parks, forests, wildlife management areas and rest areas.

Local involvement played a major role in the development of the study and its recommendations. Many meetings were held during the study to determine local perceptions of recreational issues. Following the preparation of a draft study report, two sets of informational meetings were held in Two Harbors, Grand Marais, Lutsen, and Finland. These meetings were publicized in area newspapers.

A. Recreation Problems and Issues

General

1. Planning for the use of public lands for recreational use must be coordinated with recreational activities provided by the private sector.

2. A large portion of public lands are not being actively managed while others suffer from over-use.

3. Publicity for the north shore is insufficient. More visitor centers are needed.

4. The recreational loading factor along the north shore is a problem. There is a need to know at what point over-saturation or over-utilization of the natural resources occurs.

State Parks

1. Many of the existing parks are being over-used and there is a lack of adequate controls. Campers often use areas for overnight camping which are not designated for this type of use. Vandalism and littering, during the peak of the summer season, are deteriorating the beauty of the present parks and the shore.

2. There is a shortage of facilities at the existing parks. More picnic tables, benches, toilet facilities, and better information about how to use the park are needed.

Trails

1. There is a need for more and better maintained trails, especially bicycle trails, long distance cross-country ski trails, and backpacking trails.

2. Coordination of trail development is needed, especially in the linking of trails with other adjacent trails, service nodes, and recreational clusters.

3. Lack of coordination in trail development has led to extension of trails rather than their proper maintenance. Currently, many are in a state of disrepair.

Boating

1. Demand for recreational boating within the coastal zone is increasing. Currently, existing facilities do not match the demand. More small boat harbors and harbors of refuge are needed and current access sites improved.

Rivers and Lakes

1. Concentrations of fishermen during the spring smelt run create congestion and enforcement problems for local residents. Associated concerns include camping in non-designated areas and roadside parking.

State Forests

1. State forest properties need to be evaluated for future recreational use.

2. Forest management policies could conflict with aesthetic or recreational goals, i.e., the use of clear cutting.

3. Several problems can occur when using state forests for recreation: fire danger, damage to trees and unsurfaced roads during wet periods from snowmobile and four wheel drive vehicles.

Highway Rest Areas

1. The no-camping policy needs to be enforced in the waysides.

2. More rest room facilities are needed, and they are inadequately marked.

3. Improvements are needed in the maintenance of existing waysides; Garbage cans are not emptied.

4. Coordination needs to be improved between DNR and DOT in developing and maintaining rest areas.

5. Additional modernized rest areas are needed as well as upgrading existing waysides by adding modern facilities.

Roads and Recreation

1. The North Shore attracts a great volume of sight-seeing traffic. The impact of the crowds of tourists has had adverse effects on the flow of the daily commercial traffic in the area. It also has detracted from the quality of experience of those tourists currently using the area.

2. Future planning of T.H. 61 needs to be coordinated with recreational interests so that safe, efficient, commercial and commuter traffic can co-exist with the pleasure driving of tourist traffic.

Scientific and Natural Areas

1. Fragile areas need to be identified and management policies developed accordingly.

Interpretive Programs

1. There are few interpretive programs along the North Shore. More are needed.

Miscellaneous

1. Swimming areas are needed along the North Shore, especially ones with lifeguards.

2. Winter recreation activities need to be promoted.

3. Support facilities for state parks are now funded by the local people - law enforcement, health care, and ambulance facilities. The counties bear the burden of providing these facilities for tourists from all over the state.

4. There is no clear policy on use of park gravel by the public.

5. There is inadequate collection and storage of solid waste within the parks and waysides.

B. Goals, Policies and Implementation Steps

Goal: To provide diverse, year-round opportunities for public recreation by integrating public recreation programs with those of the private tourism service industry. Diverse opportunities range 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.

Policy: Strengthen the communications link among federal, state and local recreational agencies and the tourism industry to broaden understanding of the roles, capabilities and plans of each and to achieve the best planning, development, operation, maintenance, protection and visitor use of coastal zone recreational resources.

Implement:

1. Periodically hold joint meetings between respective agency staffs to disseminate program information and to provide opportunities to comment on plans prior to final approval.

2. Hold periodic meetings of agency personnel, local officials and private entrepreneurs to keep each other informed of plans and programs and provide a forum for discussing issues of mutual concern.

3. Develop an information distribution system to enable state agencies and local governments to notify concerned parties of proposed actions.

4. Establish a liaison position to maintain communiciations and provide current information on proposed programs and projects.

5. Formalize decisions which affect more than one agency through written agreements.

Federal Recreation Goals, Policies and Implementation Steps

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 shall 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.

Implement:

a. Provide a fair share proportion of the varied recreational experiences appropriate to the Superior National Forest.

b. Encourage, cooperate and avoid competing with private industry or other public agencies in providing new, highly developed recreation facilities.

c. Complete development of existing national forest recreational facilities to achieve optimum site utilization.

d. Restrict Lakeshore development to those lakes, or portions thereof, that can support facilities with acceptable environmental impact.

e. Evaluate for closure under-utilized and/or high-cost recreation facilities, which do not offer a better than average recreation experience. Forest supervisors will perform indicated closure(s).

f. Establish criteria for the protection of undeveloped lakes and rivers.

g. Establish, as needed, regulations to control motor vehicle access to lakes.

h. Coordinate the design and management of facilities (roads, trails, buildings, etc.) with the recreational experience level selected for the particular area.

i. Consider constructing new downhill skiing facilities in the Superior National Forest provided environmental procedures support such a project.

j. Plan and develop trails to meet the needs of a variety of uses. Where possible, design trails to allow compatible uses on the same trail (e.g., horses during the summer, snowshoeing during the winter). Where conflicting uses (e.g., cross country skiing/snowmobiling) occur during the same season, trails shall be designed for, and use limited to, a specified use.

k. Construct a limited number of bicycle trails to test the demand for this type of forest recreation.

l. Provide trails and/or areas where off-road vehicles are allowed.

m. Consider a carry-in/carry-out policy where refuse facilities are not provided.

n. Provide visitor information services 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 shall be coordinated with those services provided on the state level as to material content and dissemination.

Department of the Interior

Implement:

1. 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 shall:

   a. 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; and

   b. 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.

3. The Bureau of Land Management shall;

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

b. Will manage and protect, in both its marine and upland management programs, the cultural resources under its jurisdiction or control and avoid inadvertent loss or destruction of cultural resources.

c. Plan, design, and implement resource management activities in a manner which minimizes adverse effects on the visual resource.

d. Manage national resource lands to protect representative areas of unique and/or typical natural history resources.

Corps of Engineers

Implement: 1. Coordinate implementation of the Harbor of Refuge Program and Small Boat Harbor Program with state and local recreation programs.

State and Local Recreation Goals, Policies and Implementation Steps

Policy: When requested, the state shall assist private enterprise in developing high quality recreation facilities by providing technical assistance.

Policy: Provide for the management, protection and development of appropriate support facilities and visitor use programs at all state recreational areas.

Implement: 1. Prepare management plans for administering all state facilities, as required by the Outdoor Recreation Act of 1975.

2. Give highest priority to the development, maintenance, and general upgrading of existing state facilities and assure that all improvements comply with state fire, safety and building codes and state health and pollution standards.

3. Adopt an architectural theme for state facilities which combines styling and materials in keeping with the North Shore environment.

4. Develop facilities for the handicapped where such use is feasible and explore new designs that enable the handicapped to participate in more activities.

5. Provide facilities on public lands which minimize the competition with privately-owned facilities.

6. Where appropriate, provide access by all segments of the population to all public trails and facilities. Such access should be rated according to the Accessibility Rating System contained in the Trails Section of the North Shore Recreation Study and provided in a manner that does not cause undue alteration of the site. Encourage private trail owners to utilize the rating system.

State Parks

Policy: Acquisition of land within state parks should be consistent with the philosophy of improving park management through consolidation.

Implement: Whenever possible, parcels within legislatively authorized boundaries of state parks should be acquired through land exchanges.

Policy: Development of camping facilities should be coordinated between the state and the private sector.

Implement: The state should provide camping when the private sector cannot and should continue to provide the type of camping that the private sector cannot afford.

Policy: State parks shall be developed in a manner which:

--is appropriate to the natural characteristics of the park;
--is coordinated with development in state forests;
--is coordinated with the private recreational/tourism industry;
--protects areas closest to the Shore that are less suitable for development than areas further inland;
--provides for more primitive camping and backpacking;
--does not provide uses normally associated with rest areas;
--considers, and where appropriate utilizes power line right-of-way;
--considers the provision of access links to the North Shore Trail;
--provides for passive interpretive/educational experiences.

Implement: State park management plans shall reflect the above considerations.

Policy: Development of sewage systems in state parks should emphasize experimental or new technology systems and the results of these systems should be made available to local residents.

Implement:

1. The DNR, in cooperation with PCA, should experiment with different sewage disposal systems and publicize the results.

2. Seek funding for the immediate upgrading of sanitary facilities and water systems at Gooseberry River State Park, Split Rock Lighthouse State Park, Baptism River State Park and Cascade River State Park.

3. At a minimum, on-site sewage disposal systems should comply with county sanitation ordinances and PCA's regulation WPC-40.

Policy: State parks will serve as experimental sites for applying the Trail Accessibility Rating System.

Trails

Policy: Coordinate trail planning and development in the coastal zone.

Implement:

1. Provide a forum for discussing public and private trail plans.
2. Offer the expertise of public agencies in trail development and maintenance to private enterprise.
3. Inform local citizens and officials of the state Grant-in-Aid Trail Program which provides funding for trail development and maintenance.

Policy: Develop long distance corridor trails which accommodate multiple use, are serviced by adequate collateral facilities, and are located so that major population centers are linked and scenic vistas preserved.

Implement:

1. Complete construction of the North Shore Trail to Grand Portage. Trail links should connect service areas, multiple-season recreation nodes and state parks as recommended.
2. Locate trail service nodes at Duluth, Two Harbors, Silver Bay, Schroeder, Grand Marais and Grand Portage.

Policy: Develop trail systems which expand public understanding and enjoyment of coastal zone resources and are compatible with the coastal environment.

Implement:

1. Develop a separate system of trails for hiking and ski touring which connect Crosby-Manitou State Park, Finland State Forest and Baptism River State Park.

2. Extend existing backpacking trails in Crosby-Manitou State Park and Judge C.R. Magney State Park to provide longer backpacking experiences.

3. Develop trails, primitive campsites and hike-in picnic areas at scenic locations along river fall zones.

4. 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.

5. Develop trails for bicycle use along T.H. 61 and at other appropriate locations.

6. Develop trails at Class II Rest Areas which are accessible to the handicapped whenever possible.

7. Develop trails to provide access to publicly owned beaches which are not susceptible to damage.

8. Prepare trail guides for self-guided trail interpretation.

Policy: State trails shall be developed in accordance with the following guidelines:

a. Trails should be designed so that they are capable of being maintained by a standardized maintenance system.

b. All publicly-owned trails should be located on public land wherever legally possible.

c. Ski-touring trails should be developed in accordance with the Ski Touring Trail Rating System. Trails, other than ski-touring trails, should be developed according to the Trail Accessibility Rating System.

Boating

Policy: Facilities for recreational boating in Lake Superior shall be promoted and enhanced.

Implement:

1. Develop authorized small boat harbors at Silver Bay, Schroeder and Grand Portage.

2. Harbors of refuge should be developed according to the following priorities:

   First priority - Split Rock River
   Bluebird Landing

   Second priority - Lutsen
   Sugarloaf Landing

   Third priority - Pork Bay
   Temperance River

   Fourth priority - Good Harbor Bay
   Baptism River

3. Existing public access sites, both pedestrian and vehiclular, should be improved through the addition of hard surfaced ramps and parking areas.

Policy: Coordinate development of service areas for the proposed small boat harbors with the development of trail service facilities to avoid duplication.

Implement: Develop service areas at Duluth, Two Harbors, Silver Bay, Schroeder, Grand Marais and Grand Portage.

Policy: Boating use of North Shore streams should not be encouraged or developed except on the St. Louis River.

Implement: DNR shall not provide any facilities for boating on North Shore streams except on the St. Louis River.

Policy: Due to high construction costs, the need for boating facilities shall be weighed against the need for other types of recreation facilities.

Implement — Feasibility studies should be conducted to determine the actual need for each additional harbor beyond those authorized at Schroeder, Silver Bay and Grand Portage. Such studies should consider the user analysis done by the Minnesota Marine Advisory Service and any data which subsequently becomes available.

Policy: Potential access and harbor sites should be carefully evaluated to determine the probable impacts of future development.

Rivers and Lakes

Policy: 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.

Implement:

1. Develop management plans and rules and regulations for any designated wild and scenic river.

2. DNR should coordinate plans for wild and scenic rivers in the coastal zone with the coastal zone plan and the Policy Advisory Committee.

Policy: Improve opportunities for recreational fishing.

Implement:

1. Accelerate fisheries management, including the development or redevelopment of appropriate fishermen access sites, on the following rivers:

St. Louis River	Lester River
Stewart River	Gooseberry River
Sucker River	Baptism River
Knife River	Temperance River
Silver Creek	Devil Track River
Split Rock River	Brule River
Beaver River	French River
Talmadge River	

2. Consider fisheries management programs for trout streams in Duluth.

3. Coordinate the stream easement acquisition program with the accelerated fisheries management program and cooperate with private land owners to discourage trespassers where stream easements cannot be obtained.

4. Design and develop the DNR Fisheries Division property at Knife River in a manner that provides for the needs of recreational shore fishermen while meeting local interests.

5. Apply shoreland management ordinances in a manner that is consistent with fisheries management objectives.

Policy: Provide adequate public access to Lake Superior, streams and beaches in relationship to the characteristics of these areas.

Policy: Continue and upgrade, if necessary, the cooperative program between DNR, the State Highway Patrol and local officials and groups designed to alleviate problems associated with the smelting season. Local government should be reimbursed for equal costs incurred as a result of program participation.

State Forests

Policy: Develop the full potential of state forests for outdoor recreation, consistent with other established purposes for forest management.

Implement:

1. Integrate dispersed types of recreation with timber management where there is potential for both uses.

2. Conduct as soon as possible, a Phase II Intensive Inventory of the Finland, Grand Portage, Cloquet and Pat Bayle State forests.

3. Conduct a recreation demand study to determine the needs that can be provided for by state forests.

4. Evaluate forest areas with high wildlife and recreation values for cooperative management similar to the Cascade Area.

5. Investigate the potential of the Horseshoe Bay Area as a state forest recreation site.

6. Investigate state forest boundaries to determine the most manageable unit configuration.

7. Manage state forest lands along all major recreation routes to maintain high scenic quality.

Highway Rest Areas

Policy: To provide an adquate system of highway rest areas for visitor safety and comfort, information dissemination and appropriate visitor use of associated recreational resources.

Implement:

1. DOT shall

   a. Develop a Class I Rest Area at the Pigeon River entry on the Canadian Border.
   b. Upgrade existing rest areas at Knife River and Mt. Josephine to Class II standards.
   c. Develop new Class II Rest Areas at Split Rock River, Baptism River, Tofte and Cut Face Creek.
   d. Review turn lanes and monitor traffic at rest areas.

2. County and municipal rest areas and information centers should be organized into a coordinated system which complements the state rest area system and enhances the scenic character of T.H. 61.

Roads and Recreation

Policy: Coastal highways should be developed and maintained to decrease safety hazards and enhance the scenic and recreational facilities of the area.

Implement:

1. Upon DNR's request, DOT should review and monitor areas on T.H. 61 where pedestrian congestion or sight distances create a hazard, including Gooseberry, Cross River and Temperance River State Parks.

2. DOT shall undertake and implement another design study of T.H. 61 in cooperation with DNR. Implementation of the study should begin in the biennium beginning July 1, 1979. State and local agencies should cooperatively develop design and construction guidelines specific to the North Shore at the beginning of the design study. The design guidelines should include a system of loop routes which would provide access to other recreational opportunities, relieve traffic congestion by providing an alternate recreational route, or serve as an emergency route in case of bridge washouts, or other disasters.

3. Plan and develop bicycle routes along area roads.

4. Vigorously enforce existing speed limits and control pedestrian circulation on T.H. 61.

5. Develop and map an inventory of significant T.H. 61 views and vistas.

6. Clear vegetation along T.H. 61 in a manner that protects the character of the site and retains protective screening of adjacent properties.

7. Screen vistas which create an unsafe attraction at critical points along T.H. 61 such as curves or provide other safety protection.

8. Adequate turn-off lanes should be studied and developed at Temperance and Cascade River State Parks and considered for Judge C.R. Magney and Baptism River State Parks when and if they are developed.

Scientific and Natural Areas

Policy: Establish a system of scientific and natural areas on public lands along the North Shore to protect the rare and unique resources of the area for research and education.

Implement:

1. Evaluate the CZM inventory of potential scientific and natural areas to determine those worthy of designation.

2. Prepare and implement management plans and interpretive programs for designated sites.

Interpretive Program

Policy: Provide interpretive programs to explain and broaden the understanding and appreciation of natural and cultural resources.

Implement:

1. Expand existing interpretive programs in state parks and develop new programs where none now exist. Interpretive programs should also be developed for other state lands as appropriate.

2. Form a committee of private citizens and local, state and federal agency representatives to coordinate the development of a regional interpretive program covering public and private resources.

3. Develop interpretive displays in conjunction with the proposed Class II Rest Areas at Knife River, Split Rock River, Baptism River, Tofte, Cut Face Creek and Mt. Josephine.

4. Form a committee of private citizens and local, state and federal agency representatives to coordinate the development of a regional interpretive program.

5. The DNR should develop basic interpretive packages for state lands which will complement federal, local and private facilities.

6. Expand the interpretive program at Gooseberry Falls State Park. Develop a program as soon as possible for Cascade River State Park. Similar programs at Baptism River, Temperance River and Judge C.R. Magney State Parks should be instituted as these parks are developed.

7. Develop a Species Richness Experimental Program near Kodonce River State Park. This program would be used to validate the ecological community/species richness matrix.

8. Use the ecological community/species richness matrix as a guide by wildlife managers, interpretive naturalists and foresters in their respective programs.

Policy: State interpretive centers should be designed to allow for shared space by various state agencies offering interpretive programs.

Miscellaneous

1. Recreation Data

a. Conduct a vegetation inventory of state forests to provide supplemental information to that commonly gathered in forest inventories.

b. Conduct a micro-climate study of the North Shore to provide additional localized data on precipitation, temperature, winds and other factors pertinent to recreation development.

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

d. Establish a clearinghouse for projects, studies and data pertaining to the North Shore. A possible location for this facility is the University of Minnestoa-Duluth with a branch at either Temperance River or Baptism River State Parks.

2. Publicity and Promotion

Develop a publicity/information program which would provide the traveler with information on available facilities, distances, rates, type of accommodations and recreational opportunities along the Shore. This information could be disseminated through the Tourism Division of the Department of Economic Development, the Minnesota Arrowhead Association, other local groups and through sign malls, information plazas, and rest areas.

3. Cooperative Maintenance

a. A system of maintenance zones should be developed along the North Shore to coordinate maintenance and management activities of DOT and DNR.

b. Plans for development of a Class A maintenance shop by DNR should be coordinated with the DOT shop facility.

4. Waste Disposal

a. The DNR and DOT should continue to work with the counties on developing equitable cost formulas for the collection and disposal of solid waste from all state facilities by the county.

b. The DNR and DOT should work with the counties to develop a solid waste collection/disposal system which provides the most efficient level of service. The agencies should seek funding within their budgets to assist in developing such a system.

c. Facilities for dumping the sewage holding tanks in travel trailers should be provided by the private sector as well as the state. To minimize competition, the state should only provide dumping facilities where the private sector cannot or does not wish to meet the demand.

5. Energy Conservation

State recreation development should be designed to stress energy conservation.

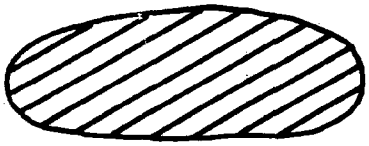
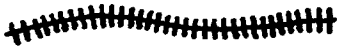
6. Future large-scale recreation developments

a. Consideration should be given to the development of a major park/recreation area adjacent to the High Falls of the Pigeon River.

b. If needed in the future, a committee comprised of representatives from the private sector and state and local agencies should be established to develop recommendations for the development of a cooperative recreation system for the Tettagouche Area.

c. If needed in the future, a cooperative recreation system should be developed for the Caribou Lake/Lake Agnes area in Cook County through the combined efforts of local citizens and state and federal agencies.

KEY TO FIGURE 2-2 RECREATION FACILITIES

Facilities	Existing	Proposed
Small Boat Harbor		
Harbor of Refuge		
Access		
Rest Areas		
Class 1		
Class 2		
Service Node		
Corridor Trail		
Recreational Cluster		
Priority Fisheries Management (Rivers)		
Trail Linkages (Generalized)		

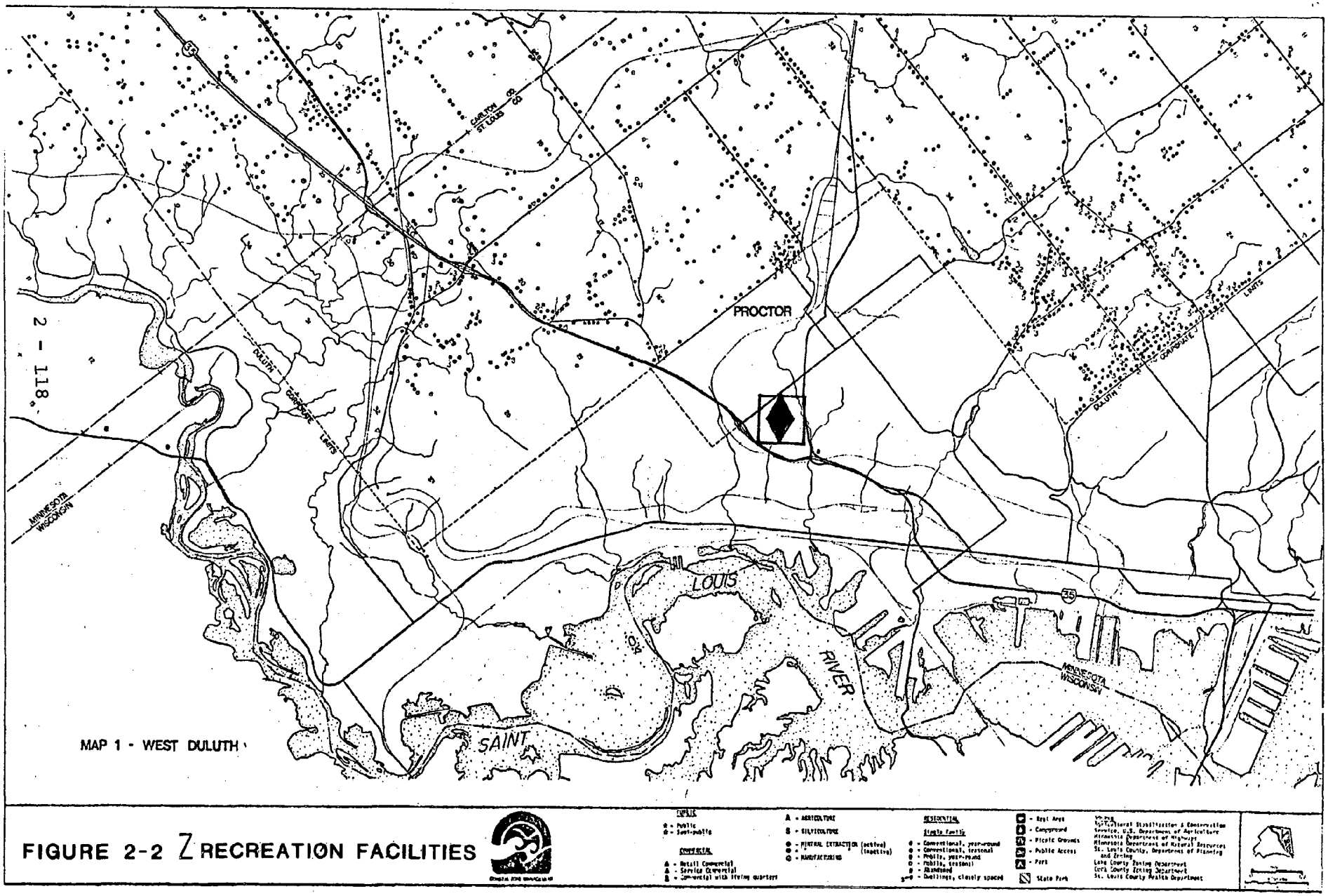


FIGURE 2-2 RECREATION FACILITIES

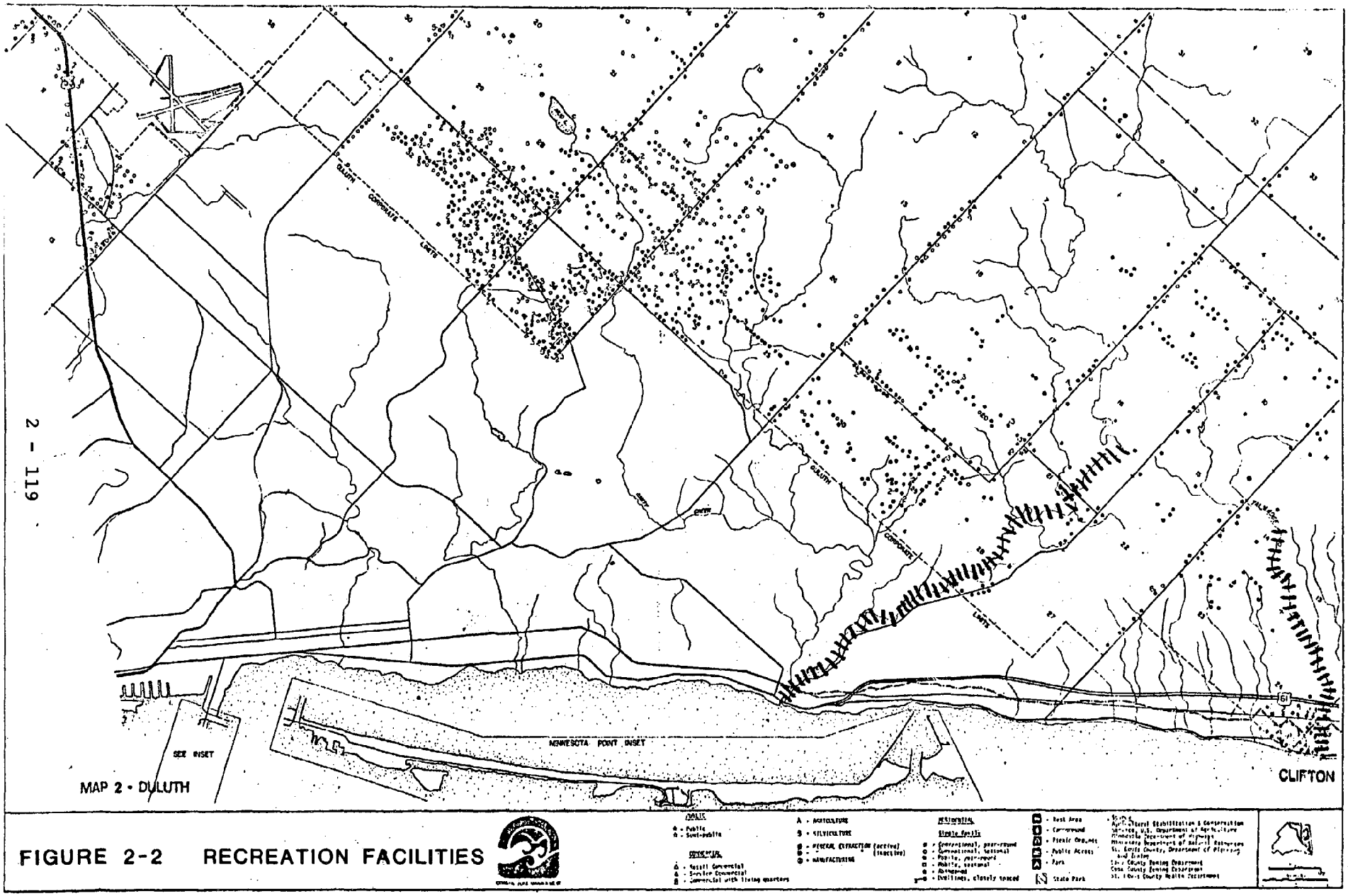


FIGURE 2-2 RECREATION FACILITIES

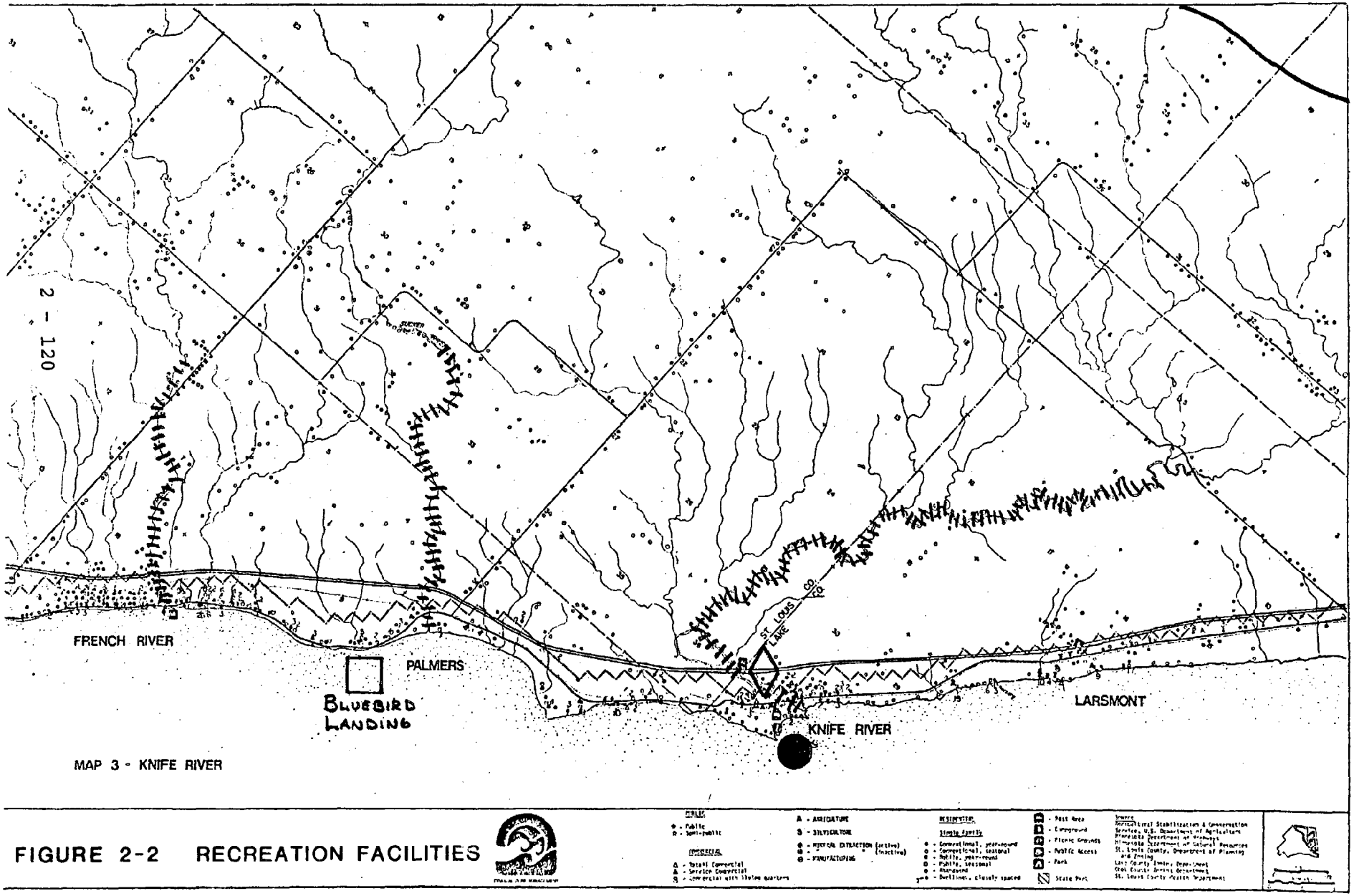


FIGURE 2-2 RECREATION FACILITIES

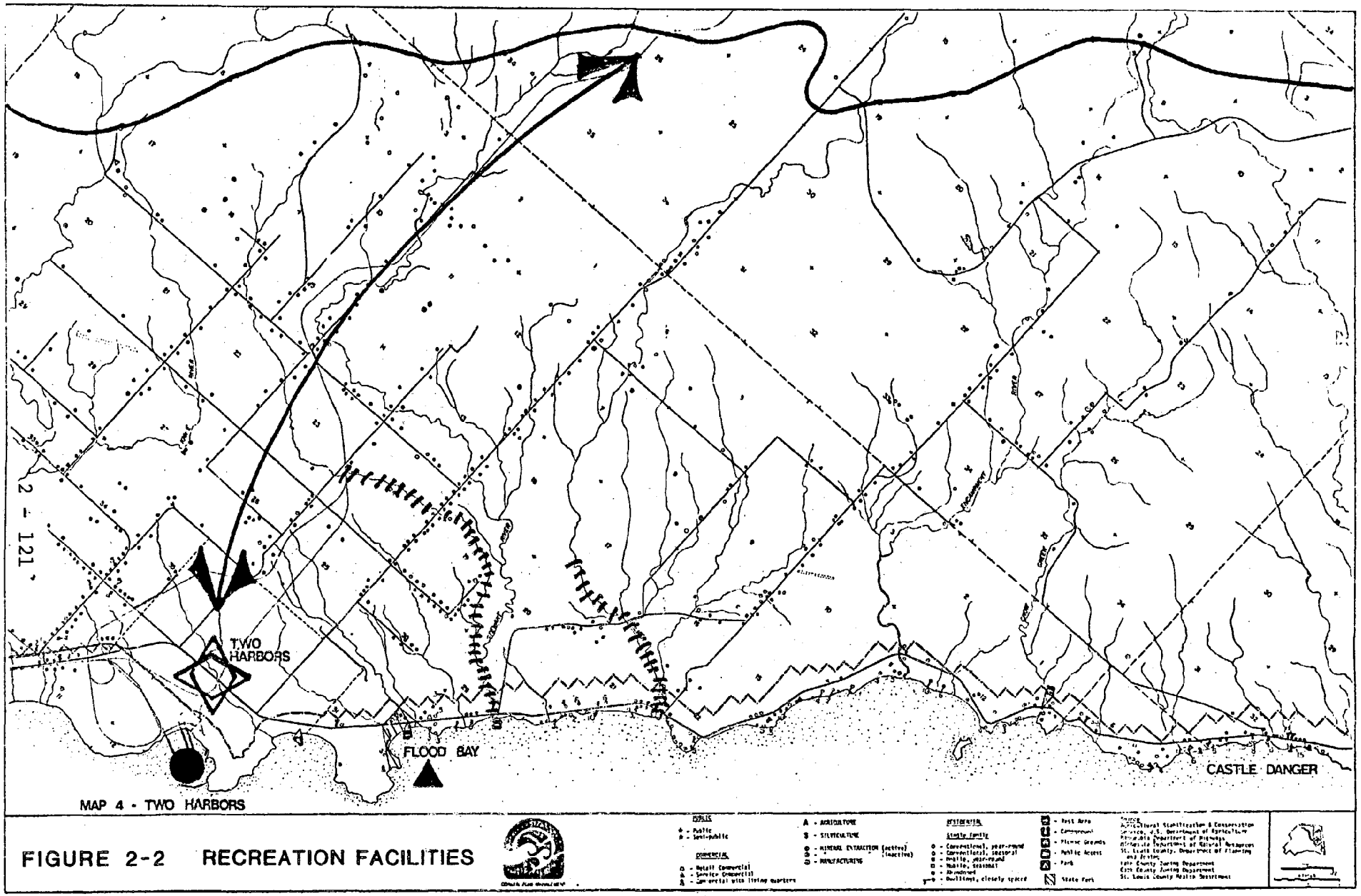


FIGURE 2-2 RECREATION FACILITIES

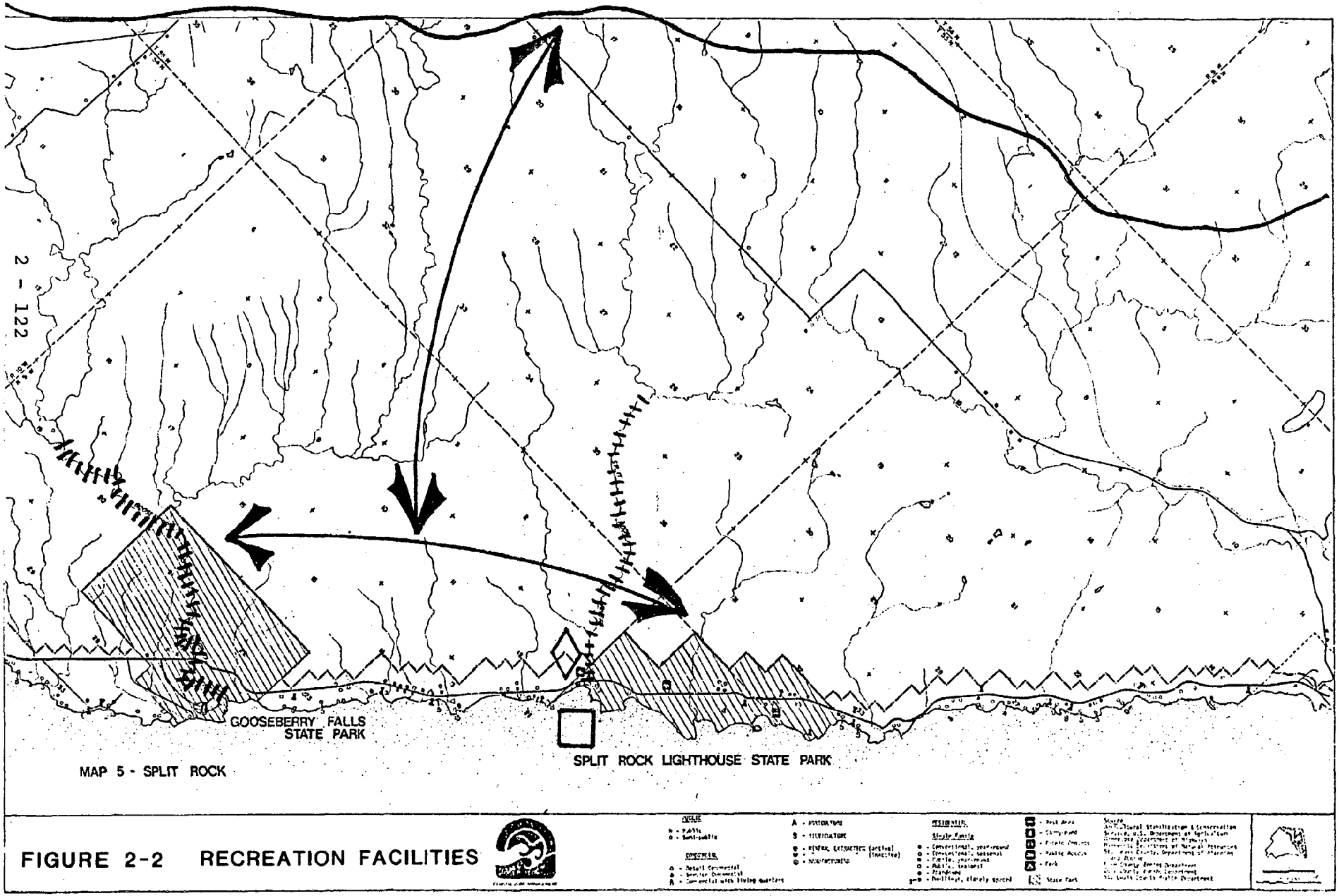


FIGURE 2-2 RECREATION FACILITIES

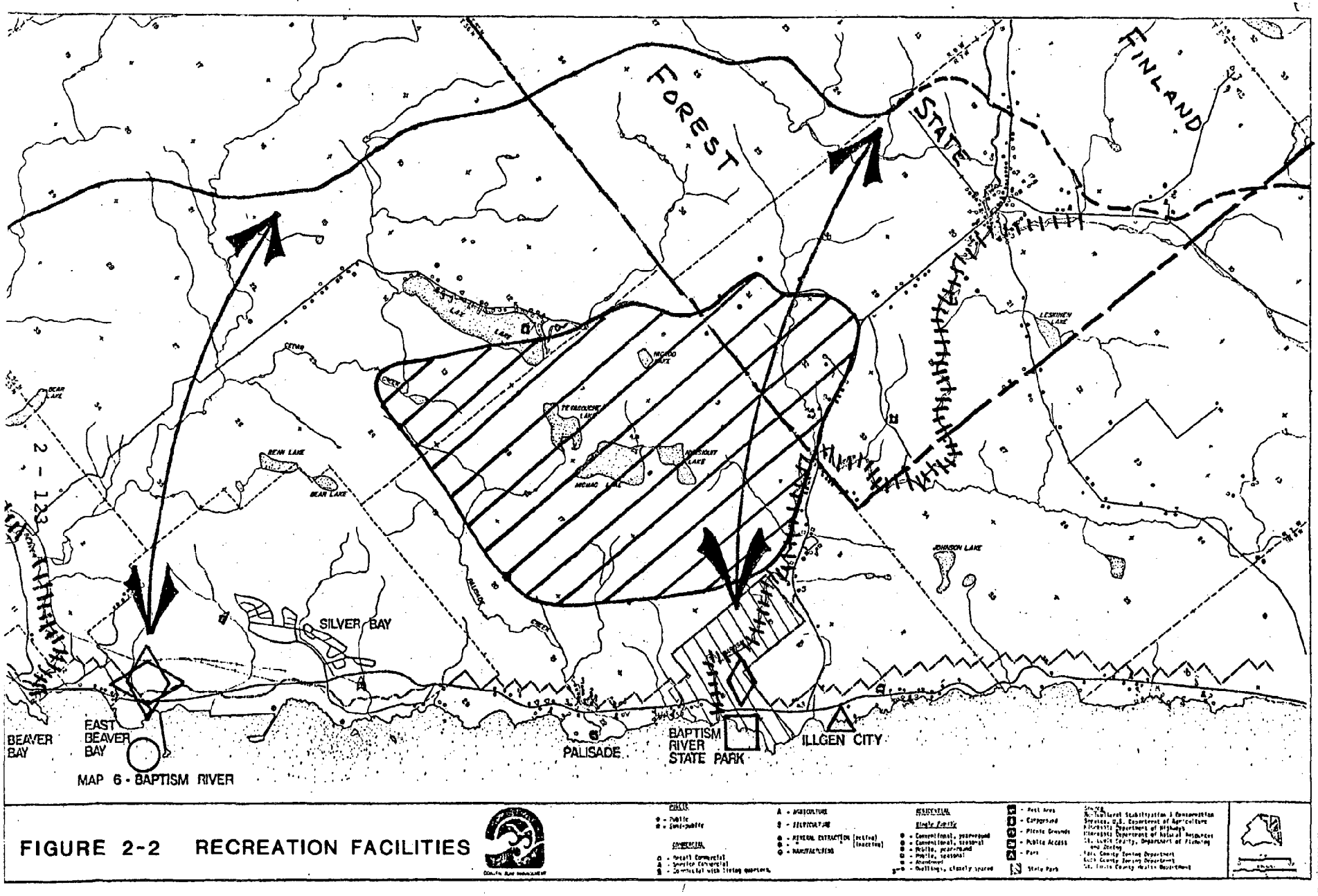


FIGURE 2-2 RECREATION FACILITIES

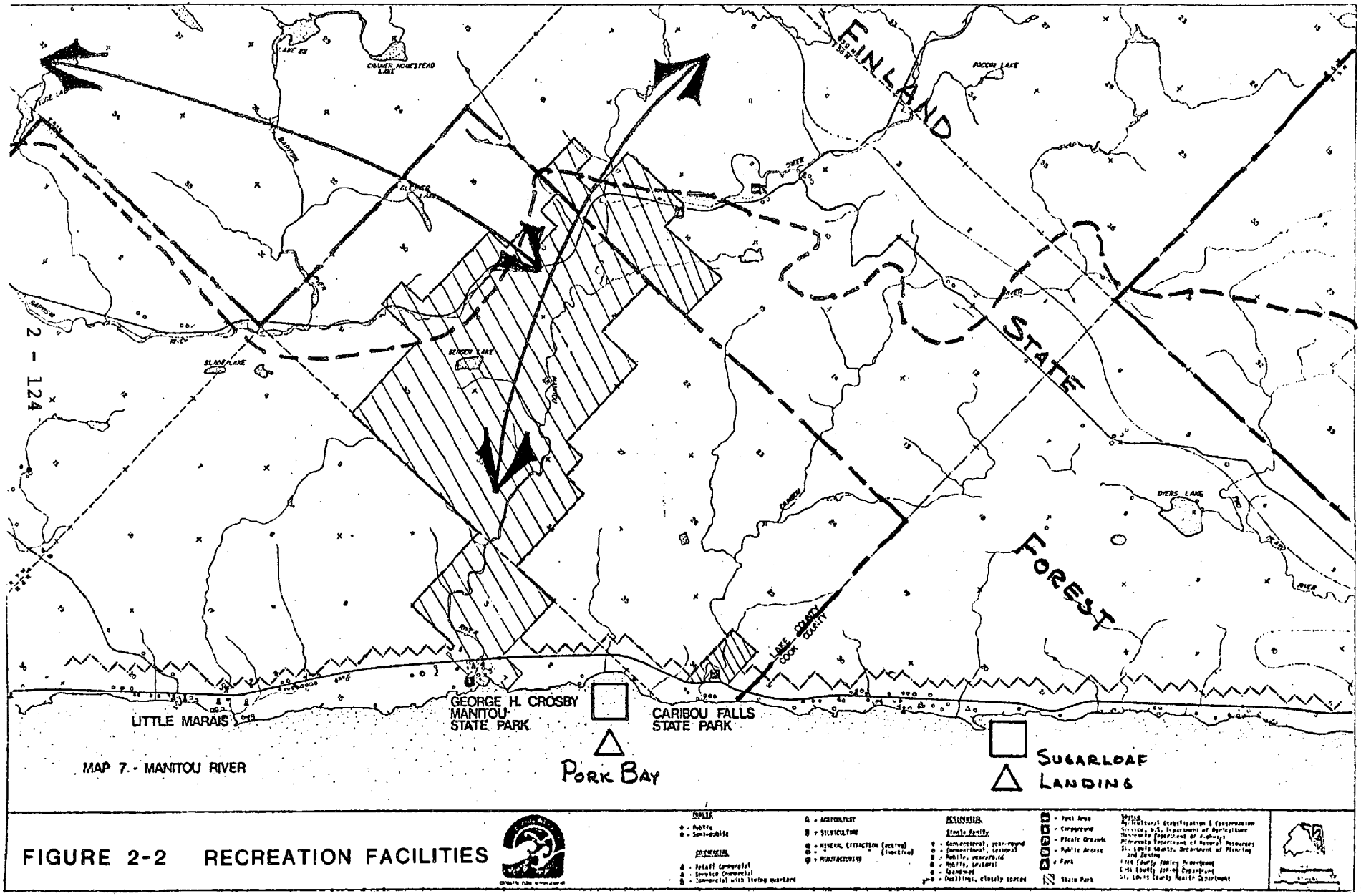


FIGURE 2-2 RECREATION FACILITIES

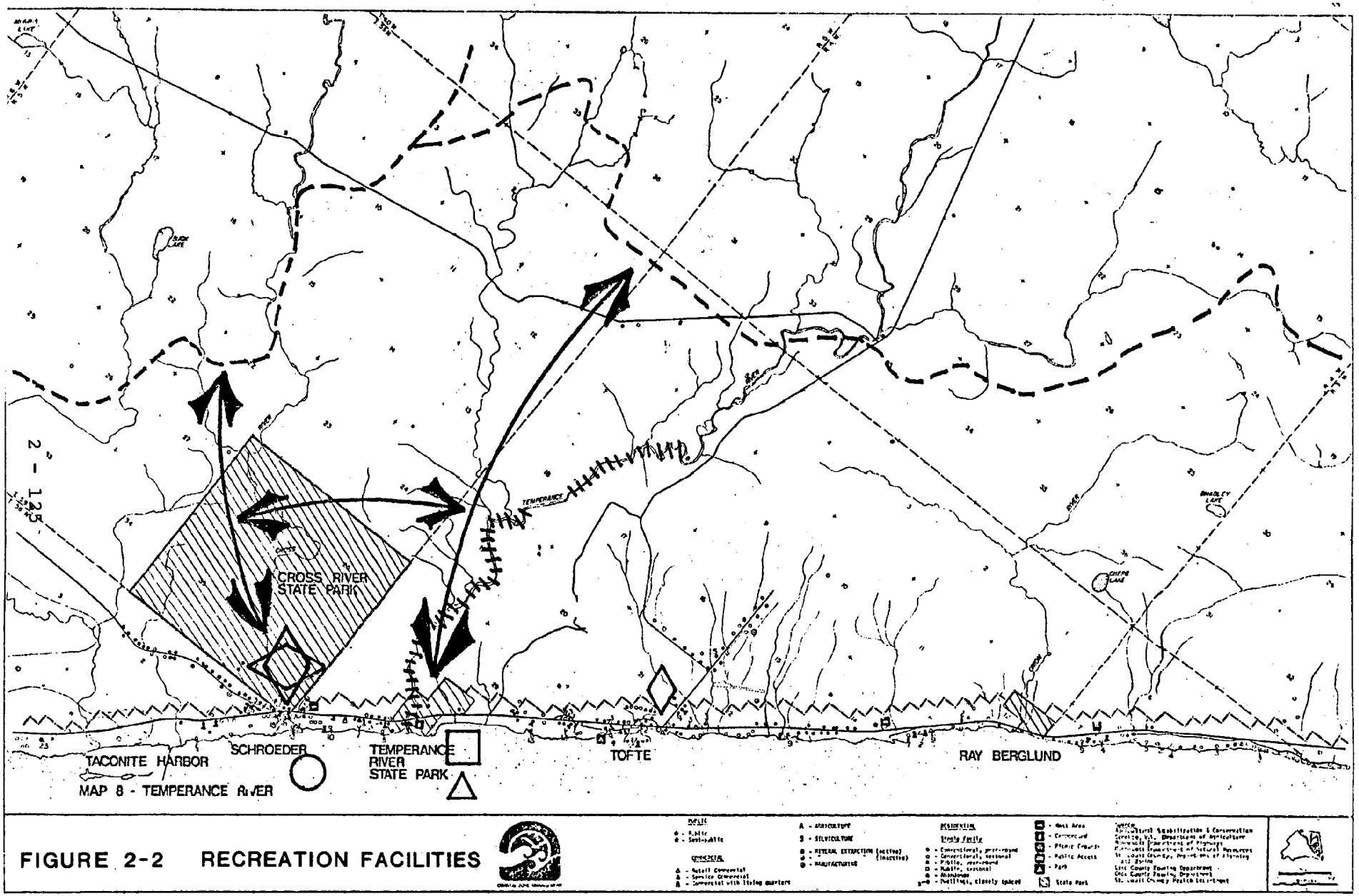


FIGURE 2-2 RECREATION FACILITIES

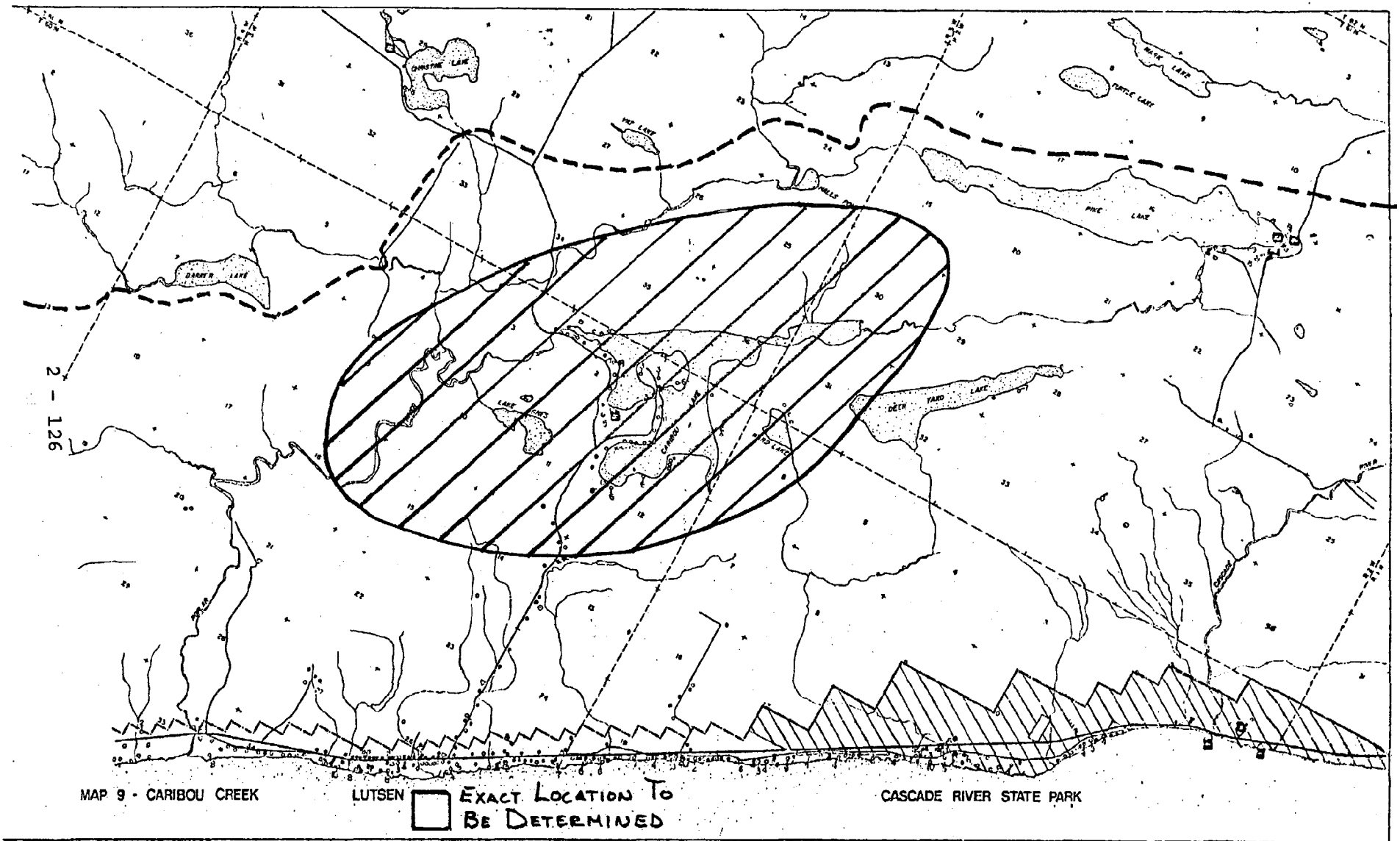


FIGURE 2-2 RECREATION FACILITIES

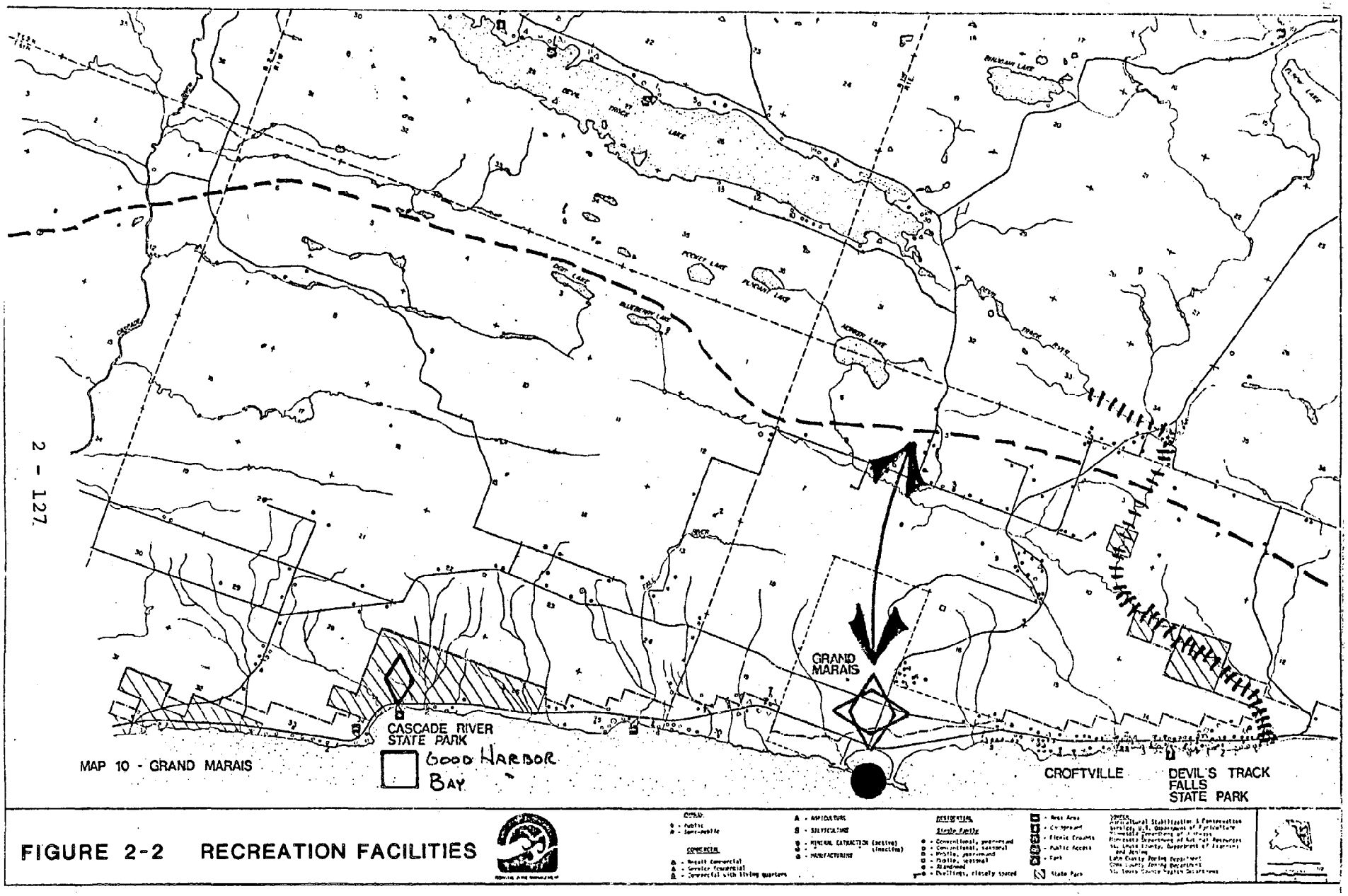


FIGURE 2-2 RECREATION FACILITIES

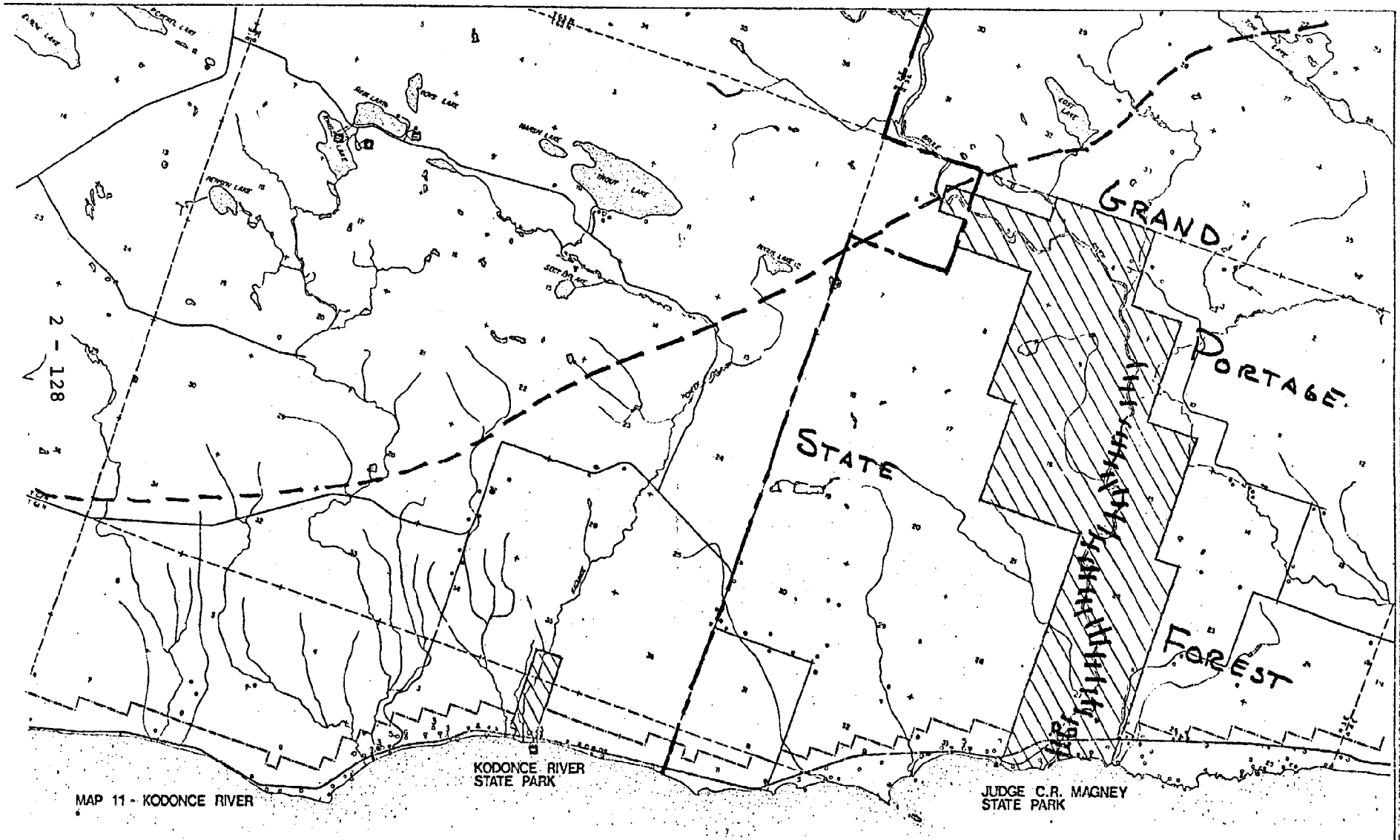
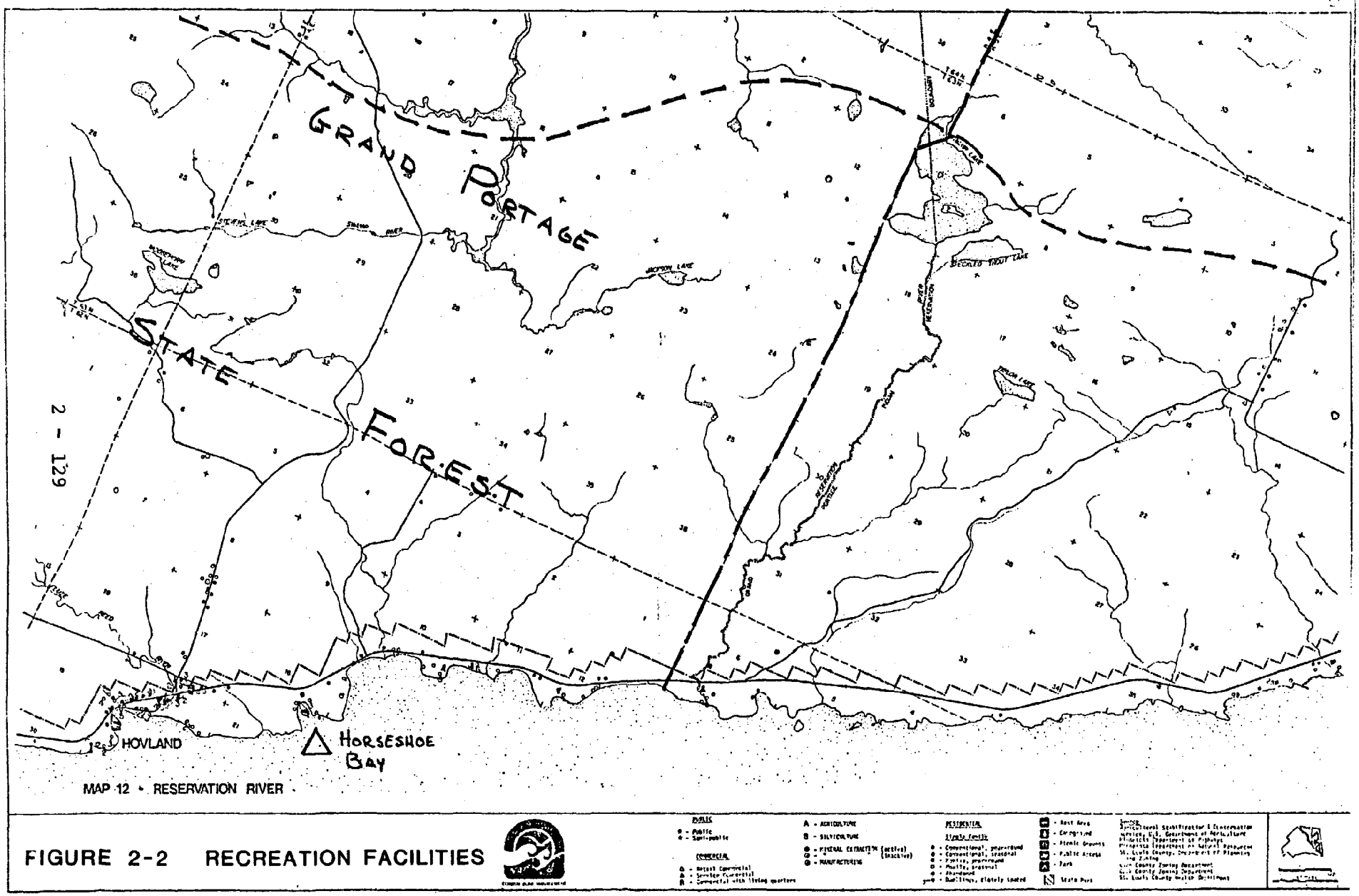


FIGURE 2-2 RECREATION FACILITIES



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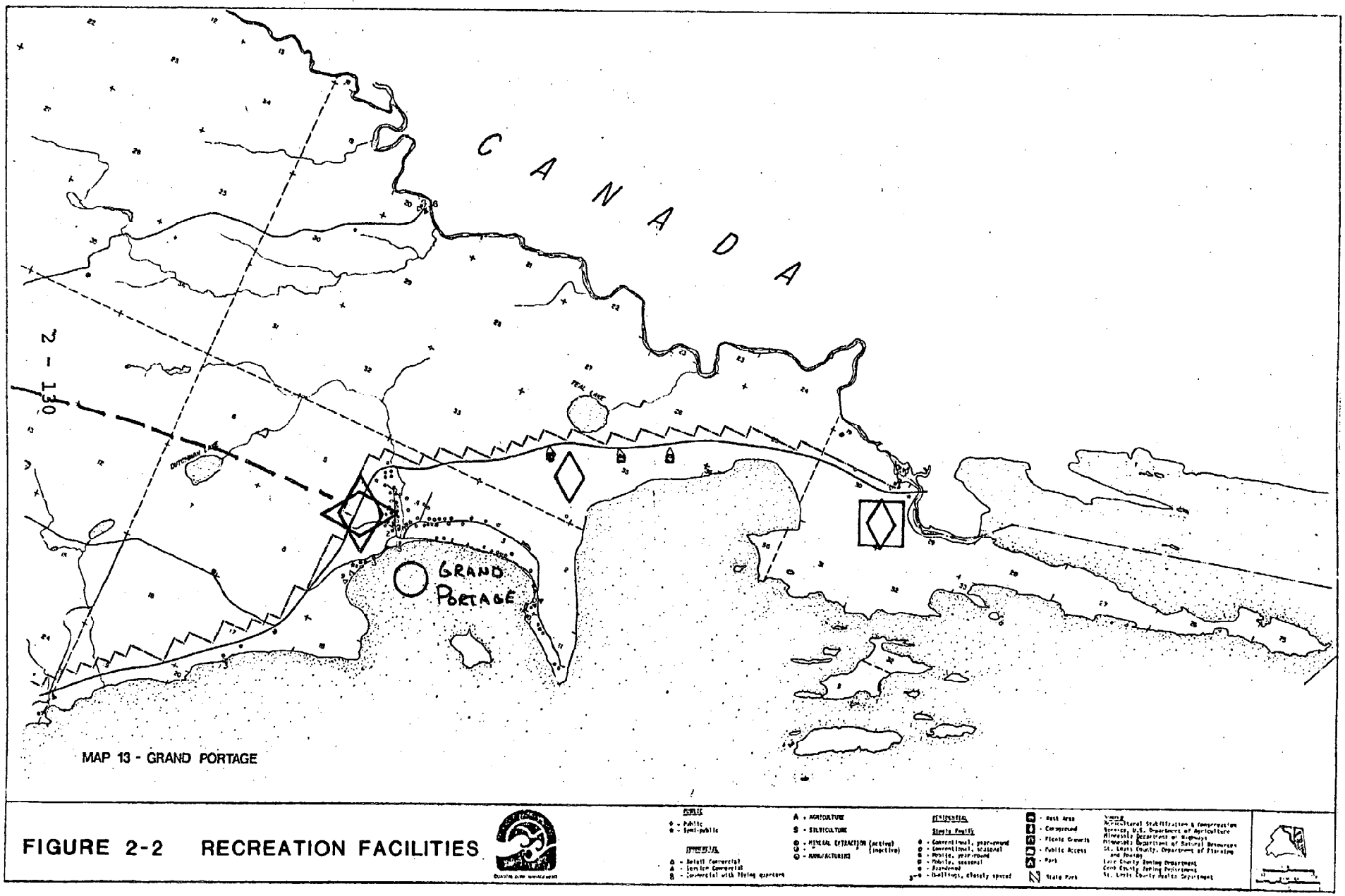


FIGURE 2-2 RECREATION FACILITIES

C. POLICIES AND AUTHORITIES RELATING TO RECREATION

1. Minnesota-Wisconsin Boundary Compact.

   A Minnesota-Wisconsin Boundary Commission, the purpose of which is to conduct studies and to develop recommendations relating to the present and future protection, use, and development of the lands, river valleys, and waters which form the boundary between the states is formed. The Commission is charged with considering and promoting the consideration by municipalities of restrictions and regulation of land use development designed to preserve the scenic and recreational attributes of the river basins. (See Minn. Stat. §§ 1.31 - 1.40.)

2. Powers of the Commissioner of Natural Resources.

   The Commissioner of Natural Resources is vested with control and supervision of all public lands and parks of the state and is charged with certain responsibilities relating to boat safety and with the overall coordination of acquisition of state recreation land, development of recreation programs and comprehensive statewide recreational planning programs required by state or federal law. He is further authorized to establish and operate recreational areas, including but not limited to trails and canoe routes, for the use and enjoyment of the public on any state-owned or leased land under his jurisdiction. He is further authorized to acquire by gift, purchase, or lease, easements or other interests in land for various types of recreational use. Finally, he is authorized to adopt rules and regulations governing the use and enjoyment of state lands reserved from sale, state parks, state water access sites, state trails, state monuments, state scientific and natural areas, state wilderness areas, and recreational areas owned by other state, local and federal agencies and operated under agreement by the Department of Natural Resources. (See Minn. Stat. §§ 84.028 - 84.03, 84.033, 89.032, 97.40-85.)

3. Regulation of Recreational Vehicles.

   Certain regulations governing the manufacture, use, and registration of snowmobiles and other recreational vehicles are established. (See Minn. Stat. §§ 84.81 - 84.90.)

4. State Trails.

   The Commissioner of Natural Resources is directed to establish and operate certain trails designated by the

legislature and to develop trails on state lands. The Commissioner of Transportation is charged with developing a program for an inter-connecting statewide system of bicycle trails primarily on highway rights-of-way. In addition, the Commissioner is directed to provide technical assistance to local units of government planning bicycle trails systems. (See Minn. Stat. §§ 85.015 -85.021, 160.265.)

5. Omnibus Natural Resources and Recreation Act of 1963.

The natural resources of the state include, but are not limited to, forests, parks, historic sites, wildlife areas, access to lakes, rivers, streams, scenic areas, and camping grounds. It is the intention of the legislature to study and examine anticipated future needs and the extent to which private and commercial facilities will need supplementation of publicly subsidized and operated facilities and opportunities. A legislative commission on Minnesota resources is established to study state policy relating to public access and to study a system of user fees and permits and concession awards with a view toward making provision for adequate maintenance and improvement of facilities. The Commission in its inquiries is directed to recognize that, wherever feasible, outdoor recreational facilities may be provided by private enterprise, and that the responsibility of government is to supplement such facilities and opportunities rather than to compete with them. The Commission is further directed to recognize that lands, waters, forests, wetlands, wildlife, and such other natural resources which serve economic purposes also serve to varying degrees and for varying uses outdoor recreation purposes, and that sound planning or resource utilization for the full welfare of the state must include coordination and integration of all such multiple uses. The Commission is further directed to report biannually to the legislature with regard to its investigations and studies. A provision is also made for appropriations from the natural resources account to be made to local units of government for land acquisition and development for recreational purposes, so long as such appropriations are first reviewed by appropriate county boards and county and regional planning commissions. (See Minn. Stat. §§ 86.01 - 86.75.)

6. Outdoor Recreation System.

The legislature finds that the unique natural, cultural, and historical resources of Minnesota provide abundant opportunities for outdoor recreation and education, and

that these opportunities should be made available to all Minnesota citizens. It further finds that the preservation and proper utilization of the state's outdoor recreational resources is becoming increasingly important to the health, welfare, and prosperty of the state's citizens because of the growing demand for outdoor recreational facilities and the spread of development and urbanization. It further finds that the outdoor recreational needs of the people of Minnesota will be best served by the establishment of an outdoor recreational system which will preserve an accurate representation of Minnesota's natural and historical heritage for public understanding and enjoyment, and provide an adequate supply of scenic, accessible, and usable lands and waters to accommodate outdoor recreational needs. An outdoor recreational system is established which is composed of natural state parks; recreational state parks; state trails; state scientific and natural areas; state wilderness areas; state forests; state wildlife management areas; state water access sites; state wild, scenic, and recreational rivers; state historic sites; and state rest areas. Standards for administering each of these various recreational units are established. (See Minn. Stat. §§ 86A.01 - 86A.11.)

7. Public Use of Private Lands.

It is the policy of the state, in furtherance of the public health and welfare, to encourage and promote the use of privately owned lands and waters by the public for beneficial recreational purposes. The liabilities of a landowner whose land is used by others for recreational purposes is defined and limited by the legislature. (See Minn. Stat. §§ 87.01 -87.03.)

8. Wild, Scenic and Recreational Rivers.

It is the state's policy to preserve and protect certain state rivers that possess outstanding scenic, recreational, natural, historical, scientific, and similar values. DNR may development management plans for designated rivers, establishing allowable setbacks, structure heights, subdivision regulations, etc. Land use controls which comply with those plans must be adopted and enforced by local governments, and land may acquired by the Commissioner of Natural Resources. (See Minn. Stat. §§ 104.31 - 104.40; 86A.05(10).)

9. Local Recreational Facilities.

Local units of government, including counties, are authorized to operate programs of public recreation and playground. (See Minn. Stat. §§ 471.15 - 471.1921.)

SF/JPT

XI. HISTORIC PRESERVATION

A. EXISTING CONDITIONS

Minnesota's coastal zone is steeped in history, reflecting time passed when the Chippewa tribe had dominion over the North Shore, when the first white man saw the Lake Superior Region, when voyageurs capitalized on the European craze for fashionable furs, and finally when settlers arrived to make the area their permanent home. This history is revealed by the abundance of historic and archaeological sites within the coastal zone. Table 2-1 lists by county, a comprehensive view of the existing historical and/or archaeological sites within Minnesota's coastal zone.

Currently, there are 12 sites within the coastal zone which are on the National Register of Historic Places. (See Table 2-1 for location and historic theme.) Criteria for evaluating properties for nomination to the National Register by the National Park Service are as follows:

"The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) That are associated with the lives of persons significant in our past;

(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded, or may be likely to yield, information important in prehistory or history."

SOURCE: Federal Register, Part II, Department of the Interior, National Park Service National Register of Historic Places, 60.6 Criteria for Evaluation.

In addition to the 12 National Historic Places, there are six sites within the coastal zone which are on the State Historic Sites Registry. (See Table 2-1 for location and historic theme.) Criteria for evaluating sites for designation as a State Historic Site are as follows:

(1) "Is the site of or directly associated with a significant historical event; or

(2) Is associated with persons whose lives and accomplishments are historically unique or important; or

(3) Embodies the distinctive characteristics of an architectural style or method of construction which represents a particular and significant historical period, or the work of a master builder, designer, or architect; or

(4) Has yielded or is likely to yield, historical or archaeological artifacts, records, or other original data or information; or

(5) Is a geographical feature of outstanding significance and includes, by way of example, the highest point in the state, the continental divide, and the source of the Mississippi River."

Source: Outdoor Recreation Act of 1975

TABLE 2-1
HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
Cook County							
Grand Portage National Monument	Sec. 4, 9, T63N, R6E	Aboriginal Americans: Prehistoric, Historic, Fur Trade, Religion, Exploration	X	X	X		Administered by National Park Service, U.S. Dept. of Interior
Witch Tree	Sec. 11, T63N,R6E	Same as above.		X			
Holy Rosary Church and Cemetery	Sec. 4 T63N, R6E	Same as above				X	
Lightkeeper's House	Grand Marais Sec. 21, T61N, R1E	Architecture, Transportation				X	
Naniboujou Lodge	Hovland Sec. 34, T62N, R3E	Architecture, Recreation				X	
Parkerville Ghost Town	Pigeon River Sec. 20, T64N, R6E	Immigration and Settlement				X	
St. Francis Xavier Church	Grand Marais Sec. 22, T61N, R1E	Aboriginal Americans: Historic, Religion				X	
Thompsonite Beach	Sec. 33, T61N, R1W	Physical Science				X	

TABLE 2-1

HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
Lake County							
Split Rock Lighthouse	Sec. 32, 33, T55N, R8W	Transportation	X	X			Administered by the Minnesota Historical Society. A new interpretive program is planned for 1977, when the site will be opened year-round for the first time. Long-range plans call for a new interpretive center. Efforts will be made to coordinate interpretation with that offered in the Lake Superior Marine Museum in Duluth and to avoid duplication.
Tugboard "Edna G"	Agate Bay, Two Harbors		X				
Mallet Locomotive	Two Harbors	Transportation				X	
Three Spot Locomotive and Cars	Two Harbors	Industry				X	
Two Harbors Lighthouse	Two Harbors	Engineering, Transportation				X	

TABLE 2-1
HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
Lake County cont.							
Lake County Historical and Railroad Museum	Two Harbors				X		Administered by the Lake County Historical Society. An opportunity exists to better coordinate and mutually reinforce interpretation in this Museum with that at Soudan Mine located outside the coastal zone.
St. Louis County							
Aerial Lift Bridge	*All sites are located in Duluth	Engineering	X				
Duluth Central High School		Architecture, Education	X				Preservation and restoration work currently being undertaken.

TABLE 2-1
HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
St. Louis County cont.							
Duluth Union Depot		Architecture, Transportation	X	X			Acquisition of trackage. Restoration and preservation work on depot.
Minnesota Point Lighthouse		Transportation	X	X			
Endion Passenger Depot		Architecture, Transportation	X				
Fire Hall #1 on 1st Ave. East & 3rd St. East		Architecture	X				
Kitchi Gammi Club		Architecture	X				
Traphagen, Oliver G., House		Architecuure	X				
Morgan Park Historic District		Architecture, Urban Planning				X	

TABLE 2-1
HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
St. Louis County cont.							
Duluth Ship Canal		Industry, Engineering	X	X			
Brewer, Frank A., House		Architecture				X	
Chester Terrace		Architecture				X	
Congdon, Chester A., House		Architecture				X	
Cotton, Joseph B., House		Architecture				X	
Crosby, George H., House		Architecture				X	
Cutter, Dwight G., House		Architecture				X	
Duluth Board of Trade Building		Architecture, Commerce				X	
Duluth Civic Center Complex		Architecture, Landscape Architecture				X	
First Presbyterian Church		Architecture, Religion				X	
Fish Lake Dam (SL-15)		Aboriginal Americans: Prehistoric				X	
Fitger's Brewery		Industry, Commerce, Architecture				X	

TABLE 2-1
HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
St. Louis County Cont.							
Fond du Lac Historic District		Aboriginal Americans: Prehistoric, Historic				X	
Glen Avon Station		Architecture, Transportation				X	
Hartley Office Bldg.		Architecture				X	
House, F.E., Residence		Architecture				X	
Hunter, Donald M., House		Architecture				X	
Jefferson School		Architecture, Education				X	
Meyers, H.H., House		Architecture				X	
Munger Terrace		Architecture				X	
Olcutt, Wm., J., House		Architecture				X	
Ordean, Albert L., House		Architecture				X	
Patrick, Frederick A., House		Architecutre				X	
Police Station and Jail		Architecture				X	

TABLE 2-1
HISTORIC AND ARCHAEOLOGICAL SITES WITHIN MINNESOTA'S COASTAL ZONE

SITE	LOCATION	HISTORIC THEME	NATIONAL REGISTER OF HISTORIC PLACES	STATE HISTORIC SITES REGISTRY	INTERPRETIVE CENTERS	MINNESOTA INVENTORY OF PREHISTORIC & HISTORIC PLACES	SITE PLANS
St. Louis County Cont.							
Selwood Hall		Architecture				X	
William Crooks Locomotive						X	
Lake Superior Marine Museum					X		
St. Louis County Historical Society Museum					X		
Lake Superior Museum of Transportation and Industry					X		
Chisholm Children's Museum					X		Administered by a private non-profit corporation. Plans include galleries dealing with immigration to the Duluth area and natural history and the environment.

In addition to sites already on the State and/or National Register of Historic Places and those inventoried by the Minnesota Historical Society, two special studies were conducted which expanded awareness of historical and archaeological sites within Minnesota's coastal zone.

The first study, Historical, Natural, and Scientific Sites of the Lake Superior North Shore, was published in May, 1975, by the Arrowhead Regional Development Commission. The historic inventory contained in this report was primarily a re-compilation of work previously conducted by John Fritzen, noted area historian and member of the St. Louis County Historical Society. In addition, the state and county historical societies were most informative and should be recognized for their assistance and contributions in compiling this inventory. Sites identified by this report and located within Minnesota's coastal zone are as follows:

TABLE 2-2

North Shore Historic Sites and Place Names in the Coastal Zone

1. Roussian Graveyard: Located in Fond du Lac Park, this is the burial site of the Francois Roussian family and Indians of the Fond du Lac area. Several stone markers and carved wooden crosses are found within these run-down cemetery grounds.

2. Peter J. Peterson House: This is the oldest existing home in Duluth. It was built in 1867 at 13328 West 3rd Street.

3. Lake Superior and Mississippi Railway Depot: A one and one-half story structure erected as a depot for the first train to come to the head of the lakes. The structure is presently a restaurant, however the exterior is unchanged since 1870.

4. Fond du Lac: Means "Head of the Lakes" and refers to the Duluth-Superior metro area. Site of the old American Fur Company Trading Post built in 1816-17, and Mission, 1834. A marker, flag post and small park at 133rd Avenue West mark the site of the post and 1679 camp of Sieur Duluth.

5. Brownstone Quarry: The site was operated in the 1880's along Mission Creek. Several of Duluth's buildings were constructed with the stone from this quarry (Board of Trade and First American National Bank). The remains of the quarry can still be located today.

6. St. George Serbian Orthodox Church: This church was built in 1923 and is located at 1216 104th Avenue West. The church is noted for its superb murals painted by David Erickson in the 1940's.

7. Railroad Route of the Old Lake Superior and Mississippi Railroad: The old railroad grade is still visible from about 75th Avenue West. This was the original railroad line from Duluth to Carlton and eventually tied into a line to St. Paul.

8. Morgan Park Planned Community: This town area was developed between 1914 and 1916 to provide suitable housing for the adjoining steel plant labor force. Morgan Park contains some very historic architecture as indicated:

   a. Good Fellowship Club Building
   b. St. Mary Margaret Catholic Church
   c. Cement block residences

9. Hardon's Peak: Also known as "Spirit Mountain" was used in the 1700's as an Indian observation post. A small copper vein reportedly crosses the peak area.

10. Old Indian Camp: At one time there existed an Indian camp at 62nd Avenue West and the Bay Front. This was one of a series of camps located along an Indian trail between Minnesota Point and Fond du Lac.

11. Oneota: The name "Oneota" is from an old Indian legend describing the Bluff area (Mt. Oneota). St. Louis County's first Post Office was located here in 1856. The Village of Oneota was incorporated in 1857. Prior to incorporation the settlement was known as "The City of Destiny". Oneota was the site of the first public school in St. Louis County and of the first frame school building in Northeastern Minnesota. The school bell is now on display at the St. Louis County Historical Society Museum.

12. Wheeler's Sawmill: The sawmill site is located in the old Oneota area. It was built in 1856, and was one of Duluth's largest sawmills.

13. Enger Tower: This is a memorial to Bert J. Enger, a native from Norway who died in 1931. Mr. Enger was recognized for his pioneer spirit. The tower was designed by A. N. Melander, built by L. J. Kleppin and Sons, and cost $30,000. The tower was dedicated in 1939.

14. The Old Silver Mine Site: This is located at 10th-15th Avenue West and Michigan Street. The shaft was discovered in 1930, but had been mined back in the 1880's. At one time a very rich silver vein was disclosed.

15. Sawmills: Several early sawmills were found near the ship canal area on Minnesota Point.

   a. George Nettleton Mill
   b. Hugh's Mill — All around the 1870's
   c. Samuel McQuade Mill

   d. Asa Daly and John LaChapalle Mill
   e. Scott and Holston Mill
   f. Munger Mill (Located where the Aerial bridge now stands)

16.* Union Depot: Built in 1892.

17.** Duluth Civic Center: Built in 1905 and designed by Daniel Burnham.

18.* Ship Canal and Aerial Lift Bridge: The Minnesota Point Ship Canal Company was organized in 1857 to dig a canal. Digging began in 1870 and was finally finished in 1871.

19. Sieur Duluth Landing: Located in the vicinity of 20th Avenue on Minnesota Point.

20. Stuntz Cabin and Dock: In 1853 George Stuntz built a cabin and became the first permanent resident of Duluth. He also erected a trading post, warehouse, and dock. All of these structures were located on Minnesota Point near the present, Old Lighthouse.

21.* Minnesota Point Lighthouse: Was built between 1855 and 1858 at a cost of about $15,000. At one time, the lighthouse was considered the finest on the lakes. Only about 2/3 of the lighthouse remains today.

22.* Central High School: Built in 1892.

*Minnesota sites on the National Register of Historic Places.

**Minnesota sites on the State Inventory.

23. Elevator A: The site was located near 4th Avenue East and Michigan St. The first shipment of grain was on May 30, 1871 on the Propeller St. Paul. Elevator A. was destroyed by fire in 1866.

24. Vermilion Trail: Near Brewery Creek, was the site of an old Indian portage trail to Island Lake. In 1865 money was appropriated for the improvement of the portage which became known as the Vermilion Trail. There is a bronze plaque at the base of a street light standard at the intersection of 7th Avenue East and 1st Street to commemorate the beginning of the Vermilion Trail.

25. Viking Ship: The replica of a Viking Ship is located within Leif Erickson Park near 10th Avenue East and London Road. The ship was sailed to Duluth from Bergen, Norway in 1927.

26. Leif Erickson Park.

27.* Endion Passenger Depot: A railway passenger depot was built in 1899 at a cost of $10,000. The Depot is located at 15th Avenue East and South Street. The Depot still stands and is functional as a freight line checkpoint.

28. Chester A. Congdon House: 1907-08
29. Chester Terrace Apartments: 1890
30. Joseph B. Cotton House: 1906
31. George H. Crosley House: 1902
32. Dwight G. Cutler House: 1906
33. Duluth Board of Trade Building
34. Old Fire House No. 1: 1890
35. Fitgers Brewery: 1890
36. Glen Avon Station: 1892
37. Hartley Office Building: 1914
38. Donald M. Hunter House: 1892
39. Jefferson School: 1890
40. Kitchi Gammi Club: 1912
41. H.H. Meyers House: 1909-10
42. Munger Terrace: 1891-92
43. Wm. J. Olcutt House: 1904-05
44. Albert L. Ordean House: 1905
45. Fredrick A. Patrick House: 1901
46. Police Station and Fire Hall: 1908-09
47. Sellwood Hall: 1903
48. Oliver G. Traphagen House: 1892

Items 28-48 all included in the existing statewide historic sites inventory.

49. Lester River Fish Hatchery: 1885-1887, was built by the U.S. Department of Interior. It was the only Federal fish hatchery in Lake Superior to artificially propagate fish. The building was closed in 1946 and is now the property of UMD.

50. Lakewood Pumping Station: In the days of large-scale lumbering operations this was an important banking grounds and rafting point. Also, it is presumed that the ship wreck, Benjamin Noble, which went down in 1914 between Knife River and Duluth, lies off the shore of Lakewood.

*Minnesota sites on the National Register of Historic Places.

51. Clifton: Platted in 1855, it was the first North Shore townsite. The big clearing from Lake Superior to the railroad was at one time an important log landing and rafting point.

52. French River: Originally the Indians called this river Angwassago-zibi or "Floodwood River". The French River area was the site of numerous attempts to mine copper. In the 1860's three mining companies were formed: R.B. Carlton Company, French River Mining Company, and the North Shore Mining. All three companies spent sizable amounts of money in a futile attempt to find workable amounts of copper. In addition, the French River area was also the site of extensive logging from the late 1890's to 1905. The Lesure Lumber Company headquartered here and shipped logs by rail and rafting to their sawmill in West Duluth.

53. Sucker River: Translated from the Indian name, Namebini-zibi, means "carp or sucker river". In 1856 Vose Palmer platted the townsite of Montezuma here but it never materialized. During the large scale logging operations this was the site of a big landing and rafting point.

54. Stony Point: Prior to railroad service, Stony Point was an important harbor and shelter facility. It was used primarily as a steamboat landing between Duluth and Two Harbors. In 1870, it was an important logging raft point.

55. Buchanen: A wayside marker and plaque is located here which describes the townsite of Buchanen, platted in 1856. The town had the first Post Office on the North Shore, as well as a U.S. Land Office from 1857-1859. The first North Shore newspaper, "North Shore Advocate" was published here in 1857-1858. In 1859 the town began to dissolve after the land office was relocated and was later destroyed by a forest fire.

56. Knife River: The findings of veins of copper in this river bed resulted in much exploring. Several mining companies and prospectors sunk test pits and shafts in search of copper. A deep shaft was sunk in the SW 1/4 - SE 1/4 Section 26 Township 52, Range 12 on the east bank of the Little Knife River which still can be located today.

Commercial fishing and small scale lumbering were the only activities up until 1898 when the Alger, Smith and Company, a Michigan lumber firm, moved and built their shops, railroad yards, and logging headquarters at Knife River. Construction was then started on an extensive logging railroad system, the Duluth and Northern Minnesota Railway, to reach their North Shore timber holdings. The company built two sawmills in Duluth. The average production of Alger, Smith & Company was 100,000,000 board feet of lumber a year. Alger, Smith & Company discontinued operations in 1919, and their tracks were removed from Knife River to Wanless in 1923.

Off Knife Island there were two shipwrecks in 1904 and 1915. In 1909, Knife River was incorporated as a village. Later on it reverted to township status.

57. Larsmont: Was the site of big logging operations in the 1880's and 1890's. It was an important log rafting point.

58. Two Harbors: Was named because it has two good harbors, Agate Bay and Burlington Bay. A sawmill was operational in 1857 on Burlington Bay, the mill quickly closed down during the Panic of 1857 and commercial fishing was the only activity until the early 1880's when logging operations returned. Both Agate and Burlington Bay were used as landing and rafting points. Furthermore, at that time construction began on the Duluth and Iron Range Railroad, ore docks, shops and headquarters. In 1880, Agate Bay became the Village of Two Harbors, and in 1907 it became a city and the County seat.

Iron ore shipping was a primary activity but was supplemented by the handling of lumber, pulpwood and other forest products.

59.* Mallet Locomotive: Engine No. 229 came to Two Harbors in 1943. In working order the Locomotive weighs 699,700 lbs. The locomotive is located adjacent to the Lake County Historical Society.

60.* Three Spot Locomotive and Cars: First locomotive of the Duluth and Iron Range Railroad.

61.* Two Harbors Lighthouse: The federally owned lighthouse was built in 1892 and is located on the point between Agate Bay and Burlington Bay. It is 78 ft. above the water; is of 325,000 candle-powers and can be seen on a clear night for 17 miles in any direction. The lighthouse is operational today.

62. Sample Ore: Ore from the first Minnesota Mining operations in 1884.

63. Ore Docks: The first shipment came from the Mesabi Mines in 1895.

64. The Original Plant and Quarry Office of the Minnesota Mining and Manufacturing Company. (1902)

65. Flood Bay: During the large-scale logging days this was an important log landing and rafting site. It was also the site of a steam sawmill in 1857.

66. Stewart River: Was known to the Indians as Bitobigo-zibi which meant "Parallel" or "Double River". The river mouth was originally the townsite of Marmota. In the 1880's and 1890's, this area was the site from which large shipments of logs were sent to Superior, Wisconsin to the Page and Sexsmith sawmill. Remains of the river's splash dams can still be seen today.

67. Silver Creek: During the 1890's this area was a large log landing and rafting site. Silver Creek Cliff had always been an obstacle to North Shore travel. In 1923, the Highway 61 right of way was carved out of the cliff's rock formation.

68. Encampment Island: Around the 1830's the American Fur Company operated a commercial fishing station on the island. It served as a good land and shelter for small boats as well as a camping area for early North Shore travelers.

69. Lafayette Bluff: On November 28, 1905 the Steamer Lafayette was wrecked here during a big storm on Lake Superior.

*Minnesota sites on State Historic Sites Registry.

70. Castle Danger: There is no satisfactory explanation for the name Castle Danger. It was the site of a commercial fishing settlement and large scale logging operations (1890's).

71. Gooseberry River and State Park: The Gooseberry River area was platted in the 1850's but never really materialized. However by 1900 the first large scale logging operation was underway. The estate of Thomas Nestor, a Michigan lumber company located at Baraga, established a headquarters at the river's mouth. The company also built two railroad lines on which logs were shipped to the river mouth for rafting to Wisconsin and Michigan. Also at the mouth of the river lies the Belle P. Cross, a steamer which sank on April 29, 1903 during a storm on Lake Superior.

In 1920 the State of Minnesota acquired 638 acres from the Vilas Estate of Wisconsin and developed this land during the 1930's into an outstanding state park.

72. Split Rock River: The name Split Rock originated from a natural occurrence located a mile east of the mouth of the river where two cliffs which, viewed from certain positions on the lake, give the appearance of having been split apart.

Prior to 1900 there were several logging operations going on here, but the largest operation began in 1899 when the Split Rock Lumber Company was formed. A logging railroad was built and a rafting pond and loading area established at the mouth of the river. Logs were shipped by barge to the Merill and Rink sawmill in West Duluth.

Also, Split Rock River is the site of the shipwreck Edenborn in November, 1905. The steamer went down as well as the barge Madeira which was being towed at the time. The steamer was salvaged but the barge still lies off shore and can be seen on a calm day.

73. Split Rock Point: The two big cliffs a mile east of the river are called Split Rock Point. The rock formation is anorthosite and in 1901-1902 was believed to be a form of corundun and was quarried by the Minnesota Abrasives Company in the western cliff. The company operated for a short time and then merged with the Minnesota Mining and Manufacturing Company which operated the plant until 1906. Split Rock Point is often called Corundum Point today.

74.* Split Rock Lighthouse and State Park: The Split Rock Lighthouse was operational from 1910-1969 for the purpose of warning ships of the dangerous waters of the area. The lighthouse was equipped with a 370,000 candle power light. The lighthouse and surrounding buildings are part of a newly formed State Park.

75. King's Landing: Prior to the logging railroads, forest products were shipped by water from landings. The King's Landing is named after a foreman of a logging camp (Mr. King), who operated a camp northwest of the landing area. A marina exists here today.

*Minnesota sites on the National Register of Historic Places.

76. Beaver Bay: This is the only North Shore townsite that has had a continuous existence from the time of its founding in 1856 until the present. The area was explored and platted by Thomas Clark of Superior. German settlers from Ohio moved into the area and began to build homes. In 1869 The Wieland Brothers built a waterpowerd sawmill. Logging operations existed along the Beaver River and east of Beaver Bay. The mill operated until 1884 when the Wieland family moved on. After closing the people relied on commercial fishing and farming for support.

In 1866 Beaver Bay became the Lake County seat until 1888, when it was transferred to Two Harbors.

Rail, foot and by boat were the only means of early travel to Beaver Bay. In 1924-25 the present U.S. Highway #61 was completed. Prior to that a foot trail existed from Duluth to Grand Portage, and the Duluth and Northern Minnesota Railway reached Lax Lake at Mile Post #43.

An Indian graveyard exists today and is found along the highway. A bronze marker lists the names and marks the location of the site. Also the burial plot of the Wieland family can be located below the highway.

77. Silver Bay: The origin of the name Silver Bay is somewhat questionable. During the days of large-scale logging Silver Bay went by the name of Koss landing. In 1905 the steamer Hesper struck a reef and the ship destroyed. Also, some silver deposits were supposedly found in this area.

78. Palisade: At one time this was the site of an Indian Village. Palisade was also a very important shipping point for forest products. On Christmas Day of 1879, two steam tugs - Amethyst and Siskiwit sank here.

79. Baptism River: This is the site of the Baptism River State Park. The park has the highest waterfall within the state and contains the colorful formation - the Little Palisades. Also, the old stage coach road can be seen between the highway and the lake.

80. Crystal Bay: The name for the bay is derived from the big anorthsite outcrops in the hills above the highway. In 1902 five men from Two Harbors formed the Minnesota Mining and Manufacturing Company (3M) to mine and mill the abrasive material. In 1903 a six-story grinding and crushing plant was erected along with dockage for boats. By 1910 the plants had been closed and operations moved to St. Paul.

81. Little Marais: In 1858, the General Land Office Survey denoted a trading post in existence here. The operator of the post was a man named Phillips. A sawmill was erected here during the large-scale logging days of the late 1890's. The Warren sawmill ran from the late 1890's until 1902. Little Marais was also the site of an important log rafting point.

82. Manitou River: or Spirit River as the Indians called it, was named because of the heavy mysterious mists along the lower rapids and falls. Today this is the site of the Crosby Manitou State Park.

83. Pork Bay: has a history strongly attached to the lumber industry. Pork Bay was the headquarters for several operators and forest products were shipped from here as well. The Little Manitou River flows into the lake at this point as well as several trails extending into the interior.

84. Caribou River: At one time woodland caribou lived in this part of the state, and it is likely that they were found here. Most of the lower valley of the river is now Caribou Falls State Park.

85. Thomasville: This is a small North Shore settlement named after an early school teacher. The McIver sawmill operated here from 1905-1907. During the November storm of 1905 the steamer George Spencer and the schooner Amboy were destroyed here.

86. Sugar Loaf: Through the years has been a landing and rafting point for forest products. The name probably came from the appearance of the hill on the skyline which, from the lake, had a resemblance to an old sugar loaf hat.

87. Two Island River: The name comes from the two islands situated at the mouth of the river. In 1856 the townsite of Saxton was platted near the river, but went out of existence after the panic of 1857.

This section of the North Shore was the site of large scale pulp wood operations. As early as 1894, the eastern paper mills were placing sizable orders for pulp wood with North Shore loggers.

88. Taconite Harbor: Site of the docks and shipping facilities of Erie Mining Company.

89. Cross River: In 1846, the noted missionary priest Father Frederick Baraga, while crossing Lake Superior in a small boat to visit the Indians on the North Shore, was caught in a severe storm. By a miracle he was able to land at the mouth of the river. He erected a crude wooden cross as a memorial for his safe passage. A granite cross stands today where Father Baraga's wooden cross once stood.

In the 1990's, the Cross River was the site of logging operations. At this time the Schroeder Lumber Company began operations and elatorate improvements were made to allow log driving on the Cross River. Seven dams were built on the headwater lakes and streams to store water for spring drives. The Company ceased operations in 1905 and sold out to Alger, Smith and Company. Looking up-river from the highway, one can still see the remains of the flumes that guided logs over the falls.

90. Temperance River: The Temperance River is noted for its two distinct characteristics. First, it has no bar across its mouth and secondly, the river has cut deep ravines in the lava flows. The area is now being developed as the Temperance River State Park.

91. Tofte: The name Tofte honors settlers with this surname who came from the Bergen District of Norway. Carlton Peak is a prominent landmark here, and was named for R.B. Carlton, an early resident of Fond du Lac and promoter of copper mining. A quarry of the Minnesota Mining and Manufacturing Company was found at Carlton Peak. The Carlton Peak area is often times denoted as having the "mystery mines". A very old boat landing is also still existent in the Tofte area.

92. Onion River: Many wild onions were found here in the early days. Ray Berglund State Wayside is at the highway crossing of Onion River. Ray Berglund was a prominent lumberman and conservationist, and after his death friends contributed to a memorial fund for the purchase of the 54 acre tract as a public recreational area.

93. Lutsen or Lock Port: The name Lutsen was given to honor a village in West Saxony (Germany) where a great battle was fought in 1632. At one time Lutsen was an important shipping point for forest products.

94. Spruce Creek: This is the site of an abandoned copper mine operating in 1868-69. Approximately 1200 to 1500 pounds of ore was shipped from this mine. Spruce Creek was also the site of a CCC camp in the 1930's.

95. Cascade River: The site of the Cascade River State Park, it is noted for its series of beautiful waterfalls and rapids above the highway.

96. Good Harbor Bay, Thompsonite Beach and Terrance Point: All refer to the same location. Thompsonite Beach is one of the main sources of Thompsonites, a semi-precious stone that formed in the gas bubbles in lava flows. No foliage exists along this beach area.

97. Rosebud River: In 1874 two men by the names of Johnson and Maguire mined a deposit of copper a mile and a half above the lakeshore in Section 24-61-1W. They did secure some copper, however it only amounted to several hundred pounds.

98. Grand Marais: A French work meaning "Big Marsh". The name Grand Marais was used as early as 1804. In 1823 the American Fur Company had a trading post and a storehouse for the commercial fishing company. Little activity prevailed until 1854 when a second trading post was built. Finally in 1871 the Village was platted by Henry Mayhew and Sam Howenstine.

In 1883 a breakwater was built and commercial fishing began to boom. This continued until the late 1890's when large scale logging began. Charles J. Johnson operated a mill on the bayfront in 1903. From 1901-1908 logs, lumber and other forest products were shipped from Grand Marais.

The area around Grand Marais was subjected to serious forest fire destruction around 1908-1910. The fires were responsible for the destruction of much improved property, forest products and standing timber.

In the early days it was hoped that mining would play a major part in the development of Grand Marais, and much prospecting took place but was not very significant.

99.** Lighthouse Keepers Residence: Built in 1886, this is now the Cook County Historical Museum.

100. Chippewa City: This is an old Indian settlement of which the St. Francis Xavier Church is a historic landmark. The church was built in 1895 to service local Indians and was operational until the last service in 1936. In 1907 the Benedictine Fathers of St. John's Monastery, Collegeville, Minnesota, took charge. North of the church is a road that leads to the Indian Cemetery.

101. Devil Track River: The Indian name was Manido bimadagaho-wini-zibi which meant "The Spirits Walking Place on the Ice River". Grand Marais loggers used the river for logging drives and some of the old cribs and sluiceways were visible up until a few years ago.

102. Red Cliff: This was the headquarters and rafting point of the Red Cliff Lumber Company from early 1900 until 1911. One rather unique feature of the area was the use of a cable system for lowering log loads on the steep grade from the woods to the lakeshore landing.

103. Kandunce River: Also known as Diarrhea Creek from the mineral content of the water. The lower section of the river is now the Kandunce River State Park.

104. Brule or Arrowhead River: Known to the Indians as Wesakode-zibi or "Half Burned Wood River". A large area at the rivers mouth is now the Judge C.R. Magney State Park.

105. Hovland: An early settler named the site after his home in Norway. The Flute Reed River flows into the lake at this point. It received its name because of the flute-like reeds growing along the rivers banks.

Commercial fishing has always been present in Hovland. Also large scale logging was operational from the 1900's up through 1942 when the last big rafts of logs were shipped. The old dock and warehouse still remain on the waterfront today. Another attraction near Hovland is a historical plaque marking the location of the dog team trail which was in use as the mail route from Duluth to Canada 1865 to 1895.

106.* Grand Portage: This is the oldest white settlement in Minnesota and at one time the inland headquarters of the fur trade. Grand Portage received its name from the nine mile portage extending from Lake Superior to the navigable waters of the Pigeon River. Grand Portage Bay provides an excellent harbor with landing and anchorage areas.

*Minnesota sites on the National Register of Historic Places.

**Minnesota sites on the State Inventory.

The portage trail had been used for centuries prior to white mans appearance in the area. La Verendrye was the first man to leave any account of his presence in 1731. The French fur traders were active until after 1763. From 1763 until the War of 1812 this was part of the British Territory.

Grand Portage was the site of the Northwest Company's inland headquarters and a large settlement was built to accommodate the fur trade business. There were sixteen buildings enclosed in a stockade. They had a dock for loading and unloading boats and canoes and a canoe yard that produced about seventy canoes annually.

During the Revolutionary War, the only activity in Minnesota took place in Grand Portage. In 1778 the British built a fort here to protect the establishment from the colonials.

The Northwest Company moved in 1803 to a depot at Fort William. The settlement was largely deserted except for the Indians. In 1820 the American Fur Company operated a post until about 1840. From 1840 and on, only limited development took place as small fur traders made a living.

In 1842 the Webster-Ashburton Treaty established the American-Canadian boundary and the Portage was declared open to usage by citizens from both countries.

The Grand Portage Indian Reservation was established in 1854 at the signing of the treaty of La Pointe.

In 1838 a mission was established in a log chapel. In 1851 a second log chapel was built and this was replaced by the present Holy Rosary Church in 1865. It is the oldest existing log church in Minnesota. Services are held here regularly and is the oldest active white man's church in Minnesota.

During the 1930's an effort was made to replicate the stockade buildings and Great Hall. This work was completed by the WPA archaeolgical crew. In 1960 Grand Portage became a National Monument.

107. Susie Island or Governor's Island: Located in Wausewaugoning Bay, is a copper mining historical point of interest. Between 1882-1884 Major T.M. Newton sunk a deep shaft and mined copper ore and some silver. The miners encountered a body of red granite and halted work. A second shaft was dug in 1905-1907 which existed and operated until a storm destroyed the project and killed the owner and operator.

108. Pigeon Bay and Pigeon River: Named because of the groups of wild pigeons which inhabitated the area. About four miles above the mouth of the river is the site of the Father Pierz Mission, established in 1842. In 1849 the mission was moved to Fort William and burned there shortly after.

109.* Parkersville: A half-mile west of the mission site is the ghost town of Parkersville, at one time an important trading point for Indians, lake traffic, and early settlers.

In 1795 a post was opened here by Williams Park to compete with the Grand Portage post. By 1804 differences were settled and Parker moved back to Grand Portage.

In 1837 the Parker Family again moved to the Parkersville site and opened the post store and built a large farm. The Parker family left in the 1860's and a Mr. Jackson ran the store and post office until 1876 when he left, and the place abandoned.

110. High Falls of the Pigeon River: A mile or so above Parkersville is the High Falls where the remains of a flume bear evidence of the large volumes of pulpwood that have been brought down the river. The last drive was in 1942.

*Minnesota sites on the State Inventory.

The second study, Duluth-Superior Harbor Cultural Resources Study, was initiated in August of 1975 when Russell W. Fridley, Director of the Minnesota Historical Society and State Preservation Officer, suggested to the U.S. Army Corps of Engineers that a study be conducted to evaluate the cultural resources in the Duluth-Superior Harbor. Although not prepared for, or funded by, Minnesota's Coastal Zone Program, the study has proven useful in developing the historic preservation component of Minnesota's Coastal Zone Plan.

One of the major goals of the study was to locate, inventory and evaluate the significance of perhaps hundreds of historic sites of widely varying types in and around the harbor. This viewpoint was borne out by the approximately 330 sites which have now been classified into some 16 categories. Inevitably, the project focused upon the larger and more significant developments within the harbor. Listed below are the major cultural resource sites which were identified:

MAJOR CULTURAL RESOURCE SITES

First Grain Elevator, Elevator A, c. 1872-1886. This wooden structure was built initially to serve as a shipping point for wheat from southern Minnesota. Although this hope never materialized profitably, by 1876-1877 wheat from eastern Dakota Territory began to pour into the harbor via the Northern Pacific Railway. Duluth became in time, as it remains today, the major port for the shipment of this grain. In a sense, Elevator A remains the symbol of a dream fulfilled and reflects the role the port has played in the past 100 years for the shipment of wheat from Montana and North Dakota to eastern and world markets.

Lake Superior & Mississippi Railroad Terminal, c. 1870-1940s. Men of vision foresaw the role that the Duluth-Superior Harbor would play as a railhead and transshipment point for raw materials, such as grain, iron ore, coal and lumber. The Lake Superior and Mississippi Railroad was the first to reach Duluth in 1870. Shortly thereafter this dock facility was built to handle goods to be shipped eastward by water and those received in turn from the eastern manufacturers to be consumed locally or transshiped further westward. As such, this terminal became the first linking of rail and economical water transportation and represents the first wave of a future that was to see as many as eight different railroads serve the port at one time.

Duluth Aerial Lift Bridge, 1905-present. This bridge was placed on the National Register of Historic Places in 1973 in recognition of it as an engineering achievement.

Duluth Ship Canal, 1871-present. The canal has been placed on the National Register of Historic Places.

U.S. Topographical Engineers Original Survey Markers, and Baseline, 1861-present. These markers were installed by a U.S.T.E. field party headed by William H. Hearding in the summer of 1861. Slightly less than four miles apart along the inner face of Minnesota Point, they provide reference points for the baseline drawn between them. This baseline, in turn, was connected to survey points in Wisconsin and served as the base from which the triangulation and accurate measurement of all of western Lake Superior was accomplished. Both points, carefully preserved and protected by the U.S. Army Corps of Engineers, warrant nomination to the National Register of Historic Places.

First Lighthouse, Minnesota Point, 1858-1878. In 1974 it was placed on the National Register of Historic Places.

First Blast Furnace, Duluth Blast Furnace Company, c. 1870-c. 1888. About 1870, the Northern Pacific Railway made financial arrangements for developing a steel mill in Duluth in order to provide itself with rails, boxcars, and other iron components. This development in the center of Rice's point, with dock facilities on the harbor basin, was never a success because of the expense of importing both the iron ore and coke necessary to produce pig iron. It did however herald the arrival of later steel plants to operate in the harbor area, which after 1892 had Mesabi ore at hand and a more advantageous cost structure. Several of these early plants, including the extensive West Superior Iron and Steel Company, were consolidated around the turn of the century, and in 1908 the U.S. Steel Company built its large facility at Morgan Park, which made steel until 1973. Although the local production of iron and steel never fulfilled the early expectations of a "second Pittsburgh," it would be proper to commemorate this industry at this pioneer location.

McDougall-American Steel Barge Company, 1889 - c. 1890. This revolutionary shipyard at the very end of the bay front slip at 15th Avenue West and Railroad Street on the Duluth harbor basin was of short duration but nonetheless inaugurated one of the most colorful chapters in the harbor's history. It was here that Captain Alexander McDougall constructed the first five of his personally-designed whaleback vessels, before moving to larger quarters in West Superior. These distinctive, snub-nosed boats were prominent in bulk cargo shipping on the Great Lakes for many years thereafter. This site is of National Register caliber.

Duluth, Missabe & Iron Range Railroad Ore Docks, 1914-Present. These two dominant concrete and steel docks stand on the same site as their four original predecessors on the Duluth side of St. Louis Bay between 33rd and 36th Avenue West. The first wooden ore dock was built in 1893 by the pioneering Merritt brothers and helped open up the harbor to the newly discovered Mesabi Range iron ore traffic. Soon millions of tons were being shipped annually to the eastern blast furnaces from this expanding dock complex. The present Docks No. 5 & 6 were begun during World War I and contributed mightily to the record shipments of iron

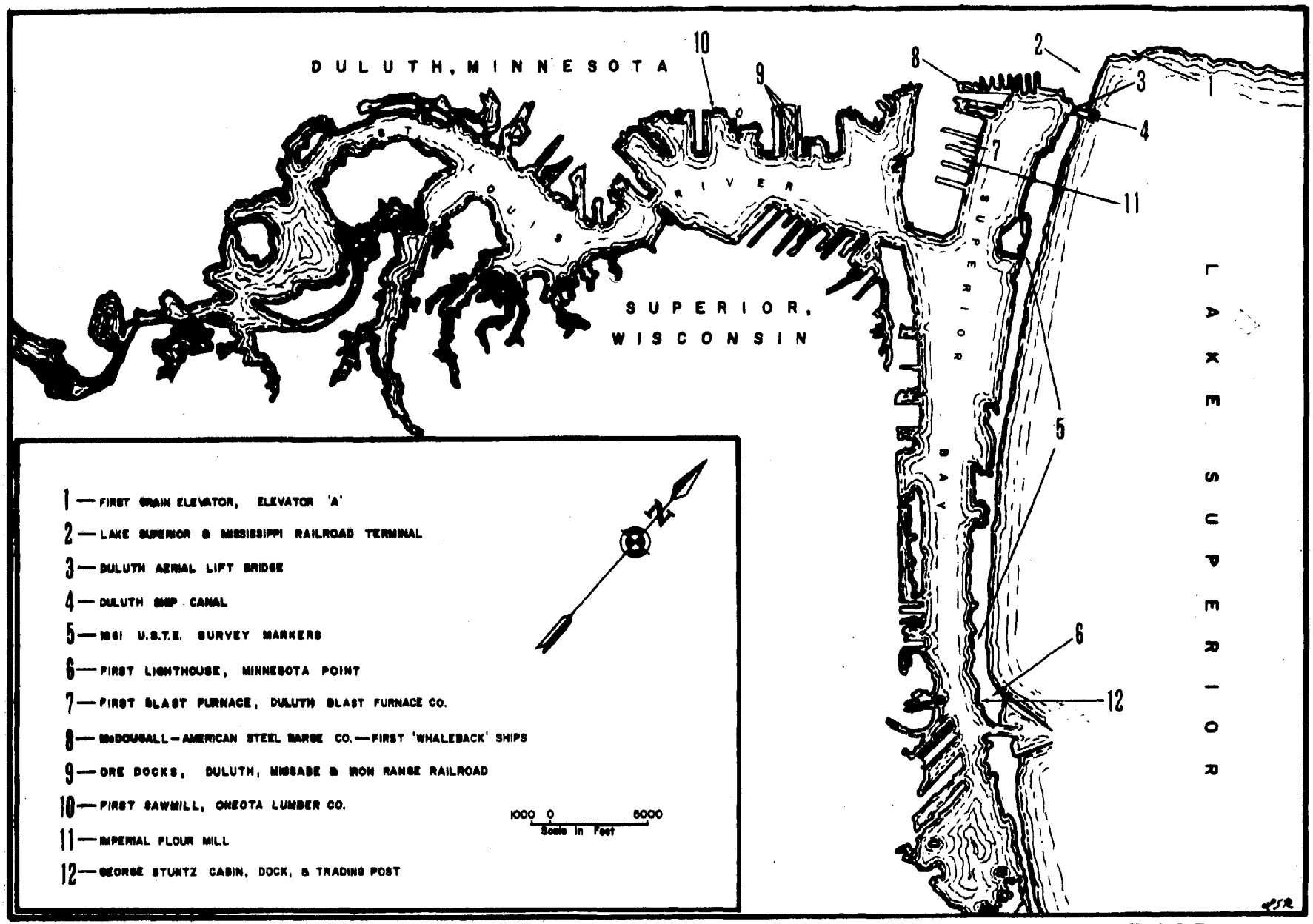
ore from the harbor during World War II as well. Both facilities, each capable of loading four freighters simultaneously, are still in service today, with No. 6 remaining the largest structure of its kind on the Great Lakes. This impressive site is certainly of National Register quality.

First Sawmill, Oneota Lumber Company, 1855-1870. Although it antendated by a quarter century the height of the lumbering era at the harbor, this modest mill built on St. Louis Bay in the pioneering settlement of Oneota was typical of the early sawmills which served local needs and helped fuel the early building boom on the harbor. It was built by Henry W. Wheeler of St. Paul and supplied with machinery brought up from Detroit through the newly-opened Sault Canal. It seems fitting to commemorate this great industry, now wholly disappeared, by placing the site of the first sawmill on the National Register.

Imperial Flour Mill, 1889-1911. This distinctive six-story brick structure on the east side of Rice's point in the midst of "elevator row" symbolized the harbor's aspirations to become a leader in the flour milling industry. Although more than a half-dozen mills were to flourish across the bay in Superior during the 1890s, these early hopes were never realized. Nonetheless, this site would fittingly document an important period of harbor growth and commercial development if placed on the National Register.

North West Company Fur Post, 1793-c.1816. J. B. Perrault built this stockaded fur trade post on the Superior bay front channel in the vicinity of Connor's point. Located on one of the three natural portages at the western end of the lake, it served for a time as district headquarters for the entire Fond du Lac region and grew to considerable size as well as importance in the early fur trade. Although its ruins could be seen as late as 1855, its present location remains in doubt. If identified, it would certainly be of National Register significance.

George R. Stuntz Cabin, Dock, & Trading Post, c. 1853-unknown. Traditionally identified as the original settler of Duluth, Stuntz had a hand in a number of enterprises that were to shape the future of the harbor as well as the entire region. In addition to a sawmill on the Iron River and survey work on the Vermilion Iron Range, his local activities included government surveying and helping to construct the famous Military Road to Superior. His homesite on the end of Minnesota Point near the Superior entry, where for many years he operated a licensed trading post as well as an exclusive ferry service to mainland Superior, would fittingly commemorate this energetic pioneer spirit and should be considered of National Register caliber.



MAJOR CULTURAL RESOURCE LOCATIONS—DULUTH-SUPERIOR HARBOR

FIGURE 2-3

Additional Cultural Resources Which Should Be Preserved

Indian Portage across the base of Minnesota Point. Now in Government Park.

The "Thomas Wilson," (1892-1902) a sunken whaleback, outside of the harbor entrance.

An Indian-White Cemetery used in the 1860s, and the Indian Village of the same period. Located on Minnesota Point west of the lighthouse.

The Steamship, "Meteor" (1896-1976) at dock in Superior, Wisconsin as a museum.

The Northern Pacific Railway drawbridge, 1885-1976; spans the inner harbor.

B. PROBLEMS AND ISSUES

The Minnesota Historical Society is concerned with the preservation and protection of historic and archaeological sites. Based on the numerous inventories and surveys of such sites within the coastal zone, an evaluation must be conducted to determine what sites should be restored and interpreted and who should administer them based on their significance.

C. HISTORIC PRESERVATION GOALS, POLICIES AND IMPLEMENTATION STEPS

Policies:

1. To preserve, restore, and interpret buildings and other structures, locales, sites, antiquities and related lands which illustrate significant events, personalities, and features of local, state, and national historical and archaeological importance within the coastal zone.

Implementation Steps:

1. Assess currently identified historical and archaeological sites to determine their significance, interpretive potential, and appropriate level of administration.

2. Continue to carry out the mandate established in the National Historic Preservation Act of 1966, PL 89-665,-- to conduct historical and archaeological surveys and planning for preservation, acquisition, restoration, and development projects. Surveys shall be coordinated with the State Historic Preservation Office.

3. The projects generated by the Coastal Zone Management Plan will be reviewed for their effect on cultural resources, as required under the National Historic Preservation Act.

D. POLICIES AND AUTHORITIES RELATING TO HISTORIC PRESERVATION

1. Federal

National Historic Preservation Act of 1966, PL 89-665: Authorizes the Secretary of the Interior to expand and maintain a national register of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology and culture. This register is called the National Register of Historic Places. Under this Act, the Minnesota Historical Society is authorized to conduct statewide surveys of historic, architectural, archaeological, and cultural resources and prepare and review the state historic preservation plan. The Society is also mandated through this Act to comment on federal funded or licensed projects which may impact historic sites.

Executive Order 11593, Protection and Enhancement of the Cultural Environment: This order requires federal agencies to take a leadership role in preservation in two particular ways. First, for all property under federal jurisdiction or control, the agencies must survey and nominate all eligible historic properties to the National Register. Second, for every action funded, licensed or executed by the federal government, the agency involved must ask the Secretary of the Interior to determine if any property in the environmental impact area is eligible for the National Register.

Archaeological and Historical Preservation Act of 1960, as amended in 1974: This Act places responsibility on the Secretary of the Interior to coordinate and administer a nationwide program for the recovery of archaeological and historic data which otherwise would be lost as the result of federal construction and federally licensed and assisted land modification programs and activities. This program is administered through liaison with other federal agencies, identifying program needs and contracting with qualified state and private educational and scientific institutions to perform the necessary investigations.

Antiquities Act of 1906: This Act provides the Department of Interior with protective and research powers with respect to archaeological and historic resources on federal lands. In support of these activities the Departmental Consulting Archaeologist grants permits to educational and scientific institutions for the purpose of conducting archaeological and historical investigations on federal lands.

Historic Sites Act of 1935: This Act authorizes the Secretary of the Interior to make a survey of historic sites and buildings to identify those of national significant Sites and structures found nationally significant by the Secretary are eligible for designation as National Historic Landmarks and are included in the National Register. Upon the owner's agreement to adhere to accepted preservation precepts, landmark designation is recognized by the award of a bronze plaque and a certificate. The program began in 1960.

2. State

Outdoor Recreation Act: This Act establishes an outdoor recreation system in which all existing or proposed units must be classified according to the unit's purpose or function. Master plans must be prepared indicating how the units will be administered and managed. This Act authorizes the Minnesota Historical Society to prepare such management plans for state-owned historic sites and to assist the Commissioner of Natural Resources in preparing and distributing a registry of units.

Minnesota Historic Sites Act: The Minnesota Historical Society is authorized to administer and control certain historic sites within state parks for the purpose of preservation and interpretation. The Society is designated as the agency to accept federal funds for surveys, restoration, construction, equipping, or other purposes relating to the state historic sites program; and further, it is authorized to do what is necessary to obtain such funds. The director of the Society, as State Historic Preservation Officer, is responsible for the preparation, implementation and administration of the state historic preservation plan and the National Historic Preservation Act of 1966 (P.L. 89-665). The director of the Society must review and approve in writing all grants-in-aid for architectural, archaeological and historic preservation made by state agencies with state funds or a combination of state and federal funds. The Minnesota Historical Society must approve all acquisitions of lands containing historical or archaeological resources by the board of county commissioners of any county. The director of the Minnesota Historical Society is authorized to license (and revoke said license) any qualified person and institution to conduct archaeological work on state lands and to enforce the prohibition providing for the protection of archaeological resources on state lands. The Minnesota Historical Society is

authorized to protect the integrity of historic resources located on lands owned by the state, counties, and cities as the law provides, that neither the state nor any of the instrumentalities of government enumerated in Chap. 138.60, subd. 1 shall cause to change or alter the physical features or historic character of any site designated in the State Historic Sites Registry contained in sections 138.56 without first obtaining the prior approval in writing of the Minnesota Historical Society.

Minnesota Field Archaeology Act: This Act reserves to the Minnesota Historical Society the exclusive right and privilege of field archaeology on state sites, in order to protect and preserve archaeological and scientific information, matter, and objects. The Department of Natural Resources, the Department of Transportation, and all other state agencies must cooperate with the Historical Society and the state archaeologist in carrying out the provisions of this Act.

CHAPTER 3

Organization and Authorities

COASTAL ZONE MANAGEMENT

Chapter 3:

LEGAL ORGANIZATION AND AUTHORITIES FOR MANAGEMENT OF THE COASTAL ZONE

Introduction

The Federal Coastal Zone Management Act (hereafter "Act")[1/] mandates that the state establish a comprehensive and coordinated mechanism for administration and control of land and water uses at the state and local level within the coastal zone. Second, it provides for a review, by the state, of federal activities to determine their consistency with the state and local CZM Plans. It also 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, a procedure for plan amendment and a process for interim control prior to full plan implementation. Each of the above organization and authorities requirements are discussed in this chapter.

Critical in the evaluation of organization and control of land uses in the Coastal Zone are two factors: (1) the boundary established for the coastal zone and (2) the definition of those uses having a direct and significant impact on the coastal area necessitating CZM regulation. Both are discussed and described in detail in chapters 1 and 2. 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. No new laws will be necessary. 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, the most important element of the organization and authorities part of the plan, coastal zone land use controls are examined in three parts: (A) the

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1/ Pub. Law 92-583 (1972) as amended by Pub. Law 92-583 (1976) codified at 16 U.S.C. 1451 et seq., regulations regarding state CZM programs have been proposed, 43 Fed. Reg. 43552 (Aug. 29, 1977).

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 Act's requirement regarding federal consistency will be examined as well as the Minnesota proposal for federal and state/local consistency evaluation. In Section 4, the Minnesota approach to interim controls will be described.

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

A. Requirements of the Federal Coastal Zone Management Act.

With respect to necessary regulatory authorities over land and water uses, the Federal CZM 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 section 204 of the Demonstration 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. . . ." Act, §306(d) (Emphasis supplied).

This general requirement of adequate regulatory controls is supplemented by a specific indication of the extent and techniques 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 hearing." Act, § 306(e)(1)(a)-(c) (Emphasis supplied).

These authorities must be in place at the time of approval of the Coastal Zone Management Plan or the state must implement suitable interim controls. 42 Fed. Reg. 43566, §923.42(c)(3), (4) (Proposed regulations).

The organization and authority section of the regulations 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 methods will be utilized, depending upon the type of action and level of government involved. For state actions, methods 2 and 3 are both in place, and will operate concurrently. In summary form the methods are:

(1) State establishment of land use "criteria and standards for local implementation." In this case the CZM Plan must indicate certain policies regarding permissable use concerns and regulatory devices in various portions of the coastal zone. See Chapter 2. Local governments are then required to adopt local land use plans and ordinances consistent with these policies. The local ordinances must be reviewed by the state and subject to state approval as in conformity with the CZM Plan's "criteria and standards." State enforcement of consistency will result in the event a local government consistently fails to implement the ordinance. 42 Fed. Reg. §43565-67, § 923.42(c).

(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. 42 Fed. Reg. 43567-68, §923.42(d).

(3) State or local implementation of programs and adoption of regulations consistent with the Coastal Zone Management Plan, without prior preparation of state standards and criteria. Thereafter, each governmental decision, e.g. each permit, within the

coastal zone related to such regulations must be subject to administrative review by a state agency. 42 Fed. Reg. 43568-69, §923.42(e).

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 (both counties and cities) to adopt zoning ordinances consistent with the standards. DNR has issued regulations for both counties, Minn. Reg. Cons. 70-77, and cities, Minn. Reg. NR 82-84. "Shoreland" is defined as land within one thousand feet of the normal high water mark of a lake.[2/] 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;
> (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 Management zoning ordinance, however, none of the cities has as yet adopted any ordinance for shoreland.

2/ It also includes areas within 300 feet of a river or stream or the landward side of the flood plain, however this is of minimal relevance for the CZM plan since the boundary relates to Lake Superior.

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), NR 84(c). Note, variances cannot be granted allowing for a use not permitted in the zoning ordinance. Minn. Stat. §§462.357, Subd. 6; 394.27, Subd. 7. Thus, a change in use in the ordinance would require its resubmission for DNR review and approval. Standards for granting conditional uses are suggested by the DNR regulations in the Model Ordinance. Minn. Reg. Cons. 77(7.4).

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 creates an enforceable standard to require consistency in the coastal zone area within municipalities beyond the one thousand foot boundary, but no comparable standard for land use beyond the defined shoreland areas where there is county jurisdiction is provided in the law.

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, a state agency could seek judicial review either 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 could give rise to Environmental Impact Statement (EIS) review if they resulted in "potential for significant impact on the environment." Minn. Stat. §116D.04, Subd. 1.

The Shoreland Management Act satisfies the Coastal Zone Management Act method 1 for land use control: state criteria and local ordinance adoption, subject to state review.

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 Management ordinance boundary. Again, this use is not contemplated here, since local governments have indicated they will enter voluntarily agreement with the state to adopt ordinances consistent with the CZM policies in this area. The Critical Areas approach is mentioned here only for thoroughness.

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 to 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 decision, 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 only in accordance with those plans and regulations." Minn. Stat. §116G.12, Subd. 3 (Emphasis supplied).

This would establish the state adopted criteria and standards as the test for local government in granting variances and conditional uses. The Critical Areas Act, unlike Shoreland Management, also provides for a direct legal cause 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 for "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 state actions affecting the environment, as well as the requirement that an 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;
>
> (b) define, designate, and protect environmentally 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 of 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 a major action is proposed that would be in violation of the Coastal Zone Plan policies. 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 provision 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 alone shall not justify such conduct." Minn. Stat. §116D.04, Subd. 6 (Emphasis supplied).

Compliance with the Coastal Zone Plan arguably represents a "feasible and prudent alternative," which must be chosen under this requirement.

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 a hearing 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. The lead agency, PAC, another state agency, a local government or a private citizen or business could ask the EQB to hold a hearing and consider revising the agency action. This is the third method indicated in the Act.

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). All the state agency heads on EQB except Agriculture were on the CZM Policy Advisory Committee (PAC). The Chairman is the State Planning Director. EQB is given strong powers to act as the environmental coordinating 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) (Emphasis supplied).

As noted above, two of the state's environmental policies relate directly to the coastal zone planning effort. These two sections given 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 administratively 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 allowing 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 minerals, 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 the coordinated approach to water and land use control on the north shore and development of the Coastal Zone Plan are within the list of resources enumerated. This law creates an action for any person, including 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, or DNR 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. §115.0411 - 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 the 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 have been direct participants in CZM program development. Where necessary, regulations of these

agencies, as well as others with permitting responsibilities not on the EQB, such as the Securities Division on subdivided land sales, will be amended to insure consistency with the Coastal Zone Plan. State permits will not be granted for activities inconsistent with the CZM 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. Chapter 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, concerns 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 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 - 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, has been to hearing and should in place shortly, requiring individual sewage treatment systems utilizing subsurface soil treatment and disposal to meet certain standards. As proposed, 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 cities 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 practicies 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 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 coordination and cooperation 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: method 1 for local governments and methods 2 and 3 for state governments.

No new legislation is required or proposed, however state agencies will have to change their programs or proposed projects, and amend their regulations in appropriate ways, and local units of government will have to modify existing zoning ordinances as necessary to conform to CZM policies. These changes are in response to the new policies relating to land and water uses in the Coastal Zone Plan. These permissibile use policies are described in detail in Chapter 2. The coastal zone boundary defines the area in which the network approach will operate, and 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 permissible use policies 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.

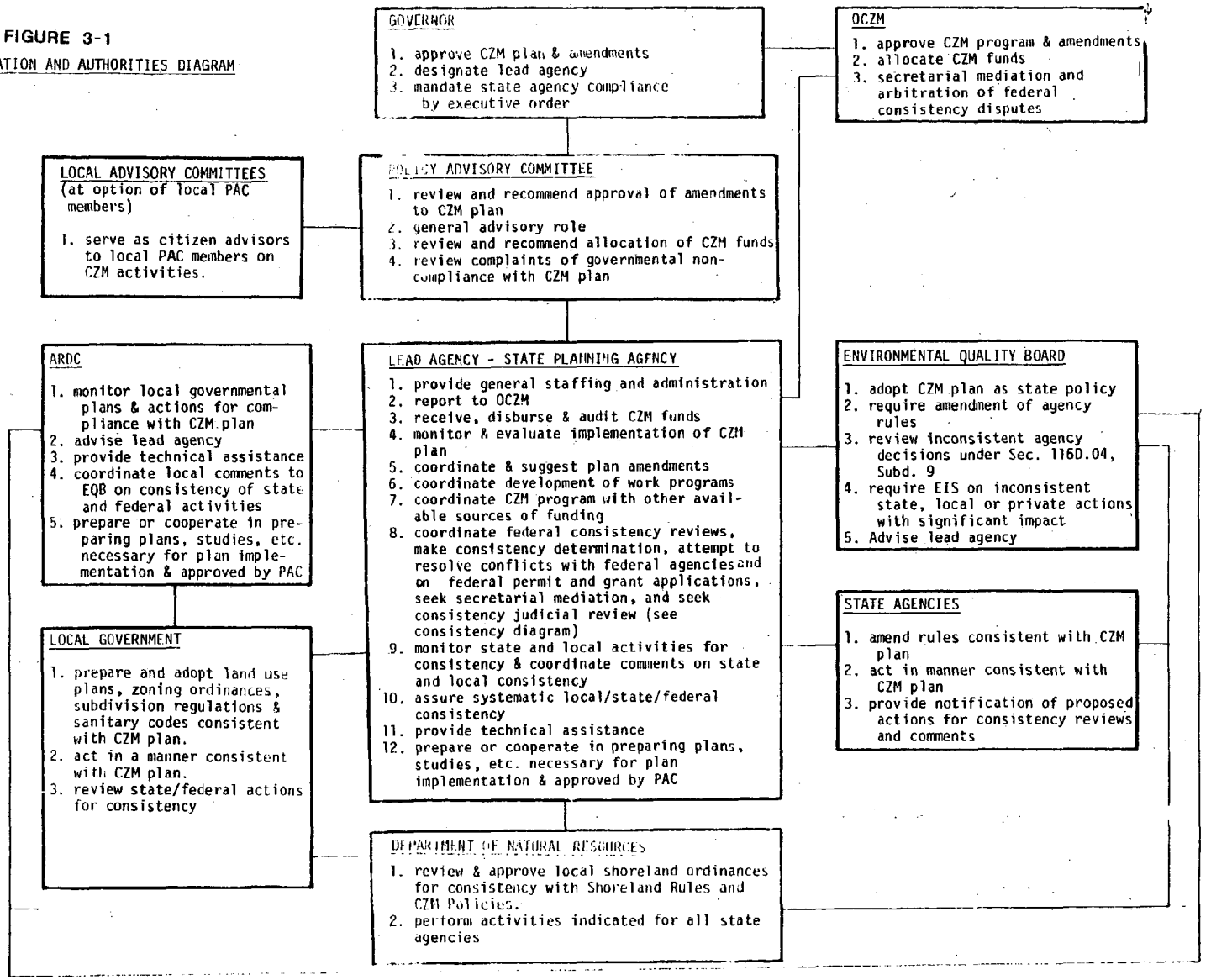
In the area beyond the Shoreland Management tier, only matters of the larger size involving a state permit will be regulated by one or another of the techniques specified in the Act. The state will strictly review residential development by preclusion of exemptions under the Subdivided Land Sales Act for developments not in conformity with the Coastal Zone Plan. Thus, only very small scale residential development, less than 10 units per year in this area will not have a state review. Beyond the Shoreland Management area amendment of local zoning ordinances to accomplish consistency with the Coastal Zone Plan will technically be voluntary, however, because of the participation of local representatives in the development of the permissable use policies specified in the plan, the major role assigned to local and regional government with respect to consultation and coordination in the Minnesota networking approach, and the logic of including T.H. 61 and using the quarter-quarter-quarter section lines for zoning purposes, it is anticipated that local governments will enter contracts to undertake such ordinance adoption in this area in virtually every case. 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 ordinance adoption activities of local governments pursuant to contract, as well as the mandatory ordinance adoption within the Shoreland Management zone.

The organization and authorities diagram, Figures 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 organization structure, different local and state government 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 policies specified in the Plan. New regulations, and revised programs and policies, as approporate, for state agencies, a review against the CZM plan policies of existing and amended Shoreland Management ordinances, and new zoning ordinances, where needed to meet the policies, 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 by Executive Order. The present PAC, composed of local and state officials, is now a non-statutory advisory body, but

FIGURE 3-1

ORGANIZATION AND AUTHORITIES DIAGRAM



its role was actually that of the directing entity in the CZM plan preparation process. It will be formally recognized and continue to 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 funding allocation, plus a continuation of its general advisory role. At the discretion of local PAC members, local advisory committees for local PAC members will be recognized as a formal part of the CZM implementation process and established.

Control of Land and Water Uses and Resolutions of Conflicts Amongst Competing Uses:

The Coastal Zone Management Planning process identified local land use planning as a critical element of the CZM process. The permissible uses section indicates a two step process of local governmental land use plan development and later ordinance adoption. Specific policy areas for examination and consideration in the land use plan are identified, and necessary codes and ordinances to implement the land use plan, including zoning/ land use, conditional use, health, highway access, sanitary, gravel pit operation and reclamation, and subdivision standards, as well as other areas of Shoreland Management concern are identified. As regards the coastal zone area, two key factors in the importance of local land use planning and zoning are (1) the new information generated in the Coastal Zone Management study, including information on soil types, highway access and future state recreational developments as it relates to local planning, and (2) the need to develop local land use control as part of the Coastal Zone Plan to make it applicable to federal and state governments under the consistency requirements.

Within the Shoreland Management Zone, counties along the North Shore currently regulate land use pursuant to Shoreland Management zoning ordinances. These ordinances have been approved as in accordance with existing criteria promulgated by the DNR. Municipalities have not yet adopted such ordinances, but are required to be adopted by law.

Upon adoption of the Coastal Zone Management Plan by the EQB, the DNR would have to implement the Shoreland Management program in accordance with the EQB adopted Coastal Zone Management Plan pursuant to Minn. Stat. §116C.04, Subd. 2. Thus, the policies and implementation criteria and standards in Chapter 2 of the CZM Plan would be the measure against which local government zoning and land use ordinances would be compared by DNR. Existing local ordinances would be reviewed for consistency by the DNR after EQB action. This procedure is identical to the one followed in the

initial adoption and review of the present ordinances, however, the benchmark for comparison would include not only the terms of the existing Shoreland Management regulations, but also the overlay of information regarding appropriate action in this area from the Coastal Zone Management Plan policy chapter. It is anticipated the DNR review would be completed prior to OCZM Plan approval, but new land use plan and ordinance adoption would stretch over several years thereafter.

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 would review ordinances in these areas as well as the 1,000 foot area against the CZM policies. Thus, the DNR review will be designed to provide guidance for ordinances to cover this area. The lead agency, PAC and ARDC will also provide technical assistance and aggressively urge adoption of consistent zoning ordinances in this area. Formal contracts between local government and the lead agency to implement planning and zoning consistent with the CZM plan will be entered into after gubernatorial and EQB action.

In all areas of the coastal zone, matters requiring state agency action or approval will be regulated to insure Plan consistency and subject to EQB review pursuant to Minn. Stat. §116D.04, Subd. 9. Similarly, direct state actions will be required to be in conformity with the Plan, and the EQB will mandate that programs and regulations of all state agencies be consistent Minn. Stat. §116C.04, Subd. 3. In appropriate cases, SPA will initiate rule changes (including possibly the EIS regulations and Subdivided Land Sales Act environmental standards) 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 within the CZM boundary, if it has potential for significant environmental effects and involves major policy choices or disagreements in terms of the CZM Plan. For purposes of this test, non-conformity with the Plan will be a major consideration indicating significant effect. Prior to regulation amendment EQB has authority to order EISs on a case by case basis.

State Consistency: Under the EQB statute, the EQB, in cooperation 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. State agency consistency is discussed in further detail in section 3 of this chapter.

Local Consistency: In the event of systematic non-compliance by a local agency in the implementation of the shoreland zoning ordinanace, the lead agency or DNR will pursue one of a variety of options: (1) intervention 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) judicial review to require compliance with the ordinance either by a direct review, arguing the decision is arbitrary and capricious, or 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. The consistency monitoring of local governmental decisions is discussed in more detail in section 3 of this chapter.

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 under §306(e)(1)(A) exist: state setting of criteria and standards (in the Shoreland Management regulations and CZM Plan), state review and approval of locally adopted ordinances as consistent with the CZM Plan, and state authority to seek judicial review in the event of a pattern of inconsistent enforcement.

In the small area of the boundary beyond 1,000 feet local governments will enter into contractual agreements to have their ordinances treated as if within the Shoreland Management area and DNR will provide the same review function. Thus, although the area has only state controls under the Act §306(e)(1)(B) and (C), it will be subject to "adequate state overview" and will be, pursuant to the contracting agreement, "part of the approved management program." 42 Fed. Reg. 43580, §923.83(b). Thus, the use of §306 funds for land use planning in this area will be appropriate.

With respect to state actions within the coastal zone, compliance results under both methods two and three, Act, §306 (e)(1)(B) and (C). There are direct state permit controls under consistent regulations for all regulated actions and mandatory 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
PLAN AMENDMENT

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

In addition to the requirement that the state have appropriate authority for control of land and water uses, the Act imposes a number of other legal requirements with respect to CZM organization and plan adoption.

A. Descriptive Requirements. The Act imposes many requirements that are merely descriptive of the plan elements, 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.

B. Gubernatorial Approval. The Act requires that:

> "The management program and any changes thereto have been reviewed and approved by the Governor." Act, §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, programs, and procedures be consistent with state policy, all state agency actions will be required to be consistent.

C. 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. . . ." Act, §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 inquiry under §§116D.04. Subd. 9 or 116C.04, Subd. 2 as appropriate. It will also ask for EIS's where this will foster study desirable in

ascertaining whether a particular action is appropriate in the CZM area. 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. It is thus 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 organizational plan, given 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.

D. Amendment Process. The Coastal Zone Management Act indicates future amendments are to be expected. Act, §306(g). The proposed regulations for program approval, 42 Fed. Reg. 43582-83, §§923.92, 923.93, recognize the Plans will be subject to both major amendment and minor refinement. The two sections provide standards for each type of change, indicate procedures for state action on the changes and establish the review procedure for major and minor amendments at the federal level. Approval "prior to initiation of the change contemplated" is required, and prior implementation where a "approved program goal, objective, policy, authority or other technique" is involved, can result in termination of federal funding. Act, §312(b), 42 Fed. Reg. 43583, §923.94(b)(1)(iii). The review in terms of a major amendment is the same as for initial plan approval. 42 Fed. Reg 43579, §923.72.

The Act provides no guidance on how the states should initiate amendments, and the regulations only require approval by the Governor, 42 Fed. Reg. 43582 §923.92(e)(1). Thus, 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) a change in DNR implementation of the Shoreland program, including a new review of local ordinances, 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 (2) modification of state agency regulations, permit procedures or other consistent action.

This indication of how formal 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 a Policy Advisory Committee (PAC) made up of local and state officials. The PAC will continue to act as the supervisory entity with respect to Coastal Zone Planning. The continued existence and role of the PAC will be indicated by the Governor in his approval of the Coastal Zone Plan and accompanying Executive Order. Amendment suggestions could come from many sources, including the State Planning Agency (The CZM lead agency), or 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.

E. Land Acquisition Authorities. The Act requires state legal authority to acquire interests in land "when necessary to achieve conformity with the management program. Minnesota law gives ample authority to meet this test to state and local authorities, for acquisition of recreation and wildlife lands, water access sites, trails, rest stops and overlooks, and harbor improvement sites, amongst others. A comprehensive list of these authorities follows:

Minn. Stat. §§:

84.029 authorizes the Commissioner of DNR to acquire by gift, purchase, or lease easements or other interests in land for trails or recreational uses related to trails.

84.033 authorizes the Commissioner of DNR to acquire by gift, lease, easement, or purchase lands or interests in lands suitable and desirable for establishing and maintaining scientific and natural areas.

84.64 authorizes the Commissioner of DNR to acquire conservation restrictions by gift, purchase, or exchange from private land owners.

84A.29, .39 grants to the Department of Natural Resources the power of eminent domain and authorizes him to acquire certain lands or interests in lands which he deems necessary for state ownership or use with regard to reforestation or aforestation of projects.

84A.55 authorizes the Commissioner of DNR to acquire by purchase or eminent domain any land or interest therein for purposes related to the development and management of certain state game preserves.

85.012 authorizes the Commissioner of Administration to acquire certain identified lands for state parks.

86.41 authorizes the Commissioner of Administration to acquire certain identified lands and directs him to work with the Legislative Commission on Minnesota Resources with regard to certain purchases. It further provides that certain land for park purposes may be acquired in any manner and to any extent authorized by the Act establishing the park for which the acquisition is made, but that all other identified land for recreational or conservation purposes may be acquired only by gift, purchase, lease, or license.

86A.07 provides that any unit of the outdoor recreation system shall be deemed authorized upon enactment of a law (1) describing the land, water, or facility which shall comprise the unit, (2) designating the land, water or facility which shall comprise the unit, and (3) directing and authorizing acquisition of the unit thus described.

89.032 authorizes the Commissioner of DNR to purchase lands or interests in land within state forests created by law which he deems necessary for state use and development.

89.033 authorizes the Commissioner of DNR to accept on behalf of the state any gift, bequest, or devise of land which he deems suitable for use in connection with the development of state forests.

92.31, and 94.341 et seq establish certain provisions for the exchange of state lands.

94.47 authorizes the Commissioner of DNR to purchase or to accept by gift or lease any land owned by the United States within townships in which state forests or state parks or game refuges or public shooting grounds have been set apart.

282.017 authorizes county boards to convey to the United States and the state of Minnesota permanent or temporary easements for highways, roads and trails, or flowage for the development of fish and game resources, stream protection, etc.

375.26 authorizes county boards to receive by grant, or devise real property, not to exceed forty acres in any one county, for use as park or recreation grounds.

398.32 authorizes counties to acquire by purchase, lease, gift or condemnation any land or water areas or interests within or outside of the county suitable for use by county residents for public park purposes or related outdoor recreation purposes.

400.04 authorizes counties to acquire by gift, lease, purchase, or eminent domain, any land or interest or land within or outside the county for solid waste management purposes.

412.211 authorizes every city to acquire within or outside its corporate limits such real property as the purposes of the city may require by purchase, gift, lease, condemnation, or otherwise.

412.491 authorizes any statutory city to establish, improve, maintain, and manage parks and recreational facilities.

412.511 authorizes the Park Board or council of any statutory city to acquire land for park purposes.

429.021 authorizes the council of any municipality to acquire and improve parks.

440.08 authorizes cities of the first class to acquire by purchase, gift, devise, or condemnation lands or property needed for public streets, highway uses and purposes.

440.38 authorizes any city of the first class to acquire by gift, devise, purchase or condemnation property necessary for streets or for adjacent public parks.

448.03 authorizes any city of the fourth class to acquire by purchase or condemnation tracts of land, not exceeding 25 acres, within the corporate limits of the city for public park purposes.

448.21 empowers any city of the first class to exchange for other lands to be used for parks or playgrounds any land acquired by the city for parks or playgrounds.

448.22 authorizes any city of the first class or any such city acting jointly with any county in which it is located to purchase from the federal government property needed for public park purposes.

450.19 authorizes cities and towns to acquire by lease, purchase, or gift suitable lands within or without their corporate limits for use as public tourist camping grounds.

450.23 authorizes the Board of Park Commissioners or other governing body having control of the parks within a city of the first class to receive and accept by gift or devise land to be used for public parks or recreational centers.

458.24 authorizes cities of the first class to condemn lands for harbors, wharves, or boat landings.

459.06 authorizes any county, city, or town to accept donations of certain lands for forest purposes.

459.07 authorizes any city of the first class to purchase or obtain by condemnation land bordering upon a lake for the purpose of establishing a municipal forest, and provides that the city may reserve any part of such land for use as a public bathing beach.

465.03 authorizes any county, town, city, or school district to accept a grant or devise of real property.

465.035 authorizes any county, town, city, or other public corporation to lease or convey its lands to the state or the United States.

471.15 authorizes any city, town, county, or school district to operate a program or public recreation and playgrounds, and to acquire and maintain land for such purposes.

471.191 authorizes any city operating a program of public recreation and playgrounds to acquire and maintain land for such purposes.

471.64 authorizes any county, city, town, school district, or other political subdivision to enter into contracts with the United States or its agencies for the purchase, lease, or other acquisition of real property, without regard to statutory or charter provisions.

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 authority 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 coordinate this program. The input of local and state governmental entities in this review is essential and ARDC will coordinate local input. A parallel state/local "consistency review" operating format will be implemented to insure maximum intergovernmental input, coordination and consistency at those levels. By using a parallel approach, maximum efficiency should result.

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. Act, §§307(c)(1), (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. Act, §§307(c)(3)(A), 307(d). Federal license or permit activities and grants to local and state governments for projects "affecting" the coastal zone must be "consistent" with the Coastal Zone Plan. This is a broader class of

covered actions than with respect to direct federal activities, since it includes secondary effects. 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 must concur with or object to the consistency of the proposed activity at the earliest practicable time after receipt of a notification from a license applicant accompanied by sufficient data to support its consistency finding. A failure by the state to act within six months from receipt of the information, 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. See 42 Fed. Reg. 43586 ff. (Proposed regulations).

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 or local agency. With respect to actions subject to a consistency review under §307(c)(3) (permits) and §307(d) (grants) the state is required to enumerate in the ~~Plan~~ the geographic areas and categories of permits which will automatically be subject to review. This tabulation follows this section. 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. Grants and permits outside of the described geographical area may be reviewed only with the approval of the Associate Administrator.

2. Minnesota Consistency Review Format. As noted above, the lead agency may delegate the consistency review function in whole or in part. Minnesota will do this, utilizing a pairing approach where federal agencies, whether acting directly or by permit or grant, 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.

FIGURE 3-2

FEDERAL CONSISTENCY REVIEW DIAGRAM

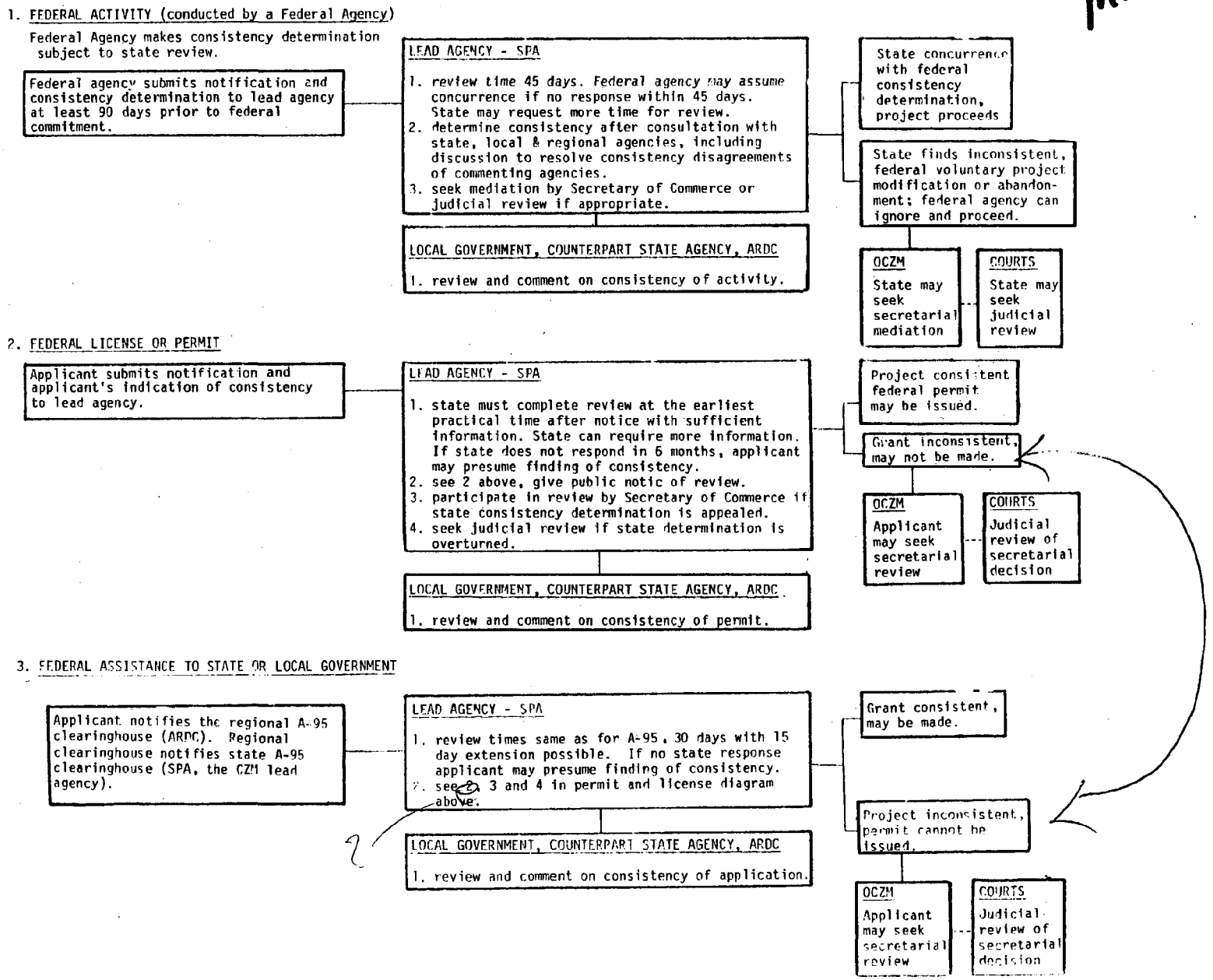


TABLE 3-1
FEDERAL CONSISTENCY TABLE,

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 required to notify lead state agency		State or local government applicant for federal assistance required to notify A-95 clearinghouse
Notification procedure	Alternatives chosen by federal agency (subject to NOAA regulations)	Consistency certification by applicant or equivalent notice procedure set forth in CZMP		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 but no authority to block federal activity)	Made by state agency and federal action must follow state determination		Made by state agency and federal action must follow state determination
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

Table 3-1
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CZMA SECTION	307(c)(1) & (2)	307(c)(3)(A)	307(c)(3)(B)	307(d)
Administrative Conflict Resolution	Voluntary mediation only by the Secretary	Voluntary mediation on appeal to the Secretary by applicant agency or independent Secretarial action within 30 days of *state decision, secretary* may override state decision if: 1) consistent with objectives of the Act, or 2) necessary in interest of national security		Voluntary mediation on appeal to the Secretary by applicant agency or independent secretarial action within 30 days of *state decision, secretary* may override state decision if: 1) consistent with objectives of the Act, or 2) necessary in interest of national security
Timing of State Action - Prospective	Notice time: 90 days before any commitment; Rev. time: within 45 days, an automatic 30 day extension available, if no response concurrence presumed, can ask for more time.	Notice time: by applicant Rev. time: 6 mo. after approval with sufficient data, if no rev. within time can presume agreement.		Notice time: notice is as provided in A-95 review program. Rev. time: same as under A-95, 30 days with a 15 day extension.
Activities, Grants, Permits Pending on Date of §306 approval	Federal agency must review & give determination to state within 120 days of §306 approval, state review 45 days with 30 day automatic extension	State must give notice of intent to rev. within 45 days after §306 approval or waives authority; time 6 months from original license approval notice, but not less than 3 months, OCZM can disapprove review within 15 days after state notice of intent to review.		Same as for permits, rev. time as in A-95, OCZM may disapprove within 15 days.

Table 3-1
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CZMA SECTION	307(c)(1) & (2)	307(c)(3)(A)	307(c)(3)(B)	307(d)
Identification of Actions to be Reviewed	Done by federal agency state may have advisory list and case-by-case identification other actions, if federal fails to review listed on identification, only remedy is mediation	State list or case-by case identification, OCZM can disapprove within 15 days.		Same as for permits
Judicial Conflict Resolution	Judicial review available	Judicial review available		Judicial review available
Location	In or out of zone if show test of impactment	Same		Same

*These terms have the same meaning and include secondary effects, which the test for federal activities does not.

Notice from the federal agency or permit applicant will be made to the lead agency, State Planning. Grant applicants already give notice to the ARDC and that agency will notify the lead agency. The lead agency will then refer each 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 clearinghouse for this input. Referrals will go the 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 provided by way of an EQB comment as to consistency. The lead agency will serve as the clearinghouse for comments from local and state agencies, transmit these comments to the appropriate federal agencies, ~~and~~ initiate, where appropriate, mediation, arbitration, or judicial review. In cases where comments of state agencies, EQB, ARDC, or local governments are inconsistent, the lead agency would mediate, and informally seek to achieve consensus ~~at the~~ state level. If necessary, the lead agency will make the final decision as to the state's position.

As with respect to the amendment mechanism, the law and regulations allow great latitude to the states as to the organization of the consistency review process. Aside from the denomination of the lead agency as the initial responsible agency, much flexibility is allowed in terms of consultation devices. Because of the large number of actions to be reviewed and the short time periods involved, it is necessary to establish a protocol for review of consistency to insure timeliness of comment. Thus, the procedure vests final comment authority and conflict resolution in the 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 will be available. Such review would be triggered by a commenting agency requesting the matter be placed on a PAC agenda.

B. State/Local Consistency Review and Mechanism for Local/ ARDC Input into Federal 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 the Act, §306(e)(1)(A), there must be a program of state review of local activities to allow identification of a systematic failure to comply. Similarly, the administrative

review authority of the EQB, Minn. Stat. §116D.04, Subd. 9, will be used to present deviations by state agencies from the Coastal Zone Plan under §306(e)(1)(C) of the Act. 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 working with DNR is the entity ultimately responsible for checking local decisions against the standard of systematic non-compliance. The EQB is responsible for checking those of state agencies. The lead agency will also interact with and trigger EQB review. In both cases, a close relationship to the ARDC and local governments is critical. In terms of the local consistency review, ARDC has been identified as the agency responsible for regular monitoring of local actions and plans for compliance with the CZM plan. ARDC will also coordinate local comments to EQB on consistency of state activities. The discussion which follows will address the state, local, and ARDC roles and responsibilities in the state/local monitoring process and describe the procedures to be followed in monitoring various activities. This process has been designed to parallel the federal consistency review procedure, thereby minimizing confusion regarding the handling of comments on consistency. The types of state and local actions which will be regularly monitored are listed at the end of this section.

1. Role and Responsibilities of ARDC.

Under the auspices of the Regional Development Act of 1969, ARDC has played the role of conducting area-wide planning, research, and review for the seven-county area of northeastern Minnesota. The Commission has two basic review authorities. (1) ARDC is the regional A-95 clearinghouse under the federal Intergovernmental Cooperation Act of 1968. ARDC is thus already responsible for reviewing federal actions and applications for federal grants and loans in the Arrowhead Region in terms of impacts on area and community plans. (2) Paralleling the Federal mandate, the State, through the Regional Development Act of 1969, requires ARDC to review state and federal programs, applications for grants and loans from state and federal agencies, and local government and independent agency comprehensive plans or other actions which have a substantial effect on regional development. While ARDC's review role under these laws is strictly advisory, in essence, ARDC has in place, under its current authorities, a framework to monitor and review actions and plans for consistency in the coastal zone. ARDC's responsibilities in the CZM monitoring process will include monitoring local land use activities in the coastal zone, attempting to resolve conflicts in an advisory capacity,

providing local units of government with information and analysis regarding state and federal actions, and coordinating local comments on those actions for the EQB and lead agency.

2. Process for Monitoring Federal and State Actions Using Existing A-95/PNRS Review.

Under OMB Circular A-95 rules and regulations and the requirements of the Regional Development Act of 1969, ARDC has designed and is operating a regional review mechanism, 3/ known as the Project Notification and Review Procedure (PNRS).

3/ PNRS operates as follows: Whenever a local unit of government, or state or federal agency intends to apply for federal or state aid to adopt a plan in the region, the applicant must notify ARDC of the intended action. In CZM ARDC will receive parallel notice of federal consistency matters, other than grants, and state consistency actions. They will be handled in the same manner as grants under the A-95/ PNRS system. ARDC has developed what is referred to as a PNRS Form 100. The form 100 is completed by the applicant and provides basic background information on a proposed action. ARDC, upon receiving a completed Form 100 responds within twenty-four (24) hours with a letter indicating the date of notification, project number, staff person assigned to review the project, and a date when final review comments will be forwarded on the project. In addition, at the same time the applicant is notified, ARDC contacts the State Planning Agency (State Clearinghouse) to ensure that proper Regional-State coordination is maintained in the PNRS system.

Once the Form 100 has been received and acknowledged, ARDC begins the formal review process. The staff person assigned to the project will identify appropriate government units, agencies and organizations and notifies them of the intended action within forty-eight hours. All notified government units and agencies are given ten (10) days to respond with their comments on the application. After comments have been received, the staff person (Project Review Officer) will determine if there is a need to hold a conference to discuss the project application in greater detail or prepares final comments. The conference determination is based on the responses of agencies affected and the Project Review Officer's own knowledge of how the project fits into the overall plans of the region, or how it may affect the region.

Assuming no conference is required, the Project Review Officer has eighteen (18) days to complete final review comments on the application and notify the applicant of the review by ARDC. Final comments address themselves to, or include information about:

This process will provide timely input to the lead agency regarding the local and regional view of federal and state actions and their consistency. PNRS times are consistent with the time lines in the Act and regulations for federal consistency review.

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1) The extent to which the project is consistent with overall planning for the state, regional or locality;
2) The extent to which the project contributes to the achievement of state, regional, and local objectives; and
3) In the case of a project for which assistance is whether the unit of general local government within the jurisdiction in which the project is to be located has applied or plans to apply for assistance for the same or similar type project.

In the CZM consistency review, the relationship for the reviewed action to the CZM Plan will be the standard for measure against these considerations. If conflicts concerning the review of a project do develop, several mechanisms exist to deal with the problems. For example, if a project is being reviewed by an affected local government unit and they require additional review time over and above the ten (10) day allotment, the deadline can be extended a maximum of fifteen (15) days. In addition, if it is determined that further discussion of the project is necessary, the Project Review Officer may conduct a conference. The purpose of the conference would be to identify and resolve questions, issues, conflicts and mutuality of interests. Conference procedures for notifying affected agencies, government units, applicant, and general public are outlined in the PNRS guidelines. Essentially, the ARDC Board of Directors are contacted, the conference date, time and location is set, affected interests and the general public are notified ten days prior to the conference, and a verbatim transcript of the conference is kept as a record on file. Following the conference, a written report is prepared for the ARDC Board and a decision made on ARDC's final review comments. Under CZM such comments will go to the lead agency. (It should be noted that ARDC has a standardized PNRS reporting format comprised of various forms, letters and filing procedures. This information is available at ARDC). Note, the PBRS system will provide timely input to the lead agency in terms of the times for CZM consistency review of federal actions.

The ARDC staff responsible for monitoring local land use actions will also be charged with coordinating local comments on inconsistent state and federal actions in the Coastal Zone. It should be noted that State Planning and EQB are the agencies responsible for monitoring all state agency actions, and individual state agencies monitor appropriate federal agency actions for consistency. However, there needs to be a process whereby local units of government and ARDC can report and comment on actions regarding consistency with the CZM plan. ARDC would serve the function of soliciting, coordinating, and reporting local comments on any state or federal actions regarding consistency with the CZM plan using the PNRS system.

In addition, even if a matter is not referred to ARDC for consistency review, a local unit of government could contact ARDC directly to initiate a review. In this instance, ARDC would examine the proposed action, discuss the issue with the local government unit and take appropriate action, including requesting lead agency review. In any case where there are local comments or concerns ARDC would prepare a statement for submission to the lead agency and EQB reflecting this input.

3. Process for Monitoring Local Land Use Actions in the Coastal Zone.

The DNR will continue its present practice of reviewing major local land use actions which occur within 1,000 feet of all lakes and 300 feet of all rivers and streams, thus meeting the §306(e)(1)(A) requirement of the Act. However, the local CZM monitoring agency, ARDC will play the major role in examining local land use actions and will advise the lead agency and DNR. A major difference in the two processes is that ARDC would work very closely with local units of government to analyze and resolve conflicts prior to DNR, lead agency, PAC or court involvement.

ARDC will meet with the counties and municipalities to discuss the ARDC monitoring task and urge use of the standardized land use permit process. The land use permit forms are designed to be computerized and can provide a variety of land use information for planning and other purposes. Use of the standard land use permit reporting format would provide easy access to permit action information in the Coastal Zone, and would also assist local planning commissions and zoning administrators in their understanding of the types of characteristics of land use actions taking place in their respective areas. At the present time, all CZM area counties use the standardized permit form. A major initial work task would be to introduce the land use permit forms to municipalities and coordinate the overall reporting procedure.

With the standardized land use permit reporting process operational, ARDC would be in a position to begin monitoring permit proposals. Staff would periodically examine permit actions within the Coastal Zone to determine if the pattern of decisions are in compliance with the Coastal Zone Management Plan. ARDC would monitor only major land use actions: variances, conditional uses, zone district changes and subdivisions. In order to operate this process smoothly, ARDC will work very closely with zoning administrators and planning commissions at the local level.

If an inconsistent pattern of land use permit decisions is identified, the following procedures would be followed by ARDC. The zoning administrator and local government governing body (county board, city council or town board) would be contacted to apprise them of the pattern of inconsistent actions. ARDC would compile advisory comments outlining the rationale for the inconsistency interpretation and provide these to the local government. Reference would be made to pertinent sections of the CZM Plan and examples of inconsistent actions cited. As necessary, meetings would be held with local officials and other affected persons. ARDC would, in every case, be available to explain the comments and respond to questions. In an effort to resolve problems at the local level, ARDC would request the local unit to review and formally respond to the advisory comments and inconsistent actions cited. Based upon the formal local unit response, ARDC would either continue to monitor activities for recurring inconsistent actions or would forward ARDC's comments and the local government unit response to the lead agency for any further action.

This process is designed to identify any patterns of land use inconsistencies and make professional planning expertise available to discuss the issues and resolve problems. In order for this process to function in a timely manner, close cooperation and coordination will need to be maintained between ARDC and local north shore governments. In the long run, local decision making will be strengthened, and coastal management planning implemented with minimum involvement of state and federal government.

Note, the ARDC role in monitoring should not be confused with its major role as a technical advisor to local governments. This task will continue and ARDC will consult with local governments on all areas of zoning and land use. In this later role ARDC staff will also be in close and regular contact with local units of governments and would, as appropriate, attend various local north shore planning commission meetings, assist in instituting the standardized land use permit application in those areas that are not presently using the

format, monitor pending local land use permit and subdivision actions to advise on potential problems or effects regarding coastal zone management, informally aid in resolving conflicts, and provide staff support for the local CZM Policy Advisory Committees.

Compendium of State and Federal Actions for Consistency Monitoring

A. Federal Permits and Licenses

1. Department of Agriculture

16 USC 522, 523 (Watershed)	Under Section 522, the USFS issues permits for water plants, dams, canals, ditches and other water easements on the National Forest lands. Rights-of-way for power and communications facilities are issued under Section 523.
16 USC 497 (Watershed)	The Forest Service issues permits for the construction and maintenance of hotels, resorts, summer houses, stores and facilities for industrial, commercial, educational, or public use on National Forest Service lands.

2. Department of the Interior

Bureau of Land Management (BLM)

The Bureau of Land Management is responsible for a range of permitting and licensing activities associated with its land and resources management programs on the National Resource Lands, Outer Continental Shelf, certain acquired lands, and Federal mineral ownership under private surface.

The following is a list of the Bureau's permitting and licensing activities. (NOTE: The activities and authorities cited are not all inclusive.)

Rights-of-Way Permits for:

43 USC 956 (Watershed)	Tramroads, including tramways, railroads, motor-truck roads (used in connection with mining, quarrying, logging, and manufacturing of lumber).
23 USC 107, 317 (Watershed)	Roads and highways
43 USC 959 (Coastal zone)	Power Transmission Lines
43 USC 959 (Coastal zone)	Water Plants
30 USC 185 (Coastal zone)	Oil and Natural Gas Pipelines and Pumping Plant Sites under the Mineral Leasing Act

3. Department of Transportation

U.S. Coast Guard (USCG)

33 USC 401 (Coastal zone)	This section grants the Coast Guard authority for issuing permits for the construction and modification of bridges, causeways, dams or dikes in navigable waters of the U.S.

4. Nuclear Regulatory Commission

The Nuclear Regulatory Commission (NRC) was established by the Energy Reorganization Act of 1972 (42 USCA 5801-91). In this Act, the licensing authorities of the Atomic Energy Administration were transferred to the NRC (42 USCA 2011 et. seq.)

The NRC licenses, among other things, the construction and operation of nuclear power plants; the production, transfer, import and export of fissionable materials; and the disposal of radioactive waste.

42 USC 2131-2140 (Watershed)	Full information on the licensing responsibilities of the NRC can be found in Subchapter IX, Atomic Energy License.

5. Department of Defense

U.S. Army Corps of Engineers (COE)

The COE is responsible for a wide range of permitting activities. The complete Army permit programs can be found in the Code of Federal Regulations Title 33, Section 209.120.

33 USC 403 (Coastal zone)	Rivers and Harbor Act of 1899, Section 10. This section prohibits the creation of any manmade obstruction in the navigable waters of the United States. In addition, it is unlawful to excavate or fill in the navigable waters of the United States without a Section 10 permit. Under this act, the term navigable waters means those waters which have been used in the past for commercial navigation, are being used or are susceptible to being used for commercial navigation. 1/

1/ In certain cases where there is jurisdictional overlap both a Section 10 and a Section 404 permit would be required for the discharge of dredged materials.

33 USC 1344 (Watershed)	Federal Water Pollution Control Act, Section 404. This act requires that a permit be issued for the discharge of dredged or fill material at specific disposal sites in the navigable waters of the United States.[2] Under this act "navigable waters" means the waters of the United States including the territorial seas.[1]

Somewhere is FERC
later is ERA

6. Federal Power Commission

16 USC 791 et. seq. (Watershed)	Under the Federal Power Act the FPC has the authority to issue permits and licenses for the construction and operation of hydroelectric power plants and transmission on land or waters subject to Federal jurisdiction. See Sec. 797(e), General Powers of the Commission, Issue of License for Contracting, etc.
43 USC 717 (Coastal zone)	The Natural Gas Act allows the FPC to issue permits for the construction and operation of interstate gas pipelines and storage facilities. See Sec. 717(f), Construction, Extension and Abandonment of Facilities.

FERC

FERC

7. Environmental Protection Agency

33 USC 1857 to 1857(f) 1857(f) to 1857 F-7, 1857 (f)(g) to 1857 (e) (Watershed)	Clean Air Act. Under the Clean Air Act, the Administrator of EPA sets standards or criteria for air pollution which must be met. EPA does not issue a clean air permit or license, however, waiver from compliance can be granted under Section 1857 C-5(e) which allows an extension of the time for meeting the national primary and ambient air quality standards in the implementation plan; and Section 1857 C-7, which covers exemptions for stationary sources.

1/ In certain cases where there is jurisdictional overlap both a Section 10 and a Section 404 permit would be required for the discharge of dredged materials.

2/ Environmental Protection Agency guidelines are used for determining whether a permit will be issued.

B. State Permits and Licenses

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
DNR	Conservation	MS 84.415 (Coastal Zone)	Utility Crossings of Public Lands/ Waters	permit needed for telephone, telegraph, and electric power lines, cables, or conduits, underground or otherwise, or mains or pipelines for gas, liquids, or solids in suspension
		MS 84.58 (Coastal Zone)	Underground Storage	permit needed for underground liquid and gas storage
		MS 84.62 (Coastal Zone)	Certificate of Use	no use shall be made of gas or liquid storage reservoir until the right to use the property involved has been issued a certificate of need
		MS 84.621 (Coastal Zone)	Storage in Natural Formations	permit needed for storage of any gas or liquid, except water, below the natural surface of the ground by using naturally occurring rock materials as a storage reservoir
	Forestry	MS 89.17 (Coastal Zone)	Use of State Forest Lands	permit needed for the use of any state forest land for any purpose which is not inconsistent with the maintenance and management of state forest
		MS 89.18 (Coastal Zone)	Roads through State Lands	permit needed for public highways, other than a state trunk highway
		MS 90.151 (Coastal Zone)	Cutting and Removal of Timber	permit needed for cutting and removal of state timber sold at public auction
			Informal Sale of State Timber	permit needed for cutting and removal of sale timber sold informally
		MS 90.50 (Coastal Zone)	Leasing of Unsold Lands Subject to Sale	leases for any state-owned lands for the purpose of taking and removing sand, gravel, clay, rock, marl, peat, and black dirt, for storing ore, waste materials from mines, or rock and tailings from ore milling plants, for roads, or railroads, or for any other uses not inconsistent with the interests of the state

*Also includes plan review and approval, leases, and certificates.

Responsible Agency	Topic	Statutory Reference	Name of Permit *	Description
DNR	Lands and Minerals	MS 93.08 (Watershed)	Prospecting for Minerals under Waters and Meandered Lakes/ Streams	permit required for prospecting for gold, silver, copper, cobalt, coal, graphite, petroleum, sand, gravel, stone, natural gas, and all minerals, excepting iron ore, under the waters of any public lake or stream in the state
		MS 93.14 (Watershed)	Prospect for Ores	permit required for prospecting for iron ore and other ores upon state lands or in which state has an interest
		MS 93.24 (Watershed)	Mining of Other Than Iron Ores	permit needed to mine gold, copper, silver, cobalt, coal, graphite, manganese, iron sulphides or other sulphur ores, titaniferous magnetites or any other valuable mineral believed to exist on lands included within a prospecting permit or lease not covering such mineral
		MS 93.25 (Watershed)	Prospecting Permits, Other than Iron	permits needed to prospect for gold, silver, copper, cobalt, graphite, coal, and petroleum and other minerals than iron ore
		MS 93.34 Subd. 1 (Watershed)	Mining under Public Waters	permit needed to mine any mineral below the low water mark of any public lake or river
		MS 93.43 (Watershed)	Permits, Licenses, and Leases to Copper, Cu/Ni, or Nickel Producers	permits or licenses on and across lands owned by the state to any corporation or association engaged in the business of or preparing to engage in the business of mining, producing or beneficiating copper, copper-nickel or nickel for pipelines pole lines, conduites, sluiceways, roads, railroads, tramways or flowage, and to lease any lands owned by the state to any such corporation or association for the depositing of stripping, lean ores, tailings, or waste products of such business
		MS 93.481 (Watershed)	Permit to Mine	permit needed to engage in or carry out a mining operation for metallic minerals within the state (application must include a proposed plan for the reclamation or restoration, or both, of any mining area affected by mining operations)

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
DNR	Game/ Fish	MS 98.48 Subd. 9 (Watershed)	Aquatic Nuisance Control	permit for the control of aquatic nuisance so as to provide maximum recreational and other beneficial use of public waters without significant damage to fish and wildlife populations and lake ecosystems
	Drainage and Waters	MS 105.41 (Coastal zone)	Appropriation and Use of Water	permit for the appropriation or use of any state waters, surface or underground, for any purpose except for domestic use serving less than 25 persons
			Temporary Water Appropriation	permit needed for water appropriation involving a one-time limited time (not more than 12 months, non-recurring appropriation of state waters) does not include domestic use serving less than 25 persons
		MS 105.42 (Coastal zone)	Work in Public Waters	permit to construct, reconstruct, remove, abandon, transfer ownership, or make any change in any reservoir, dam, or waterway obstruction on any public water; or in any manner, to change or diminish 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
				permit to establish, construct, maintain and control wharfs, docks, piers, levees, breakwaters, basins, canals, hangars in or adjacent to public waters of the state except within the corporate limits of cities

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
DNR	Drainage and Waters		Alterations of Natural Water Courses	permit needed for the alteration of natural water courses, in whole or in part
			Beach Sand Blankets	permit needed for the development of public and private beach areas along lakeshore wherever such a desired alteration would be feasible and practical without contribution of excessive fill material to the lacustrine environment or unwarranted destruction of fish and wildlife habitat
			Bridge and Culvert Installations	permit needed for the construction of public and private roadways which cross or encroach upon public waters
			Construction or Reconstruction of Permanent Docks	permit needed for the construction, reconstruction removal or abandonment of permanent docks in public waters consistent with lacustrine and shoreline conditions
			Dam Construction or Reconstruction	permit needed to construct or reconstruct, remove, transfer ownership, or make any change in any dam
			Dredging of Public Waters	permit needed for dredging within public waters except for barge facilities
			Filling into Public Waters	permit needed for the placing of fill materials into public waters
			Inland Excavations	permit needed for any excavation intended to extend the cross section of public waters landward of the natural or pre-existing shoreline
			Intakes and Outfalls	permit needed for constructing water intake and storm sanitary sewer outfall structures in public waters
			Maintenance Excavation of Existing Channels/ Harbors	permit needed for the periodic maintenance excavation of existing boat harbors and channels located on public waters of the state to maintain their utility without damage to material resource values

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
DNR	Drainage and Waters		Navigational Access Facilities	permit needed for construction of navigational access facilities within the public waters of the state
			Off-Shore Marinas	permit needed for the construction of harbors, marinas, and breakwaters which extend waterward of the shoreline of public waters
			Private Off-Shore Breakwater & Harbors	permit needed for the construction of harbors and breakwaters which extend waterward of the shoreline of public waters
			Public Off-Shore Harbor Projects	permit needed for the construction of harbors, marinas, and breakwaters which extend waterward of the shoreline of public waters
			Retaining Walls	permit needed for the construction of retaining walls along the shores of public waters to achieve shoreline stabilization and/or direct shoreland docking
			Riprap Shore Protection	permit needed for correcting or preventing bank erosion problems along the shorelines of public waters by the placement of riprap shore protection
			Water Level Controls	permit needed for controlling water levels
			Watermain and Sewer Crossings	permit needed for the construction of watermains storm and sanitary sewer lines across public waters of the state
			Waterway Obstructions	permit needed to construct, reconstruct, or relocate offshore structures, cables other than utility crossings, pilings, permanent diving platforms, or other facilities constituting waterway obstructions
			Wharves	permit needed for construction or reconstruction of wharves in public waters
		MS 105.64 (Watershed)	Drainage or Diversion of Water to Facilitate Mining	permit needed for drainage, diversion, control, or use of any waters under DNR jurisdiction when necessary for the mining of iron ore, taconite, copper-nickel, or nickel

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
DNR	Eminent Domain	MS 117.47 (Coastal zone)	Use of State Lands for Taconite Mining	permit needed for taconite mining activities to occur on or across state owned lands for the depositing of stripping lean ores, tailings, or waste products of such business
		MS 117.48 (Coastal zone)	Use of State Lands for Crude Oil Pipelines	permit needed for transporting crude petroleum, oil, their related products and derivatives including liquified hydrocarbons by pipeline as a common carrier on or across state-owned lands

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
DOT	Highways/ Roads	MS 160.18 Subd. 2 (Coastal zone)	Access to Roads (Entrance Permit)	permit needed to provide vehicle access from abutting property to the highway for agricultural, residential or commercial use including intersecting municipal, county or township roads onto state highways
		MS 160.27 (Coastal zone)	Limited Use	permit needed to authorize the use of existing right-of-way by an outside agency
		MS 161.45 (Coastal zone)	Public Utilities & Works on Trunk Highways	permit needed for electric transmission, telephone, or telegraph lines, pole lines, community antennas, television lines, railways, ditches, sewers, water, heat or gas mains, gas and other pipelines, flume, or other structures to be constructed, placed, or maintained across or along any trunk highway
		MS 173.03 (Coastal zone)	Permits within Scenic Areas	permit needed for the erection or maintenance of any advertising device located within a scenic area
		MS 173.13 (Coastal zone)	Devices along Inter-State Highways (Advertising Permit)	permit needed for the erection or maintenance of advertising devices adjacent to interstate and primary system of highways

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
Energy Agency	Environmental Protection (energy)	MS 116H.13 (Watershed)	Certificate of Need	certificate of need required for the siting or construction of a large energy facility
Environmental Quality Board		MS 116C.57 Subd. 1 (Watershed)	Certificate of Site Compatibility	certificate needed for large electric power generating plants indicating that site is compatible with site selection standards
Executive Council	Lands and Minerals	MS 93.13 (Watershed)	Draining of Lakes and Leasing of Ore Lands in Beds	permit needed for draining and removal of iron ore from lake bed when surrounded in part by state land upon which a state mineral lease has been issued
		MS 93.34 Subd. 2 (Watershed)	Draining of Meandered Public Lake for Mineral Purposes	permit needed to drain any meandered public lake for the purpose of mining of minerals

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
Health Department	Health	MS 372.10-.28 (Coastal zone)	Licence for Mobile Home Parks & Recreational Camping Areas	plan review prior to construction of new facilities or additions

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
PCA	Environmental Protection (air quality)	MS 116.07 Subd. 4A (Coastal zone)		permits needed for the emission of air contaminants, or for the installation or operation of any emission facility, air contaminant treatment facility, treatment facility, potential air contaminant storage facility, or storage facility, or any part thereof, or for the sources or emissions of noise pollution
			Installation Permit (APC 3)	permit needed for the installation or construction of an emission facility or air quality control equipment
			Operating Permit (APC 3)	permit needed for the operation of an emission facility or air quality control equipment
			Indirect Source Permit (APC 19)	permit needed for the construction of any of the following: highways/roads; parking facilities; retail, commercial, and industrial facilities; recreation, amusement, sports, and entertainment facilities; airports; office and government buildings; apartment and condominium buildings; and educational facilities
	(noise)		no permits, but variances can be issued	variances can be issued when by reason of exceptional circumstances strict conformity with any provisions of any noise regulation would cause undue hardship, would be unreasonable, impractical, or not feasible under the circumstances

Responsible Agency	Topic	Statutory Reference	Name Permit*	Description
PCA	Environmental Protection (water quality)	MS 115.03 Subd. (e) (3) (WPC 4) (Coastal zone)	Storage or Keeping of Oil and Other Liquid Substances (Liquid Storage Sites)	permit needed to construct or modify safeguards for prevention of the escape or movement of a substance or a solution from a storage facility whereby pollution of any waters of the state may result
		MS 115.07 Subd. 1 (WPC 36) (Coastal zone)	Construction and Operation of a Disposal System (State Disposal System)	permit needed to construct, install, or operate a disposal system
		MS 115.07 Subd. 3 (Coastal zone)	Sewer Extension	permit needed to make any change in, addition to or extension of any sanitary sewer system
		PL 92-500 Federal Water Pollution Control Act Amendment of 1972 (Coastal zone)	National Pollutant Discharge Elimination	permit needed for construction of wastewater treatment facilities and the discharge of wastewater to surface waters of the state (authority to issue federal permits given to PCA)
		PL 92-500 Federal Water Pollution Control Act Amendment of 1972 (Coastal zone)	Section 401 Certification	state certification that any application for a federal license or permit to conduct any activity which may result in any discharge into waters of the state will comply with the applicable state and federal water quality laws and regulations

Responsible Agency	Topic	Statutory Reference	Name of Permit*	Description
PCA	Environmental Protection (solid waste)	MS116.07 Subd. 4A (Coastal zone)		permits needed for the collection, transportation or disposal of solid waste, or for the installation or operation of any system or facility, or any part thereof, related to the collection, transportation, or disposal of solid waste
				permits needed for the treatment or disposal or both of hazardous waste, or for the installation or operation of any system or facility or any part thereof
		and MS 116.081 (Coastal zone)		permit needed to construct, install or operate an emission facility, air contaminant treatment facility, treatment facility, potential air contaminant storage facility, storage facility, or system or facility related to the collection, transportation, storage, or disposal of solid waste
			Construction and Operation of a Solid Waste Disposal System (Sanitary Landfill) (SW 6)	permit needed for construction and operation of sanitary landfills and demolition landfills (includes modified landfills and other land burial sites)
			Incineration (SW 7)	permit needed for solid waste and hazardous waste incinerators
			Composting (SW 8)	permit needed for composting of solid waste
			Transfer Stations	permit needed for placing into operation a transfer station
		Proposed Regulation (Coastal zone)	Hazardous Wastes	permit needed for transportation and storage of hazardous waste
		MS 116.37, Subd. 1 WPC 38 (Watershed)	Polychlorinated Biphynels	certificate of exemption needed to use, possess, sell, purchase or manufacture PCB or products containing PCB

Administering Agency	Authorizing Legislation	Grant Program Title*	Nature and Purpose of Program
DNR	Session Laws '77, Chap. 455 (Watershed)	Acquisition, Development, & Maintenance of Recreational Land Trails	To provide trails for snowmobiling, skiing, snowshoeing, horseback riding, bicycling, hiking, and backpacking
DOT	Session Laws '77, Chap. 421 (Coastal zone)	State Bicycle Trails	To develop local bicycle trails primarily on existing road rights-of-way
	MS 162 (Watershed)	County State Aid Distribution	For construction and maintenance of county state aid highways
	Title 23 US Code (Watershed)	Federal/County Highway Development Assistance	For improvement and development of local roads and streets utilizing federal and local funds
Historical Society	Session Laws 1969, Chap. 956 (Coastal zone)	Historic Grant-in-Aid	To assist historic preservation projects not currently receiving state funds
	Session Laws 1969, Chap. 894; 1139, Sec. 48 (Coastal zone)	Historic Sites Survey	To locate, identify, and develop a statewide historic sites program
	National Historic Preservation Act of 1966 (Coastal zone)	Historic Preservation Grants-in-Aid	To assist in acquisition, restoration, or preservation of sites listed in the National Register of Historic Places
Soil and Water Conservation Board	Session Laws '75, Chap. 204, Sec. 55, Subd. 6(f) & Laws '77, Chap. 455, Sec. 33, Subd. 7(n) (Watershed)	Sedimentation and Erosion Control	To solve sedimentation and erosion problems relating to lake shore, stream bank and roadside erosion (only applies to roads built before 1971) and, within corporate limits of a municipality, upland gully erosion

*State financial assistance or federal funding, but state administered program.

Administering Agency	Authorizing Legislation	Grant Program Title*	Nature and Purpose of Program
	Session Laws '77, Chap. 304 (Coastal zone)	Minnesota Cost/ Share Program	To provide for long-term conservation practices on lands (funds go to private landowner, not local units of government)
SPA	Session Laws '77, Chap. 455 (Coastal	Parks and Open Space Grants	To provide financial assistance to local units of government for the acquisition and development of parks and open space (includes harbors of refuge program)
	Session Laws '77, Chap. 421 (Coastal zone)	Grants for Developing Trails	To provide for hiking, bicycling, and cross country skiing trails
	Session Laws '77, Chap. 421 (Coastal zone)	Grants for Regionally Significant Parks in Outstate SMSAs	To acquire and develop parks, trails, conservatories, zoos, and special use facilities, all of which must have regional significance (in coastal zone, only applies to St. Louis County)
	MS 4.27-4.31 (Coastal zone)	Land Use Planning Grant Program	To provide counties and municipalities with financial assistance to conduct land use planning activities

Agency Responsible	Activity	Nature or Purpose of Activity
DNR	Acquisition of Scientific and Natural Areas (Coastal zone)	preserve, protect, and manage lands and waters possessing inherent natural values, including soils, waters or sediments, sites of scientific value, habitats of rare or endangered species of plants and animals, places of historic or prehistoric interest and scenic beauty, and areas uniquely suitable for teaching natural history and conservation
	Development and Management of Scientific and Natural Areas (Coastal zone)	develop management plans for each designated area to protect such lands from adverse use and to assure their protection and perpetuation for public use for research and education
	Acquisition for the Wild and Scenic Rivers Program (Watershed)	acquire land, or interests in land (particularly scenic easements) along rivers designated components of the wild, scenic and recreational rivers system; to preserve the scenic views and vistas, protect the natural character of the shorelines, and maintain the open space (including agricultural lands)
	Development and Maintenance for the Wild and Scenic Rivers Program (Watershed)	prepare and implement management plans necessary to protect wild and scenic river corridors
	Forest Roads (Watershed)	construct new forest roads and reconstruct and maintain existing forest roads which provide fire, timber management, and recreational access
	Forest Pests (Watershed)	control of forest pests through forest management techniques, biological controls, and chemical controls
	Acquisition and Development of Fish Habitat (Watershed)	bring habitat areas threatened by destruction under the protection of public control either through acquisition of fee title or easement for specific fishery uses and restore or artificially replace missing features on waters where the habitat has deteriorated or critical elements have been lost
	Acquisition, Protection, and Evaluation of Wildlife Habitat (Watershed)	protection of wildlife habitat through acquisition, easements, review of development projects, wildlife refuges, zoning, hearings, permits, legal actions and commissioner's orders

Agency Responsible	Activity	Nature or Purpose of Activity
DNR	Habitat Development and Maintenance (Watershed)	develop and maintain wildlife habitat to produce a sustained yield of wildlife resources
	Land Sales (Watershed)	selling of land best suited for private development or land deemed surplus to the state
	State Land Exchange (Watershed)	investigation, appraisal, and processing of land exchange proposals as submitted by private individuals, corporations and public agencies to consolidate state, private, federal, and county land ownership for more efficient management and administration
	Land Acquisition (Watershed	acquisition of land for parks and recreation areas; public access to rivers, streams, and lakes; habitat, food, and cover areas for wildlife; public hunting areas; forest management areas and to preserve fish spawning areas; natural and scientific areas; historic sites; etc.
	Acquisition of Park and Recreation Areas (Watershed)	acquisition by purchase or gift within existing state park areas for protection and preservation of the natural environment; includes reviewing, inspecting, selecting and proposing boundary expansions of existing state park areas or adding new park areas to the existing state park system
	Development of Park and Recreation Areas (Watershed)	construction, development, improvement, and rehabilitation of visitor use facilities
	Maintenance & Operation of Park and Recreation Areas (Watershed)	duties performed to keep recreational use facilities safe, clean, and enjoyable, such as mowing grass, grading roads, enforcement of rules and regulations, giving directions, cleaning toilets, garbage removal, etc.
	Acquisition of Forest Recreation Areas (Watershed)	land selected for its unusual beauty and other natural features located within an expanse of government land not only being managed for timber, game, erosion control, etc., but also for recreation
	Development of Forest Recreation Areas (Watershed)	involves planning and construction of campgrounds, day use areas, and trails
	Maintenance & Operation of Forest Recreation Areas (Watershed)	includes all duties necessary to keep forest recreational facilities safe, clean, and enjoyable, such as removal of hazardous limbs and fallen trees, policing, providing firewood, cleaning tables and toilets and treatment of the pits, repair and replacement of acilities, grooming snowmobile trails, grading of service roads, etc.

Agency Responsible	Activity	Nature or Purpose of the Activity
DNR	Acquisition, Development, & Maintenance of Recreational Land Trails (Watershed)	acquisition, development, and maintenance of corridor, state forest, state park, and grant-in-aid trails to meet various kinds of trail needs throughout the state (hiking, backpacking, skiing, equestrian, bicycle and snowmobile)
	Acquisition of Canoe and Boating Route River Sites (Coastal zone)	acquisition of leases or use easements for areas to be developed for public recreational use on canoe and boating route rivers
	Development & Maintenance of Canoe/Boating Route River Sites (Coastal zone)	develop and maintain river-oriented recreational facilities, such as portages and primitive canoe campsites and the marking of hazards, points of interest, and recreation sites along canoe and boating rivers
	Acquisition, Development, & Maintenance of Public Access (Coastal zone)	purchase, develop, and maintain good quality public access on lakes and rivers (all lakes 150 acres in size and meandered are eligible for consideration as well as lakes under 150 acres in size if intensive fish management is to be carried out on them)
	Acquisition of State Forests (Watershed)	acquisition of tracts within existing forests for recreational as well as timber production purposes
	Outdoor Recreation Planning (Coastal zone)	maintain state eligibility for federal Land and Water Conservation Fund Grants and provide direction and priorities for state and local actions in outdoor recreation programs; policies in the State Outdoor Recreation Plan serve as a basis for regional and state priorities of needs for outdoor recreation lands and facilities
	Water and Related Land Resources Planning (Coastal zone)	development of a framework plan for the development and management of the state's water and related land resources
	Land Use Planning (Coastal zone)	provide optimum management of those lands under jurisdiction of the DNR through proper land use classification, selection of management units, and interdisciplinary resource management planning

Agency Responsible	Activity	Nature or Purpose of Activity
Historical Society	Acquisition and Administration of Historic Sites (Coastal zone)	to preserve, restore, and interpret buildings and other structures, locales, sites, antiquities, and related lands which aptly illustrate significant events, personalities, and features of the history and archaeology of the state or nation
PCA	Solid Waste Pollution Control (Coastal zone)	*prepare state resource recovery plan *complete a statewide hazardous waste management plan
	Water Pollution Control (Coastal zone)	*issue guidelines for the on-land disposal of municipal sludges and for sludges from septic tanks and water treatment facilities *draft land application guidelines for the proper disposal of industrial effluents and sludges
	Water Quality Special Studies (Coastal zone)	*prepare a model wastewater facilities plan for small rural communities with a thorough examination of all alternatives presently available for improved wastewater treatment with emphasis placed on proper consideration of on-site residential sewage disposal *coordinate the development and operation of the statewide water quality management planning (208) effort and maintain coordination with inter agencies
	Air Quality Control (Watershed)	*an analysis of emission sources and development of control strategies for Duluth's air quality maintenance area *sampling and evaluation of taconite plant emissions *designation of boundaries for Class I air quality regulations in the vicinity of the coastal zone
DOT	Policy and Planning (Coastal zone)	development of the Mn/DOT PLAN for all modes of transportation; plan will include a decision-making process, policies, improvement program and a financial needs assessment
	Highway Development (Coastal zone)	to improve the condition of the physical structures that comprise the interstate and trunk highway system (primarily made up of the roadway and bridge system, also includes buildings, rest areas, and weigh stations)
EQB	Power Plant Siting (Watershed)	to provide for power plant site and transmission line route selection while minimizing adverse human and environmental impacts and maximizing public participation. This includes the development of procedures and criteria for siting and routing and the development of an inventory of large electric power generating study areas.

*Short-range tasks (or sub-components) of an on-going activity (i.e., solid waste pollution control).

SECTION 4:

INTERIM CONTROLS

SECTION 4: INTERIM CONTROLS.

Under the Minnesota Coastal Zone Management Plan, with respect to state activities, an administrative review mechanism on a case by case basis exists in statute as of this time. Minn. Stat. §116D.04, Subd. 9. Thus, a method utilizing technique three is in existence at the time of plan submission. While regulatory changes by state agencies will be initiated upon plan approval by the EQB and Governor, these may not in place prior to final OCZM review. However, since the case by case review is available, there is no need for interim controls regarding state actions.

As regards local activities regulated pursuant to technique one, DNR review of local ordinances will be undertaken immediately after gubernatorial and EQB Plan adoption. It is anticipated that Coastal Zone Management funding will support personnel in the DNR to undertake this activity, and that it will take from three to six months after EQB action to be completed. Obviously, thereafter, local land use planning and ordinance development and adoption will stretch over a number of years and be funded with CZM grants. Thus, the need arises for interim controls during the period prior to final approval of all local ordinances as consistent with the plan.

A. Legal Requirements. Referencing §306(e)(1) of the Act, the regulations make clear that:

> "states using [state criteria setting, local ordinance adoption and state review of adequacy of ordinances] may seek §306 approval after all requisite local ordinances or programs have been reviewed and approved." 42 Fed. Reg. 43566, §923.42 (c)(3).

However, the regulations also indicate that any state:

> "may seek program approval prior to final approval of all local ordinances and programs provided that:
>
> (i) a reasonable time and procedure for local compliance has been established. . .;
>
> (ii) the state policies, standards and criteria are sufficiently specific. . .; and
>
> (iii) there is sufficient interim authority to insure that land and water use decisions subject to the management program will

be consistent with the policies, goals, and objectives of the management program between the time of §306 approval and the time when our local programs are adopted." Id. at 43566, §923.42(c)(4).

Because Minnesota is seeking immediate §306 approval, its plan relies, in part, upon local ordinances adopted under the Shoreland Management Act. Since DNR review and implementation of ordinance adoption at the local level will not be completed by the time of plan approval, a technique for interim control is necessary.

B. Minnesota Interim Control Approach. The legal authority to challenge specific decisions under the Minnesota Environmental Rights Act, with its statutory test requiring choice of a feasible and prudent alternative has been discussed in detail in section 1 (B) of this chapter. Also indicated there is the existing statutory framework under the Environmental Policy Act for requiring an EIS on projects not consistent with the Coastal Zone Plan. These two tools will provide the basis for effectuating interim control pending local ordinance review and adoption.

Monitoring of local decisions currently occurs on a regular basis through the DNR, in terms of notification regarding variances and subdivisions in the shoreland area. In addition, local monitoring by ARDC, as described in section 3 of this chapter will commence prior to §306 approval. Of course, the PAC, with its representatives of all three counties, Duluth, the townships, and other municipalities will also meet during the interim period. Through the monitoring programs and the personal knowledge of PAC members, problems of inconsistent development during the interim period, should any occur, can be brought to the attention of the lead agency. The state agencies, which are members of the PAC, also sit on the EQB. Thus, a direct linkage to the agency responsible for the EIS program is in place. These agencies will also often have knowledge of actions proposed in the coastal zone area, even if they do not require a state permit.

When an action that is inconsistent with the Chapter 2 Coastal Zone Management policies is proposed in the CZM area during the interim period, the state has standing and a legal basis to challenge the decision under the Rights Act or the EQB can order review of the action, prior to implementation, by means of an EIS. These two tools provide adequate techniques to police against any action during the interim period resulting in significant adverse affect due to inconsistency with the Plan.

CHAPTER 4

Uses of Regional Benefit and the National Interest

COASTAL ZONE MANAGEMENT

Chapter 4:

USES OF REGIONAL AND NATIONAL BENEFIT

Introduction

Two sections of the Coastal Zone Management Act relate to uses in the coastal zone of regional or national interest. The focus of these requirements is to insure adequate consideration of the broader interest in such facilities, prevent their arbitrary or inappropriate exclusion from the coastal zone, and insure that such regional and national benefit facilities have been considered in the CZM planning process. Discussed below are the statutory requirements in these areas and the Minnesota program response. Both are discussed jointly, because, although they are separate sections, in large part the uses of regional and national benefit in Minnesota are viewed as coinciding.

1. Legal Requirements. The Act requires that prior to management program approval the Secretary of Commerce must find that:

> "The management program provides for adequate consideration of the national interest involved in planning for, and in the siting of facilities (including energy facilities in, or which significantly affect, such state's coastal zone) which are necessary to meet requirements which are other than local in nature. . . ." Act, §306(c)(8).

With respect to regional interest facilities, the requirement is slightly stronger, going beyond mandating consideration and requiring for program approval that the Plan have:

> "a method of insuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit." Act, §306(e)(2).

Thus, national and regional benefit uses must be identified, appropriate planning for such uses must be insured, and inappropriate or arbitrary exclusion of such uses may not be permitted in the CZM Plan.

2. Minnesota Approach to Regional and National Interest Uses. Prior to discussing Minnesota's consideration of various uses and/or facilities having a national or regional interest, it is appropriate to note that requirements for such facilities

"must be met within the context of balancing a national interest in the planning for and siting of such facilities with other national interests related to coastal resource conservation and protection." 42 Fed. Reg. 43571, §303.52(a), Act, §303. The clear import given by the policy of the Act, and made more specific in the regulations, is that CZM is a planning process and that the unique natural resources of the coastal area must be considered. Further, the natural resource may itself be a national or regional interest. Resources in which there may be a national interest are enumerated in the regulations, and include such preservation concerns as water, and air quality, wetlands, endangered flora and fauna, flood plains and erosion prone areas, wildlife habitat, areas of unique cultural significance, and historic sites. See 42 Fed. Reg. 43572, Table 2. To date, the major federal involvement of Minnesota's North Shore has focused on the conservation and recreation side of the national interest use spectrum. Of the comments solicited from federal agencies regarding their interest in the coastal zone during the CZM planning process, see Appendix 1, no particular national concerns other than in the areas of harbor development, recreation, and resource protection were identified. Thus, Minnesota's coastal zone, unlike that of many other states, currently is not facing numerous proposals for industrial, commercial, military, transportation or energy projects potentionally inconsistent with resource protection and enhancement and resulting in major national interest or regional benefit conflicts.

A second significant factor with respect to national and regional interest uses and the Minnesota coastal zone relates to the boundary of the zone. In general, it is a narrow strip relating only to the lake land/water interface and T.H. 61. Thus, facilities needing proximity to the coast, but not adjacency, will generally not be affected by the Minnesota program, except in terms of consistency review. Only coastal dependant industrial uses would be excluded from Minnesota should the coastal zone area not be available for development. While T.H. 61 also is included in the coastal zone boundary, there is no restriction in the Minnesota program regarding access to the highway for any type of facility outside the coastal zone, and, in fact, highway policies recognize the responsibility of the highway to meet its commercial use obligations. See Chapter 2.

In terms of facilities which may be of national or regional benefit, the federal regulations provide some guidance as to specific facilities in which there may be a national interest. These include national defense and aerospace, energy production and transmission, recreation, transportation, regional water

and sewage treatment plants, prime agricultural areas, major mineral deposits, fisheries resources, and forest land. In terms of regional benefit, a logical definition is a use which affects more than a particular local area. Such potential activities, which relate to the coastal zone, include the uses and concerns listed above regarding the national interest, and also major industrial and commercial facilities, particularly if outside existing nodes of population development.

As noted above, the major concerns with respect to the national interest facilities and regional use facilities are: adequate consideration in the planning process and avoidance of arbitrary and capricious exclusion. Of course, the level of concern regarding any facility or use relates in part to its likelihood of locating within a particular state's coastal zone. As noted above, the comments of federal agencies, existing plans for the area, and the results of the CZM planning process indicate only a small likelihood for a number of the enumerated national interest facilities. Ongoing regional planning and the CZM plan has provided for certain regional facilities and indicated the lack of necessity to extensively consider certain others. These kinds of factors have been built into the coastal zone planning process and are reflected in the specific policies in Chapter 2. For example, the minimal incidents of agricultural land in the Minnesota coastal zone area has resulted in a lack of emphasis on this use. On the other hand, mineral and forestry resources have been considered in some detail although the small size of boundary makes CZM effect in these areas small. Similarly, the absence of a likelihood for national defense or aerospace installations on the North Shore has resulted in a lack of consideration of these uses in particular, as compared with recreation, where major attention was focused on park, forest and lake-related recreation facilities and fisheries and wildlife habitat.

The following types of regional and national uses require further comment:

(a) Energy production and transmission. Two types of energy facilities appear likely on the North Shore: energy shipment facilities and energy generation or conversion facilities utilizing water from the lake. With respect to shipping facilities, such a use is coastal dependant and local land use plans are required under the Shoreland Management Act to identify areas appropriate for this and other industrial use. See Minn. Reg. Cons. 72(b), NR 83(a). The policies in Chapter 2 of the Plan made clear the availability of already existing ports on the North Shore for further coastal

dependent industrial development, including shipping facilities. The key area will be Duluth/Superior harbor and this is the focus of a special chapter of the Plan.

With respect to energy facilities desiring access to Lake Superior water, water intake structures would be permitted within the coastal zone, however the energy production facilities themselves might well be excluded from the zone as not requiring water adjacency. See Minn. Reg. MEQC 74(c)(1)(ee), (2)(bb). Minnesota has an elaborate program for energy facility need evaluation and siting, which is discussed in Chapter 6. With respect to electrical energy generation and transmission facilities, these laws provide for preemption of local zoning. See Minn. Stat. §116C.51 et seq. Because of the Minnesota concern regarding visual effects of development on the North Shore, as exemplified in several policies, concentrated location of industrial development in urban areas and avoidance of adverse visual effects would both be major concerns in energy facility siting.

(b) Recreation Facilities. Numerous policies in Chapter 2 relate to development of major recreational facilities on the North Shore. Specific priorities for acquisition of access points to fishing streams and the lake have been identified. Priorities in terms of park land development and trail development have been specified. There currently exists substantial park and other recreational facilities on the North Shore, and no major increments, within the coastal zone area, to the current holdings have been proposed. No comments indicated major additional areas appropriate for acquisition. Completion of acquisition programs regarding already established recreational areas are recognized as appropriate in the plan. Appropriate authorities exist in state law for recreation and other public land acquisition at the state level in Minnesota, see Chapter 3(C).

(c) Transportation. Continued development of the Duluth/Superior Harbor as a major port has been recognized as a key development of the Coastal Zone Plan. Major emphasis in the Duluth/Superior Harbor Study has been on appropriate policies to respond to navigational needs and dredging/water pollution concerns. Other harbors on the North Shore which are currently developed for major bulk commodity shipment are also recognized as appropriate locations for lake related commercial shipping development. Policies regarding small boat harbor development and highway improvements related to land transportation and considering the effect of strip development on highway capacity are included in Chapter 2. Thus, the national and regional interest in appropriate commercial harbor facilities, harbors of refuge for small recreational boats, and land based transportation is recognized and built into the Plan.

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(d) Water and Sewage Treatment Facilities. The Minnesota CZM Plan contains a number of policies designed to focus development on existing population nodes to preclude the need for expensive extension of sewer and water. Planning for sewer and water facilities for these areas has been undertaken by the ARDC, and is the basis for ARDC comment on sewer and water facility grants. Similarly, the PCA recognizes the need to respond with regional sewage treatment facilities appropriate for the existing population areas. No policies would preclude such facilities from being developed within or adjacent to the coastal zone area.

(e) Minerals. Specific policies in Chapter 2 recognize the appropriateness of identifying mineral deposits within the coastal zone area, but, because of the small size and unique natural environment of the area, mining within the Shoreland Management area and gravel taking in beach areas, is precluded. This represents a case where the material adverse effect of mineral development within this narrow zone or on beaches was identified in the CZM process as having adverse effects which outweighed benefits. Mining beyond the Shoreland area is not precluded, and policies to guide such decisions are provided.

(f) Forest Resources. Forest management is recognized as a priority for the North Shore area in general, however, within the coastal zone, in most instances, aesthetic considerations will outweigh timber removal values. Where appropriate, the Coastal Zone Plan in Chapter 2 calls for management of forest resources for timber production. Note, this balancing with the recreational and aesthetic value of forest in the coastal zone area is another example of appropriate weighting of the miscellaneous national and regional interests in this particular resource (timber production vs. aesthetics and recreation).

(g) Large Scale Commercial and Industrial Facilities. As noted in the discussion above, the Minnesota plan calls for specific zones to be established for industrial development and commercial services as appropriate. Policies in Chapter 2 recognize the desirability of focusing this development in the existing population nodes, to avoid disruption of the T.H. 61 corridor and uneconomical dispersal of larger scale commercial and industrial facilities. Local land use planning considerations and land use ordinance requirements would insure appropriate, but not arbitrary or unreasonable exclusion or restriction for such facilities. The location of such facilities is considered in the ARDC regional water and sewer planning process. Commercial and recreational development

See HC Memo

on T.H. 61 is recognized as appropriate, subject to various policy considerations regarding access, clustering, etc. CZM policy favors siting of heavy industry in the four areas (Duluth, Two Harbors, Silver Bay and Taconite Harbor) where it is currently located. The CZM land use planning process will identify commercial and industrial uses likely in the coastal zone, and those which are coastal dependent. Appropriate areas for such coastal dependent uses will be identified in the local plan implementation process.

Three Minnesota laws provide the framework to insure that both national interest and regional interest considerations are incorporated into the ongoing decision making process in the Minnesota coastal area. First, the Shoreland Management Act allows a state review of local zoning ordinances in the area within 1,000 feet of the lake. The DNR, following EQB adoption of the CZM Plan, will reevaluate local ordinances and measure them against the policies in Chapter 2 of the Plan. These policies, as noted above, specifically recognize both national and regional interest concerns. Thus, any arbitrary or exclusionary local zoning or zoning which did not consider these concerns would not meet the test of comparison against the CZM policies. Second, the Environmental Policy Act authorizes the EQB to order an EIS on any proposed action with potential for significant environmental affects. Proposed uses of regional or national benefit will often entail significant environmental effects and occasion EIS review. In the course of such review, the Minnesota law requires a number of considerations which are broader than those in a usual EIS that relate to the regional and national benefit of a facility, particularly in terms of the economic benefit of such facilities, as measured against adverse environmental effects. These include consideration of the "economic, and employment effects" of a proposal, the "predictable increased future development of an area because of the existence of a proposal," and the "multi-state responsibilities associated proposed action." See Minn. Stat. §116D.04, Subd. 1. Thus, the consideration of the economic affects of an action are built into the Minnesota EIS process, and the concern about "multi-state responsibilities" directly relates to the national or multi-state regional affect of an action. Third, the Minnesota Power Plan Siting Act provides the state decision on power plant and transmission line locations is preemptive of local zoning.. Specifically recognized in the regulations thereunder is the appropriateness of location of water intake structures even within otherwise excluded areas for facility location. See e.g. Minn. Reg. MEQC 74 (c)(1)(ee), and (2)(vv).

Utilizing these three laws, and evaluating the Minnesota Coastal Plan policies in Chapter 2 indicates that regional and national interest facilities and concerns have both been considered in the Minnesota planning process and allowed as appropriate in the coastal zone area. Thus, the requirements of the Act and regulations regarding regional and national interests and uses have been complied with in the Minnesota Plan.

CHAPTER 5

GAPCs

COASTAL ZONE MANAGEMENT

CHAPTER 5:

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 land and water portion of a state's overall Coastal Zone Management Program. Those areas may also represent significant opportunities with regard to the Coastal Zone Program 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 5-1 lists the areas considered.

TABLE 5-1

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 5-1 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	?	4

Table 5-1 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	Deer yard 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 5-2 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 5-1, ten were nominated as GAPCs by the public and are included in Table 5-2. 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;

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;

TABLE 5-2

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, MEMEEC	Area is "messed up." Nominator feels that it needs help. Would require considerable extension of CZM boundaries to be included.

Table 5-2 continued.

	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.

Table 5-2 continued.

	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.

Table 5-2 continued.

	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.

Table 5-2 continued.

	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.

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 portion 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 5-3 summarizes the results of the screening process. Numbers on the left margin of the Table correspond to the numbers in Table 5-2 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.

TABLE 5-3

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 5-3 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

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 5-3 and their general locations are shown on Figures 5-1 and 5-2. Figures 5-3 to 5-6 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 actions.

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.

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. This was done by resolution of the Duluth City Council on August 15, 1977.

3. Action on Knife River and Thomsonite Beach was deferred pending discussions with local residents and governmental units.

Following action by 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 will be repeated at a later time.

C. GAPC Nomination and Designation Process During Program Implementation

The process for nominating and designating GAPCs during coastal zone program implementation will be as follows:

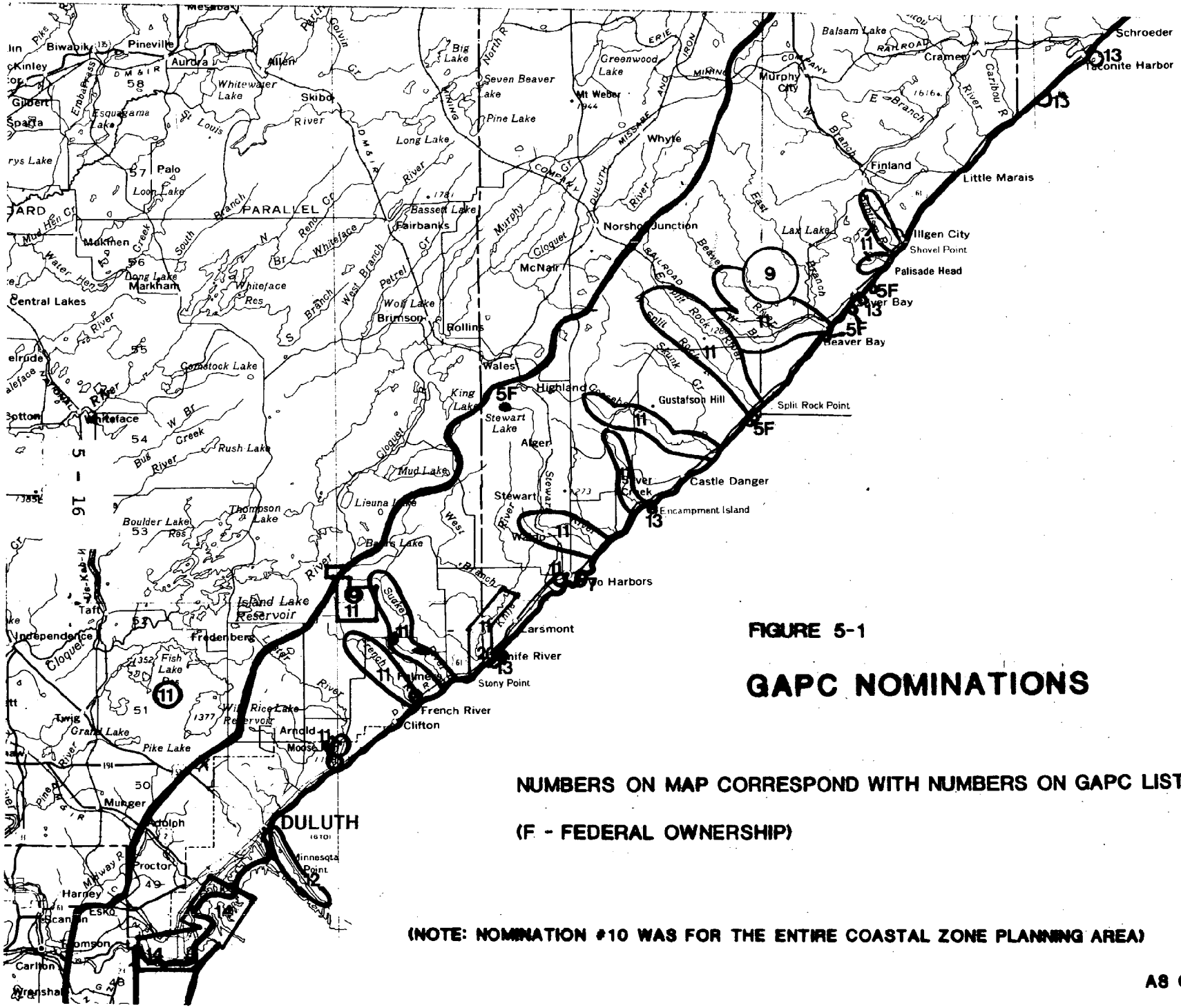


FIGURE 5-1

GAPC NOMINATIONS

NUMBERS ON MAP CORRESPOND WITH NUMBERS ON GAPC LISTING SHEET

(F - FEDERAL OWNERSHIP)

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

AS OF 11/5/76

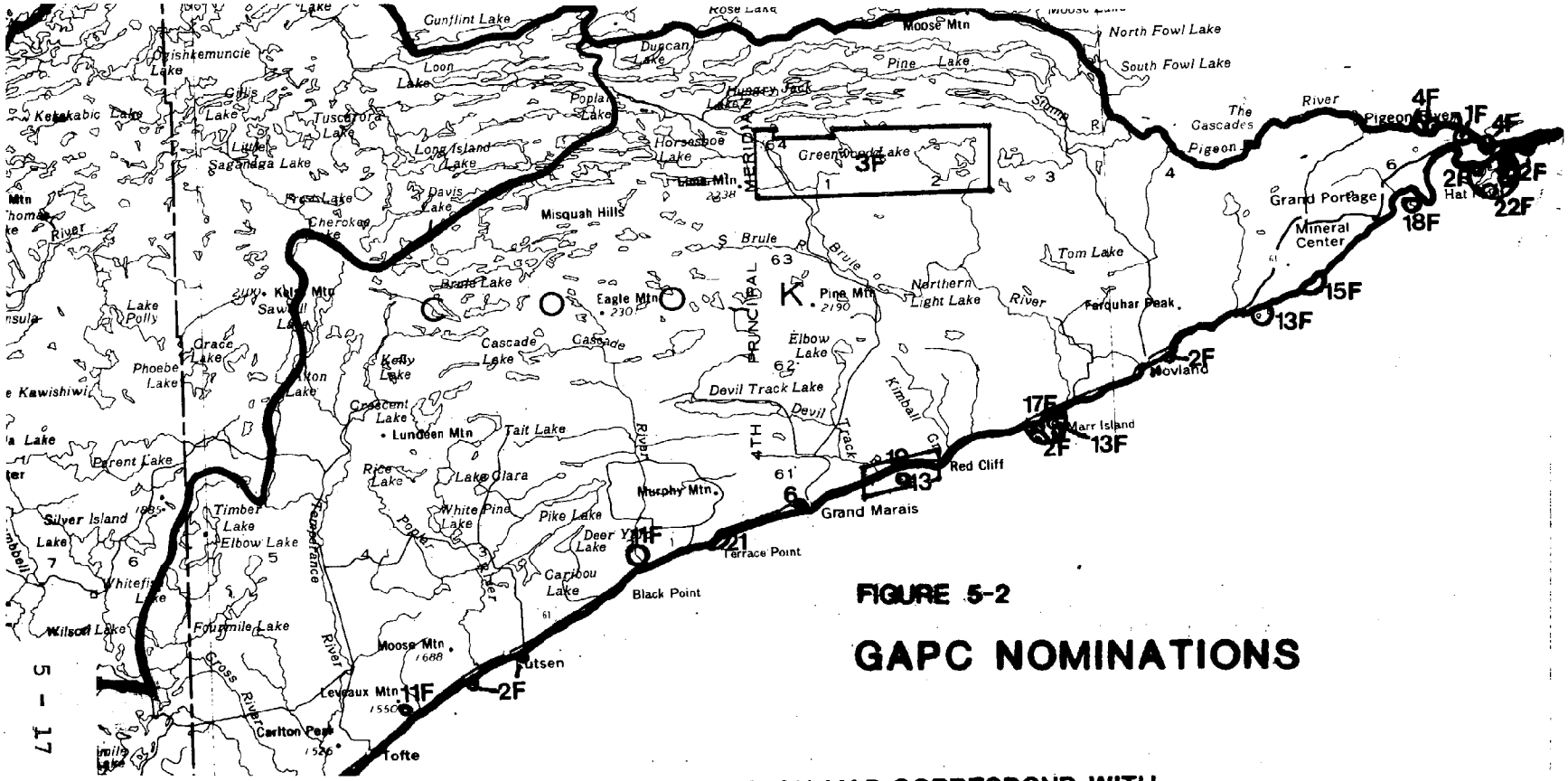


FIGURE 5-2

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 11/5/76

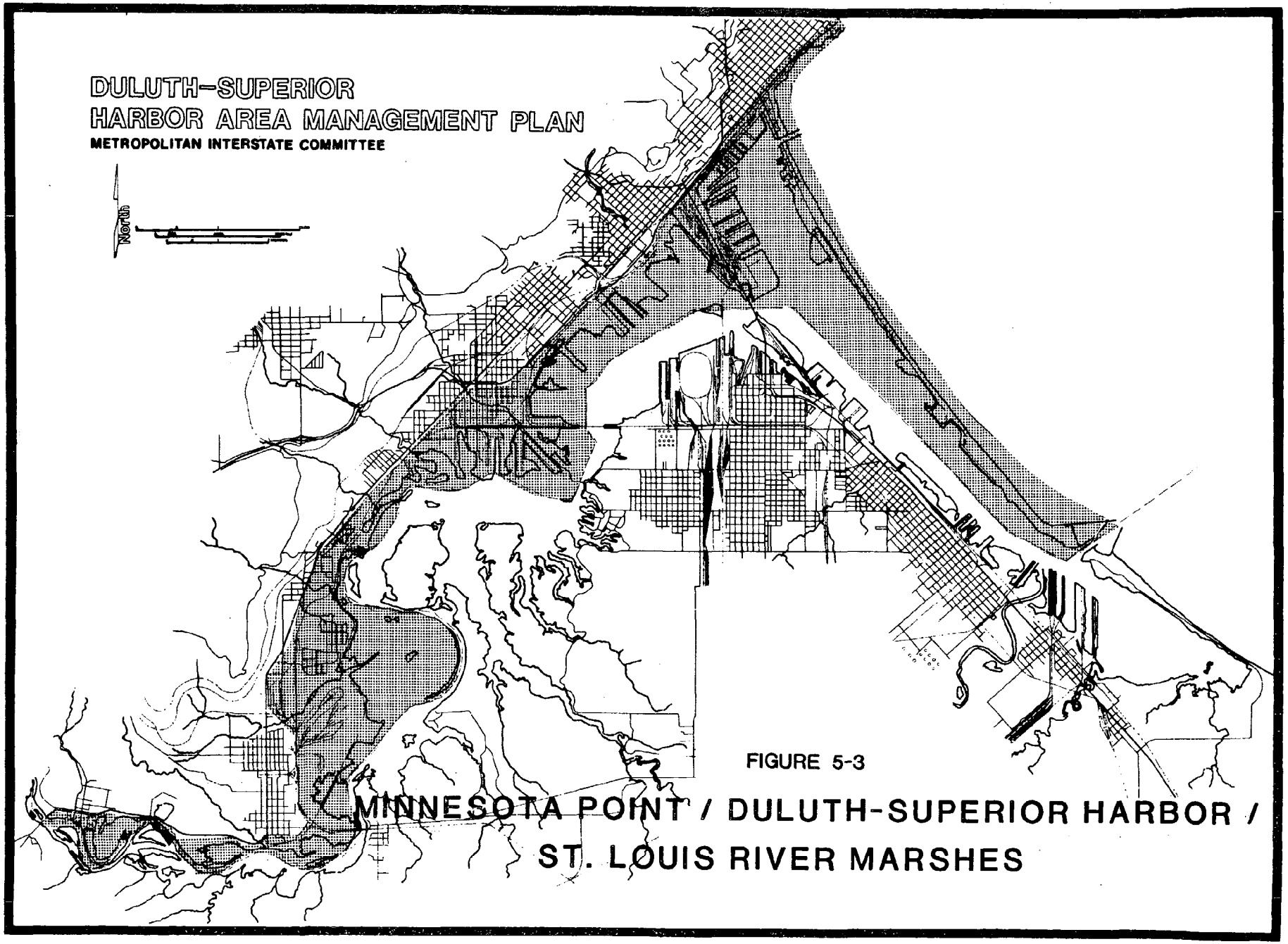


FIGURE 5-3

MINNESOTA POINT / DULUTH-SUPERIOR HARBOR / ST. LOUIS RIVER MARSHES

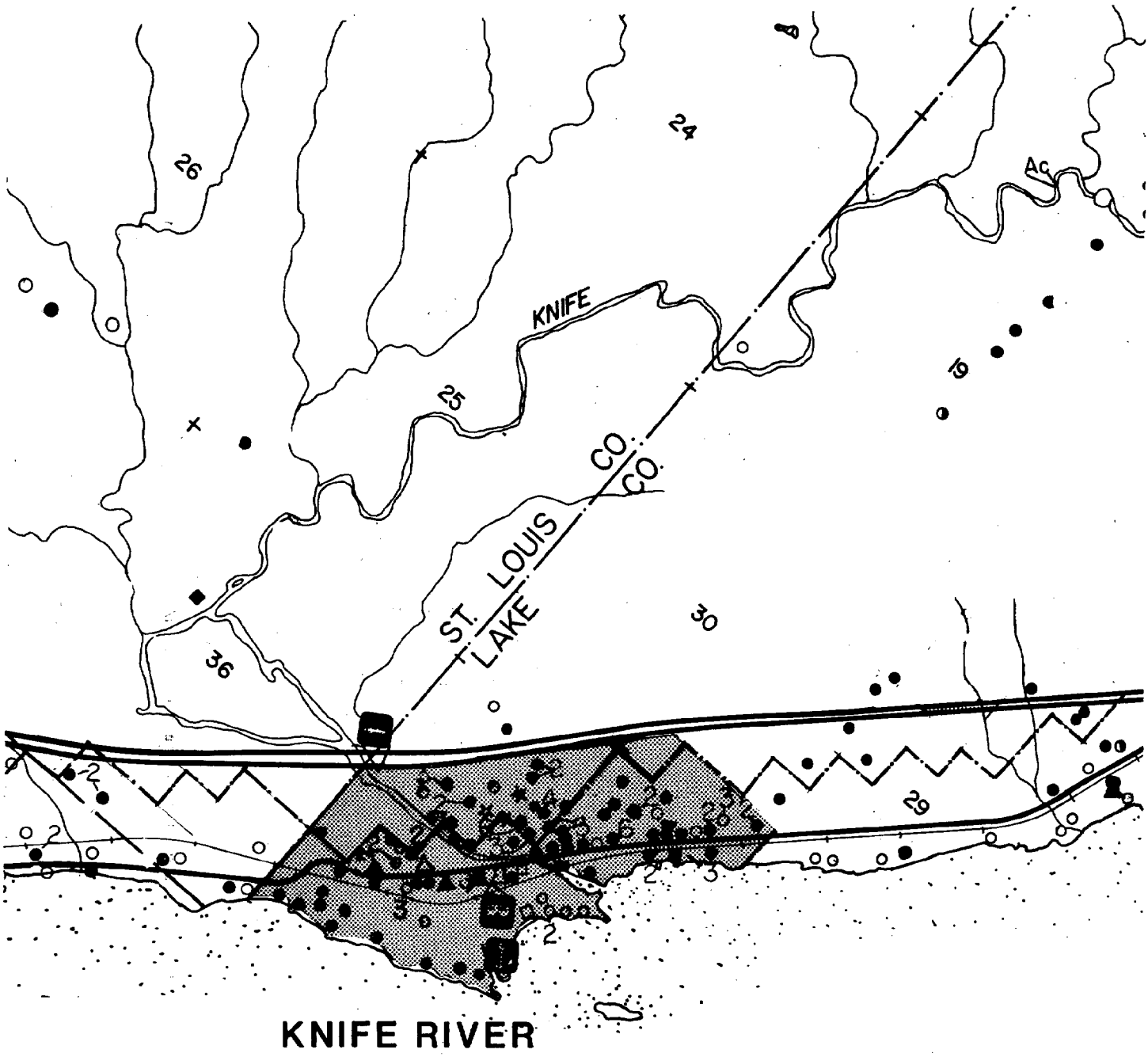


FIGURE 5-4

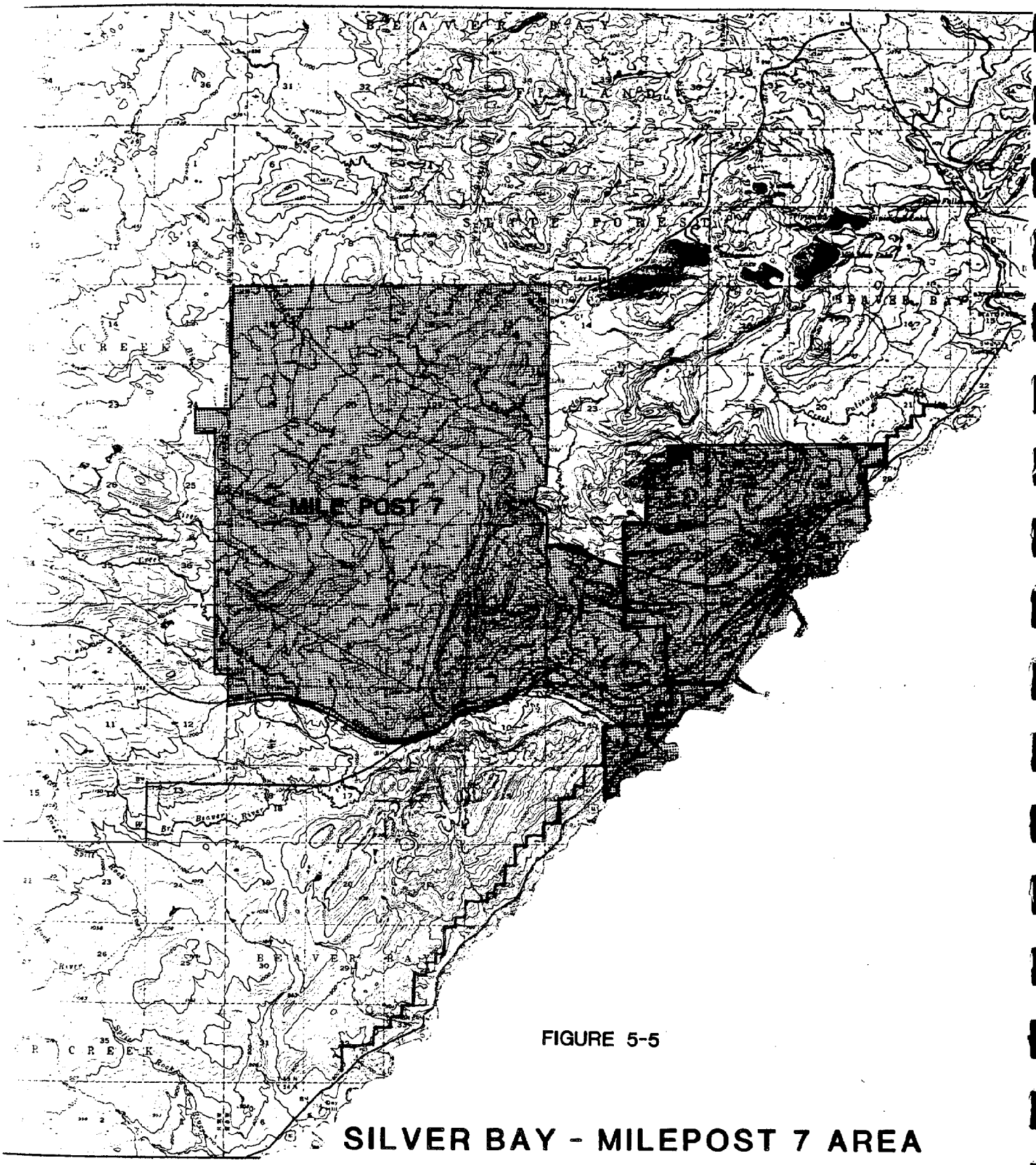
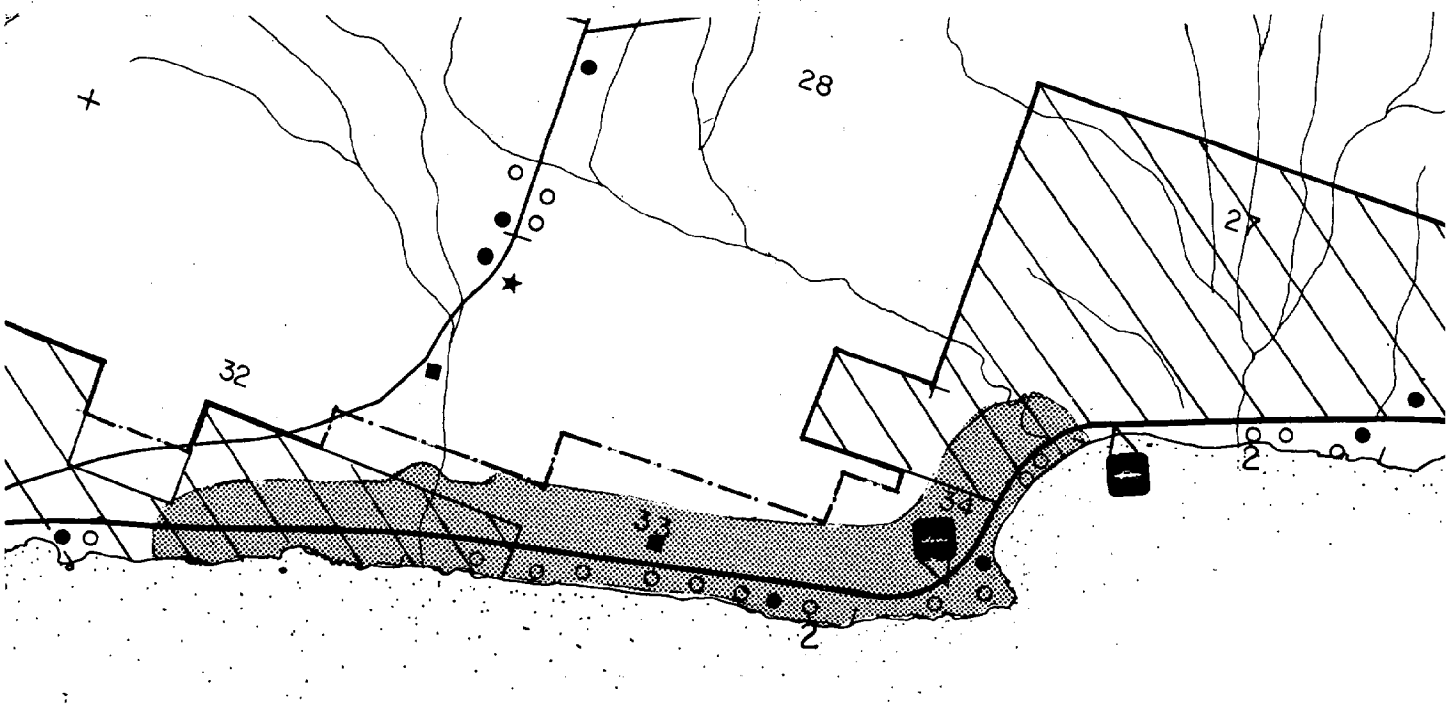


FIGURE 5-5

SILVER BAY - MILEPOST 7 AREA



THOMPSONITE BEACH

FIGURE 5-6

Step 1: Individual citizens, citizen groups, and federal, state and local units of government will be eligible to nominate geographic areas of particular concern. All nominations shall be sent to the State Planning Agency and shall include a legal description of the area, reasons why the area should be considered for designation, and management recommendations. Nomination forms will be made available at the State Planning Agency and the Arrowhead Regional Development Commission. (See attachment A for nomination form)

Step 2: Within seven days of receipt of nomination form, the State Planning Agency staff shall notify the appropriate unit(s) of government which applies to the nominated area and affected property owner(s), if private property is involved, that the area has been nominated as a GAPC. Comments from the local unit(s) of government, property owner(s), and interested citizens will be requested. Time for submission of comments will be 30 days from receipt of notification of a GAPC nomination.

Step 3: Upon receipt of comments, the State Planning Agency will screen the nominated GAPCs using the following criteria:

Criteria A:
1. Is the area in question in federal ownership?
2. Is the area outside the boundary?

Criteria B: Does the area fall within one or more of these categories:

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 flood plains, aquifer recharge areas, sand dunes, coral and other reefs, beaches, offshore sand deposits and mangrove stands." (~~From federal "threshold papers"~~)

Criteria C: Each question must 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 though general policies outlined in Chapter 2 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?

Criteria D: Comments received on GAPC nominations and the degree of support from property owners involved shall be considered in staff recommendations to the Policy Advisory Committee.

Step 4: The screening process shall be conducted semi-annually and shall be completed 30 days prior to the PAC meeting at which the GAPC nominations shall be discussed. Thirty days prior to the PAC meeting the results of the screening process shall be made available to the nominator, the appropriate unit(s) of government, and property owner(s) so that additional comments by these parties can be prepared for presentation at the PAC meeting.

Step 5: PAC shall make recommendations to the Governor as to whether a GAPC designation should be made.

Step 6: GAPC designations shall be evaluated by PAC to determine priority of funding.

D. 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.

E. Funding

Federal funding for GAPC programs will be provided at the same matching proportion as funding for the overall CZM program. Eighty percent of the total costs for GAPC planning will be paid with federal funds. The remaining twenty percent of the costs must be borne by the state, by the locality, or by combining of funds from these two sources. It is not necessary for the local share of the cost for GAPC programs to be in actual dollars, however. The local match can also be provided through in-kind services. In-kind services can be provided through various methods such as dedication of employee services to the planning program, by providing office space or clerical assistance for the planning meetings, and by providing office equipment to develop GAPC program documents, etc.

Coastal Zone Program funding may be applied for costs incurred by the local unit of government after the site has been designated as a GAPC by the PAC. Funding is available primarily for planning efforts and to cover the cost of developing studies. Section 315(2) of the CZM Act provides matching funds for acquisition of public access to public beaches and other public coastal areas of environmental, recreational, historical, aesthetic, ecological, or cultural value, and for preservation of islands. Coastal Zone funding may also be applied to salaries of personnel who are involved in the implementation of the plan (e.g. the local zoning adminstrator). Personnel for maintenance of a GAPC site may also be hired with Coastal Zone monies.

Coastal Zone Program funds may not be used for construction purposes at this time.

Overall federal funding for the Minnesota Coastal Zone Management Program under the present legislation can continue for a five year implementation period after the Minnesota CZM plan is approved.

F. Steps in Developing Plans for GAPCs

1. When designation of a GAPC occurs, the governing body of the political unit(s) in which the GAPC is located will be notified. In addition, all public agencies which have management authority or responsiblity for the site will be identified and contacted. The governing body will be asked to formally sponsor the GAPC planning program for each GAPC within its jurisdiction. To sponsor a GAPC, the governing board must have management authority over the nominated area, endorse the nomination of the area for GAPC designation, agree to be involved in the planning for the GAPC when/if designation occurs, and make a commitment to carry out the plan that is developed for the GAPC. Involvement by the governing body in the actual planning for the GAPC can take place in the form of the body designating an individual who is a member of the governing body or an administrative department as the governmental unit's representative on the planning group established for the GAPC. In addition, the governing body involved will review all planning products that are developed for each GAPC, suggest revisions and submit the documents to the lead agency/Policy Advisory Committee for final approval.

2. Formation of a Planning Group by Local Unit of Government

   a. The sponsoring unit of government will form a Planning Committee for each GAPC. If several GAPCs of a similar nature are within the local governmental jurisdiction, one Planning Committee could be formed to address all GAPCs of the same class. Representation on the GAPC Planning Committee will be determined by the elected governing body of the sponsoring unit of government. The governing body may find it desirable to utilize existing experience by seeking representation from the local planning commission to be on the GAPC Planning Committee. Staff from the sponsoring unit of government can also be represented on the Committee. The size of the GAPC Planning Committee may vary up to ten members. The governing body should determine a chairperson for the Committee who will have responsibility for chairing the meetings and communicating developments to the governing body. The chairperson will also be responsible for maintaining communication with consultants that have been contracted

with for studies on the GAPC and for ensuring that plan elements are completed as scheduled. All governmental units and agencies which have been notified previously will be invited to select a representative who will act in an advisory capacity to the planning committee for that individual public agency. These representatives can benefit the GAPC planning effort by providing technical advice to the GAPC Planning Committee. A staff planner from the Arrowhead Regional Development Commission will also be available to work with the planning committee. The State Planning Agency will review products as they emerge from the planning process for consistency with adopted Minnesota CZM policies, and will suggest necessary revisions that will bring each GAPC program into conformance with these policies. Ultimate responsibility for development of the GAPC plan will lie within the local unit of government in which the site is located with two exceptions:

(1) The first exception occurs if the local unit of government is offered the opportunity for, but declines, primary responsiblity. In this case a negotiation process will be entered into with residents from the proposed area and the local unit of government.

(2) The second exception occurs if the site is owned publicly or is proposed for public ownership. In this case, the public agency or unit of government now owning or proposing to acquire the land would be responsible for development of the plan. In any case, however, a Planning Committee should still be used to develop actual recommendations. The local unit of government involved (municipal, township, or county) will review all functional elements of the GAPC planning program, suggest revisions, and submit the final work program and plan to the Policy Advisory Committee for final approval.

3. Establishing Management Policies for the GAPC

a. Once established, the first duty of the GAPC Planning Committee will be to develop a set of management policies for the GAPC. The planning group should assess the policies which have been adopted for the overall MCZM Program by the PAC as management policies for the GAPC are being formulated. Along with preparation of the management policies, the planning group will also develop a set of tasks or a work program which need to be accomplished to achieve the management policies.

If additional work such as consultant or engineering studies or architectural design work are envisioned as part of the necessary tasks for accomplishing the management policies for the GAPC, this should be addressed in the work program and an estimate of the costs involved should be addressed in the work program and an estimate of the costs involved should be included.

b. The management policies and work program will be submitted to the appropriate local unit of government for its review. The local unit will suggest any revisions it deems desirable. The management policies and work program for the GAPC will then be submitted to the lead agency for PAC review and approval.

4. Policy Advisory Committee Approved Management Policies and Work Program, Planning for the GAPC Begins

With PAC approval of the management policies and work program for the GAPC, the GAPC Planning Committee will address their efforts towards accomplishing the work task contained in the work program. Following are two hypothetical examples of GAPC planning programs:

a. Type: Developed site in an unincorporated area that is experiencing problems with sewage contamination of both ground water supplies and of streams tributary to Lake Superior. There are development proposals that would result in more residences being constructed in the community.

Description: This site consists of approximately 400 residences, a few commercial developments and a marina situated on Lake Superior, all within a townsite that has been lived in for more than sixty years. The townsite includes a portion of a river which has substantial sport fishing activity during upstream spawning migrations of rainbow trout from Lake Superior. All residences in the townsite have individual on-site sewage treatment systems. Some systems are failing due both to age and to the geologic limitations for successful operation of the systems which predominate in this vicinity. Some residents are interested in studying the feasibility of getting a sewage collection and treatment system to service the entire community. Because of the marina and sport fishing resource within the community, there have been development proposals to construct condominium-type seasonal residences in the townsite. Some residents do not look favorably on such proposals because of a stated desire to maintain the present character of the community.

Planning Group: The county zoning administrator, the county health officer, a county board member, and interested residents could make up the Planning Committee for this GAPC. The State Department of Natural Resources and the Pollution Control Agency would be contacted and asked to provide assistance to the local planning effort. In addition a planner from ARDC would be available to assist in the planning efforts.

Plan Financing: Apply for an initial planning grant to the lead agency under Section 305 or Section 305-1/2 of the Federal CZM Act.

Hypothetical Recommendations of the Planning Group:

1) The county should apply to the state for CZM funds to contract with a consultant to do a detailed study for development of a comprehensive plan and amended zoning regulations for the townsite.

2) The county should apply for CZM funds to contract with an engineering consultant to do a feasibility study for a sewage collection and treatment system to serve the local population.

3) The county should apply for CZM funds to contract with an architectural firm to do detailed design studies for development of a river-oriented park within the community that would compliment existing commercial developments.

b. Type: Land to be acquired for waterfront beach park.

Description: This is a 300 acre site with lake access. The land is in both county and private ownership. The county would like to acquire the land on which to develop a park with a nature center and a marina. There are no improvements currently on the site. A special turn lane from the nearby state highway might be required to handle the increased traffic into the area. The land is presently zoned Residential-1.

Planning Committee: The county zoning administrator, member of the county board, member of the county park board, and local citizens. The State Department of Transportation, the State DNR could be asked to provide technical advice to the GAPC planning program.

Plan Financing: Apply for an initial planning grant under Section 305-1/2 of the Federal CZM Act.

Hypothetical Recommendations of the Planning Group:

1) No rezoning is necessary since a county-owned park is a permitted use in the Residential-1 zone. However, special efforts should be made to screen the boundaries of the park, by leaving or planting a buffer of vegetation, so that park activities and neighboring residential developments do not interfere with each other.

2) The county should apply to the state for CZM funds to hire a consultant to do detailed site planning and architectural design of the park facilities.

3) The county should apply for 50% federal matching funds under Section 315(2) of the Federal Coastal Zone Act which provides funds to acquire public beach access. In addition, another 20% of the cost might be financed by the Upper Great Lakes Regional Commission. Additional funding could also be sought from the Minnesota Iron Range Resource and Rehabiliation Board (IRRRB).

4) The possibility should be explored that CZM funding might also be used to hire a park administrator.

The above examples are intended to provide some insight into how the GAPC part of the Coastal Zone Management Program might operate. Again, depending on the individual situation and the members of the planning group, the recommendations that they make might be quite different. There are often a range of feasible alternatives that might apply to each site. Again, it is up to the local governmental unit or state agency, after evaluating the technical recommendations of the planning group, to decide on the content of the GAPC plan.

5. Periodic Review of Planning Progress

The planning program for each GAPC will undergo a review by the lead agency/PAC at six month intervals to ascertain whether significant progress is being made. Six months after PAC approval of the management policies and work program for the GAPC and at six month intervals thereafter, all documents which have been produced will be submitted to the lead agency/PAC. If the lead agency/PAC determines from their review that significant progress has not been made, it shall make recommendations towards this end within thirty (30) days after receiving the documents. If significant progress is not made after ninety (90) days have elapsed from the time lead agency/PAC recommendations have been made, the lead agency shall terminate funding for the GAPC.

6. After GAPC Management Plan Completion

One of the requirements for the GAPC planning process described herein is that a public agency or unit of government must sponsor and participate in the process. In addition, the agency or unit of government is required to have authority to carry out the policies which are developed for the GAPC, and is further required to indicate a willingness and intention to carry out the management policies prior to initiation of the GAPC planning process. The implications of management planning for a GAPC vary according to the management policies or objectives which apply in each case. Federal funding is available for GAPC planning and implementation of the GAPC plan when it is completed. In a situation where the GAPC is a historic site, the implementation may take the form of hiring an employee who will be responsible for administration and general maintenance of the site. If the GAPC is a developed area that is confronted with pressure for development that would result in conflicting land uses, implementation can be in the form of hiring additional personnel to enforce the local zoning ordinance or setting up an on-going planning council to address local development issues and to revise the zoning ordinance. The implementation measures can be as diverse as the rationales for establishing the GAPCs.

A site will remain a GAPC as long as CZM program funds are being expended for that particular site.

RETURN TO: **Attachment A** NO._____

Coastal Zone Management Program
Minnesota State Planning Agency
550 Cedar Street
St. Paul, MN 55101

Nominator_____
Organization (if any)_____
Address_____
_____
Phone_____

Other Participants in Nomination:
_____
_____
_____
_____

Guidesheet for Nominating Geographic Areas of Particular Concern

1) Print the name and general location of the proposed GAPC, including County and Township or Municipality.

_____

_____

_____

_____

2) What are the boundaries of the area?
   a) Please use attached map and be as accurate as possible.
   b) Please describe the boundaries using roads, distinquishing landmarks, structures, etc.
   c) Township range and section numbers, if possible.

_____

_____

_____

_____

_____

_____

3) What type of area is it?

_____

_____

_____

_____

_____

_____

4) Why is the area of particular concern to you and/or your organization?

5) Is the area publicly owned or privately owned?

6) How is the area currently managed? Is more than one political unit or agency presently involved in managing the area? (Please list)

7) What are the problems, if any, associated with the current use of the area? What special opportunities or problems do you forsee for the future?

8) In your opinion, how do you think the area should be managed or developed? (public acquisition, preservation, zoning change, commercial or industrial development, etc.)

Plese feel free to use the back of this guidesheet for additional information on nomination. Please use a separate guidesheet for each nomination.

CHAPTER 6

Energy Facility Planning Process

COASTAL ZONE MANAGEMENT

CHAPTER 6:

ENERGY FACILITY PLANNING PROCESS

Introduction

A. Energy Requirements of the Coastal Zone Act

The Coastal Zone Management Act requires that each state must include in its coastal zone plan "a planning process for energy facilities likely to be located in, or which may significantly affect the coastal zone, including, but not limited to, a process for anticipating and managing the impacts from such facilities." 305(b)(8) This process must include the following five elements:

1. An identification of energy facilities which are likely to locate in, or which may significantly affect, the coastal zone;

2. A procedure for assessing the suitability of sites for such facilities;

3. Articulation of state policies and other techniques for the management of energy facilities and/or their impacts;

4. A mechanism for coordination and/or cooperative working arrangements, as appropriate, between the state coastal planning or management agency and other relevant state, federal, and local agencies involved in energy facility planning and/or siting, including conformity of siting programs, where they exist, with the coastal zone management program; and

5. An identification of legal and other techniques that can be used to meet management needs.

In addition, the Act is also explicit as to which energy-related facilities must be addressed. Table 6-4 on page 6-55 shows how Minnesota will meet federal coastal zone requirements for these energy-related facilities.

B. Benefits of the Process

After developing a planning process which addresses energy-related facilities in or near the coastal zone, Minneosta will qualify for financial assistance from the Coastal Energy Impact Program to help its coastal communities affected by new or expanded coastal energy activity. Assistance can take four forms: planning grants to prepare for on-coming energy activity and for its socio-economic and environmental consequences; financial assistance for new or improved public facilities and

new or increased public services required because of new or expanded coastal energy development; repayment assistance to the borrowing government when it cannot meet its credit obligations because actual revenues from the coastal energy activity are insufficient; and grants to help prevent, reduce, or repair damage to valuable environmental or recreational resources when the person responsible for the damage cannot be identified or cannot be charged for the damage.

C. Work Program for Energy Facility Planning

In order to develop the planning process required by the CZM Act, a work program was developed in June 1977. The list below outlines the steps of the work program and indicates which section of the Energy Chapter addresses each element of the work program. Elements 1-5 have been completed, while 6-8 remain to be done during the implementation phase of the coastal zone plan.

Work Program Elements	Section
1. Determine what needs to be done to meet the requirements for the 305 portion of the program.	Energy Requirements of the Coastal Zone Act
2. Determine whether there is a need to locate any additional energy facilities in, or significantly near, the coastal zone.	Power Plants - Numbers and Location; Other Energy-Related Facilities - Numbers and Location
3. Determine what Minnesota already has to offer in planning and managing for energy-related facilities.	Existing Management Controls
4. List locational requirements of needed or expected energy facilities.	Site Requirements/Impacts
5. List anticipated impacts that can be expected by locating various energy facilities in, or significantly near, the coastal zone.	Site Requirements/Impacts
6. Identify those areas within the coastal zone that fit the locational requirements listed in No. 4	To be done during coastal zone implementation
7. Based upon expected impacts, state and national interests, suggest: a. which facilities could be located within the coastal zone; b. which facilities should be located outside the coastal zone.	To be done during coastal zone implementation

8. Develop policies, guidelines and performance standards for the location and operation of energy facilities.	To be done during coastal zone implementation

D. Energy Chapter Format

The Energy Chapter is organized so that certain sections meet certain federal requirements. Refer to the chart below for easy reference.

	Requirements				
	1	2	3	4	5
Section					
Power Plants - Numbers and Location	x				
Other Facilities - Numbers and Location	x				
Existing Management Controls	x	x	x		x
Coordinational Network				x	

SECTION 1:

POWER PLANTS - NUMBERS
AND LOCATIONS

Section 1: Power Plants - Numbers and Locations

The issue of how many additional power plants will be needed in Minnesota depends on future statewide and regional demand for electrical energy and on energy policy set by Minneosta, other states and Canada. The issue of where power plants will be located and what type will be built* is contingent on availability of large quantities of water and air quality considerations.

A. Statewide Supply and Demand

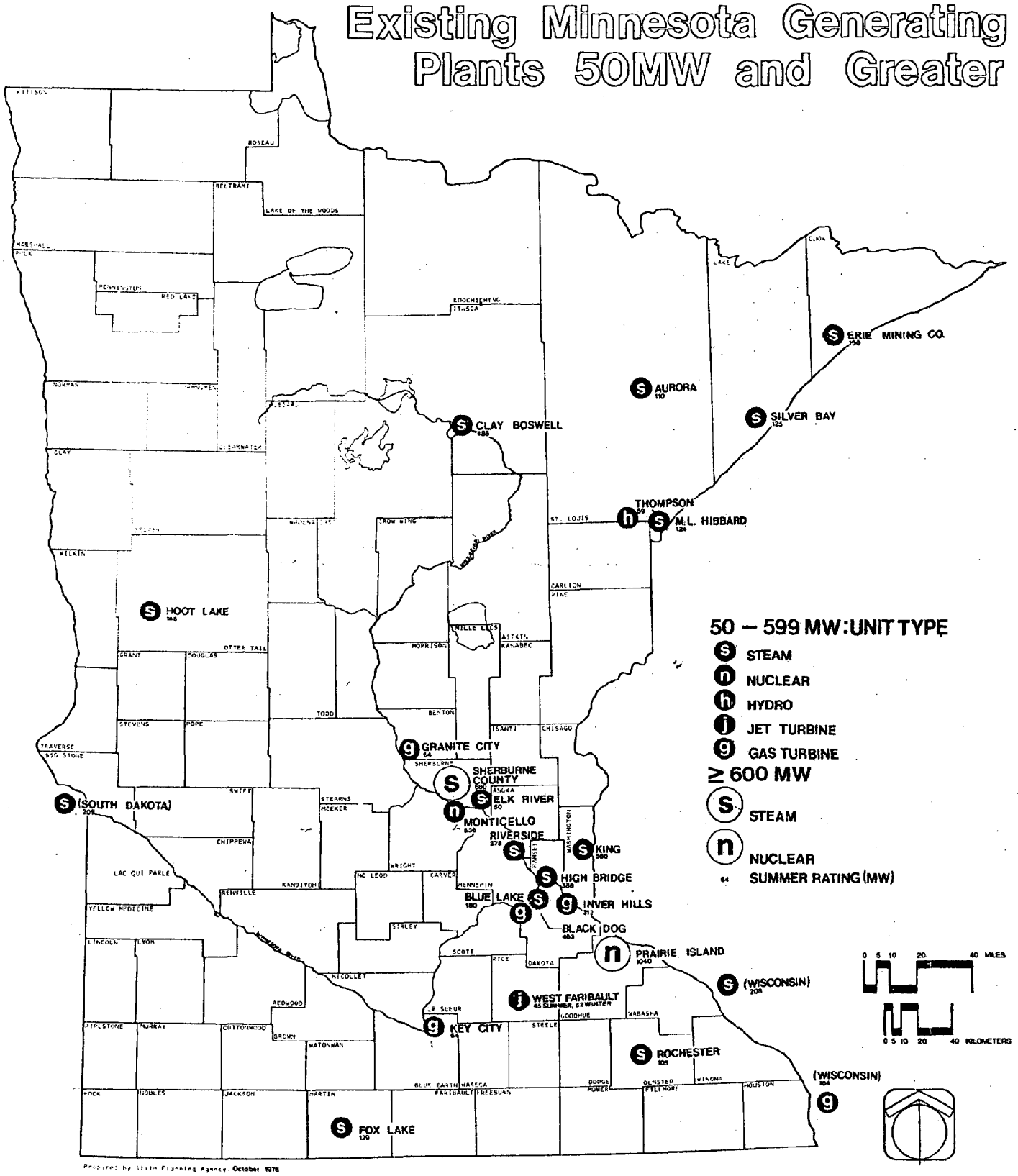
Statewide as well as regional demand for electrical energy will determine the need for future power plants in northeastern Minnesota and the coastal zone.

In 1976, Minnesota's total electrical capacity was approximately 7,100 MW. The location of existing power plants over 50 MW in size is shown in Figure 6-1. Currently, power plants in the state meet approximately 88% of Minnesota's electrical energy requirements. Three power plants exist within Minnesota's coastal zone, serving both local needs and mining needs. If demand for electrical energy increases, it is doubtful these plants would be expanded, but rather electrical energy would be purchased from Minnesota Power and Light Company and United Power Association.

Predicting the demand for electrical energy in Minnesota requires examination of the "total energy" picture. In 1976, electrical energy contributed 9.5% and oil and natural gas, approximately 86% of the total amount of net energy used in Minnesota. Coal and wood contributed the remainder. The Minnesota Energy Agency projects that by the year 2000 only 2/3 as much oil and 1/2 to 2/3 as much natural gas will be available in Minnesota as was available in 1975. The shortfall of oil and natural gas will be mitigated by conservation and will be replaced in part by electrical energy or synthetic fuels (such as those produced by coal gasification plants). For purposes of this discussion, we are assuming electrical energy will be substituted for oil and natural gas.

*Discussion of power plants is limited to coal-fired and nuclear plants since these will be the most prevalent types of plants built between now and the 1990s due to economic and technological considerations.

FIGURE 6-1



FUTURE ELECTRICAL ENERGY RESOURCE DEMANDS

SOURCE: MINN. STATE PLANNING AGENCY

From 1960 through 1973, total energy use in Minnesota has grown at a rate of slightly greater than 4% per year. If this growth rate continues over the next 25 years, the demand for total energy in Minnesota will be two and one half times as large as it was in 1975. This could result in demand for 70,000 MW of additional electrical energy by the year 2000, if we assume a continued annual growth rate of 4% for total energy demand, and substitution of electrical energy for shortfalls of oil and natural gas. However, the Minnesota/Wisconsin Power Suppliers Group in its recent 15-year forecast predicted a net growth in electrical demand of only 9,200 MW for a total demand of 16,300 MW by 1990. This prediction assumed growth in energy demand can be curtailed and electric load management programs implemented.*

In an attempt to understand the differences in these two estimates, three scenarios are presented. These scenarios do not include all possible alternatives nor do they predict the probability of occurrence for each alternative.

The growth of total energy use depends on public attitudes. Assume for sake of argument that the total energy growth rate in Minnesota can be checked and that demand will be the same in the year 2000 as it is today. This is reasonable since: 1) energy substitution for labor will slow or cease, 2) economic trade-offs of substituting energy for labor is quickly approaching equality, 3) air conditioners and televisions are reaching the saturation point, and 4) amount of energy consumed per capita will decrease because of conservation programs. If the growth in demand for total energy is checked, the growth in demand for electrical energy will be caused by substitution for oil and natural gas. The three scenarios discussed below reflect the same demand for electrical energy as today, but assume different rates of substitution of electrical energy for oil and natural gas.

Scenario 1 -- Assuming a reduction in total energy proportion of 30% for oil and natural gas to be replaced by electrical energy, the proportion of total energy use supplied by electrical energy would be about 40% while oil and natural gas would drop to just less than 60%. This would mean that we would have a demand for about four times existing demand (7100 MW) or 28,400 MW of electrical energy.

Growth Factor			Growth in MW to 2000
4X - 28,400	+ 4,200[a]	= 32,600 - 7,100[b]	= 25,500

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* Power plants are built to meet peak demand. Load management is a way of "leveling" out the demand peaks.

[a] 4,200 MW will probably be replaced by the year 2000 for those plants built prior to 1975.

[b] existing generating capability in 1976.

Scenario 2 -- This scenario closely parallels the prediction made by the Minnesota/Wisconsin power Suppliers Group. In this case, electrical energy would still substitute for oil and natural gas; however, total demand for oil and natural gas would be lower than in Scenario 1, therefore less additional energy would be required for substitution.

Growth Factor				Growth in MW to 2000
3X	= 21,300 + 4,200[a]	= 25,500 -	7,100[b]	= 18,400

Scenario 3 -- This scenario can be interpreted several ways. Either electrical energy would absorb more (>30%) of the curtailment in natural gas or oil or absolute demand for electrical energy would grow considerably during the next 25 years or a combination of both would occur.

Growth Factor				Growth in MW to 2000
6X	= 42,600 + 4,200[a]	= 46,800 -	7,100[b]	= 39,700

Translating demand into the numbers of power plants needed by the year 2000 yields the following estimates:

Growth Factor	Growth in MW	# of 1,600 MW Facilities	
		All Coal Fired	or 2/3 Coal/1/3 Nuclear
3X	18,400	12	8C/4N
4X	25,500	16	11C/5N
6X	39,700	25	17C/8N

The assumptions in developing these scenarios are:

1. Coal will most likely be the major fuel for electrical power generation.

2. Nuclear fuel technology will play a subordinate role as an electrical generation fuel.

3. Alternative sources of fuel such as the sun or wind will not yet be feasible for power plants.

4. Power plants will be built in size increments of 800 or 1,600 MW.

5. All electrical power generation to meet predicted demand will take place within Minnesota. Energy sharing between utilities by transmission of energy across state and international boundaries will be necessary primarily during peak periods of demand.

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[a] 4,200 MW will probably be replaced by the year 2000 for those plants prior to 1965.

[b] existing generating capability in 1976.

B. Northeastern Minnesota Supply and Demand

In Northeastern Minnesota, demand for electrical energy energy is expected to grow at 8-10% annually for the next 10-15 years, dropping to 5-6% by the year 2000. Minnesota Power and Light Company, which supplies over 90% of the electricity sold to the mining companies in the region, bases its forecasts on two major assumptions:

1. Mining will continue to be an economically viable industry with continued expansion in taconite and eventual development of copper-nickel mining.

2. The standard of living will continue to grow, use of energy will grow because of this and electrical energy will maintain its present share of the market.

These assumptions allow for expansion of industrial growth based on specific information obtained from industrial customers, national studies of the mining industry, and use of historically based trends to project commercial and residential loads. Projections of industrial demand are based on direct communication with large industrial customers and national studies of the mining industry. Projections of residential and commercial demand are based on analysis of historical trends. The major portion of load growth will be contributed by mining expansion and development. Only moderate growth is expected in the commercial and residential sectors which will expand to support the industrial growth.

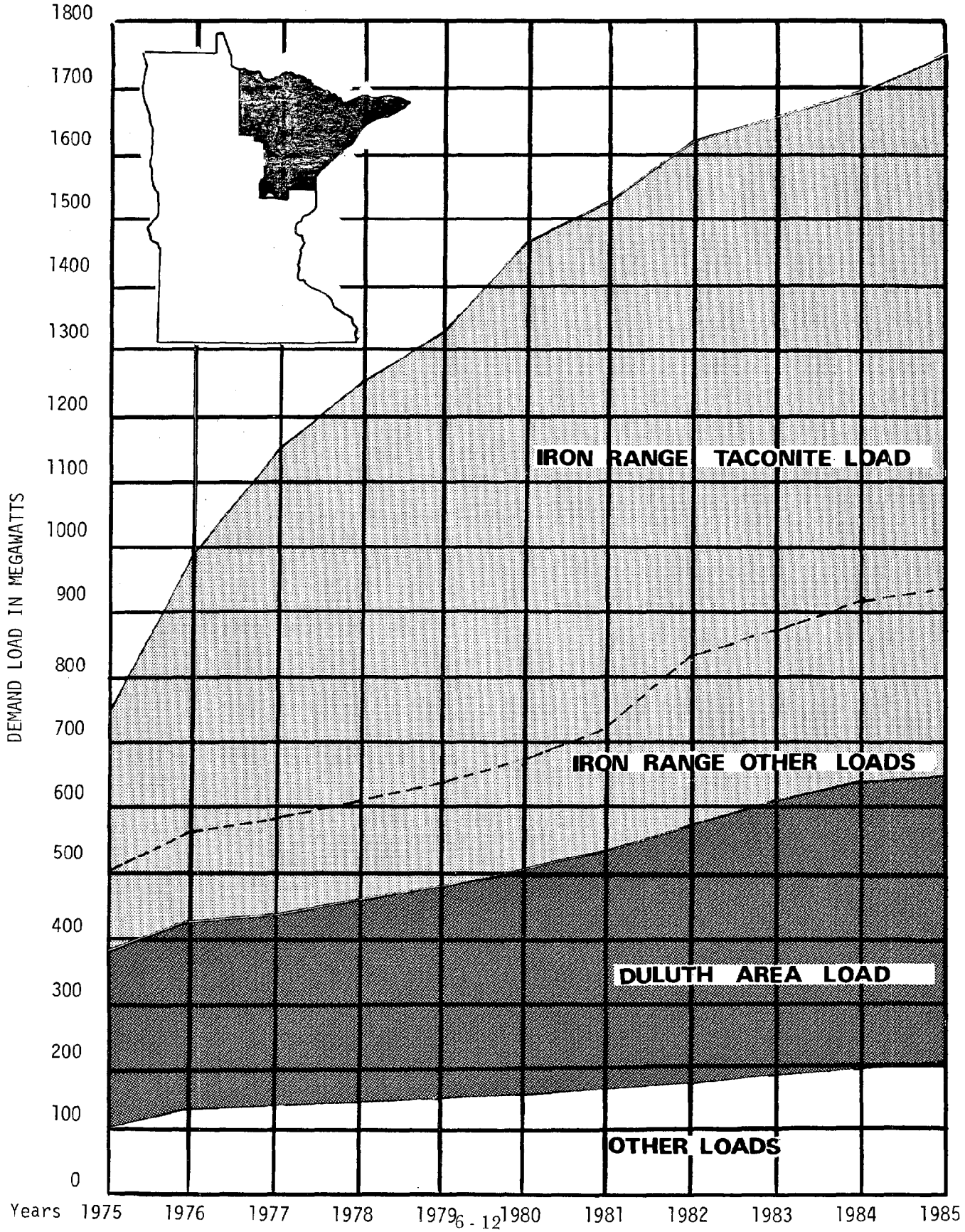
Peak demand in northeastern Minnesota during the summer of 1976 was approximately 1,000 MW. The Minnesota Energy Agency projects by 1985 that this demand will be close to 1,700 MW and by 1990, 2,000 MW. This increase in demand reflects the growth in taconite mining and accompanying secondary and tertiary development. The estimates given here may be conservative because the projections do not include the substitution of electrical energy for oil and natural gas, or the possibility that copper-nickel mining may occur. (See Figure 6-2).

Estimates of regional demand must be translated into estimates of additional power plant requirements. Four to six additional 800 MW power plants may be required in northeastern Minnesota by the year 2000. The larger estimate assumes the development of copper-nickel mining and taconite mining.

Existing generating capacity in northeastern Minnesota is 850 MW. No existing power plants in northeastern Minnesota are scheduled for retirement by the year 1990. However, two new power plants are proposed to be operational before 1990: one 500 MW plant near Grand Rapids (Clay-Boswell Unit #4) to be in service by 1980 and one 800 MW plant at Floodwood to be in

FIGURE 6-2

SYSTEM LOAD FORECAST 1975-1985
60 MINUTE COINCIDENT DEMAND IN MEGAWATTS
ADJUSTED FOR LOSSES



service by 1984. Both Clay-Boswell and Floodwood are outside the coastal zone. The Energy Agency projects that another 800 MW plant will be necessary by 1990 to serve the increased load growth in northeastern Minnesota, and to replace planned reductions of electrical energy imported to the area. Long-range requirements may mean construction of two to four additional power plants in addition to the Clay-Boswell and Floodwood facilities.

After the four to six additional plants are operational, growth in demand is expected to drop as taconite mining begins to peak and copper-nickel mining reaches maturity. However, the power plant scenario, as with the regional demand predictions, does not consider the substitution of electrical energy for oil and natural gas. Consequently, the number of power plants needed for development in northeastern Minnesota could be greater than the estimates presented here.

C. Policy Options

In addition to statewide and regional supply and demand and energy policy set by the state, other states and Canada could have significant effects on energy facility development in Minnesota. The Canadian government must approve the sale of power from its hydroelectric facilities to utilities in Minnesota. Decisions made by other states on energy facilities outside Minnesota affect the state's ability to import power, as well as the necessity to export power to other states. For example, if the proposed Tyrone Energy Park is not built, additional generating capacity may be built in Minnesota to satisfy demand in Wisconsin.

Increased coal development in the Northern Great Plains States of North Dakota, Wyoming and Montana will affect energy development in Minnesota. Until recently, western coal was not competitive with eastern coal because of its lower BTU content and greater distance from most consuming centers. However, the higher sulfur content of most eastern coal has caused coal consumers to look west for cleaner low sulfur coal. The high capital costs of underground coal mining has increased the demand for western coal which can be strip-mined. More stringent mine-safety regulations continue to raise the cost of production and have given western coal a competitive advantage depending on the location of the consuming center. Western coal will be mined in the Northern Great Plains for export to other states, including Minnesota.

Western coal may be exported as solid fuel, or converted to gas or electricity. The environmental impacts of coal use on the Northern Great Plains and Minnesota depend on the form in which coal is exported. For example, the impacts of rail traffic and coal slurry pipelines on land use and water use are very different. Several generating plants are proposed in North Dakota to produce electricity from lignite for export to

Minnesota. The people of North Dakota will suffer the impacts of both mining and electrical generation, while the people of Minnesota will face the impacts of additional transmission lines. The form of coal energy delivered to Minnesota will affect the state's requirements for additional generating plants.

There are too many uncertainties in supply and demand scenarios, and developing energy policy to make accurate predictions of additional generating plant requirements. However, we can examine the environment of northeastern Minnesota to understand how it will be affected by additional generating plants.

D. Locational Factors*

Current electrical power generation technology requires large amounts of water and emission of most of the products of combustion into the atmosphere. The two major constraints in locating power plants are: 1) the availability of large quantities of water, and 2) the avoidance of air quality problem areas.

Figure 6-3 shows the 7-Day, 10 Year Low Flow of streams in Minnesota. The St. Louis River has a 7-day, 10 year low flow of less than 500 cubic feet per second. If demands for the use of the St. Louis River continue to grow, consumption of water from this source may have to be limited eventually. When these limits are reached, there may be pressure to use Lake Superior as a source of water for additional generating plant development in northeast Minnesota.

Minnesota faces a number of air quality problems, including increasing concentrations of carbon monoxide (CO), sulfur dioxide (SO_2), particulates, nitrogen oxides (NO_x), and photochemical oxidants. Of these, SO_2, particulates and NO_x are the most important pollutants directly associated with electrical power generation. Although Duluth is currently not violating SO_2 or NO_x standards, severe air quality problems could occur if industrial growth continues at historical rates. Although maximum mean concentration did not exceed 75% of the ambient air standards in 1974, future violations are a real possibility. In addition to ambient air quality standards for SO_2 and NO_x, Duluth has been designated by the EPA as an Air Quality Maintenance Area (AQMA), reflecting possible particulate violations in the next ten years. An emission source which would affect an AQMA must

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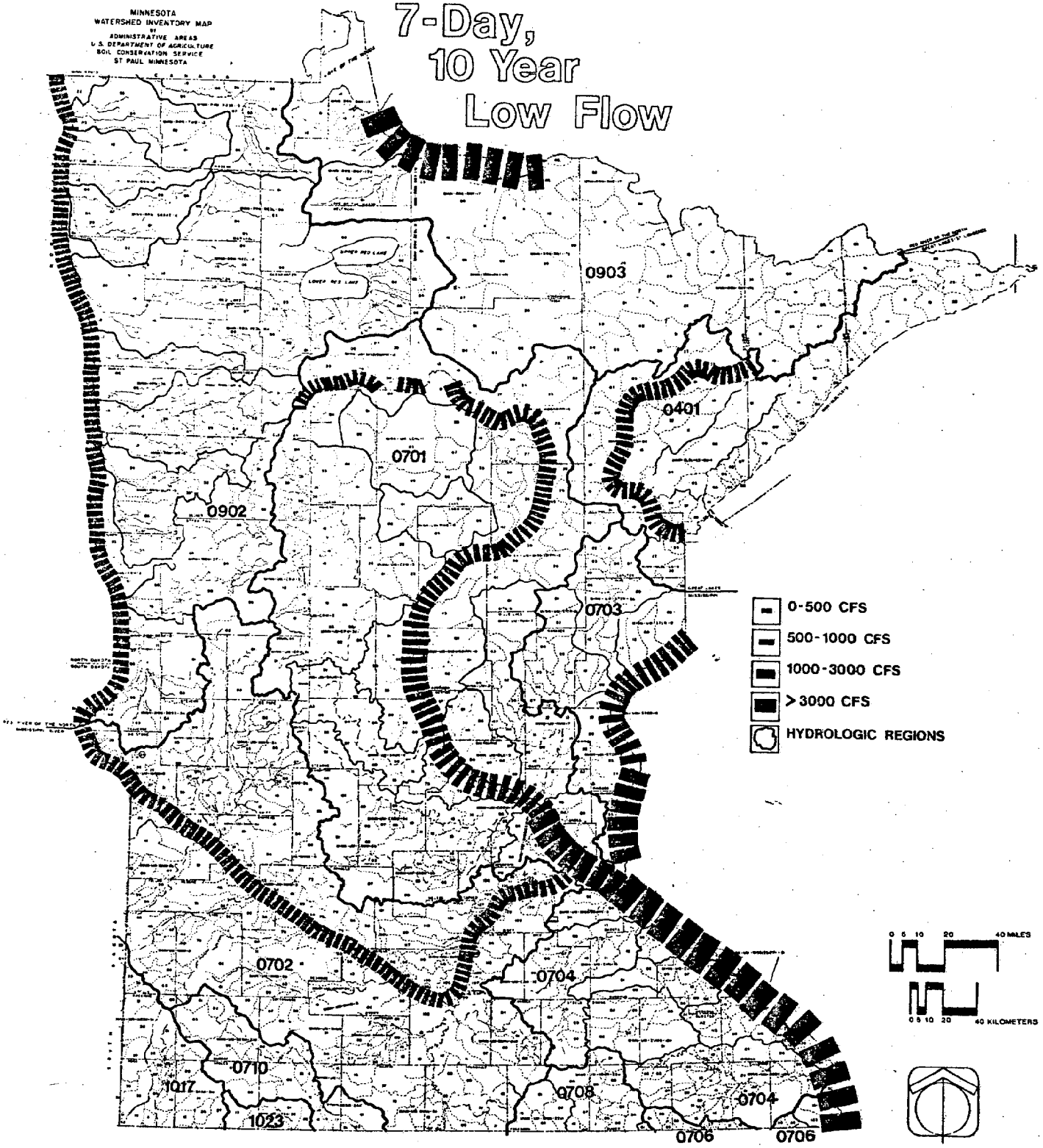
* We are assuming no major technological breakthroughs in alternative sources of energy. According to the Great Lakes Basin Commission, Energy Facility Siting in the Great Lakes Coastal Zone: Analysis and Policy Options, "Over the next 15-20 years no major changes in the technology of large scale power production are expected to be implemented on a commercial basis." Consequently, discussion on locational factors is limited to coal-fired and nuclear power plants.

FIGURE 6-3



FUTURE ELECTRICAL ENERGY RESOURCE DEMANDS

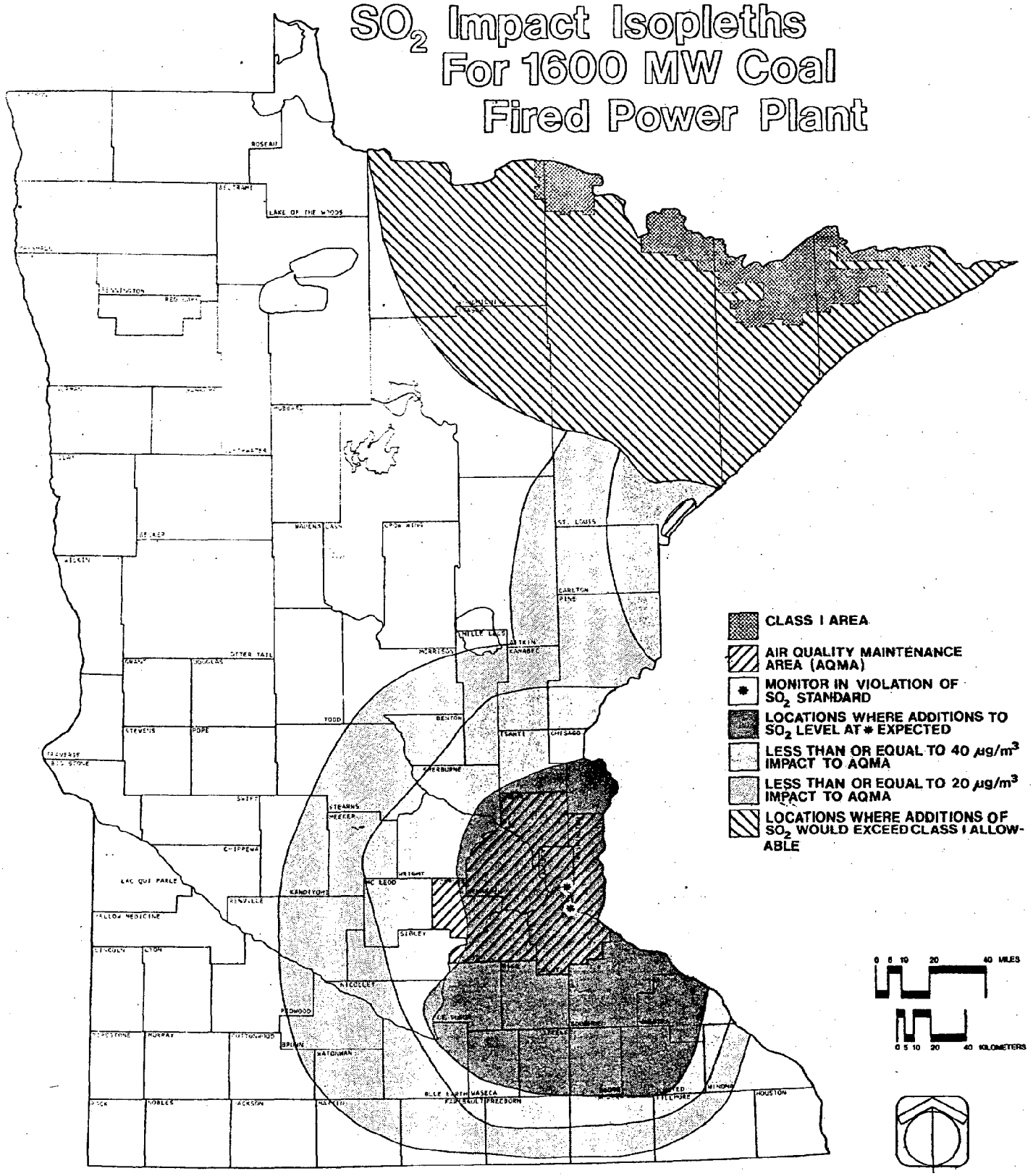
SOURCE: DEPARTMENT OF NATURAL RESOURCES

be consistent with the AWMA Plan. Finally, EPA standards designed to prevent significant deterioration of existing air quality could limit power plant development in large portions of northeastern Minnesota. The Boundary Waters Canoe Area and Voyageurs National Park have been designated Class I areas while the rest of the state has been designated Class II. Figure 6-4 estimates the area in which a 1600 MW power plant could probably be located without causing an air quality violation in the Class I designated areas (Boundary Waters Canoe Area and Voyageurs National Park). (This map does not include Clay-Boswell Unit 4 nor the 800 MW plant planned for Floodwood.)

Air quality control costs and technology may limit siting of power plants in northeastern Minnesota. The location of power plants is dictated by: 1) availability of water, 2) avoidance of air and water quality problems and 3) transportation networks, and in the case of nuclear plants, land for exclusion purposes.

Duluth, Silver Bay, Cloquet and the Iron Range have been designated as air quality non-attainment areas for control of particulates, as required by the Clean Air Act Amendments of 1977. Until July, 1979 new particulate emission sources in these areas may not be constructed unless more than compensated for by a corresponding trade-off or reduction from an existing source. A new state air quality implementation plan now in preparation must require compliance of all sources in non-attainment areas by no later than July, 1982. New and more stringent standards for application to coal-fired and nuclear plants are being considered by the U.S. E.P.A.

FIGURE 6-4



FUTURE ELECTRICAL ENERGY RESOURCE DEMANDS

SOURCE: POLLUTION CONTROL AGENCY

SECTION 2:

OTHER ENERGY-RELATED
FACILITIES - NUMBERS
AND LOCATION

Section 2: Other Energy-Related Facilities - Numbers and Location

Minnesota is an importer of energy. Presently, a large portion of the imported energy comes from the Northern Great Plain States in the form of coal (15%) and from Canada in the form of oil (25%).

A. Coal Handling Facilities

Due to national air quality standards, western coal has become attractive as a less expensive source of fuel for power plants compared to eastern coal. There has been increased use of western coal for electrical generation in Minnesota. However, Minnesota has also become a transfer point for western coal going to destinations farther east through the Duluth-Superior Harbor located at the western tip of Lake Superior. For instance, the coal-handling facility in Superior, Wisconsin, was developed primarily to meet the demand of the Detroit Edison Company for low sulfur coal. This facility has the capacity to transship 20 million tons annually. As demand increases in the east for western coal, additional transshipment capacity may be needed in the coastal zone by the 1980s. For example, an expansion in demand for western coal via Superior may occur near Buffalo. Niagra-Mohawk Power Corporation is planning two 850 MW coal-fired plants near Dunkirk, New York, on Lake Erie, and it is anticipated that both will require low sulfur coal transshiped through the Duluth/Superior Harbor as their fuel source.

Currently, western coal is transported to the Duluth-Superior Harbor via unit trains (90-110 cars, 100 tons per car). However, once capacity is met on the two rail lines feeding into Superior, new modes of transportation may become necessary either in the form of additional rail lines or coal slurry pipelines.

B. Oil Storage Facilities

In the short-term, curtailment of natural gas will be replaced by increased use of oil. Pipelines terminating near the coastal zone may deliver additional petroleum to serve load centers at Duluth and the Iron Range. Since pipelines deliver petroleum at a constant rate, and since petroleum demand is seasonal, additional oil storage facilities may be necessary in northeast Minnesota.

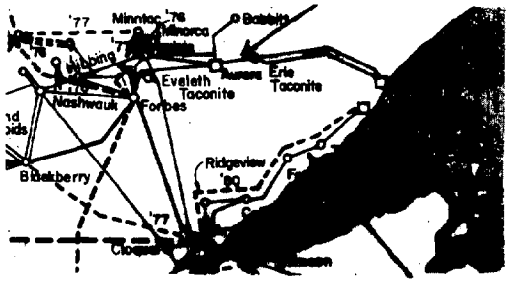
C. Transmission Lines

If Reserve Mining expands its processing facilities at Silver Bay, it is expected to purchase additional electrical energy from MP&L rather than expand its power plant at the same location. Minnesota Power and Light Company projects a need for a 230 kV

line from Duluth to Silver Bay by 1981. If this line is approved by the Minnesota Energy Agency, the route selection process is expected to commence in 1978 or 1979. Erie Mining Company also may purchase additional electrical energy from MP&L, rather than expand its generating plant at Taconite Harbor. However, since Erie's processing plant is located inland from the north shore, existing transmission lines extending west and south would probably be used rather than constructing a new line south. (See below)

TRANSMISSION LINES

probable route for Erie Mining



115 kV line to Two Harbors

FIGURE 6-5

In 1978 a 115 kV line will be built from Duluth to Two Harbors to serve the needs of North Shore residents.

Facilities which are not likely to locate within or significantly near the coastal zone include:

1. Coal Gasification Plants

   Currently only low BTU gasification is competitive with oil; however, low BTU gas cannot be economically piped beyond 1,500 feet. High BTU gas can be piped greater distances, but currently is not competitive with natural gas or oil. Therefore, before high BTU coal gasification plants are built on a large scale, coal gasification technology will have become competitive with oil and natural gas.

2. Power Plants Involving Direct Solar Energy

   Technology will not be available for large scale production for the next 10 to 15 years.

3. Power Plants Involving Ocean Thermal Energy Conservation, Tidal or Wave Power, Wind Power, or Geothermal

Not applicable to Minnesota.

4. Uranium Enrichment Facilities

Not applicable to Minnesota.

5. Facilities to Separate Oil, Water and Gas

Not applicable to Minnesota. Such facilities will occur at point of production. Oil is not produced in Minnesota.

6. Drilling Rigs, Platforms, Subsea Completions, and Subsea Production Systems

Refers to offshore drilling. Not applicable to Minnesota.

7. Construction Yards for Platforms and Exploration Rigs, Pipe Coating Yards, Bases Supporting Platforms and Pipeline Installation and Crew and Supply Bases

Refers to offshore drilling. Not applicable to Minnesota.

8. Oil and Gas Storage in Salt Domes

Not applicable to Minnesota.

9. Marine Pipeline Systems, Including Pressure Source, Gathering Lines, Pipelines, Intermediate Pressure Boosting Facilities, and Landfall Sites

Not applicable to Minnesota.

10. Transportation Systems for Tankers

Not applicable to Minnesota. Refers to offshore drilling.

11. Facilities, Including Deepwater Ports, for the Transfer of Petroleum

Not applicable to Minnesota. Duluth-Superior Harbor is not a deepwater port.

12. Facilities for Geopressurized Gas

Not applicable to Minnesota. Sedimentary geological formations for geopressurized gas storage do not exist in northern Minnesota.

SECTION 3:

EXISTING MANAGEMENT CONTROLS

Section 3: Existing Management Controls

NI?

The State of Minnesota has several regulatory programs to plan and manage the impacts of energy facilities. The scope of these programs is summarized in Table 6-1.

A. Forecasting

The Minnesota Legislature has directed the Environmental Quality Board (EQB) and the Minnesota Energy Agency (MEA) to collect data on energy supply and demand within the state to identify emerging energy trends and to determine the level of statewide and service area energy needs. The EQB requires biennial submission of fifteen-year forecasts of additional generating and transmission facility requirements. The Energy Agency requires annual submission of fifteen-year forecasts from prime petroleum suppliers, petroleum pipeline companies, natural gas utilities, and interstate pipeline companies, as well as electric utilities. Data collected by the Energy Agency is stored in the Regional Energy Information Systems data base (REIS).

The Energy Agency is developing models to use the data stored in the REIS data base for policy analysis. The Agency has developed an input-output model that relates energy use to economic output and employment. The model predicts electric use in kilowatt hours and total non-electric energy use in BTU for commercial and industrial energy use for thirty-five sectors of the economy. A fuel substitution model distributes total non-electric energy projections to different fuel types considering relative fuel prices and obstacles to fuel shifts defined by the current patterns of consumption. A model is under development to predict residential fuel use considering different mixes of building types and different assumptions on the prices and availability of fuels.

The Legislature has funded an interagency study of the impacts of increased coal use in Minnesota. The Energy Agency has identified the current users of coal in the state. Within the next year, the Agency will prepare five-and ten-year forecasts of coal use by user type and location. The study will examine increased coal demand by the mining and paper industries as well as small users in northern Minnesota.

Statewide projections of energy use are too general for some planning purposes. The different types of loads for each electric utility require the application of different forecasting techniques for each service area. The Agency has developed the capability to prepare forecasts of electrical energy demand within the state. Projections of peak demand are important to evaluate the need for additional generating facilities, as well as projections of total electrical energy demand. The Agency is in the process of developing a model to project electrical demand for each service area.

TABLE 6-1

MINNESOTA REGULATORY REQUIREMENTS FOR ENERGY FACILITIES

	Forecasting	Certificate of Need	Siting	Environmental Review
Electric Generating Plants	Biennial submission of 15-year facility forecasts by electric utilities to the EQB. (Minn. Stat. 116C.54) Annual submission of 15-year facility forecasts by electric utilities to the Energy Agency. (6 MCAR 2.20208 and 6 MCAR 2.20209)	Required for any generating plant 50 MW or greater, and any generating plant 5MW or greater burning oil, natural gas and natural gas liquids. (Minn. Stat. §116H.02, Subd. 5(a))	Sited by the EQB if capable of operation at 50 megawatts or more. (Minn. Stat. 116C.51-.69)	Preparation of an EAW required for construction of electric generating plants at a single site designed for or capable of operation at a capacity of 200 or more megawatts. (6 MCAR 3.024(b)(1)(c_1)) Environmental reports required at certificate of need and siting steps. (6 MCAR 3.025(G)(2))
High Voltage Transmission Lines	Same as above.	Required for any HVTL with a capacity of 200 kV or greater with more than 50 miles of its length within Minnesota, or with a capacity of 300 kV or greater with more than 25 miles of length within Minnesota. (Minn. Stat. §116H.02, Subd. 5(b).	The EQB routes HVTL capable of operation at 200 kilovolts or more. (Minn. Stat. 116C.51-.69)	Preparation of an EAW required for construction of electric transmission lines and associated facilities capable of operation at 200 kilovolts or more, and 50 miles or more in length. (6 MCAR 3.025(B)(1)(d_1))
Coal Gasification Plants	The Legislature has directed the Energy Agency to project the demand for coal in Minnesota by 5 and 10-year forecasts, by user type and location. The Legislature also directed the Energy Agency to study the potential for coal gasification in the state. (Minn. Laws 1977, Ch. 381§10)	Required for any coal gasification facility with the capacity to process more than 25 tons of coal per hour. (Minn. Stat. 116H.02, Subd. 5(k))	No state authority.	Preparation of an EAW required for construction of a new mineral or fuel processing or refining facility. (6 MCAR 3.024(B)(2)(j)

Table 6-1 continued.

	Forecasting	Certificate of Need	Siting	Environmental Review
Oil and Gas Storage Facilities	Annual submission of 15-year facility forecasts for oil and gas storage facilities by petroleum and gas suppliers to the Energy Agency. (Minn. Reg. EA 407B and EA 310B) The Legislature directed the Energy Agency to study the state's storage capacity for heating fuels. (Minn. Laws 1977, Ch. 381, Section 21).	Required for any facility on a single site capable of storing more than one million gallons of crude petroleum or petroleum fuels or oil or their derivatives unless the facility would be at an existing site and would constitute an increase of more than 20% in the storage capacity at that site. (Minn. Stat. 116H.02, Subd. 5(c)). Required for any facility capable of storing on a single site more than 100,000 gallons of liquified natural gas or synthetic gas. (Minn. Stat. 116H.02, Subd. 5(f)). Required for any underground gas storage facility. (Minn. Stat. 116H.02, Subd. 5(g)).	No state authority.	Preparation of an EAW required for construction of facilities on a single site capable of storing one million gallons of liquid natural gas, liquid petroleum gas or other liquid fuels. (6 MCAR 3.025(B)(2)(h) Preparation of an EAW required for construction of an underground storage facility for gases and liquids. (6 MCAR 3.024 (B)(2)(i)).
Pipelines	Annual submission of 15-year facility forecasts for pipelines by petroleum and gas suppliers to the Energy Agency. (Minn. Reg. EA 407B and EA 307B).	Required for any pipeline greater than 6 inches in diameter and having more than 50 miles of its length in Minnesota used for the transportation of coal, crude petroleum or petroleum fuels or oil or their derivatives. (Minn. Stat. 116H.02, Subd. 5(d)). Required for any pipeline for transporting natural or snythetic gas at pressures in excess of 200 pounds per square inch with more than 50 miles of its length in Minnesota. (Minn. Stat. 116H.02 Subd. 5(e)).	Commissioner of the Department of Natural Resources must approve project plans for pipelines before the right of eminent domain is granted to the pipeline company. (Minn. Stat. 117.49)	Preparation of an EAW required for construction of a pipeline greater than six inches in diameter and 50 miles in length. (6 MCAR 3.025 (B)(2)(g)).

Table 6-1 continued

	Forecasting	Certificate of Need	Siting	Environmental Review
Facilities for the Transfer or Storage ofLNG	Annual submission of 15-year facility forecasts for transmission lines and storage facilities for LNG by gas suppliers to the Energy Agency. (Minn. Reg. EA 310B)	Required for any facility capable of storing on a single site more than 100,000 gallons of liquified natural gas or synthetic gas. (Minn. Stat. 116H.02. Subd. 5(f))	No state authority	Preparation of an EAW required for construction of facilities on a single site capable of storing one million or more gallons of liquid natural gas or other liquid fuels. (6 MCAR 3.025 (B)(2)(h)).
Coal Storage and Handling Facilities	The Legislature has directed the Energy Agency to prepare five and ten-year forecasts of state coal demand by user type and location, and to examine transportation and handling system needs. (Minn. Laws 1977, Ch. 381, Section 10)	Required for any facility to store 7,500 tons coal or with an annual throughput greater than 125,000 tons to serve coal-burning facilities within the state. Required for any facility to transfer more than 300 tons coal per hour or with an annual throughput of greater than 500,000 tons of coal from one mode of transportation to a similar or different mode of transportation (6 MCAR §§2.091-2.0981)	No state authority	The Legislature has directed several state agencies to study the environmental impacts of increased coal use, transportation and handling. (Minn. Laws, 1977, Ch. 381, Section 10) No EAW is required for coal storage and handling facilities. However, preparation of an EAW is required for industrial development of 40 or more acres within a floodplain, (6 MCAR 3.024 (B)(2)(c); and for harbor and marina projects of more than 20,000 square feet of water surface area. (6 MCAR 3.024 (b)(2)(s).
Petroleum Refineries	Annual submission of 15-year facility forecasts for refineries by petroleum suppliers to the Energy Agency. (Minn. Reg. EA 407B)	Required for any petroleum refinery. (Minn. Stat. 116H.02, Subd. 5(i)).	No state authority.	Preparation of an EAW required for construction of a new oil refinery or an expansion of an existing refinery that will increase capacity by 10,000 barrels per day or more. (6 MCAR 3.024 (B)(2)(f)).
Facilities including Deepwater Ports for the Transfer of	Annual submission of 15-year facility forecasts for pipelines and storage facilities by petroleum suppliers to the Energy Agency. (Minn. Reg. EA 407B)	Required for any pipeline greater than 6 inches in diameter and having more than 50 miles of its length in Minnesota used for the transportation of coal, crude	Commissioner of the Department of Natural Resources must approve project plans for pipelines before the right	Preparation of an EAW required for construction of facilities on a single site capable of storing one million gallons of liquid natural gas, liquid petroleum gas or other liquid fuels. (6 MCAR 3.024(B)(2)(h)

Table 6-1 continued

	Forecasting	Certificate of Need	Siting	Environmental Review
Petroleum		petroleum or petroleum fuels or oil or their derivatives. (Minn. Stat. 116H.02, Subd. 5(d)). Required for any facility on a single site capable of storing more than one million gallons of crude petroleum or petroleum fuels or oil unless the facility would be at an existing site and would constitute an increase of more than 20% in the storage capacity of the site. (Minn. Stat. 116H.02, Subd. 5(c)).	of eminent domain is granted to a pipeline company. (Minn. Stat. 117.49)	Preparation of an EAW required for construction of a pipeline greater than six inches in diameter and 50 miles in length. (6 MCAR 3.024 (B)(2)(g).
Nuclear Reprocessing Facilities	No state authority.	Required for any nuclear fuel processing facility. (Minn. Stat. 116H.02, Subd. 5(j))	No state authority.	Preparation of an EAW required for construction of nuclear material processing plants and facilities. (6 MCAR 3.024 (B)(2)(e_1))
Nuclear Waste Disposal Facilities	No state authority.	Required for any nuclear waste storage or disposal facility. (Minn. Stat. 116H.02, Subd. 5(j)).	Minnesota is under study by ERDA for potential nuclear waste disposal sites. The Legislature has prohibited the construction or operation of a radioactive waste management facility without express approval by the Legislature. The Legislature has prohibited the transportation of radioactive wastes into the state for burial or permanent storage without express approval by the Legislature. (Minn. Stat. 116C.71-.74).	No environmental review required.

B. Certificate of Need

The Legislature recognized that large energy facilities require a substantial commitment of the state's resources with significant effects on energy supply, the environment and the economy. The certificate of need program enables an evaluation of these effects in a public forum. Large energy facilities that require a certificate of need from the Director of the Energy Agency include electric power generating plants, high voltage transmission lines, petroleum and gas pipelines and storage facilities, petroleum refineries, coal transshipment facilities, coal gasification plants, and nuclear fuel reprocessing and waste disposal facilities.

In evaluating the need for a proposed facility, the Director must consider:

1. The accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;

2. The effect of existing or possible energy conservation programs under sections 115H.01 to 115H.15 or other federal or state legislation on long-term energy demand;

3. The relationship of the proposed overall state energy needs;

4. Promotional activities which may have given rise to the demand for this facility;

5. Socially beneficial uses of the output of this facility, including its uses to protect or enhance environmental quality;

6. The effects of the facility in inducing future development;

7. Possible alternatives for satisfying the energy demand including but not limited to potential for increased efficiency of existing energy generation facilities;

8. The policies, rules and regulations of other state and federal agencies and local governments.

Public hearings provide an opportunity for the public to participate in the decision-making process. Other agencies with responsibility for approving the proposed facility are required to present their position regarding the need for the proposed facility at the public hearings.

Within six months after receiving an application, the Director of the Agency must issue or deny a certificate of need. The certificate specifies the size, type and timing of the allowed facility.

The proposed location is known for some facilities at the time of application for a certificate of need. For example, the applicant can often specify the location of a proposed oil storage facility. The application often specifies the endpoints of proposed transmission facilities and oil pipelines. However, the location of other facilities is not known at the need stage, for example, large electric power generating facilities.

C. Location of Power Plants and Transmission Lines

The Power Plant Siting Act requires the EQB to locate large electric generating plants and high voltage transmission lines. The process is guided by the policies and criteria given in the Power Plant Siting Act and the EQB's regulations. The Board must designate a site or route within one year after receipt of an application. This time period may be extended for up to six months for good cause. The location process includes extensive public notice, information meetings, a citizens' committee and public hearings.

Criteria for evaluation of power plant sites and transmission line routes are found in proposed rules and regulations MEQB 71-100. "The following criteria and standards shall be used to guide the site suitability evaluation and selection process. Not all site selection criteria are applicable to all plants to the same degree.

Power Plants

1. Exclusion Criteria.

   a. No large electric power generating plant shall be sited in violation of any federal or state statute or law, rule or regulation. No area shall be selected in which a large electric power generating plant is not licensable by all appropriate state and federal government agencies.

   b. The following land areas shall not be certified as a site for a large electric power generating plant except for use for water intake structures or water pipelines: national parks; national historic sites and landmarks; national historic districts; national wildlife refuges; national monuments; national wild, scenic and recreational riverways; state wild, scenic and recreational rivers and their land use districts; state parks; nature conservancy preserves; state scientific and natural areas; and state and national wilderness areas.

c. No area shall be selected which does not have reasonable access to a proven water supply sufficient for plant operation. No use of ground water shall be permitted where mining of ground water resources will result. "Mining" as used herein shall mean the removal of ground water that results in material adverse effects on ground water in and adjacent to the area, as determined in each case.

d. No water shall be transferred between the four major drainage basins within the state: that is, the Missouri River drainage basin, the Mississippi River drainage basin, the Lake Superior drainage basin, and the Red-Rainy River drainage basin.

2. Large Electric Power Generating Plant Avoidance Areas (LEPGP)

a. In addition to exclusion areas, the following land use areas shall not be approved for large electric power generating plant sites when feasible and prudent alternatives with lesser adverse human and environmental effects exist. Economic considerations alone shall not justify approval of avoidance areas. Any approval of such areas shall include all possible planning to minimize harm to these areas. These avoidance areas are: state registered historic sites; state historic districts; state wildlife management areas (except in cases where the plant cooling water is to be used for wildlife management purposes); county parks; metropolitan parks; designated state and federal recreational trails; designated trout streams; and the rivers identified in Minn. Stat. §85.32, Subd. 1 (1971).

b. Avoidance areas also apply to new transportation access routes and storage facilities associated with the plant in addition to the plant itself. Water intake structures and water pipelines shall not necessarily be prohibited from LEPGP avoidance areas.

c. The use of ground water for high consumption purposes, such as cooling, shall be avoided if feasible and prudent surface water alternatives less harmful to the environment exist. Ground water use to supplement available surface water shall be permitted if the cumulative impact minimizes environmental harm.

3. Site Selection Criteria. The following criteria shall be applied in the selection of sites.

a. Preferred sites require the minimum population displacement.

b. Preferred sites minimize adverse impacts on local communities and institutions.

c. Preferred sites minimize adverse health effects on human population.

d. Preferred sites do not require the destruction or major alteration of land forms, vegetative types, or terrestrial or aquatic habitats which are rare, unique, or of unusual importance to the surrounding area.

e. Preferred sites minimize visual impingement on waterways, parks, or other existing public recreation areas.

f. Preferred sites minimize audible impingement on waterways, parks, or other existing public recreation areas

g. Preferred sites minimize the removal of valuable and productive land from other necessary uses.

h. Preferred sites minimize the removal of valuable and productive water from other necessary uses and minimize conflicts among water uses.

i. Preferred sites minimize potential accident hazards and possible effects with respect to geology.

j. Preferred sites permit significant conservation of energy or utilization of by-products.

k. Preferred sites are located near large load centers.

l. Preferred sites maximize the use of already existing operating sites.

m. Preferred sites utilize existing transportation systems unless feasible alternative systems, including new or upgraded existing substandard systems, have less adverse impact.

n. Preferred sites allow for larger rather than smaller generating capacity.

o. Preferred sites minimize adverse impact of transmission lines."

Transmission Lines

"In selecting a route and issuing a construction permit, the Board shall seek to minimize adverse human and environmental impact, maximize the efficient use of resources, and ensure continuing electric power system reliability. No route shall be designated by the Board in violation of federal or state statute or law, rule or regulation. No route shall be designated by the Board through state or national wilderness areas.

1. Designated Lands. Lands designated as state and national parks and scientific and natural areas by the Congress of the United States, the Minnesota Legislature or the Commissioner of the Department of Natural Resources pursuant to Legislative directive have been set aside for the benefit of the people and for future generations. No land within any of these designated areas shall be selected as a high voltage transmission line route by the Board unless:

   a. a route in a designated area would not materially damage or impair the purpose for which the land was designated; and

   b. unusual circumstances exist in all alternate routes which would be more severely detrimental to humans or the environment if any alternate were selected.

   Economic considerations alone shall not justify approval of these designated lands. In the event that such an area is approved, effort shall be made to minimize the harm to it.

2. Considerations for the Designation of a Route and Issuance of a Construction Permit. The Board shall make an evaluation of the following considerations prior to issuance of a construction permit. In its evaluation of route alternatives, the Board shall consider the characteristics of a given geographical area, identify the potential impacts and apply methods to mitigate adverse impacts so that it may select a route with the least adverse impact.

   a. Identification of Geographical Characteristics and Potential Impacts. The Board shall identify the geographical characteristics and potential impacts in the following categories:

(1) Existing and projected human settlement including but not limited to development patterns;
(2) Economic operations, including but not limited to agricultural, forestry and mining operations;
(3) The natural environment and public land, including but not limited to natural areas, wildlife habitat, waters, recreational lands, and lands of historic or cultural significance;
(4) Reliability, cost and accessibility.

b. Methods of Mitigating Impacts. The Board shall utilize the following methods in seeking to find a route with the least adverse impact:

(1) Evaluation of existing land use or management plans, and established methods of resource management;
(2) Evaluation of routes along or sharing existing rights-of-way;
(3) Evaluation of routes along survey, natural division and field boundaries;
(4) Evaluation of structures capable of expansion in transmission capacity through multiple circuiting or design modifications to accommodate future high voltage transmission lines;
(5) Evaluation of alternate structure types and technologies."

Before January 1, 1979, the EQB must prepare an Inventory of Large Electric Power Generating Plant Study Areas. The Inventory will map areas of the state for further study to find power plant sites. A Power Plant Siting Advisory Committee is currently developing policy on use of air and water resources and fuel transshipment and how it relates to power plants. The use of Lake Superior for cooling water is an issue that ultimately must be faced in revising the Inventory.

D. Siting of Other Energy Facilities

The Commissioner of the Department of Natural Resources must approve pipeline routes before the right of eminent domain is granted to the pipeline company. The Commissioner's evaluation is based on information collected by the environmental review process.

The Energy Research and Development Administration (ERDA) has the responsibility to site federal radio-active waste repositories in deep geologic formations. Minnesota is among thirty-six states under study by ERDA in fiscal year 1977 for potential sites. The ERDA will conduct surveys of the geologic literature and possibly field work to evaluate the suitability of granite and quartzite formations in northern Minnesota.

However, the Legislature has prohibited the construction or operation of a radio-active waste management facility in Minnesota without the approval of the Legislature (M.S. §115C.71-.74). The Legislature has also prohibited the transportation of radio-active wastes into the state for burial or permanent disposal.

Although state locational authority is only extended to large electric generating plants and high voltage transmission lines, the siting of other energy-related facilities within or near the coastal zone will be controlled through the permit process. Federal and state permits listed in A Compendium of State and Federal Programs for Potential Consistency Monitoring, found in Chapter 3, will be reviewed by the EQB for compliance with the coastal zone plan. If an energy-related facility is found not to be in compliance with the coastal zone plan or would significantly affect the coastal zone resources, issuance of a permit could be denied.

There is also no state siting authority for coal transshipment facilities. However, the coal impact study funded by the Legislature may suggest areas for the siting of transshipment facilities. The study will examine the need for coal transshipment sites in northern Minnesota to serve the mining and paper industries as well as demand east of the state.

E. Environmental Review

The Environmental Policy Act sets environmental policy for the state and requires environmental review of major decisions. The Act also requires preparation of an environmental impact satement (EIS) where there is potential for significant environmental effects from any major governmental action or from any major private action of more than local significance. Any action that requires approval by a public agency is considered a governmental action. The EQB is authorized to prescribe by rule those circumstances in which an EIS is required. These regulations will be amended to require environmental review in any circumstance where any major action is proposed that would be in violation of the coastal zone plan.

The Environmental Assessment Worksheet (EAW) is a form that describes the proposed project to help determine whether the "tests" for an EIS are met. The EQB's regulations require mandatory preparation of EAWs for an array of projects, including all of the energy facilities considered in this plan. In addition, an EAW may be ordered in response to a citizen petition or at the initiative of the proposer, the EQB or other units of government. The EAW concludes with findings on the need for an EIS. These findings are printed in a state publication, the EQB Monitor, to enable interested parties to review the worksheet and challenge its findings.

The meat of an EIS is the comparison of alternatives to the proposed action and evaluation of mitigating measures to re-

duce the impact of the proposal. The alternative of different sites could be considered in greater depth during the environmental review of projects in the coastal zone for which the state lacks siting authority, such as coal transshipment facilities.

The environmental review process itself cannot stop the development of a project. The EIS is an information document to inform decision-makers, public and private, of the impacts of their actions. Modification of projects often results from the exchange of ideas in the review process. However, Minnesota Statutes §116D.04, Subd. 9 grants the EQB authority to reverse or modify state decisions that are inconsistent with state environmental policy. Minnesota's coastal zone plan will become state environmental policy when approved by the Governor.

F. Permits

A variety of public agencies must approve the construction and operation of large energy facilities. Currently, local approvals are preempted by state authority for generating plants and transmission lines that are sited by the EQB. Other large energy facilities usually require local approval to assure consistency with local land use plans and ordinances. Upon approval of the coastal zone plan, local approval will be based on policy and guidelines outlined in the plan.

The EQB issues a certificate of site compatibility for large electric generating plants and construction permits for high voltage transmission lines. Transmission lines and oil pipelines require approval from the Department of Natural Resources (DNR) to cross streams and state lands. These facilities also require approval from the Minnesota Department of Transportation (MN/DOT) and other agencies for road crossings.

Most other large energy facilities require permits from the Department of Natural Resources, the Pollution Control Agency, and the Minnesota Health Department. The DNR requires permits for the appropriation and consumption of public waters, and for work in the beds of public waters. The PCA regulates air emissions, water discharges, noise, and solid waste. The Minnesota Health Department must approve the plans for wells and sewage systems associated with large energy facilities. All these permits, as well as many others outlined in Chapter 3, will have to be in compliance with the coastal zone plan before they can be issued.

Permit simplification

SECTION 4:

SITE REQUIREMENTS/
IMPACTS

Section 4: Site Requirements/Impacts

The impacts of an energy facility depends on its site and design. Table 6-2 summarizes the major environmental impacts of energy facilities. The impacts include consumption of resources (such as water), and the production of wastes (such as air emissions, reject heat and solid waste). The greatest environmental impacts are attributable to facilities that process fuels (such as refineries), and to facilities that convert energy from one form to another (such as generating plants and gasification facilities).

Table 6-3 summarizes the site requirements of large energy facilities. The requirements include land requirements, water requirements, access to the transportation network and distance from sensitive areas. Petroleum pipelines, transmission lines and oil and gas storage facilities impose few resource requirements, except for land requirements. In contrast, facilities to process energy or convert energy from one form to another such as refineries or generating plants require a greater investment of resources.

TABLE 6-2

IMPACTS OF ENERGY FACILITIES	Water Consumption	Water Quality	Thermal Releases	Air Quality	Radioactive Releases	Solid Waste	Noise*	Transportation Impacts	COMMENTS
Electric generating plants - Fossil	Y	M	Y	Y	M	Y	M	Y	Emissions of sulfur oxides, particulates and trace elements to air. Significant thermal releases. Significant consumption of water. Impacts attributable to the transportation of fuel.
Nuclear Electric Generating Plants	Y	M	Y	M	M	Y	M	M	Nuclear plants release chronic low-level radiation. Very low probability of a major accident releasing greater levels of radioactivity.
High voltage Transmission lines	N	N	N	N	N	N	M	N	Aesthetic disruption. Interference with other land-uses.
Gasification plants	Y	M	Y	Y	M	Y	M	Y	Emissions of sulfur oxides, particulates and trace elements to air. Significant thermal releases and consumption of water. Impacts attributable to transportation of fuel.
Coal Storage and Handling Facilities	M	M	N	Y	N	M	M	Y	May be a significant source of particulate emissions. Water use and solid waste production may result from coal washing. Other impacts are attributable to transportation of coal by rail, barge and truck.
Petroleum Refineries	Y	M	Y	Y	N	M	M	M	Major source of sulfur oxide and hydrocarbon. emissions
Facilities including deepwater ports for the transfer of petroleum	N	M	N	M	N	N	M	Y	Potential for contamination of surface water with oil spills at the transfer point.
Oil and Gas Storage Facilities	N	M	N	M	N	N	M	N	Potential for contamination of groundwater or surface water from a failure of the tank.
Petroleum Pipelines	N	M	N	M	N	N	M	N	Potential for contamination of groundwater or surface water from a failure of the pipe.
Facilities for the transfer or storage of LNG	N	N	N	N	N	N	M	M	Potential for fire or explosion from release of LNG.
Nuclear reprocessing facilities	Y	M	Y	Y	Y	Y	N	M	Greater chronic releases of radioactivity than other steps of the uranium fuel cycle. Low probability of greater releases from a major accident. Potential for radioactive releases from transportation of radioactive materials to and from the site.
Nuclear waste disposal facilites	Y	M	Y	M	M	Y	N	M	Chronic low-level releases of radioactivity significant thermal releases.

KEY: Y Significant impact
N Not significant
M May be significant

*effects mainly from assoc. transportation systems.

TABLE 6-3

REQUIREMENTS OF ENERGY FACILITIES	Access to Water for Cooling or Process Water	Access to Water for Transportation	Access to Rail	Access to Pipelines	Access to Highway System	Distance from Population Centers	Distance from Class I Areas	Requires Linear Right-of-Way	Requires More Than 100 Acres in a Block
Electric Generating Plants - Fossil	Y	M	Y	N	Y	M	Y	N	Y
Electric Generating Plants Nuclear	Y	N	M	N	Y	Y	N	N	Y
High Voltage Transmission Lines	N	N	N	N	N	N	N	Y	N
Gasification Plants	Y	M	Y	M	Y	M+	M+	N	Y
Coal Storage and Handling Facilities	N	M	Y	M	Y	N	M	N	M
Petroleum Refineries	Y	M	Y	Y	Y	M+	Y	N	Y
Facilities Including Deep Water Ports for the Transfer of Petroleum	N	Y	M	Y	M+	N	N	N	N
Oil and Gas Storage Facilities	N	M	M	Y	M+	N	N	N	N+
Petroleum Pipelines	N	N	N		N	N	N	Y	N
Facilities for the Transfer or Storage of LNG	N	M	M	M+	M	N+	N	N	N
Uranium enrichment or Nuclear Reprocessing Facilities	Y	M	M	N	Y	Y	N	N	Y
Nuclear Waste Disposal Facilities	Y	N	M	N	Y	Y	N	N	Y

KEY: Y Required
N Not Required
M May be Required

TABLE 6-3

REQUIREMENTS OF ENERGY FACILITIES	Access to Water for Cooling or Process Water	Access to Water for Transportation	Access to Rail	Access to Pipelines	Access to Highway System	Distance from Population Centers	Distance from Class I Areas	Requires Linear Right-of-Way	Requires More Than 100 Acres in a Block
Electric Generating Plants - Fossil	Y	M	Y	N	Y	M	Y	N	Y
Electric Generating Plants Nuclear	Y	N	M	N	Y	Y	N	N	Y
High Voltage Transmission Lines	N	N	N	N	N	N	N	Y	N
Gasification Plants	Y	M	Y	M	Y	M+	M+	N	Y
Coal Storage and Handling Facilities	N	M	Y	M	Y	N	M	N	M
Petroleum Refineries	Y	M	Y	Y	Y	M+	Y	N	Y
Facilities Including Deep Water Ports for the Transfer of Petroleum	N	Y	M	Y	M+	N	N	N	N
Oil and Gas Storage Facilities	N	M	M	Y	M+	N	N	N	N+
Petroleum Pipelines	N	N	N		N	N	N	Y	N
Facilities for the Transfer or Storage of LNG	N	M	M	M+	M	N+	N	N	N
Uranium enrichment or Nuclear Reprocessing Facilities	Y	M	M	N	Y	Y	N	N	Y
Nuclear Waste Disposal Facilities	Y	N	M	N	Y	Y	N	N	Y

KEY: Y Required
N Not Required
M May be Required

SECTION 5:

COORDINATIONAL NETWORK

Section 5: Coordinational Network

Coordination between state coastal planning and relevant state, federal and local agencies involved in energy facility planning will be assured due to the position the State Planning Agency has on the Environmental Quality Board and the Policy Advisory Committee. (See Chapter 3 - Organization and Authorities for a detailed discussion of the organizational structure for coastal zone implementation.) The Diagram below outlines the more relevant points from Chapter 3 relating to energy development in the coastal zone.

DIRECTOR OF SPA

Chairman, Environmental Quality Board	Chairman, Policy Advisory Committee
1. SPA will review the Power Plant Siting Program and permits of other state agencies for compliance with the coastal zone plan.	1. Energy-related facilities, other than power plants, usually require local approval consistent with local plans.
2. EQB will not issue permits if they are not in compliance with state policy.	2. Coastal zone plan will become local plan.
3. Coastal zone plan will become state policy upon adoption by Governor	3. Locals must comply with coastal zone plan.
4. State agencies on EQB will review federal counter-parts issuing permits for energy-related facilities; if not consistent, EQB will recommend not issuing permit.	4. SPA will monitor compliance.
5. EQB will monitor permits of federal agencies with no state counterpart.	

SECTION 6:

CONCLUSIONS

Section 6: Conclusions

Minnesota's existing regulatory process can be adapted to energy planning for the coastal zone. Data collection and forecasting programs enable the state to anticipate energy needs. The state holds review and permitting authority for all of the energy facilities considered in the plan. The review process is coordinated by the Environmental Quality Board which has authority to suspend or modify any state decision. (See Chapter 3 - Organization and Authorities.) The public has an opportunity to participate in each step of the regulatory process.

Some steps of the planning process can be buttressed for facilities that may affect the coastal zone. For example, special conditions can be attached to certificates of need to protect coastal resources not regulated by other state authority where these conditions would tip the balance between a "needed" and "not needed" judgment. The environmental review of pipelines and coal transshipment facilities can consider alternate sites and designs in greater depth for projects affecting the coastal zone. The EQB Monitor can be used to a greater extent to notify the interested public of each step in the regulatory process for energy facilities affecting the coastal zone.

The state should examine the need for additional authority to site pipelines and coal transshipment facilities. Like large electric facilities, these are facilities with significant energy and environmental impacts that evoke a high degree of public concern. Like electric utilities, pipeline companies are also delegated the right of eminent domain upon the approval of the Commissioner of the Department of Natural Resources.

The planning process recognizes the problems associated with the long lead time required for the planning of some energy facilities. The long lead time required for large electric facilities and pipelines makes forecasting demand more difficult and less accurate. Additional state review of energy facilities affecting the coastal zone should be incorporated into the existing time framework to the maximum extent possible without compromising the review process.

The planning process recognizes that the relationship of a proposed facility to the coastal zone is often not known at the preliminary stages of state review. For example, the proposed location of a large electric generating plant is often not known at the certificate of need stage. In these cases, the evaluation of impacts of proposed facilities on the coastal zone must be focused on the later stages of the regulatory process.

The energy planning process recongizes that the impacts of an energy facility often are not confined to its immediate site. Some energy facilities located outside the coastal zone may have a significant impact on coastal resources. For example, an electric power plant twenty miles inland may significantly affect the air quality of the coastal zone. Facilities proposed outside the coastal zone are more difficult to monitor and incorporate in the coastal zone planning process. State and local officials must recognize the significance of impacts on the coastal zone as projects are proposed.

Minnesota's planning process must recognize the national interest in the coastal zone's natural resources, and its relationship to the energy supply network. The beauty of the north shore is more than a statewide resource. The energy supply network that supplies Minnesota extends far beyond the state's boundaries. In addition, Minnesota cannot be parochial; it must recognize its interdependence with the rest of the world for energy supplies.

Minnesota's planning process for energy facilities is accompanied by conservation programs that recognize the environmental impacts of energy facilities and the limits to traditional energy supplies. The state plays an active role in educating the public on the need for energy conservation. The state administers grant programs to encourage research and development of innovative conservation practices and the development of alternative energy sources. The state has incorporated energy standards in the state building code, banned decorative gas lamps, limited the use of outdoor display lighting, set efficiency standards for room air conditioners, banned pilot lights on new appliances and prohibited the heating of enclosed parking areas. Further regulation of the end-uses of energy may be required.

The matrix shown in Table 6-4 represents a graphic summary of work activities conducted within this Chapter. As such it shows how the planning requirements of the CZM Act dovetail with the energy-related facilities which must be considered. It also shows that several additional work activities will be conducted during the implementation phase of the program which will result in additional management controls and policies. In the first activity, (work element 6, page 6-2) the coastal zone will be examined in relation to energy facility impacts and requirements which were discussed in a previous section. From this analysis, it will be determined which facilities could locate in the coastal zone with minimal human and environmental impacts and which facilities should be located outside the coastal zone (see work element 7). From the above analysis, additional policies and guidelines will be developed for the management and control of energy-related facilities locating within or significantly near the coastal zone.

better a/s eff.

TABLE 6-4

Coastal Zone Energy Requirements

The management program must include a planning process that can anticipate and manage the impacts from energy facilities in or significantly affecting the state's coastal zone.

	1 An identification of energy facilities which are likely to locate in, or which significantly affect, the coastal zone.	2 A procedure** for assessing the suitability of sites for such facilities.	3 Articulation of state policies and other techniques for the management of energy facilities, and/or their their impacts.	4 A mechanism for coordination and/or cooperative working arrangements, as appropriate, between state coastal planning or management agency and other relevant state, federal, and local agencies involved in energy facility planning and/or siting, including conformity of siting programs, where they exist, with the coastal zone management program.	5 An identification of legal and other techniques that can be used to meet management needs.
electric generating plants, including those involving fossil or biomass fuels, nuclear power,	forecasting and certificate of need (CN)	state siting authority EAW			
direct solar energy, ocean thermal energy conversion, tidal or wave power, wind power, or geothermal energy	not applicable	not applicable			
petroleum refineries and associated facilities	forecasting/CN (pipelines-forecasting/CN)	EAW EAW/permit			
gasification plants	special study/CN	EAW			
facilities used for the transportation, conversion, treatment, transfer, or storage of LNG	forecasting/CN	EAW			
uranium enrichment or nuclear fuel processing facilities	not applicable CN	 EAW			
nuclear waste disposal***	CN	ERDA study			
facilities to separate oil, water and gas	not applicable	not applicable			
drilling rigs, platforms, subsea completions, and subsea production systems	not applicable	not applicable			
construction yards for platforms and exploration rigs, pipe coating yards, bases supporting platforms and pipeline installation and crew and supply bases	not applicable	not applicable			
oil and gas storage facilities, including salt domes	forecasting/CN not applicable	EAW not applicable			
marine pipeline systems, including pressure source, gathering lines, pipeline, intermediate pressure boosting facilities, and landfall sites	not applicable	not applicable			
oil and gas processing facilities	not applicable	not applicable			
transportation systems for tankers	not applicable	not applicable			
facilities, including deepwater ports, for the transfer of petroleum	forecasting/CN (deepwater ports-not applicable)	EAW/permit			
facilities for geopressurized gas	not applicable	not applicable			
terminals which are associated with the foregoing					
high voltage transmission lines***	forecasting/CN	state siting authority EAW			
coal storage and handling facilities***	special study/CN	special study/EAW for industrial development of greater than 40 acres in the floodplain			

1. EIS required in any circumstance where any major action is proposed that would be in violation of the coastal zone plan.
2. Power Plant Siting Act
3. Policies and Guidelines Outlined in the Coastal Zone Plan--will be state policy upon adoption by the EQB
4. Additional energy-related policies and guidelines to be adopted during coastal zone program implementation

EQB

Permit Monitoring

*Substantial or potentially substantial changes in coastal zone resources; includes changes in land, air, water, minerals, flora, fauna, noise and objects of historic, cultural, archaeological, or aesthetic significance; can also include concepts outlined in the NEPA of 1969

**Procedure must also include a capability to evaluate alternative sites and to determine if a potential site is appropriate given these assessments.

***not included in coastal zone rules and regulations.

SECTION 7:

TENTATIVE RECOMMENDATIONS

Section 7: Tentative Recommendations

1. The Minnesota Energy Agency should conduct a detailed study of coal use within the coastal zone.

2. The use of Lake Superior as a cooling water should be studied.

3. Environmental Assessment Worksheets for facilities outside the coastal zone should include an evaluation of impacts on the coastal zone.

4. State location authority should be extended to pipelines and coal transshipment facilities.

References

1. Coastal Zone Management Act, Rules and Regulations, Sec. 920.18, Federal Register, Vol. 42, No. 83, April 29, 1977.

2. Great Lakes Basin Commission, Energy Facility Siting in the Great Lakes Coastal Zone: Analysis and Policy Options, January, 1977.

3. Hynes, John (Interview), Acting Director, Power Plant Siting, Minnesota Environmental Quality Board, July, 1977.

4. Minnesota Energy Agency Minnesota's Energy Situation: A Biennial Report to the Governor and the Legislature, St. Paul, Minnesota, January, 1976.

5. Minnesota Power and Light, Certificate of Need Hearings, Transcripts.

6. Minnesota State Planning Agency, Future Electrical Energy Resource Demands, St. Paul, Minnesota, December, 1976.

7. Minnesota/Wisconsin Power Suppliers Group, 1976 Advance Forecasting Report to the Minnesota Environmental Quality Board.

8. Murphy, Michael J., Northern Great Plains: Issues and Options for Suppliers and Users, Upper Midwest Council, July, 1975.

9. Wallen, Dick (Interview), Director, Certificate of Need Program, Minnesota Energy Agency, August, 1977.

CHAPTER 7

Erosion Planning Process

COASTAL ZONE MANAGEMENT

es/jtp

CHAPTER 7:

MINNESOTA SHORELINE EROSION/MITIGATION PLANNING PROCESS

Objective: To assess the effects of erosion along stream banks and the shorelands of Lake Superior in Lake, Cook and St. Louis Counties, Minnesota, and to develop management policies and techniques for addressing shoreline erosion including mitigation, control, and restoration of areas which are or may be adversely affected by erosion.

Planning Elements:

The State of Minnesota will review, collect and analyze information, as needed, to understand shoreline erosion causes and effects.

Through this planning element, the state will determine:

1. Methods for designating areas where shoreline erosion controls, restoration practices and/or mitigation are needed.

2. Short- and long-term program planning elements necessary to provide continuing surveillance, monitoring, and policy and technique refinement and implementation.

3. Methods for funding and other techniques which can be used to meet management needs.

The State of Minnesota will establish a technical group to collect, review, and analyze data, as needed, and make recommendations and suggestions to the PAC for implementation.

The group will:

a. review, evaluate and provide comment on the completeness and applicability of work study planning elements 1 through 7 which pertain to their areas of concern.

b. develop suggested work schedules;

c. appear before a public forum to discuss their findings and recommendations and to provide for public input on shoreline erosion problems, concerns and recommendations;

d. based on the results of items a, b, and c above, develop a final detailed work schedule;

e. if approved by PAC, the group will implement the work schedule, establish a public informational process to report on periodic work programs, procedures, problems and accomplishments, and present for public consideration a recommended shoreline erosion management program which incorporates each of the planning process elements.

The State of Minnesota will establish a comprehensive planning process to provide necessary facts and/or details concerning:

1. Shoreline erosion causes.

2. Shoreline erosion effects.

3. State policies and programs for mitigation or control of erosion.

4. Designation of areas for erosion control and/or restoration.

5. Procedures for dealing with erosion causes and effects.

6. Mechanisms for continuing refinement and implementation of policies and techniques.

7. Funding programs and techniques that can be used.

Following is an outline which further discusses and explains the planning process elements, their relationships to one another and the final anticipated product.

OUTLINE OF SHORELINE EROSION PLANNING ELEMENTS

1. Causes of shoreline erosion.

   A. Natural Factors

      1. Character of the shoreline

         (a) Determination of types and location of:

            (1) soils
            (2) rock
            (3) topography
            (4) vegetation

         (b) In-lake physiographic setting:

            (1) open lake shoreline
            (2) bays and inlets
            (3) estuaries
            (4) other areas e.g. barrier reefs, islands,etc.

         (c) Measurement of climatic factors involved:

            (1) winds
            (2) temperatures
            (3) precipitation
            (4) freezing and thawing
            (5) storms
            (6) other factors

         (d) Measurement of wave actions and currents

         (e) Measurement of lake levels and fluctuations

   B. Man-Made Factors

      1. Private developments

      2. Public developments

Explanation of Planning Element 1:

Although considerable data are available concerning the physical character of the shorelands of Lake Superior in Minnesota, it is necessary to carefully review and analyze these available data as they relate to factors which directly or indirectly cause or influence erosion of shorelines of Lake Superior.

The surficial geology of the Minnesota Shoreline of Lake Superior has been mapped and these data are available, but no offshore studies have been initiated to measure wave climatology, longshore currents, sediment transport and nearshore bathymetry. Such studies are necessary in order to make rational decisions for coastal zone management.

A major responsibility of the technical group will be the development and implementation of a comprehensive program of basic data collection and continuing monitoring of the natural factors and their causative effect on shoreline erosion.

Previous Coastal Zone Management efforts have furnished data on the public and private shoreline development of the area, but there has been no study of the affects, if any, of these developments as causes of shoreline erosion. The technical group will evaluate this parameter to determine its importance.

In summary, the assessment of causes of shoreline erosion will involve identification of the natural and man-made factors which cause or contribute to coastal shoreline erosion. It will also provide information on the degree of importance of the factors involved and the areas of influence of the factors. In addition, the assessment will provide a rational program for continuing surveillance and monitoring of the factors.

2. Shoreline erosion effects

A. Susceptibility of areas to erosion

1. Present observable effects:

(a) on private property
(b) on public property

2. Possible future effects:

(a) on private property
(b) on public property

Explanation of Planning Element 2:

Investigations were made of erosion and flooding damages along the Lake Superior shoreline under contract with the U.S. Corps of Engineers. These investigations included circulation of questionnaires, random sampling, aerial photo review and review of newspaper accounts of changes. The data provided important base-level knowledge of the effects of shoreline erosion, but did not provide in-depth detailed facts for the entire shoreline. In addition, in most cases, the damage cost data were not reviewed and evaluated by professional staff skilled in making such determinations.

There was also no attempt to determine the possible future effects of shoreline erosion on public and private property.

The technical group will develop and implement a comprehensive program to thoroughly investigate the present magnitude, degree and location of shoreline erosion as well as the possible future location and extent of erosion if no remedial measures are taken. Additionally, a monitoring and observation program will be established to maintain continuing review of shoreline erosion effects.

The results of the study on effects, in combination with the results of the study on causes, will be used to provide the background methodology, techniques, and measures for dealing with shoreline erosion problems.

3. State Policies and Programs for managing shoreline to mitigate, control and/or restore areas subject to, and/or adversely affected by, erosion.

   A. Assessment of existing state laws, programs, and policies.

      1. Statutory.

      2. Departments or agencies.

      3. Local governments.

   B. Assessment of possible proposed state laws, programs, and policies.

      1. Statutory.

      2. Departments or agencies.

      3. Local governments.

Explanation of Planning Element 3:

Minnesota has a wide variety of programs and policies relating to the use and development of water and land resources. These programs and policies range from case-law determinations to statutory laws to state department and agency rules, regulations and policies and to local government regulations, ordinances, and policies.

Non-structural alternatives will be subject to the provisions of Minnesota Statutes Chapter 105.485 and the Rules and Regulations which have been promulgated in furtherance of this law. (See page 7-15)

Structural alternatives will be subject to the provisions of Minnesota Statutes, Chapter 105. Applicable portions of the statute are as follows: Note especially Minnesota Statutes 105.44 relating to environmental review.

105.38 DECLARATION OF POLICY. In order to conserve and utilize the water resources of the state in the best interests of the people of the state, and for the purpose of promoting the public health, safety, and welfare, it is hereby declared to be the policy of the state:

(1) Subject to existing rights all waters of the state which serve a material beneficial public purpose are public waters subject to the control of the state. In the determination of whether a beneficial public purpose exists, specific evidence of the present or future beneficial public purpose shall be evaluated

in accordance with section 105.37, subdivision 6, and with reference to the existing land use of the area, the soil types surrounding and underlying the water, the ownership of the land surrounding the water, the relative agricultural and wildlife productivity of the area, and relevant provisions of a county or municipal shorelands ordinance enacted pursuant to section 105.485. The public character of water shall not be determined exclusively by the proprietorship of the underlying, overlying, or surrounding land or on whether it is a body or stream of water which was navigable in fact or susceptible of being used as a highway for commerce at the time this state was admitted to the union. This section is not intended to affect determination of the ownership of the beds of lakes or streams.

(2) The state, to the extent provided by law from time to time, shall control the appropriation and use of surface and underground waters of the state.

(3) The state shall control and supervise, so far as practicable, any activity which changes or which will change the course, current, or cross-section of public waters, including but not limited to the construction, reconstruction, repair, removal, abandonment, the making of any other change, or the transfer of ownership of dams, reservoirs, control structures, and waterway obstructions in any of the public waters of the state.

105.39 AUTHORITY AND POWERS OF COMMISSIONER. Subdivision 1. Water conservation program. The commissioner shall devise and develop a general water resource conservation program for the state. The program shall contemplate the conservation, allocation, and development of all the waters of the state, surface and underground, for the best interests of the people. The commissioner shall be guided by such program in the issuance of permits for the use and appropriation of the waters of the state and the construction, reconstruction, repair, removal, or abandonment of dams, reservoirs and other control structures, as provided by sections 105.37 to 105.55.

105.41 PENALTIES. Whoever does any of the following is guilty of a misdemeanor:

(1) Undertakes or procures another to undertake an alteration in the course, current, or cross-section of public waters or appropriate waters of the state without a permit from the commissioner previously obtained regardless of whether the commissioner would have granted a permit had an application been filed;

(2) Undertakes or procures another to undertake an alteration in the course, current, or cross-section of public waters or appropriates waters of the state in violation or in excess of authority granted pursuant to a permit duly issued by the commissioner, regardless of whether an application had been filed for permission to perform the act involved, or whether the act involved would have been permitted had a proper application been filed;

(3) Undertakes or procures another to undertake an alteration in the course, current, or cross-section of public waters or appropriates waters of the state after a permit to undertake such project has been denied by the commissioner.

(4) Violates any other provision of this chapter.

105.55 COMMISSIONER'S ORDERS, ENFORCEMENT. Upon application of the commissioner, the district court of any county in which the project is wholly or partially located, may by injunction, enforce the compliance with, or restrain the violation of, any order of the commissioner made pursuant to sections 105.37 to 105.55, or restrain the violation of sections 105.37 to 105.55.

105.42 PERMITS; WORK IN PUBLIC WATERS. Subdivision 1. It shall be unlawful for the state, any person, partnership, association, private or public corporation, county, municipality or other political subdivision of the state, to construct, reconstruct, remove, abandon, transfer ownership, or make any change in any reservoir, dam or waterway obstruction on any public water; or in any manner, to change or diminish the course, current or cross-section of any public waters, wholly or partly within the state, by any means, including but not limited to, filling, excavating, or placing of any materials in or on the beds of public waters, without a written permit from the commissioner previously obtained. Application for such permit shall be in writing to the commissioner on forms prescribed by him.

This section does not apply to any public drainage system lawfully established under the provisions of chapter 106 which does not substantially affect any natural watercourse or any lake basin which serves a beneficial public purpose.

The commissioner, subject to the approval of the county board, shall have power to grant permits under such terms and conditions as he shall prescribe, to establish, construct, maintain and control wharfs, docks, piers, levees, breakwaters, basins, canals and hangars in or adjacent to public waters of the state except within the corporate limits of cities.

Subd. 1a. The commissioner shall recommend by January 15, 1975, to the legislature a comprehensive law containing standards and criteria governing the issuance and denial of permits under this section. These standards and criteria shall relate to the

diversion of water from other uses and changes in the level of public waters to insure that projects will be completed and maintained in a satisfactory manner. The commissioner may by rule identify classes of activities in waterbasins and classes of watercourses on which the commissioner may delegate permit authority to the appropriate county or city under such guidelines as the commissioner may provide based on agreement with the involved county or city and in complaince with the requirements of secton 105.45. After November 15, 1975, a permit shall be granted under this section only when the project conforms to state, regional, and local water and related land resources management plans, and only when it will involve a minimum of encroachment, change, or damage to the environment, particularly the ecology of the waterway. In those instances where a major change in the resource is justified, permits shall include provisions to compensate for the detrimental aspects of the change.

In unincorporated areas and, after January 1, 1976, in corporated areas, permits that will involve excavation in the beds of public waters shall be granted only where the area in which the excavation will take place is covered by a shoreland conservation ordinance approved by the commissioner and only where the work to be authorized is consistent with the shoreland conservation ordinance. Each permit that will involve excavation in the public waters shall include provisions governing the deposition of spoil materials.

No permit affecting flood waters shall be granted except where the area covered by the permit is governed by a flood plain management ordinance approved by the commissioner and the conduct authorized by the permit is consistent with the flood plain management ordinance, provided that the commissioner has determined that sufficient information is available for the adoption of a flood plain ordinance. No permit involving the control of flood waters by structural means, such as dams, dikes, levees, and channel improvements, shall be granted until after the commissioner has given due consideration to all other flood damage reduction alternatives. In developing his policy with regard to placing emergency levees along the banks of public waters under flood emergency conditions, the commmissioner shall consult and cooperate with the office of emergency services.

No permit that will involve a change in the level of public waters shall be granted unless the shoreland adjacent to the waters to be changed is governed by a shoreland conservation ordinance approved by the commissioner and the change in water level is consistent with that shoreland conservation ordinance. Standards and procedures for use in deciding the level of a particular lake must insure that the rights of all persons are protected when lake levels are changed and shall include pro-

visions for providing technical advice to all persons involved, for establishing alternatives to assist local agencies in resolving water level conflicts, and mechanics necessary to provide for local resolution of water problems within the state guidelines.

Subd. 2. Nothing in this section shall prevent the owner of any dam, reservoir, control structure, or waterway obstruction from instituting repairs which are immediately necessary in case of emergency. However, the owner shall notify the commissioner at once of the emergency and of the emergency repairs being instituted and, as soon as practicable, shall apply for a permit for the emergency repairs and any necessary permanent repairs. Nothing in this section shall apply to routine maintenance, not affecting the safety of the structures.

In case of an emergency where the commissioner declares that repairs or remedial action is immediately necessary to safeguard life and property, the repairs shall be started immediately by the owner.

Subd. 3. The owner of any dam, reservoir, control structure, or waterway obstruction constructed before a permit was required by law shall maintain and operate all such dams, reservoirs, control structures, and waterway obstructions in a manner approved by the commissioner and in accordance with any rules and regulations promulgated by the commissioner in the manner prescribed by chapter 15.

105.44 PROCEDURE UPON APPLICATION. Subdivision 1. PERMIT. Each applications for a permit required by sections 105.37 to 105.55 shall be accompanied by maps, plans, and specifications describing the proposed appropriation and use of waters, or the changes, additions, repairs or abandonment proposed to be made, or the public water affected, and such other data as the commissioner may require. This data may include but not be limited to a statement of the effect the actions proposed in the permit application will have on the environment, such as: (a) changes in water and related land resources which are anticipated; (b) unavoidable but anticipated detrimental effects; (c) alternatives to the actions proposed in the permit. If the proposed activity, for which the permit is requested, is within a city, or is within or affects a watershed district or a soil and water conservation district, a copy of the application together with maps, plans and specifications shall be served on the secretary of the board of managers of the district and the secretary of the board of supervisors of the soil and water conservation district and on the mayor of the city. Proof of such service shall be included with the application and filed with the commissioner.

Subd. 2. AUTHORITY. The commissioner is authorized to receive applications for permits and to grant the same, with or without conditions, or refuse the same as hereinafter set forth. Provided, that if the proposed activity for which the permit is requested is within a city or is within or affects a watershed district or a soil and water conservation district the commissioner may secure the written recommendations of the managers of said district and the board of supervisors of the soil and water conservation district or the mayor of the city before granting or refusing the permit. The managers or supervisors or mayors shall file their recommendation within 30 days after receipt of a copy of the application for permit.

Subd. 3. WAIVER OF HEARING. The commissioner in his discretion may waive hearing on any application and make his order granting or refusing such application. In such case, if any application is granted, with or without conditions, or is refused, the applicant, the managers of the watershed district, the board of supervisors of the soil and water conservation district, or the mayor of the city may within 30 days after mailed notice thereof file with the commissioner a demand for hearing on the application together with the bond required by subdivision 6. The application shall thereupon be fully heard on notice as hereinafter provided, and determined the same as though no previous order had been made. Any hearing pursuant to this section shall be conducted as a contested case in accordance with chapter 15. If the commissioner elects to waive a hearing, and if no demand for hearing be made, or if a hearing is demanded but no bond is filed as required by subdivision 6, the order shall become final at the expiration of 30 days after mailed notice thereof to the applicant, the managers of the watershed district, the board of supervisors of the soil and water conservation district, or the mayor of the city and no appeal of the order may be taken to the district court.

Subd. 4. TIME. The commissioner shall act upon all applications, except for appropriations for irrigation, pursuant to section 105.44, subdivision 8, within 30 days after the application and all required data is filed in his office; either waiving hearing and making an order thereon or directing hearing thereon.

Subd. 5. NOTICE. The notice of hearing on any application shall recite the date, place and time fixed by the commissioner for the public hearing thereon and shall show the waters affected, the levels sought to be established or any control structures proposed. The notice shall be published by the commissioner at the expense of the applicant or, if the proceeding is initiated by the commissioner in the absence of an applicant, at the expense of the commissioner, once each week for two successive weeks prior to the day of hearing in a legal newspaper published in the county in which a part or all of the affected waters are located. Notice shall also be mailed by the commissioner to the county auditor and the mayor of any municipality or the watershed district and the soil and water conservation district affected. The commissioner shall also fulfill any notice requirements prescribed by section 15.0418 and rules of the chief hearing examiner.

Subd. 6. HEARING COSTS. Except where a public hearing is demanded by a public authority which is not the applicant, the applicant shall pay the following, if the commissioner's action, taken pursuant to subdivision 2, is affirmed without material modification: (1) Costs of the stenographic record and transcript, (2) Rental expenses, if any, of the place of hearing, (3) Costs of publication of orders made by the commissioner; however, in no event shall the applicant pay more than $750.

Where the public hearing is demanded by a public authority which is not the applicant, the public authority making the demand shall pay the costs and expenses listed above if the commissioner's action is affirmed without material modification. An applicant filing a demand for a public hearing shall execute and file a corporate surety bond or equivalent security to the state of Minnesota, to be approved by the commissioner, and in an amount and form fixed by the commissioner. The bond or security shall be conditioned for the payment of all costs and expenses of the public hearing if the commissioner's action taken pursuant to subdivision 2 is affirmed without material modification. No bond or security is required of a public authority which demands a public hearing. The commissioner, in his discretion, may waive the requirement for a bond or other security. In all other instances, costs of the hearing shall be borne in the manner prescribed by in chapter 15 and the chief hearing examiner.

Subd. 7. SUBPOENA AUTHORITY. The commissioner may subpoena and compel the attendance of witnesses and the production of all books and documents material to the purposes of the hearing. Disobedience of every such subpoena shall be punishable as a contempt in like manner as a contempt of the district court on complaint of the commissioner before the district court of the county where such disobedience or refusal occurred.

105.45 PERMITS AND ORDERS OF COMMISSIONER; NOTICE. The commissioner shall make findings of fact upon all issues necessary for determination of the applications considered by him. All orders made by the commissioner shall be based upon findings of fact made on substantial evidence. He may cause investigations to be made, and in such event the facts disclosed thereby shall be put in evidence at the hearing or any adjournment thereof.

If the commissioner concludes that the plans of the applicant are reasonable, practical, and will adequately protect public safety and promote the public welfare, he shall grant the permit, and, if that be in issue, fix the control levels of public waters accordingly. In all other cases the commisioner shall reject the application or he may require such modifications of the plan as he deems proper to protect the public interest. In all permit applications, the applicant has the burden of proving that the proposed project is reasonable, practical, and will adequately protect public safety and promote the public welfare.

In granting a permit the commissioner may include therein such terms and reservations with respect to the amount and manner of such use or appropriation or method of construction or operation of controls as appears reasonably necessary for the safety and welfare of the people of the state.

Notice of all orders made after hearing shall be given by publication of the order once each week for two successive weeks in a legal newspaper in the county where the hearing was held, and by mailing copies of the order to all parties who entered an appearance at such hearing.

The commissioner shall make his order pursuant to hearing within 60 days after the completion of the hearing.

105.46 TIME LIMIT. The commissioner shall fix the time within which all construction authorized in the permit must be completed, or within which the appropriation or use of water must be made, which time shall not exceed five years from the date of the permit. Such time may be thereafter extended by the commissioner for good cause shown. Permits granted in connection with the mining, transporting, concentration or shipment of taconite as defined in Minnesota Statutes 1945, Section 93.20, and permits granted in connection with the mining, production or beneficiation of copper, copper-nickel or nickel, shall be irrevocable for the term thereof without the consent of the permittee, except for breach or nonperformance of any condition of the permit by the permittee and the commissioner may allow and prescribe therein such time as he deems reasonable, regardless of the limitations of time contained in this section, for the commencement or completion of any construction or operations under such permit, or the exercising of the rights granted thereunder, or may extend such time, for cause shown, upon the application of the permittee.

105.461 ORDERS TO RESTORE. As a part of any order granting or denying a permit, whether or not a hearing has been held, the commissioner may order the applicant to take any action necessary to restore the public waters or beds thereof to the condition existing before unlawful activities, if any, were undertaken by the applicant. This restoration may include, but not be limited to, filling beds unlawfully dredged, removing fill unlawfully placed, or restoring water unlawfully appropriated. If a hearing on the application was not held, the applicant may, within 30 days of the receipt of an order to restore public waters or beds, contest the order and shall be afforded a contested case hearing in the manner prescribed by chapter 15.

105.462 INVESTIGATIONS; ORDERS WITHOUT A PERMIT APPLICATION. When the commissioner determines that the public interest so requires, he may investigate on his own motion any activities being conducted in relation to public waters without a permit as required by sections 105.37 to 105.55. With or without a public hearing the commissioner may make findings and issue orders as otherwise may be issued pursuant to sections 105.37 to 105.55. A copy of his findings and order shall be served upon the person to whom the order is issued. If the commissioner issues his findings and order without a hearing, the person to whom the order is issued may file with the commissioner a demand for a hearing, together with the bond required by section 105.44, subdivision 6, within 30 days after being served with a copy of the commissioner's order. Thereafter the matter shall be heard in the same manner and pursuant to the same laws as an application is heard following a demand made under section 105.44, subdivision 3, insofar as applicable. However, if no demand for hearing is made by the person to whom the order is issued under this section, or if that person demands a hearing but fails to file the required bond, the commissioner's order becomes final at the expiration of 30 days after the person is served with the order and no appeal of the order may be taken to the district court.

105.463 CONTRACTOR'S RESPONSIBILITY. It is unlawful for any agent, servant, or employee of another to undertake work for which a permit is required pursuant to section 98.48, subdivision 9, this chapter, or section 106.021, unless a copy of the permit authorizing such work is posted on or near the premises upon which such work is conducted. The violation of this section constitutes a separate and independent offense from any other provided by sections 105.37 to 105.55.

In order to determine the effectiveness and applicability of the various laws, policies and programs it is necessary to review and analyze them to determine their value, completeness, and effectiveness as the basis for a shoreline erosion management program. It will be necessary to determine if there are conflicts in the laws and policies and if they can stand alone as a series of related laws and policies or if they must be further revised, added to and/or combined to form a single law and series of related policies.

105.485 REGULATION OF SHORELAND DEVELOPMENT. Subdivision 1. **Purpose.** In furtherance of the policies declared in 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.

Subd. 2. **Definitions.** For the purposes of this section the terms defined in this section have the meanings given them: (a) "Shoreland" means land located within the following distances from the ordinary high water elevation of public waters: (1) Land within 1,000 feet from the normal high watermark of a lake, pond, or flowage; and (2) land within 300 feet of a river or stream or the landward side of flood plain delineated by ordinance on such a river or stream, whichever is greater. (b) "Unincorporated area" means the area outside a city. (c) "Municipality" means a city.

Subd. 3. **Commissioner's duties.** Before April 1, 1974, the commissioner of natural resources shall promulgate, in the manner provided in chapter 15, model standards and criteria, other than a model ordinance, for the subdivision, use, and development of shoreland in municipalities, which standards and criteria shall include but not be limited to those listed below in regard to unincorporated areas. Before July 1, 1970, the commissioner of natural resources shall promulgate, in the manner provided in chapter 15, model standards and criteria for the subdivision, use, and development of shoreland in unincorporated areas, including but 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; and (h) a model ordinance. The following agencies shall provide such information and advice as may be necessary to the preparation of the rules and regulations, or amendments thereto: The state departments of agriculture, economic development, and health; the state planning agency; the pollution control agency; the state soil and water conservation board; and the Minnesota historical society. In addition to other requirements of chapter 15, the model standards and ordinance promulgated pursuant to this section, or amendments thereto, shall not be filed with the secretary of state unless approved by the executive officer of the state board of health and the director of the pollution control agency.

Subd. 4. **Failure of county to act; commissioner's duties; enforcement.** If a county fails to adopt a shoreland conservation ordinance by July 1, 1972, or if the commissioner of natural resources, at any time after July 1, 1972, after notice and hearing as provided in section 105.44, finds that a county has adopted a shoreland conservation ordinance which fails to meet the minimum standards established pursuant to this section, the commissioner shall adapt the model ordinance to the county. The commissioner shall hold at least one public hearing on the proposed ordinance in the manner provided in section 394.26, after giving notice as provided in section 394.26. This ordinance is effective for the county on the date and in accordance with such regulations relating to compliance as the commissioner shall prescribe. The ordinance shall be enforced as provided in section 394.37. The penalties provided in section 394.37, apply to violations of the ordinance so adapted by the commissioner.

Subd. 5. **Costs.** The cost incurred by the commissioner in adapting the model ordinance to the county pursuant to subdivision 4 shall be paid by the county upon the submission to the county of an itemized statement of these costs by the commissioner. If the county fails to pay these costs within 90 days after the commissioner's statement is received, the commissioner may file a copy of the statement of these costs with the county auditor of the county for collection by special tax levy. The county auditor, upon receiving a statement from the commissioner, shall include the amount of the state's claim in the tax levy for general revenue purposes of the county. This additional tax shall be levied in excess of any limitation as to rate or amount, but shall not cause the amount of other taxes which are subject to any limitation to be reduced in any amount whatsoever. Upon completion of the tax settlement following this levy, the county treasurer shall remit the amount due to the state to the commissioner for deposit in the state treasury.

Subd. 6. **Municipal shoreland management.** Before April 1, 1974, each municipality having shoreland within its corporate limits shall submit to the commissioner, for his review, any ordinances, rules, or regulations affecting the use and development of its shorelands. The commissioner shall review the ordinances, rules, or regulations and determine whether they are in substantial compliance with municipal shoreland management standards and criteria promulgated pursuant to subdivision 3. In making his review the commissioner also shall consider any feature unique to the municipal shoreland in question, including but not limited to the characteristics of the waters which may be affected by development, storm sewer facilities, and sanitary and waste disposal facilities in existence at the time of the commissioner's review. If the commissioner determines that the ordinances, rules, or regulations of a municipality do not substantially comply with the state standards and criteria for municipal shoreland management, he shall so notify the municipality and shall indicate to the municipality the changes which are necessary to bring the ordinances, rules, or regulations into substantial compliance with state standards and criteria. Within one year after receiving this notice from the commissioner, the municipality shall make the changes necessary to bring the ordinances, rules, or regulations into substantial compliance with state standards and criteria. If a municipality has no ordinance, rule, or regulation affecting the use and development of shoreland on April 1, 1974, it shall adopt such an ordinance, rule, or regulation complying with state standards and criteria for municipal shoreland management, before July 1, 1975. If (a) a municipality has no ordinance, rule, or regulation affecting the use and development of shoreland on April 1, 1974, and fails to adopt such an ordinance by July 1, 1975, or if (b) the corporate boundaries of the municipality are expanded to include shorelands not previously included within the municipal boundaries and the municipality fails to adopt such an ordinance within one year after including the shorelands within its municipal boundaries, or if (c) the commissioner determines that a municipal shoreland management ordinance does not substantially comply with the state standards and criteria for municipal shoreland management and that the municipality has failed to make the necessary changes within one year after receiving notice of noncompliance, the commissioner may adopt an ordinance, rules, or regulations for the municipality in the following manner. The commissioner shall hold at least one public hearing on the proposed ordinance, rules, or regulations in the manner provided in section 462.357, after giving notice as provided in section 462.357. The ordinance, rules, or regulations are effective for the municipality on the date and in accordance with such regulations relating to compliance as the commissioner shall prescribe. The ordinance shall be enforced as provided in section 462.362. The penalties provided in section 462.362 apply to violations of the ordinances, rules, or regulations adopted for the municipality by the commissioner. The costs incurred by the commissioner in adopting the ordinances, rules, or regulations for the municipality shall be paid by the municipality and collected from the municipality in the same manner as such costs are paid by a county and collected from a county pursuant to subdivision 5; and any tax levied to pay the costs shall be levied in excess of any limitation as to rate or amount, but shall not cause the amount of other taxes which are subject to any limitation to be reduced in any amount whatsoever.

Subd. 7. **Municipal use of land other than shoreland.** 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 adopted pursuant to subdivision 6.

Subd. 8. **Extent of authority of municipality.** Nothing in Laws 1973, Chapter 379 shall be construed to prohibit a municipality from adopting and enforcing ordinances, rules, or regulations affecting the use and development of shoreland which are more restrictive than the state standards and criteria.

[*1969 c 777 s 1; 1969 c 1129 art 3 s 1; 1973 c 123 art 5 s 7; 1973 c 379 s 1-3,5; 1975 c 271 s 6; 1976 c 149 s 59*]

4. Methods for designating erosion areas as areas of particular concern or areas for preservation/restoration.

Explanation of Planning Element 4:

Based on the assessments and implementation of the preceding elements, it is necessary to establish a program which will result in adequate protection and control over those areas where shoreline erosion problems are significant and require attention.

The findings and programs developed under the various elements would be considered by PAC in proposing methods for protection and control of specific areas as the urgency of the situation requires. The type and method of ultimate control will depend upon the particular causes and effects, the most applicable types of solutions, and the most applicable legal and policy framework which fits the situation.

5. Assessment of possible procedures for handling erosion causes and effects, including methodologies and estimated costs.

   A. Structural alternatives

   B. Non-structural alternatives

   C. No control alternatives

Explanation of Planning Element 5:

There are a number of presently available methods, techniques and programs which have been or could be utilized to provide varying degrees of solution or mitigation of the causes and effects of shoreline erosion. These vary from purely structural methods, such as breakwaters, groins, slope stabilization, etc., to purely non-structural alternatives, such as zoning controls, setback regulations, restrictive permitting, etc.

Not all solutions are applicable to all situations and similarily, in some instances, the best solution is to do nothing and let the natural processes occur.

The technical group would review and analyze data on shoreline erosion causes and effects to determine the general and specific programs, methods and techniques which would be best applicable to solve or mitigate shoreline erosion problems. This would entail careful consideration of the most practical and economically favorable solutions to deal with the shoreline erosion problem for a particular reach of shoreline.

At the present time, the State of Minnesota does not have a sufficient understanding of the coastal processes at work along the Minnesota shoreline of Lake Superior to develop adequate criteria for dealing with erosion causes and effects. The surficial geology of the coastal areas was mapped within the past year, but no off-shore studies have been initiated to measure wave climatology, longshore currents, sediment transport and nearshore bathymetry.

Such studies are an absolute necessity if the State is to make rational decisions concerning coastal zone management.

A modest pilot study of aerial photographs of a 35 km stretch of the North Shore was recently completed by the Department of Geology and Geophysics at the University of Minnesota. A comparison of air photos taken in 1948 and 1970 revealed that along 7% of the shoreline, the beach regressed by as much as

20 meters in the 22 year period, and along 6% of the shoreline, the beach transgressed by as much as 12 meters. This indicates that the nearshore environment is very dynamic in certain areas: beach morphology changes considerably and sediment movement is significant. The net long-term effect of these nearshore processes may not be one of significant erosion or deposition compared to some regions of the Wisconsin shoreline on Lake Superior, for instance. But sediment transport in the nearshore zone could be seriously disrupted by man-made structures that were emplaced without regard to this process, and thereby give rise to serious problems of erosion or sediment infilling. A much publicized example of this kind of coastal mismanagement is in southern California. The coastline along Santa Barbara was in equilibrium, suffering no problems of progradation or erosion, until the breakwater was built there to create a small harbor. The breakwater structure soon caused preferential deposition of sand within the harbor and beach erosion down-current (to the southeast) of the harbor. If the State of Minnesota is to prevent such problems along the North Shore, it must undertake studies of the off-shore environment as soon as possible.

Studies of nearshore processes on the North Shore should be continued. This would first entail a detailed examination of aerial photos, of the entire Minnesota shoreline, that cover a period of about 40 years. The results of the photo study would identify regions of most intense shoreline fluctuations and would serve to focus subsequent studies in these potential problem areas. The subsequent studies would include measurements in areas of interest of wave energy, longshore and off-shore currents, sediment transport, and changes in off-shore bathymetry.

6. Assessment of short and long-term program planning elements to insure continuing surveillance, monitoring and program and policy refinement and implementation.

Explanation of Planning Element 6:

Since a viable planning process must be dynamic and responsive to changes and since knowledge of shoreline erosion causes, effects, and possible treatment is dependent upon continuing observation, monitoring, evaluation and research, it is necessary to ensure that the shoreline erosion management program is flexible and comprehensive.

The task forces will provide periodic expert review and commentary on the status, applicability and viability of the various program elements in order to assure that the program includes current technological and legal advances.

For example, the results of monitoring a reach of shoreline over a period of time may disclose that the predicted erosion effects may be of greater impact than originally determined. This may require establishment of a different course of action in order to control or alleviate the problem. Through development of a continuing assessment and appraisal program, such problems can be addressed using the best available technologies and legal means.

7. Assessment of funding programs and other techniques that can be used to meet management needs:

   A. Determination of:

      1. Federal interests

      2. State interests

      3. Local interests

   B. Determination of:

      1. Level of management responsibility

      2. Level of financial responsibility

Explanation of Planning Element 7:

Since the success of the shoreline erosion management program will depend on the continued concern and involvement of the various parties impacted by the program, it is necessary to carefully develop a program which recognizes the needs, concerns and responsibilities of the parties.

The results and programs of the various other planning elements will be reviewed to determine as reasonably as possible the extent of interest, concern and financial and management responsibility of each of the parties involved. This will entail careful considerations of the value of particular reaches of shoreline to various parties, the benefits which the various parties receive if shoreline erosion is adequately controlled and the willingness of the parties to enter into cooperative programs including financial as well as personnel and administrative commitments.

The entire program's success will depend on the development of a program which is guided by the state in cooperation with the federal government, but which is administered at the lowest organized practical unit of local government.

The degree of financial input must be based on the value of the program from national, state and local perspectives and must include continuing support after initial program establishment.

Since the local government will, in most instances, have the least ability to bear major financial costs, there must be adequate provisions for substantial assistance from state and federal sources, where applicable.

It is especially important that the program include continuing high levels of expert technical input and that there be an open process for public involvement, interaction and participation during the program development and after the program is established and operating.

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